The Catalog of the University of Texas at Austin

The catalog of the University comprises four issues: General Information, the Undergraduate Catalog, the Graduate Catalog, and the Law School Catalog. Each issue is available from the Office of the Registrar.

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 January 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 period given on the title page; for an explanation of the period for which degree requirements are valid, see “Graduation under a Particular Catalog” in each issue. The list of courses to be offered in the following sessions is preliminary and is superseded by the Course Schedule, published each semester and summer session.

General Information, published every August, contains current and historical information about the University and regulations that apply to all students during the academic year given on the title page. 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.

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. 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.

Printed catalogs may be ordered by writing to The University of Texas at Austin, Office of the Registrar / Catalogs, P O Box 7216, Austin TX 78713-7216 or by calling (512) 475-7555. Catalogs are also published on the World Wide Web at http://www.utexas.edu/student/registrar/catalogs/.

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, 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.

Cover: Part of the America/Americas gallery in the Blanton Museum of Art. The gallery integrates modern and contemporary Latin American and American works of art in a comprehensive, permanent installation. Featured in the photo are Fire Man by Luis Alfonso Jiménez Jr.; David Bourdon and Gregory Battcock by Alice Neel, 1970; Blue Woman in a Black Chair by George Segal, 1981; and Go Go Go by Jorge de la Vega, 1967.
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*
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Terms scheduled to expire February 1, 2011
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1. 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, in the Course Schedule, and at http://www.utexas.edu/student/registrar/cals.html. Copies are also available from the Office of the Registrar, Main Building 1, (512) 475-7607. A recording of the calendar may be heard at (512) 475-7591.

ADMISSION

Freshmen: Freshman Admissions Center, John Hargis Hall 1.200, (512) 475-7440, fax (512) 475-7475
Transfer students: Office of Admissions, Main Building 7, (512) 475-7399, fax (512) 475-7478
http://www.utexas.edu/student/admissions/

CATALOGS AND COURSE SCHEDULES

Printed catalogs may be purchased at campus-area bookstores or by mail from the Office of the Registrar. Catalogs and Course Schedules are also published at the registrar's Web site, http://www.utexas.edu/student/registrar/.

HOUSING

Residence halls: Division of Housing and Food Service, Kinsolving, 200 West Dean Keeton Street, (512) 471-3136, fax (512) 471-9101
University apartments: Division of Housing and Food Service, 3501 Lake Austin Boulevard, (512) 232-5299, fax (512) 232-5353
The division also maintains an off-campus housing information service.
http://www.utexas.edu/student/housing/
INTERNATIONAL STUDENTS
International Office, 600 West 24th Street, (512) 471-1211, fax (512) 471-8848
http://www.utexas.edu/international/

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

MEDICAL SERVICES
University Health Services, Student Services Building 2.212, (512) 471-4955
http://healthyhorns.utexas.edu/

The University of Texas at Austin
University Health Services
P O Box 7339
Austin TX 78713-7339

ORIENTATION
Office of the Dean of Students, Student Services Building 4.104, (512) 471-3304, fax (512) 232-2963
http://deanofstudents.utexas.edu/nss/orientation.php

The University of Texas at Austin
Orientation
Office of the Dean of Students
1 University Station A5800
Austin TX 78712

PLACEMENT TESTS
Division of Instructional Innovation and Assessment, 2616 Wichita Street, (512) 232-2662, fax (512) 471-3509
http://www.utexas.edu/academic/diia/

The University of Texas at Austin
Division of Instructional Innovation and Assessment
P O Box 7246
Austin TX 78713-7246

REGISTRATION INFORMATION
Registration, Main Building 16, (512) 475-7656, fax (512) 475-7515
http://www.utexas.edu/student/registrar/

The University of Texas at Austin
Office of the Registrar / Registration
P O Box 7216
Austin TX 78713-7216

SERVICES FOR STUDENTS WITH DISABILITIES
Office of the Dean of Students, Student Services Building 4.104, (512) 471-6259, TTY (512) 471-4641, fax (512) 475-7730
http://deanofstudents.utexas.edu/ssd/

The University of Texas at Austin
Services for Students with Disabilities
Office of the Dean of Students
1 University Station A5800
Austin TX 78712

TSI
Texas Success Initiative, Flawn Academic Center 22, (512) 471-8277, fax (512) 471-4990
http://www.utexas.edu/academic/tsi/

The University of Texas at Austin
TSI Office
1 University Station F4000
Austin TX 78712

TRANSCRIPTS
Office of the Registrar, Main Building 1, (512) 475-7689, fax (512) 475-7515
http://www.utexas.edu/student/registrar/transcripts/

The University of Texas at Austin
Office of the Registrar / Transcripts
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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 on the basis of race, color, religion, national origin, gender, age, disability, citizenship, and veteran status. Discrimination on the basis of sexual orientation is also prohibited pursuant to University policy.

TITLE IX/ADA/504 COORDINATORS
Federal law prohibits discrimination on the basis of gender (Title IX of the Education Amendments of 1972) and disability (Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990). The University has designated the following persons as Coordinators to monitor compliance with these statutes and to resolve complaints of discrimination based on gender or disability.

DISABILITY (SECTION 504/ADA)
For students and employees: Linda Millstone, Deputy to the Vice President for Employee and Campus Services and Director of Equal Opportunity Services, NOA 4.302 (101 East 27th Street), (512) 471-1849

GENDER (TITLE IX)
For students: Soncia Reagins-Lilly, Senior Associate Vice President for Student Affairs and Dean of Students, SSB 4.104 (100-B West Dean Keeton Street), (512) 471-1201
For employees: Linda Millstone, Deputy to the Vice President for Employee and Campus Services and Director of Equal Opportunity Services, NOA 4.302 (101 East 27th Street), (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 (1866 Southern Lane, Decatur GA 30033-4033, telephone number (404) 679-4500) to award bachelor's, master's, and doctoral degrees.

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 8 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 40 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 170 fields of study while pursuing any of more than 100 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 680,000, 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.

THE MISSION OF THE UNIVERSITY

The mission of the University 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.

HONOR CODE

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.

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 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.

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 publications. The services of the student affairs units are described in General Information. Services provided by the colleges and schools are described in chapters 2 through 15 of this catalog.
DEGREE PROGRAMS

The twelve undergraduate colleges and schools of the University offer the majors listed in the first column; the degree(s) available in each field are given in the second column. Degree programs are described in chapters 2 through 15.

The University offers graduate study in most of the following areas and in other fields. Information about graduate courses and degrees and other information for graduate students is given in the Graduate Catalog.

SCHOOL OF ARCHITECTURE
Architecture Bachelor of Architecture (BArch)
Architectural studies Bachelor of Science in Architectural Studies (BSArchStds)
Architecture/Architectural engineering Bachelor of Architecture/Bachelor of Science in Architectural Engineering (BArch/BSArchE)
Architecture/Plan II Honors Program Bachelor of Architecture/Bachelor of Arts, Plan II (BArch/BA)
Interior design Bachelor of Science in Interior Design (BSID)

RED MCCOMBS SCHOOL OF BUSINESS
In addition to the following programs, the McCombs School offers an honors program leading to the Bachelor of Business Administration. Students admitted to the honors program may choose either a general program of study or one of the following majors or both.

DEPARTMENT OF ACCOUNTING
Accounting Bachelor of Business Administration (BBA)

The student may pursue an undergraduate degree in accounting alone or in conjunction with the Master in Professional Accounting degree. For the second option, the student must be admitted to the Professional Program in Accounting

DEPARTMENT OF FINANCE
Finance Bachelor of Business Administration (BBA)

DEPARTMENT OF INFORMATION, RISK, AND OPERATIONS MANAGEMENT
Management information systems Bachelor of Business Administration (BBA)
Engineering route to the Bachelor of Business Administration Bachelor of Business Administration (BBA)
Supply chain management Bachelor of Business Administration (BBA)

DEPARTMENT OF MANAGEMENT
Management Bachelor of Business Administration (BBA)

DEPARTMENT OF MARKETING
International business Bachelor of Business Administration (BBA)
Marketing Bachelor of Business Administration (BBA)

COLLEGE OF COMMUNICATION
DEPARTMENT OF ADVERTISING
Advertising Bachelor of Science in Advertising (BSAdv)
Public relations Bachelor of Science in Public Relations (BSPR)

DEPARTMENT OF COMMUNICATION SCIENCES AND DISORDERS
Communication sciences and disorders Bachelor of Science in Communication Sciences and Disorders (BSCSD)

DEPARTMENT OF COMMUNICATION STUDIES
Communication studies Bachelor of Science in Communication Studies (BSCommStds)

SCHOOL OF JOURNALISM
Journalism Bachelor of Journalism (BJ)

DEPARTMENT OF RADIO-TELEVISION-FILM
Radio-television-film Bachelor of Science in Radio-Television-Film (BSRTF)

1. Final approval of this major is pending.
COLLEGE OF EDUCATION

All-level generic special education: Bachelor of Science in Applied Learning and Development (BSALD)

Athletic training: Bachelor of Science in Kinesiology (BSKin)

Early childhood through grade four generalist: Bachelor of Science in Applied Learning and Development (BSALD)

Health promotion and fitness: Bachelor of Science in Kinesiology (BSKin)

Kinesiology: Bachelor of Science in Kinesiology (BSKin)

Sport management: Bachelor of Science in Kinesiology (BSKin)

Youth and community studies: Bachelor of Science in Applied Learning and Development (BSALD)

The undergraduate divisions of the College of Education are the Departments of Curriculum and Instruction, Educational Psychology, Kinesiology and Health Education, and Special Education and the Science Education Center. These units cooperatively offer the Bachelor of Science in Applied Learning and Development. The Department of Kinesiology and Health Education offers the Bachelor of Science in Kinesiology. The kinesiology major includes options in general kinesiology (noncertification) and all-level teacher certification.

Students who plan to seek middle grades, secondary, or all-level teacher certification in Texas must earn a bachelor's degree in the field they intend to teach and must meet the state requirements for teacher certification. Information is available from the college of the student’s major or from the College of Education.

COLLEGE OF ENGINEERING

DEPARTMENT OF AEROSPACE ENGINEERING AND ENGINEERING MECHANICS

Aerospace engineering: Bachelor of Science in Aerospace Engineering (BSAsE)

DEPARTMENT OF BIOMEDICAL ENGINEERING

Biomedical engineering: Bachelor of Science in Biomedical Engineering (BSBmE)

DEPARTMENT OF CHEMICAL ENGINEERING

Chemical engineering: Bachelor of Science in Chemical Engineering (BSChE)

DEPARTMENT OF CIVIL, ARCHITECTURAL, AND ENVIRONMENTAL ENGINEERING

Architectural engineering: Bachelor of Science in Architectural Engineering (BSArchE)

Civil engineering: Bachelor of Science in Civil Engineering (BSCE)

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Electrical engineering: Bachelor of Science in Electrical Engineering (BSEE)

DEPARTMENT OF MECHANICAL ENGINEERING

Mechanical engineering: Bachelor of Science in Mechanical Engineering (BSME)

DEPARTMENT OF PETROLEUM AND GEOSYSTEMS ENGINEERING

Petroleum engineering: Bachelor of Science in Petroleum Engineering (BSPE)

Geosystems engineering and hydrogeology: Bachelor of Science in Geosystems Engineering and Hydrogeology (BSGEH)

The program in geosystems engineering and hydrogeology is 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: Bachelor of Arts in Art (BAArt)

Design: Bachelor of Fine Arts (BFA)

Studio art: Bachelor of Fine Arts (BFA)

Visual art studies: Bachelor of Fine Arts (BFA)
### SCHOOL OF MUSIC

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<td>Bachelor of Music (BMusic)</td>
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<td>Music studies</td>
<td>Bachelor of Music (BMusic)</td>
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<tr>
<td>Music theory</td>
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The music performance student may major in voice, piano, organ, harpsichord, harp, or one of the orchestral instruments (including euphonium, guitar, and saxophone). The jazz performance student may major in double bass, drum set, guitar, piano, saxophone, trombone, trumpet, or vibraphone.

### DEPARTMENT OF THEATRE AND DANCE

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<th>Program</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theatre and dance</td>
<td>Bachelor of Arts in Theatre and Dance (BATD)</td>
</tr>
<tr>
<td>Theatre studies</td>
<td>Bachelor of Fine Arts (BFA)</td>
</tr>
<tr>
<td>Dance</td>
<td>Bachelor of Fine Arts (BFA)</td>
</tr>
</tbody>
</table>

### JACKSON SCHOOL OF GEOSCIENCES

#### DEPARTMENT OF GEOLOGICAL SCIENCES

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
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</thead>
<tbody>
<tr>
<td>Geological sciences</td>
<td>Bachelor of Arts in Geological Sciences (BAGeoSci)</td>
</tr>
<tr>
<td>Geosystems engineering and hydrogeology</td>
<td>Bachelor of Science in Geosystems Engineering and Hydrogeology (BSGEH)</td>
</tr>
</tbody>
</table>

The Bachelor of Science in Geological Sciences is offered with options in general geology, geophysics, hydrogeology/environmental geology, and teaching. The Bachelor of Science in Geosystems Engineering and Hydrogeology is offered jointly with the Department of Petroleum and Geosystems Engineering, College of Engineering.

### COLLEGE OF LIBERAL ARTS

In addition to the following programs, the college offers interdisciplinary majors in humanities and religious studies. The college offers concentrations in cultural studies; science, technology, and society; and western civilization and American institutions, which are open to students in all colleges and schools.

### CENTER FOR AFRICAN AND AFRICAN AMERICAN STUDIES

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
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</thead>
<tbody>
<tr>
<td>Ethnic studies</td>
<td>Bachelor of Arts (BA)</td>
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### DEPARTMENT OF AMERICAN STUDIES

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
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</thead>
<tbody>
<tr>
<td>American studies</td>
<td>Bachelor of Arts (BA)</td>
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</table>

### DEPARTMENT OF ANTHROPOLOGY

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
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<tbody>
<tr>
<td>Anthropology</td>
<td>Bachelor of Arts (BA)</td>
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</table>

### CENTER FOR ASIAN AMERICAN STUDIES

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
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<tbody>
<tr>
<td>Ethnic studies</td>
<td>Bachelor of Arts (BA)</td>
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### DEPARTMENT OF ASIAN STUDIES

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asian cultures and languages</td>
<td>Bachelor of Arts (BA)</td>
</tr>
<tr>
<td>Asian studies</td>
<td>Bachelor of Arts (BA)</td>
</tr>
</tbody>
</table>

The student majoring in Asian cultures and languages specializes in Chinese, Japanese, Hindi/Urdu, Malayalam, Sanskrit, or Tamil.

### DEPARTMENT OF CLASSICS

<table>
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<tr>
<th>Program</th>
<th>Degree</th>
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</thead>
<tbody>
<tr>
<td>Ancient history and classical civilization</td>
<td>Bachelor of Arts (BA)</td>
</tr>
<tr>
<td>Classical archaeology</td>
<td>Bachelor of Arts (BA)</td>
</tr>
<tr>
<td>Classics</td>
<td>Bachelor of Arts (BA)</td>
</tr>
<tr>
<td>Greek</td>
<td>Bachelor of Arts (BA)</td>
</tr>
<tr>
<td>Latin</td>
<td>Bachelor of Arts (BA)</td>
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### DEPARTMENT OF ECONOMICS

<table>
<thead>
<tr>
<th>Program</th>
<th>Degree</th>
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</thead>
<tbody>
<tr>
<td>Economics</td>
<td>Bachelor of Arts (BA)</td>
</tr>
</tbody>
</table>
5. Final approval of this major is pending.

6. The student majoring in ethnic studies concentrates in African and African American studies, Asian American studies, or Mexican American studies.
DEPARTMENT OF SPANISH AND PORTUGUESE
Portuguese                              Bachelor of Arts (BA)
Spanish                                Bachelor of Arts (BA)

CENTER FOR WOMEN’S AND GENDER STUDIES
Women’s and gender studies7                Bachelor of Arts (BA)

COLLEGE OF NATURAL SCIENCES
In addition to the following degree programs, the college offers the Bachelor of Science in Interdisciplinary Science with options in middle grades teaching in mathematics and science and secondary school teaching in computer sciences and mathematics.

DEPARTMENT OF ASTRONOMY
Astronomy                              Bachelor of Science in Astronomy (BSAst)
                                         Bachelor of Arts (BA)
The Bachelor of Science in Astronomy is offered with options in astronomy and astronomy honors.

SCHOOL OF BIOLOGICAL SCIENCES
Biology                                Bachelor of Science in Biology (BSBio)
                                         Bachelor of Arts (BA)
Clinical laboratory science             Bachelor of Science in Clinical Laboratory Science (BSClinLabSci)
The Bachelor of Science in Biology is offered with options in ecology, evolution, and behavior; human biology; marine and freshwater biology; microbiology; cell and molecular biology; neurobiology; plant biology; teaching; and biology honors.

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY
Chemistry                               Bachelor of Science in Chemistry (BSCh)
                                         Bachelor of Arts (BA)
Biochemistry                            Bachelor of Science in Biochemistry (BSBioch)
                                         Bachelor of Arts (BA)
The Bachelor of Science in Chemistry is offered with options in chemistry, computation, teaching, and chemistry honors. The Bachelor of Science in Biochemistry is offered with options in biochemistry, computation, and biochemistry honors.

DEPARTMENT OF COMPUTER SCIENCES
Computer sciences                      Bachelor of Science in Computer Sciences (BSCS)
                                         Bachelor of Arts (BA)
The Bachelor of Science in Computer Sciences is offered with three options: computer sciences, Turing Scholars Honors, and computer sciences honors.

DEPARTMENT OF HUMAN ECOLOGY
Human development and family sciences  Bachelor of Science in Human Development and Family Sciences (BSHDFS)
Human ecology                          Bachelor of Arts (BA)
Nutrition                              Bachelor of Science in Nutrition (BSNtr)
Textiles and apparel                   Bachelor of Science in Textiles and Apparel (BSTA)
The Bachelor of Science in Human Development and Family Sciences is offered with options in early childhood, human development, families and personal relationships, families and society, general human development and family sciences, and human development and family sciences honors. The Bachelor of Science in Nutrition is offered with options in dietetics, nutritional sciences, nutrition and health, teaching, and international nutrition. The Bachelor of Science in Textiles and Apparel is offered with options in apparel design and conservation and retail merchandising.

DEPARTMENT OF MATHEMATICS
Mathematics                            Bachelor of Science in Mathematics (BSMath)
                                         Bachelor of Arts (BA)
The Bachelor of Science in Mathematics is offered with options in actuarial science, applied mathematics, mathematical sciences (with two specializations: scientific computation; and statistics, probability, and data analysis), pure mathematics, teaching, and mathematics honors.

7. Final approval of this major is pending.
**DEPARTMENT OF PHYSICS**

Physics

Bachelor of Science in Physics (BSPhy)
Bachelor of Arts (BA)

The Bachelor of Science in Physics is offered with options in physics, computation, radiation physics, space sciences, teaching, and physics honors.

**SCHOOL OF NURSING**

Nursing

Bachelor of Science in Nursing (BSN)

**COLLEGE OF PHARMACY**

Pharmacy

Doctor of Pharmacy (PharmD)

**SCHOOL OF SOCIAL WORK**

Social work

Bachelor of 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.

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.

**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 College 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 described above, 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. Students pursuing the Bachelor of Arts may complete the requirements of one of the concentrations described on pages 297–298; the concentrations are also open to students outside liberal arts and natural sciences with their deans’ approval. The Study Abroad program, described in General Information, allows students to consider their own field from the unique viewpoint of another culture. The Bridging Disciplines Programs and other initiatives of Connexus: Connections in 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/.

**BRIDGING DISCIPLINES PROGRAMS**

The Bridging Disciplines Programs (BDPs) are designed to complement a student’s departmental major with an interdisciplinary specialization in one of the following areas: children and society; environment; ethics and leadership; population and public policy; cultures and identities; digital arts and media; international studies; and social entrepreneurship and nonprofit studies. Within each broad area, students choose a specific strand of specialized courses.

The courses must be approved by the BDP faculty panel. Students are encouraged to use the BDP theme to select and integrate degree requirements; to this end, courses taken to fulfill general education requirements may also count toward a BDP. Courses are drawn from disciplines across campus, including communication, liberal arts, natural sciences, business, and fine arts. Participation in faculty research and community internships is also central to the design of the Bridging Disciplines Programs.
The BDP initiative is administered by Connexus: Connections in Undergraduate Studies. While Bridging Disciplines Programs are open to undergraduates in all colleges and departments, interested students are encouraged to contact a Connexus adviser to discuss how the Bridging Disciplines Program will fit into specific degree plans.

Each BDP is guided by a multidisciplinary faculty panel that sets policy, approves strands and courses, and selects students. Admission to the Bridging Disciplines Programs is by application. Students must submit an application essay and a proposed program of work, which are reviewed by the faculty panel. Students who complete the requirements listed below will receive a certificate upon graduation.

The student must
1. Complete the requirements of a departmental major or the equivalent.
2. Complete nineteen to twenty-four semester hours of coursework, consisting of
   b. Three to six hours of foundation coursework prescribed by the BDP faculty panel.
   c. Six to nine hours of coursework chosen from a strand approved by the BDP faculty panel. Courses that are not on the strand list may be used with the consent of the faculty panel chair.
   d. Six to nine hours of approved research or internship coursework related to the BDP theme and the major.

PREPROFESSIONAL PROGRAMS

PREPARATION FOR DENTISTRY, MEDICINE, VETERINARY MEDICINE, PHARMACY, AND ALLIED 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 the Health Professions Office, Geography Building 234. The Health Professions Office maintains a Web page, http://www.utexas.edu/cons/hpo/, and a reference collection of professional school directories and related information on a broad spectrum of health careers. The office also sponsors programs on topics of interest throughout the year and maintains an e-mail distribution list. Individual course and career advising concerning preparation for admission to professional schools can be arranged through the Health Professions Office.

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. The Health Professions Office provides advice 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 clinical laboratory science, nursing, or dietetics at the University should consult an adviser in the appropriate department or school.

PREPARATION FOR DENTISTRY, MEDICINE, AND VETERINARY MEDICINE

Transfer of Professional School Coursework toward an Undergraduate Degree

All students preparing for professional training in dentistry, medicine, or veterinary medicine should plan to complete a baccalaureate degree in the field of their choice before entering professional school, since the number of students admitted without a degree is small.

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. This includes all residence rules—both general and specific—for the desired degree, except as indicated in section 3 below. 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.

University regulations allow a student to transfer six of the last thirty semester hours from another undergraduate school if other residence requirements have been met. If a preprofessional student meets certain additional requirements as outlined below, it may be possible for the student to transfer and use toward the degree a limited number of semester hours from a professional school.

1. The maximum number of hours allowed for transfer and application toward a University degree is
   a. Dental schools: A total of twelve semester hours of credit, of which nine hours are upper-division unspecified biology and three hours are upper-division unspecified chemistry.
   b. Medical schools (including schools of osteopathic medicine): A total of eighteen semester hours of credit, of which twelve
hours are upper-division unspecified biology and six hours are upper-division unspecified chemistry.

c. Veterinary schools: A total of twelve semester hours of upper-division unspecified biology.

2. To be eligible to receive such transfer hours from a professional school the student must
a. Receive dean's certification indicating completion in residence at the University of at least sixty semester hours counted toward the degree.

b. Provide an official transcript indicating satisfactory completion of the traditional first year at an accredited and approved United States school of dentistry, medicine, or veterinary medicine. If eligible, the student may petition the academic dean to have the Office of Admissions record on the University transcript, without letter grade, the total number of semester hours transferred as noted above.

3. After the student’s eligibility is verified and the hours described in section 1 above are accepted for transfer to the University, degree credit may be granted as follows:

   a. Up to six of these hours may be used as appropriate and necessary toward a degree, as certified by the student’s academic dean. These initial six semester hours must include all transfer work used within the last thirty semester hours counted toward the student’s degree.

   b. Additional hours beyond the initial six, but limited to the total allowable, may be used as elective credit toward the degree upon written petition to and final approval of the student’s academic dean.

   c. Additional hours beyond the initial six, but limited to the total allowable, may be used in fulfillment of specific requirements of the major and/or other required coursework for the degree upon written petition to and final approval of the student’s academic dean, but only if the major department or the responsible degree program unit has endorsed the request.

Preparation for Dentistry

The minimum admission requirements for most Texas dental schools are two years of biological science, including at least one year of formal laboratory work, one year of general chemistry, one year of organic chemistry, one year of English, and one year of physics. Required courses must be college-level courses designed for science majors. All applicants to dental schools must take the Dental Admission Test (DAT) and submit their applications to the schools approximately one year in advance of planned entrance. For specific admission requirements, students should consult the most recent edition of Medical School Admission Requirements and medical school Web sites or catalogs. Articles of current interest, admission statistics, and information on application procedures are available for reference in the Health Professions Office.

All students should plan to complete a bachelor’s degree in the field of their choice before entering dental school, since the number of students admitted without a degree is small.

Preparation for Veterinary Medicine

The minimum admission requirements for most veterinary schools are two years of biological science, including at least one year of formal laboratory work, one-half year of calculus or statistics, one year of general chemistry, one year of organic chemistry, one year of English, and one year of physics. Required courses must be college-level courses designed for science majors. Applicants to medical schools must take the Medical College Admission Test (MCAT) and submit their applications to the schools approximately one year in advance of planned entrance. For specific admission requirements, students should consult the most recent edition of Medical School Admission Requirements and medical school Web sites or catalogs. Articles of current interest, admission statistics, and information on application procedures are available for reference in the Health Professions Office.

All students should plan to complete a bachelor’s degree in the field of their choice before entering medical school, since the number of students admitted without a degree is small.

Preparation for Medicine

The minimum admission requirements for most Texas medical schools are two years of biological science, including at least one year of formal laboratory work, one-half year of calculus or statistics, one year of general chemistry, one year of organic chemistry, one year of English, and one year of physics. Required courses must be college-level courses designed for science majors. All applicants to medical schools must take the Medical College Admission Test (MCAT) and submit their applications to the schools approximately one year in advance of planned entrance. For specific admission requirements, students should consult the most recent edition of Medical School Admission Requirements and medical school Web sites or catalogs. Articles of current interest, admission statistics, and information on application procedures are available for reference in the Health Professions Office.

All students should plan to complete a bachelor’s degree in the field of their choice before entering medical school, since the number of students admitted without a degree is small.

Preparation for Pharmacy

Admission requirements of professional pharmacy programs vary, but all require that the applicant have completed from thirty to seventy semester hours of prepharmacy coursework. The coursework generally includes one year of general chemistry, one year of organic chemistry, one year of mathematics, one semester of physics, one and one-half years of bio-
logical science, and one year of English; all required courses must be college-level courses designed for science majors. Applicants submit their applications to the professional schools six to nine months before planned entrance; some schools require applicants to take the Pharmacy College Admission Test (PCAT). For specific admission requirements, students should consult the most recent edition of Pharmacy School Admission Requirements and pharmacy school Web sites or catalogs. Articles of current interest, admission statistics, and information on application procedures are available for reference in the Health Professions Office.

Four of the eighty-nine United States colleges of pharmacy are in Texas, at the University of Texas at Austin, the University of Houston, Texas Tech University Health Sciences Center, and Texas Southern University.

**PREPARATION FOR THE ALLIED HEALTH SCIENCES**

The allied health sciences include such programs as allied health education, biomedical communications, medical illustration, dental hygiene, dietetics, health care administration, health information management, clinical laboratory science, occupational therapy, physical therapy, physician assistant, and rehabilitation technology.

Requirements for admission to allied health science programs vary greatly, but competition to enter many programs is keen. Some programs require sixty to ninety semester hours of college study prior to entrance into the professional school; others require completion of a baccalaureate degree prior to entrance. Application deadlines vary, but applications are usually submitted six to twelve months before planned entrance. Upon completion of the professional school program, students are awarded degrees and/or certificates of proficiency by the professional school. Most allied health sciences programs are not offered at the University; however, some students who complete their studies at a University of Texas School of Allied Health Sciences may be eligible or required to receive a baccalaureate degree jointly awarded by the University of Texas at Austin and a University of Texas School of Allied Health Sciences. If a student has received a baccalaureate or graduate degree from a University of Texas System general academic institution before enrolling at a University of Texas System health science center to pursue a second baccalaureate degree, the health science center awards the second degree. For additional information, consult a counselor in the Health Professions Office.

Information is also provided in the Health Professions Office about programs available, entrance requirements, admission statistics, application procedures, and required tests. Assistance is available in the selection of courses required by the program and the professional school of the student's choice.

Changes in admission requirements for allied health programs occur frequently. Therefore, students should consult a counselor in the Health Professions Office each semester.

**PREPARATION FOR LAW**

Information about admission to the School of Law at the University is given in General Information and in the Law School Catalog.

There is no sequential arrangement of courses prescribed for a prelaw program; neither is any particular major specified. In discussing the objectives of prelegal education, 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. The association suggests that courses relevant to these objectives are those dealing with the communication of ideas, logic and mathematics, the social sciences, history, philosophy, and the physical sciences. Some understanding of accounting principles is also recommended, although this may be gained after entrance to law school. For answers to specific questions about a prelaw program, the student should consult the prelaw adviser in his or her major department.

Services for prelaw 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. Prelaw students in all majors may consult the prelaw adviser in LACS. Additional information is available at http://www.utexas.edu/cola/lacs/pre-law_services/.

Like most schools offering professional training, the School of Law at the University has a number of specific requirements and limitations. For example, to be eligible for admission to the School of Law the student must have completed a baccalaureate degree. Students are admitted only at the beginning of the long session. Each applicant for admission must take the Law School Admission Test administered by the Law School Admission Council. This is usually taken in October of the senior year. The 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 Texas public schools in the early grades must earn the Bachelor of Science in Applied Learning and Development in the College of Education and must meet the requirements for early childhood through grade four certification.
Students who plan to teach in Texas public schools in grades four through twelve 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.

**BASIC EDUCATION REQUIREMENTS**

The University strives to enroll exceptionally well-prepared, highly motivated students and to produce self-reliant graduates who are able to provide leadership and who do not simply react to events. 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.

Every graduate of the University is expected to

- be able to express himself or herself clearly and correctly in writing
- be capable of reasoning effectively from hypotheses to conclusions and of logically analyzing the arguments of others
- have a critical appreciation for the social framework in which we live and the ways it has evolved through time
- have experience in thinking about moral and ethical problems
- have an understanding of some facets of science and the ways in which knowledge of the universe is gained and applied
- have an understanding of some aspects of mathematics and the application of quantitative skills to problem solving
- have gained familiarity with a second language
- have an appreciation for literature and the arts
- be competent in the basic use of computers

The General Faculty of the University has established a basic education curriculum to assist undergraduates regardless of their major in acquiring the traits of an educated person; each college and school within the University has incorporated these requirements into its degrees. Within each discipline, the faculty defines and assesses student computer competence through learning activities that require the use of computers. Degree plans may require specific courses to fulfill basic education requirements; allow more options than indicated below to fulfill basic requirements; or require completion of further coursework in the component areas listed below. For these reasons, students should consult the descriptions of majors in chapters 2 through 15 for complete information on fulfillment of degree requirements.

In accordance with standards of the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), engineering majors may not count credit in applied fine arts or in mathematics below the level of calculus toward any degree requirement, including the basic education requirements.

Music performance majors should see the basic education requirements for music performance programs on page 221.

**CORE CURRICULUM**

The University’s basic education requirements are consistent with statewide core curriculum guidelines and comprise the following component areas:

**English composition:** Three semester hours:

- Rhetoric and Writing 306 (or 306Q for nonnative speakers of English)

**Substantial writing component:** Six semester hours in courses that contain a substantial writing component, including at least three hours of upper-division coursework. Courses with a substantial writing component are identified in the Course Schedule.

**Literature:** Three semester hours:

- English 316K

**American and Texas government:** Six semester hours. This coursework also fulfills the legislative requirement given on page 18.

- Government 310L and 312L
- Government 105. This course is designed solely for out-of-state and other transfer students with five or more semester hours of coursework in American government who need one hour in Texas government to fulfill the legislative requirement.

**American history:** Six semester hours, of which three may be in Texas history. The following courses may be used. This coursework also fulfills the legislative requirement given on page 18.

Social science: Three semester hours. The following courses may be used:

- Anthropology 301, 302, 304, 305, 307, 309L, 316L, 318L
- Economics 304K, 304L
- Geography 301C, 301K, 305, 306C, 308, 309, 312, 315, 319
- Linguistics 306, 312, 315
- Psychology 301, 304, 305, 308, 309, 317, 319K

Mathematics: Three semester hours at the level of Mathematics 301 or higher. The following courses may be used:

- Mathematics 301, 302, 303D, 403K, 305G, 408C, 408K, 316K

Natural science: Nine semester hours, consisting of six hours in one discipline and three hours in a second discipline. The following courses may be used:

- Astronomy 301, 302, 303, or 307; 309; 309L; 309N or 309Q; 309P; 309Q or 309R; 309T
- Biology 301C, 301D, 301L or 211, 301L or 214, 301M or 213, 305E, 305F, 205L, 406D, 206L, 307D, 208L, 309D, 309E, 212, 416K, 416L, 318M
- Chemistry 301, 302, 303, 304K, 305, 313N, 314N
- Geological Sciences 401, 303, or 312K; 302C; 302D; 302E; 302K; 302M; 302P; 404N; 405; 407; 416K; 416M
- Physical Science 303, 304
- Physics 301, 302K, 303K, 309K, or 317K; 302L, 303L, 309L, 316, or 317L; 306

To fulfill the three-hour part of this requirement, the student may use the following courses in addition to those listed above:

- Anthropology 301
- Computer Sciences 301K, 302, 307, 315
- Chemistry 310M, 318M
- Geography 301C
- Mathematics courses at the level of Mathematics 301 or higher, excluding courses used to fulfill the mathematics requirement
- Physics 315

Fine arts: Three semester hours. The following courses may be used:

- Architecture 308
- Art History 301, 302, 303
- Fine Arts 310
- Philosophy 317K, 346
- Studio Art 320K, 320L

Total core curriculum credit: Forty-two semester hours

ADDITIONAL BASIC EDUCATION REQUIREMENTS

In addition to the core curriculum requirements above, undergraduate students are expected to enter the University having completed two years of study 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.

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 advisor 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

Except as noted, the following programs, scholarships, and organizations are open to all qualified undergraduates. Honors available through the colleges and schools are described in chapters 2 through 15.

HONOR SOCIETIES FOR FRESHMEN

Alpha Lambda Delta and Phi Eta Sigma are national honor societies that recognize scholastic attainment during the freshman year. Members are chosen each fall and spring. Membership is offered to students who earn a grade point average of at least 3.50 during the first semester of their freshman year while completing at least twelve semester hours of coursework. Students who do not qualify during the first semester may become eligible by earning a grade point average of at least 3.50 for the first two semesters of work combined.

JUNIOR FELLOWS PROGRAM

The Junior Fellows Program provides recognition for outstanding students who have completed four semesters, or about sixty semester hours of coursework. Chosen annually from the best students across the campus, junior fellows are given the opportunity to do independent study and research with distinguished professors of their choice and to have that research supported by small grants, if necessary. The program is administered by the College of Liberal Arts, but undergraduates in all colleges and schools are eligible to take part. Students who wish to be considered should apply in February. Application forms are available in the Liberal Arts Honors Program Office, Dorothy Gebauer Building 1.206.

COLLEGE SCHOLARS

On Honors Day each spring, the University designates outstanding students as College Scholars and Distinguished College Scholars. Students who are eligible for recognition receive invitations to the Honors Day convocation about three weeks before Honors Day.

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

1. The student must be registered as an undergraduate for at least twelve semester hours of coursework, unless he or she lacks fewer than twelve hours to complete degree requirements. Students who hold an undergraduate degree are not eligible.
2. The student must have completed at least twelve semester hours of coursework in either the spring or the fall semester of the previous calendar year.
3. The student must have completed at least thirty semester hours of coursework at the University, excluding credit by examination, and at least sixty semester hours of college coursework, including transferred work and credit by examination.
4. The student must have an in-residence University grade point average of at least 3.50. To be designated a Distinguished College Scholar, a student must meet the following requirements:

1. The student must be registered as an undergraduate for at least fifteen semester hours of coursework, unless he or she lacks fewer than fifteen hours to complete degree requirements. Students who hold an undergraduate degree are not eligible.
2. The student must have completed at least fifteen semester hours of coursework in either the spring or the fall semester of the previous calendar year.
3. The student must have completed at least thirty semester hours of coursework at the University, excluding credit by examination, and at least sixty semester hours of college coursework, including transfered work and credit by examination.

4. The student must have an in-residence University grade point average of at least 3.80.

UNIVERSITY HONORS

Each semester, undergraduates who complete a full course load and earn outstanding grades are recognized by inclusion on the University Honors list. Each time a student is included on the list, his or her official record also shows the award of University Honors for that semester. The list is compiled at the end of the fall and spring semesters but not at the end of the summer session. To be included, a student must earn at least forty-five grade points and a grade point average of at least 3.50 on courses completed in residence and must have no incomplete grades (symbol X).

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

SCHOLARSHIPS

British Marshall scholarships. British Marshall scholarships allow young Americans of high ability to study for a degree in the system of higher education of their choice in the United Kingdom. Each scholarship offers two years or more of postgraduate study. Up to forty new awards are offered every year in the United States. Students should apply in their senior year. Applications are due to the Liberal Arts Honors Program Office, Dorothy Gebauer Building 1.206, in early October.

Rhodes scholarships. Rhodes scholarships are for outstanding United States citizens who are between eighteen and twenty-four on October 1 of the year of application. Students should apply in their senior year. Each scholarship offers two years or more of postgraduate study at the University of Oxford. Thirty-two scholarships are assigned annually to the United States. Applications are due in the Liberal Arts Honors Program Office, Dorothy Gebauer Building 1.206, in early September.

Harry S. Truman scholarships. The Harry S. Truman Foundation awards seventy-five to eighty $40,000 merit-based scholarships annually to college students who wish to attend graduate school in preparation for careers in government or elsewhere in public service. Applicants must be in the top quarter of their class, with a grade point average of at least 3.80, and must be United States citizens or nationals. Each scholarship covers tuition, fees, books, and room and board, to a maximum of $3,000 for the student's senior year. In addition, Truman Scholars receive $13,500 yearly if enrolled in a two-year graduate program or $9,000 yearly if enrolled in a three-year graduate program. They also receive leadership training, graduate school counseling, preferential admission and merit-based aid at some premier graduate institutions, and internship opportunities with federal agencies. Students who will be seniors the following academic year should apply to the Liberal Arts Honors Program Office, Dorothy Gebauer Building 1.206, in mid-October.

PHI BETA KAPPA

Phi Beta Kappa, the oldest and best known honorary society in America, was founded by students at the College of William and Mary in 1776. The Alpha of Texas chapter was organized at the University in 1904–1905. Eligibility is limited to upper-division students of the Colleges of Fine Arts, Liberal Arts, and Natural Sciences and the Jackson School of Geosciences who achieve distinguished scholastic records while taking the Bachelor of Arts; the Bachelor of Arts in Art with a major in art history; the Bachelor of Arts in Music; the Bachelor of Arts in Theatre and Dance; or the Bachelor of Science in Biochemistry, Biology, Chemistry, Computer Sciences, Geological Sciences, Mathematics, Physics, or Psychology. The student must have completed at least sixty semester hours of coursework at the University.

Elections to Phi Beta Kappa are held in the fall, spring, and summer each year. Alumni members are occasionally selected from among graduates of at least five years' standing who have won appropriate distinction since graduation; honorary members are selected for special merit.

PHI KAPPA PHI

Phi Kappa Phi is a national honor society recognizing academic achievement in all fields. Members are chosen twice a year. Upper-division and graduate students are eligible for membership if they have completed at least sixty semester hours of coursework at the University and have the required grade point average. The University chapter typically invites to membership fewer than 6 percent of undergraduates and fewer than 10 percent of graduate students.

LEADERSHIP AND SERVICE ORGANIZATIONS

Mortar Board and Omicron Delta Kappa recognize and encourage scholarship, leadership, and service. Members of Mortar Board are chosen each spring; members of Omicron Delta Kappa are chosen in the fall and in the spring.
GRADUATION WITH UNIVERSITY HONORS

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

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

1. No more than 20 percent of the May graduating class of each college or school may receive honors, high honors, and highest honors. No more than 10 percent of the class may receive high honors and highest honors. No more than 4 percent may receive highest honors.

2. Honors graduates must have a grade point average of at least 3.30 in courses taken in residence at the University.

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

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

<table>
<thead>
<tr>
<th>College or School</th>
<th>HONORS</th>
<th></th>
<th>HIGHEST HONORS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Min. GPA</td>
<td>Min. GPA</td>
<td>Rank</td>
<td>GPA</td>
</tr>
<tr>
<td>School of Architecture</td>
<td>3.30</td>
<td>3.30</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>McCombs School of Business</td>
<td>3.50</td>
<td>3.65</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>College of Communication</td>
<td>3.465</td>
<td>3.665</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>College of Education</td>
<td>3.50</td>
<td>3.65</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>College of Engineering</td>
<td>3.50</td>
<td>3.70</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>College of Fine Arts</td>
<td>3.30</td>
<td>3.60</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>Jackson School of Geosciences</td>
<td>3.30</td>
<td>3.667</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>College of Liberal Arts</td>
<td>3.30</td>
<td>3.667</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>College of Natural Sciences</td>
<td>3.30</td>
<td>3.667</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>School of Nursing</td>
<td>3.30</td>
<td>3.30</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>College of Pharmacy</td>
<td>3.30</td>
<td>3.30</td>
<td>top 20%</td>
<td></td>
</tr>
<tr>
<td>School of Social Work</td>
<td>3.30</td>
<td>3.30</td>
<td>top 20%</td>
<td></td>
</tr>
</tbody>
</table>

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

9. To graduate with University Honors, a student in the McCombs School must have completed at least sixty semester hours of coursework in residence at the University.

10. To graduate with University Honors, a student in the College of Communication must have completed at least sixty semester hours of coursework in residence at the University.

11. To graduate with University Honors, a student in the College of Engineering must have completed in residence at the University at least sixty semester hours of coursework counted toward the degree. A student may receive only one bachelor's degree with University Honors from the College of Engineering.

12. To graduate with University Honors, a student in the College of Fine Arts must rank in the indicated percent of students graduating that semester from his or her academic unit (art and art history, music, or theatre and dance) and must have no outstanding delay of grade (symbol X). He or she must have completed at least sixty semester hours of coursework in residence at the University. A student may receive only one bachelor's degree with University Honors from the College of Fine Arts.
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 of the colleges and schools are described in chapters 2 through 15.

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, 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 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: University catalogs. General Information gives important information about academic policies and procedures that apply to all students. It includes the official academic calendar, admission procedures and residence requirements, information about tuition and fees, and policies on quantity of work, grades and the grade point average, credit by examination and correspondence, adding and dropping courses, withdrawal from the University, and scholastic probation and dismissal. This catalog also gives historical and current information about the University’s organization and physical facilities. It describes the services of the Division of Student Affairs and the libraries and research facilities that support the University’s academic programs.

The Undergraduate Catalog gives information about degrees offered by the undergraduate divisions and lists the faculty. The chapter for each college or school describes the academic policies and procedures that apply to students in that division and lists the division’s undergraduate courses. The Graduate Catalog and the Law School Catalog give similar information about graduate programs and the programs of the School of Law.

Printed catalogs are available at campus-area bookstores and by mail from the Office of the Registrar. The online catalogs are available at http://www.utexas.edu/student/registrar/. The Course Schedule. The Course Schedule is published by the Office of the Registrar and is available through the registrar’s Web site before registration for each semester and summer session. It includes information about registration and payment procedures; meeting times, locations, instructors, and prerequisites of courses 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 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 CR 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 and 2b below. However, coursework in University-approved affiliated study abroad programs may not be used to fulfill requirement 2c.
   a. The student must complete in residence at least sixty semester hours of coursework counted toward the degree.\footnote{This requirement is waived for students in the Accelerated Track for the Bachelor of Science in Nursing, a degree program for registered nurses who hold associate’s degrees or diplomas in nursing.}
   b. Twenty-four of the last thirty semester hours counted toward the degree must be completed in residence.
   c. 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’s chapter 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 University-approved 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:

1. Government 310L and 312L
2. Government 310L and three hours of transfer credit in United States government (entered into the student’s University record as “GOV 3 US”)
3. Government 310L and three hours of transfer credit in Texas government (“GOV 3 TX”)
4. 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 topics of Government 312L are offered each semester. Because some of these topics 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.

Students in the College of Engineering may count three hours of ROTC coursework (air force science, military science, or naval science) toward fulfillment of this requirement. Students in the College of Pharmacy may substitute three hours of ROTC coursework for Government 312L. In both colleges, ROTC coursework may be counted toward
the government requirement only by students who complete the ROTC program and receive a commission.

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.

In the College of Liberal Arts, ROTC courses that are cross-listed may be used as appropriate to fulfill other degree requirements. Students should consult the staff in the Office of the Dean, Student Division, to learn whether an ROTC course may be counted toward the legislative requirement.

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. To receive a degree from the McCombs School of Business or the College of Communication, Education, Engineering, or Natural Sciences, the student must be registered in that college or school.

MULTIPLE DEGREES

No second bachelor's degree will be conferred until the candidate has completed at least twenty-four semester hours in addition to those counted toward the bachelor's degree that requires the higher number of hours of credit. The McCombs School of Business, the Colleges of Education and Engineering, and the School of Nursing require the student to complete at least twenty-four hours in addition to those counted toward the first bachelor's degree. A student may not receive the same degree twice.

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, nursing, 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 2006–2008 catalog must do so by the end of the summer session 2014 (2015 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 2006–2008 catalog must do so by the end of the summer session 2014.

College of Engineering. An engineering student may graduate under the catalog covering any academic year in which he or she was enrolled in the college. 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 2006–2008 catalog must do so by the end of the summer session 2014.

Course substitutions in the degree program are permitted only with the approval of the departmental undergraduate adviser and the dean.
School of Nursing. A nursing student may graduate under the catalog covering any academic year in which he or she was enrolled in the School of Nursing. 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 2006–2008 catalog must do so by the end of the summer session 2014.

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 2006–2008 catalog must do so by the end of the summer session 2015.
2 SCHOOL OF ARCHITECTURE

GENERAL INFORMATION

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 Foundation of Interior Design Education and Research 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.

PURPOSE

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, and 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 College 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 four 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 revised and transferred to the School of Architecture. The first interior design degrees were conferred by the school in May 2001.
FACILITIES FOR STUDY AND RESEARCH

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 University Libraries, maintains more than 50,000 volumes, including bound periodicals; several thousand professional reports; all major architecture, interior design, and planning journals; and the Alexander Architectural Archive of more than 120,000 drawings and photographs. The Harry Ransom Humanities Research 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 Visual Resources Collection contains audiovisual equipment, technical and design reference material, and almost 250,000 photographic slides of architectural and related works. The University Co-op Materials Resource Center provides architecture and interior design students with state-of-the-art laboratories for research and experimentation with materials, lighting, and preservation technology. The Center for American Architecture and Design, established in the School of Architecture in 1982, provides support and resources for the scholarly study of American architecture, particularly that of the Southwest. Through lectures, exhibitions, seminars, symposia, fellowship support, and the collection of research materials, the center encourages a community of architecture scholarship.

Computer-aided design and research opportunities are provided in the design studios and by the school’s computer laboratory, which maintains desktop computers and terminals interfaced with the University’s extensive academic computing facilities. 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.

STUDY ABROAD

The School of Architecture offers several opportunities to study architecture, interior design, planning, and urban design in settings very different from those familiar to United States residents. Students may participate in these programs after completing the third year of their degree programs. The school offers a broad range of scholarships to help students take advantage of these programs.

Regular summer study abroad programs take place in Oxford and the United Kingdom and at the Santa Chiara Study Center near Florence. Recent programs have also been conducted in Bosnia, Turkey, and Morocco. Fall semester programs allow students to travel to Japan, to Italy, or within Europe; in the spring, students may study in Mexico.

More information on these programs is available in the undergraduate dean’s office.

STUDENT ORGANIZATIONS

The Architecture and Planning Student Council represents the student body. All students are automatically members. The council’s elected executive committee includes the school’s representative to the American Institute of Architecture Students (AIAS) and the student representatives to the American Society of Interior Designers (ASID), the International Interior Design Association (IIDA), and the American Planning Association (APA).

Tau Sigma Delta is the national honorary society for architecture students. Alpha Rho Chi is the national architecture fraternity, and Alpha Alpha Gamma is the national architecture fraternity for women.

HONORS

UNIVERSITY HONORS

The designation University Honors, awarded 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. Criteria for University Honors are given on page 15.

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 on page 16.

SCHOOL OF ARCHITECTURE RECOGNITION AWARDS

Award:  Alpha Rho Chi Medal
Donor:  Alpha Rho Chi, honorary 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
FINANCIAL ASSISTANCE AVAILABLE THROUGH THE SCHOOL OF ARCHITECTURE

Scholarship funds established by individuals, foundations, and the University are available to current undergraduates in the School of Architecture. These include the Blake Alexander Traveling Student Fellowship in Architecture; the Marvin E. and Anne Price Beck Endowed Scholarship; the Carl O. Bergquist Endowed Scholarship; the Hal Box Scholarship Fund; the Max Brooks Memorial Scholarship; the John Buck Company and First Chicago Investment Advisors for Fund F Endowed Scholarship in Architecture; the John S. Chase Endowed Presidential Scholarship; the Fred Winfield Day Jr. Endowed Scholarship in Architecture; the Natalie deBlois Scholarship; the Jorge Luis Divino Centennial Scholarship in Architecture; the William H. Emis III Traveling Scholarship in Architecture; the Ted Freedman Endowed Scholarship; the Lily Rush Walker and Coulter Hoppess Scholarship in Architecture; the Jean Houllihan Scholarship; the Wolf E. Jessen Endowed Fund; the Lake/Flato Endowed Scholarship; the Jamie Lofgren Scholarship; the Mike and Maxine Mebane Endowed Traveling Scholarship in Architecture; the Jack H. Morgan Scholarship; the Lorine White Nagel, PBK, and Chester Emil Nagel, FAIA, Scholarship in Excellence in Architectural Design; the Joseph O. Newberry III Memorial Scholarship; the Oglesby Prize Endowment; the Page Southemer Page Fellowship in Architecture; the Alma Piner Scholarship in Architecture; the Brandon Shaw Memorial Endowed Scholarship; the Debbie Ann Rock Scholarship in Interior Design; the School of Architecture Scholarship and Fellowship Awards; the Louis F. Southerland Endowed Scholarship; the E. L. Swanson Scholarship; the J. M. West Texas Corporation Fellowship in Architecture; the Robert Leon White Memorial Fund—Architecture; the Roxanne Williamson Endowed Scholarship; and 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 of Texas Office of Student Financial Services for information about other merit- and need-based scholarships.

ADMISSION AND REGISTRATION

ADMISSION

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

Undergraduate admission to the School of Architecture is limited to the number of students to whom a professional education of high quality in a design studio atmosphere can be provided. Because of enrollment restrictions dictated by the availability of faculty members and facilities in the School of Architecture and limitations on nonresident enrollment imposed by the Board of Regents, some applicants may be denied admission even though they meet the general requirements of the University. Students who are not admitted to the School of Architecture may not pursue any degree offered by the school. Applicants to the School of Architecture should request an information packet from The University of Texas at Austin, School of Architecture, 1 University Station B7500, Austin TX 78712. Information is also available at http://soa.utexas.edu/.

FRESHMAN ADMISSION

Texas-resident high school students have priority over nonresidents in admission decisions. All applicants are considered on the basis of their SAT Reasoning Test or American College Testing Program score, their high school class rank, and the information provided on the admission application. All applicants must fulfill the high school unit requirements given in General Information. Texas-resident high school students in the lower half of their graduating class are not eligible for freshman admission to the School of Architecture; nonresidents in the lower three-quarters of their graduating class are not eligible for freshman admission to the School of Architecture or to the University.

To be considered for admission to the School of Architecture, applicants should enter 909200 (architecture), 908000 (architecture/architectural engineering dual degree), 909201 (architecture/interior design), 909300 (architecture/Plan II), or 908400 (architectural studies) as their major code on the 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. Applicants to the dual degree program offered with the Plan II Honors Program must submit an additional application and must meet an earlier deadline; more information about Plan II is given on pages 309–311.
STUDENTS IN OTHER COLLEGES OF THE UNIVERSITY

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 a Change-of-Major Application to the undergraduate dean’s office, School of Architecture, by March 1 to be considered for admission for the following fall semester. To be considered for change-of-major admission, the student must have completed at least twenty-four semester hours of University coursework and should have a University grade point average of at least 3.25. Frequently, a higher grade point average is required for admission, because the number of applicants exceeds the number of spaces available. Admission decisions are made after the end of the spring semester.

TRANSFER ADMISSION

Students applying to transfer from other universities to the School of Architecture should use 909200 (architecture), 909201 (architecture/architectural engineering dual degree), 909300 (architecture/Plan II), or 908400 (architectural studies) as their intended major code. 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 twenty-four semester hours of transferable college coursework. All admission decisions are made before the end of the spring semester; the Office of Admissions cannot consider spring coursework in progress.

Transfer admission to the School of Architecture is quite competitive. Applicants are strongly encouraged to indicate a second choice of major so that, if they are not admitted to the School of Architecture as transfer students, they will be eligible for change-of-major admission the following fall. Additional information is given in the section “Students in Other Colleges of the University,” above.

SUMMER ENTRY

The School of Architecture considers students for admission once a year, for the following fall semester. A student who is admitted for the fall semester may ask to enter in the preceding summer session instead, but the number of students who may enter in the summer is limited. Students seeking summer entry must obtain permission from the undergraduate dean’s office. An admitted student who is unable to attend in either the summer session or the fall semester must reapply for admission to enroll at a later time. A student may not enter the School of Architecture in the spring semester.

TRANSFER CREDIT

Transfer students with design studio credit from another school must submit samples of their design work to the associate dean for undergraduate programs before they may register for a design studio. On the basis of this work, the associate dean determines the level at which the student enters the design sequence and assigns credit toward the degree if appropriate. Transfer students must also meet all requirements prescribed for the degree, including those described in the sections “Registration for Advanced Design Courses” and “Third-Year Portfolio Requirement” on the following page. Additional information is available from the School of Architecture.

DURATION OF PROGRAMS

Bachelor of Architecture. This degree program is structured around a core of nine semesters of design coursework and normally requires five years of study. The dual degree program with architectural engineering normally requires six years; the dual degree program with the Plan II Honors Program normally requires five years, including three summer sessions. Only one studio may be taken at a time, and few are offered in the summer. In general, architectural design studios are open only to students accepted into an architecture degree program. To complete the Bachelor of Architecture degree, students without transfer credit in architectural design should plan to be in residence ten semesters from the time they are admitted and enrolled in Architecture 310K.

Bachelor of Science in Architectural Studies. This degree program normally requires four years of study. Since the program includes five semesters of architectural design coursework, students without transfer credit in architectural design should plan to spend at least five semesters in residence.

Bachelor of Science in Interior Design. This degree program normally requires four years of study. Since the program includes eight semesters of design coursework, students without transfer credit in interior design should plan to spend at least eight semesters in residence.

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 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 World Wide Web and are accessible through the registrar’s Web site, http://www.utexas.edu/student/registrar/. General Information is also sold at campus-area bookstores.
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 the 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.

**REGISTRATION FOR ADVANCED DESIGN COURSES**

To register for advanced design courses, a student seeking the Bachelor of Architecture degree must have completed all of the work prescribed for the preceding years, with the exception of electives, and must satisfy the third-year portfolio requirement.

**THIRD-YEAR PORTFOLIO REQUIREMENT**

All students, whether continuing in or transferring to the School of Architecture, must pass the third-year portfolio review. The portfolio should summarize the student’s work completed in design and visual communication courses. Supplementary material that will provide useful information to the reviewing committee in evaluating the student’s progress toward the degree may also be included. The portfolio is submitted by continuing students at the beginning of the second semester of the third year, and by transfer students before they register for any design studio beyond Architecture 310K. Guidelines for submission of the portfolio, including the submission deadline, are available from the undergraduate dean’s office.

The reviewing committee, at its discretion, may require a student to take additional coursework before being permitted to register for advanced design courses or may require the student to undertake specific courses in the remaining years.

**ADVISING**

In the School of Architecture, the undergraduate dean’s office, located in Goldsmith Hall 2.116, is responsible for providing information and advice to undergraduate students. An important aspect of the advising system is the third-year portfolio requirement described above. The student should also consult the sections “The Degree Audit” and “Sequence of Work” in this chapter.

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**ACADEMIC POLICIES AND PROCEDURES**

**EQUIPMENT AND SUPPLIES**

Students are required to furnish their own drawing equipment and supplies. Instructors will provide information about necessary supplies at the beginning of each semester. The School of Architecture provides studio space for design and drawing courses, and certain technical and audiovisual equipment is available for loan to students for classroom use. Valid student identification is required. Students are liable for damage or loss of equipment on loan to them and for delay in its return.

**OWNERSHIP OF STUDENT WORK**

All student work is the property of the School of Architecture. Work not retained is usually returned to the student after it has been reviewed.

**STANDARD OF WORK REQUIRED**

To progress in the Bachelor of Architecture degree program and to qualify for graduation, a student must earn a grade of C or better in each of the following courses: (1) all design courses: Architecture 310K, 310L, 320K, 520L, 520M, 530T, 560R (three sections), 560T; (2) all construction courses: Architecture 415K, 415L, 435K, 435L, 335M; (3) all visual communication courses: Architecture 311K, 311L, 221K, 361T; (4) environmental controls courses: Architectural Interior Design 324K, Architecture 334L; and (5) the professional practice course, Architecture 362.

To progress in the Bachelor of Science in Architectural Studies degree program and to qualify for graduation, a student must earn a grade of C or better in each of the following courses: (1) all design courses: Architecture 310K, 310L, 320K, 520L, 520M; (2) all construction courses: Architecture 415K, 415L, 435K; (3) all visual communication courses: Architecture 311K, 311L, 221K; and (4) the environmental controls course: Architectural Interior Design 324K.

To progress in the Bachelor of Science in Interior Design degree program and to qualify for graduation, a student must earn a grade of C or better in all architectural interior design and architecture courses.
EMPLOYED STUDENTS

Before registering, students should consult the undergraduate dean’s office about their plans for employment in addition to their scholastic work. Students should keep the dean’s office informed of subsequent changes in the number of hours required by their employment. If a student is employed by the University, the number of hours of work required by the student’s employment must comply with the quantity of work rule given in General Information.

GRADUATION

All students must fulfill the general requirements for graduation given in chapter 1. 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 of graduation; they must file it by the deadline given in the official academic calendar.

THE 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 through http://www.utexas.edu/student/registrar/. It is the student’s responsibility to know the requirements for the degree as stated in a catalog under which he or she is entitled to graduate and to register so as to fulfill those requirements.

DEGREES

DEGREES OFFERED

Five undergraduate degree programs are offered by the School of Architecture. Each degree program satisfies the University’s basic education requirements.

Bachelor of Architecture. The Bachelor of Architecture, the culmination of a five-year program of study, is accredited by the National Architectural Accrediting Board as a first professional degree.

Bachelor of Architecture/Bachelor of Science in Architectural Engineering. This dual degree option, a six-year program of study, leads to the degrees of Bachelor of Architecture and Bachelor of Science in Architectural Engineering, accredited as first professional degrees in architecture and in engineering. Students in this program must fulfill admission and degree requirements of the School of Architecture and the College of Engineering and must follow the procedures of both divisions.

Bachelor of Architecture/Bachelor of Arts, Plan II. This dual degree option provides the opportunity for honors students to pursue a professional degree in architecture and the Bachelor of Arts, Plan II, simultaneously. Students in this program must fulfill admission and degree requirements of the School of Architecture and of the College of Liberal Arts and must follow the procedures of both divisions.

Bachelor of Science in Architectural Studies. The Bachelor of Science in Architectural Studies is the culmination of a four-year preprofessional program of study. This degree program prepares students for several opportunities, including pursuit of a professional Master of Architecture degree.

Bachelor of Science in Interior Design. The Bachelor of Science in Interior Design program is grounded in study of the history of art, architecture, and interiors. It is designed to give students a sound theoretical base that allows them to integrate creative problem-solving skills with an understanding of the aesthetic, technological, and behavioral aspects of design.

SEQUENCE OF WORK

The student should complete the School of Architecture courses required for the degree in the order set forth in the plan for that degree, whether beginning work in the summer or in the fall. In arranging a program of work for any semester or summer session, the student should include any architecture or architectural interior design coursework recommended for the preceding semester or summer session that he or she did not complete.
It is entirely the student’s responsibility to register for courses that will fulfill degree requirements, including the basic education requirements. Students are advised to seek assistance in curriculum planning from the undergraduate dean’s office.

APPlicability Of Certain Courses
Correspondence And Extension Courses

In very special circumstances, a student in residence may be allowed to take coursework by extension or correspondence. Credit that the student in residence earns by extension or correspondence will not be counted toward the degree unless it was 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 correspondence.

Courses Taken on the Pass/Fail Basis

An undergraduate may count toward the degree up to five one-semester courses in elective subjects outside the major taken on the pass/fail basis. An undergraduate may also take examinations for credit only. 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 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.

RTOC 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 Architecture Curriculum

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Major Sequence Courses</strong></td>
<td></td>
</tr>
<tr>
<td>Design: Architecture 310K, 310L, 320K, 520L, 520M, 530T, 560R (taken three times), 560T;</td>
<td>104</td>
</tr>
<tr>
<td>Visual communication: Architecture 311K, 311L, 221K, 361T;</td>
<td></td>
</tr>
<tr>
<td>Professional practice: Architecture 362;</td>
<td></td>
</tr>
<tr>
<td>Site design: Architecture 333;</td>
<td></td>
</tr>
<tr>
<td>Environmental controls: Architectural Interior Design 324K, Architecture 334L;</td>
<td></td>
</tr>
<tr>
<td>History: Architecture 308, 318K, 318L, 328, 368R (taken twice)</td>
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</tr>
<tr>
<td>Community and Regional Planning 369K</td>
<td>3</td>
</tr>
<tr>
<td><strong>Other Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>Rhetoric and Writing 306, English 316K</td>
<td>6</td>
</tr>
<tr>
<td>Government 310L, 312L</td>
<td>6</td>
</tr>
<tr>
<td>History 315K, 315L</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics 408C</td>
<td>4</td>
</tr>
<tr>
<td>Physics 302K, 302L, 102M, 102N</td>
<td>8</td>
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<tr>
<td>Upper-division humanities elective in literature, foreign language, philosophy, or another field approved by the undergraduate dean’s office</td>
<td>3</td>
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<tr>
<td>Natural science elective</td>
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<tr>
<td>Social science elective</td>
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<tr>
<td>Electives approved by the undergraduate dean’s office</td>
<td>12</td>
</tr>
<tr>
<td>Open electives</td>
<td>9</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td>167</td>
</tr>
</tbody>
</table>

1. Other courses that fulfill the legislative requirement for American history may be counted toward this requirement; these courses are identified in the Course Schedule.
**Electives.** Thirty semester hours of electives are required for the completion of the BArch degree program. These electives consist of three hours of upper-division coursework in humanities, three hours in a social science, three hours in a natural science, and twelve approved elective hours generally taken outside the School of Architecture. In addition, nine semester hours of open electives must be completed outside the School of Architecture.

Many courses that fulfill the elective requirement have prerequisite courses that are not part of the BArch degree program. Before planning to use a course as an elective, the student should be sure that he or she has fulfilled the prerequisite.

**Writing requirement.** In addition to Rhetoric and Writing 306 and English 316K, each student must complete two courses certified as having a substantial writing component. One course must be upper-division. Courses with a substantial writing component are identified in the *Course Schedule*. Courses used to fulfill the writing requirement may also be counted toward other requirements for the degree. The Bachelor of Architecture degree program includes two architecture courses that normally contain a substantial writing component.

**Foreign language requirement.** In accordance with the University's basic education requirements, the student must demonstrate proficiency in a foreign language equivalent to that shown by the completion of two semesters of college coursework. College-level courses taken to establish proficiency may not be counted toward a degree.

For a student admitted to the University as a freshman, this requirement is fulfilled by the 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*.

**Professional residency program.** A seven-month period of varied architectural experience with selected architectural firms is available to qualified second-semester fourth-year and first-semester fifth-year architecture students. The student must have completed at least one semester of advanced design before beginning the professional residency program and should have at least one semester of advanced design remaining toward a degree after completion of the residency program.

For information on requirements for participation in the residency program and on the courses for which participants register during the residency, consult the program's director or the undergraduate dean's office. Students must pay fees associated with the residency program.

A participant in the professional residency program may receive up to fifteen semester hours of credit.
# Suggested Arrangement of Courses

## First Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>HOURS</th>
<th>SEMESTER</th>
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<tbody>
<tr>
<td>ARC 310K, Design I</td>
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<tr>
<td>ARC 311K, Visual Communication I</td>
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</tr>
<tr>
<td>ARC 308, Architecture and Society</td>
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<tr>
<td>M 408C, Differential and Integral Calculus</td>
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<tr>
<td>RHE 306, Rhetoric and Writing</td>
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<td><strong>TOTAL</strong></td>
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## First Year — Spring Semester

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<tr>
<th>COURSES</th>
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<td>ARC 310L, Design II</td>
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<tr>
<td>ARC 311L, Visual Communication II</td>
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<tr>
<td>ARC 318K, History of Architecture, Survey I</td>
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</tr>
<tr>
<td>PHY 302K, General Physics—Technical Course: Mechanics, Heat, and Sound</td>
<td>3</td>
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<tr>
<td>PHY 102M, Laboratory for Physics 302K</td>
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<td><strong>TOTAL</strong></td>
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## Second Year — Fall Semester

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<tbody>
<tr>
<td>ARC 320K, Design III</td>
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<td>ARC 221K, Visual Communication III</td>
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<td>ARC 318L, History of Architecture, Survey II</td>
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<tr>
<td>ARC 415K, Construction I</td>
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<tr>
<td>PHY 302L, General Physics—Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics</td>
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<td></td>
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<tr>
<td>PHY 102N, Laboratory for Physics 302L</td>
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<td><strong>TOTAL</strong></td>
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## Second Year — Spring Semester

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<th>COURSES</th>
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<tbody>
<tr>
<td>ARC 520L, Design IV</td>
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<td>ARC 415L, Construction II</td>
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<td>ARC 328, History of Architecture, Survey III</td>
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<td>ARC 333, Site Design</td>
<td>3</td>
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<td>E 316K, Masterworks of Literature</td>
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## Third Year — Fall Semester

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<td>ARC 520M, Design V</td>
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<td>ARI 324K, Environmental Controls I</td>
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<td>HIS 315K, The United States, 1492–1865</td>
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## Third Year — Spring Semester

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<td>ARC 530T, Design VI</td>
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<tr>
<td>ARC 334L, Environmental Controls II</td>
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<tr>
<td>ARC 435L, Construction IV</td>
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<td>Approved elective</td>
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## Fourth Year — Fall Semester

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<tr>
<td>GOV 310L, American Government</td>
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<tr>
<td>HIS 315L, The United States since 1865</td>
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<td>Upper-division humanities elective</td>
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<td>Natural science elective</td>
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## Fourth Year — Spring Semester

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<th>COURSES</th>
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<td>ARC 361T, Technical Communication</td>
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<td>GOV 312L, Issues and Policies in American Government</td>
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## Fifth Year — Fall Semester

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<tbody>
<tr>
<td>ARC 560R, Advanced Design</td>
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<tr>
<td>ARC 368R, Topics in the History of Architecture</td>
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## Fifth Year — Spring Semester

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<tbody>
<tr>
<td>ARC 560R, Advanced Design</td>
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<td>ARC 362, Professional Practice</td>
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<tr>
<td>ARC 368R, Topics in the History of Architecture</td>
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</table>
BACHELOR OF ARCHITECTURE
DUAL DEGREE PROGRAMS

BACHELOR OF ARCHITECTURE AND BACHELOR OF SCIENCE IN ARCHITECTURAL ENGINEERING

Students may elect to enter a six-year dual degree program offered jointly by the School of Architecture and the Department of Civil, Architectural, and Environmental Engineering in the College of Engineering. The dual degree program combines the areas of common interest in the two programs and allows the student to pursue the two degrees simultaneously.

For admission to the dual degree program, a student must meet the admission requirements of the School of Architecture given in this chapter and the requirements for admission to a major sequence in the College of Engineering given in chapter 6. Students are advised to contact both the School of Architecture and the College 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. A description of the five-year Bachelor of Architecture program begins on page 27; a description of the Bachelor of Science in Architectural Engineering is given on pages 148-150.

The following outline of courses is the suggested method for completing the requirements for both degrees simultaneously. Dual degree students must also consult chapter 6 for additional requirements of the Bachelor of Science in Architectural Engineering degree. Dual degree students are responsible for fulfilling the requirements of both degrees.

A student who follows the sequence of courses below completes all requirements for the Bachelor of Science in Architectural Engineering at the end of the fall semester of the sixth year and completes the requirements for the Bachelor of Architecture at the end of the spring semester of the sixth year.

### CURRICULUM

<table>
<thead>
<tr>
<th>COURSES</th>
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<tr>
<td>Architecture</td>
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<tr>
<td>Design: Architecture 310K, 310L, 320K, 520L, 520M, 530T, 560R (taken twice), 560T; 2</td>
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<tr>
<td>Visual communication: Architecture 311K, 311L, 221K, 361T;</td>
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<tr>
<td>Professional practice: Architecture 362;</td>
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<tr>
<td>Site design: Architecture 333;</td>
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<td>Construction: Architecture 335M;</td>
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<tr>
<td>History: Architecture 308, 318K, 318L, 328, 368R (taken twice)</td>
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<td>Community and Regional Planning 369K</td>
<td>3</td>
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<td>Architectural Engineering 102, 217, 323K, 335, 346N, 362L, 465, 366</td>
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<td>Chemistry 301</td>
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<td>Civil Engineering 311K, 311S, 314K, 319J, 329, 331, 333T, 335, 357</td>
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<td>Electrical Engineering 331</td>
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<td>Engineering Mechanics 306, 319</td>
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<tr>
<td>Rhetoric and Writing 306, English 316K1</td>
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<tr>
<td>Geological Sciences 312K</td>
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<td>Mathematics 408C, 408D, 427K</td>
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<tr>
<td>Mechanical Engineering 320</td>
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<td>Physics 303K, 303L, 103M, 103N</td>
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<td>Government 310L, 312L</td>
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<td>History 315K, 315L4</td>
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<td>Approved social science elective (chosen from courses in anthropology, economics, geography, linguistics, psychology, or sociology)</td>
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<td>Approved technical electives</td>
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<td><strong>TOTAL</strong></td>
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---

2. Students in this dual degree program may not receive credit for sections of Architecture 560T offered by the professional residency program; these sections are identified in the Course Schedule.

3. In addition to Rhetoric and Writing 306 and English 316K, students must include in their required or elective coursework two courses certified as having a substantial writing component. One course must be upper-division. Courses with a substantial writing component are identified in the Course Schedule.

4. Other courses that fulfill the legislative requirement for American history may be counted toward this requirement; these courses are identified in the Course Schedule.
### Suggested Arrangement of Courses

#### First Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>ARC 310K, Design I</td>
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<td>ARC 311K, Visual Communication I</td>
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</tr>
<tr>
<td>ARC 308, Architecture and Society</td>
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<tr>
<td>ARE 102, Introduction to Architectural Engineering</td>
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<tr>
<td>M 408C, Differential and Integral Calculus</td>
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<tr>
<td>RHE 306, Rhetoric and Writing</td>
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#### First Year — Spring Semester

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<tr>
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<tr>
<td>ARC 310L, Design II</td>
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<td>ARC 311L, Visual Communication II</td>
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</tr>
<tr>
<td>ARC 318K, History of Architecture, Survey I</td>
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</tr>
<tr>
<td>M 408D, Sequences, Series, and Multivariable Calculus</td>
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<tr>
<td>PHY 303K, Engineering Physics I</td>
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<tr>
<td>PHY 103M, Laboratory for Physics 303K</td>
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#### Second Year — Fall Semester

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<td>M 427K, Advanced Calculus for Applications I</td>
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#### Second Year — Spring Semester

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<td>ARC 333, Site Design</td>
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<tr>
<td>C E 311K, Introduction to Computer Methods</td>
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<tr>
<td>CH 301, Principles of Chemistry I</td>
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#### Third Year — Fall Semester

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<td>C E 311S, Elementary Statistics for Civil Engineers</td>
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<td>E M 306, Statics</td>
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<td>GEO 312K, Geology of Engineering</td>
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#### Third Year — Spring Semester

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<td>C E 314K, Properties and Behavior of Engineering Materials</td>
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<td>E M 319, Mechanics of Solids</td>
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#### Fourth Year — Fall Semester

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<td>ARE 335, Materials and Methods of Building Construction</td>
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<td>C E 319F, Elementary Mechanics of Fluids</td>
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<td>C E 329, Structural Analysis</td>
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<td>E 316K, Masterworks of Literature</td>
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#### Fourth Year — Spring Semester

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<td>C E 331, Reinforced Concrete Design</td>
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<td>C E 357, Geotechnical Engineering</td>
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<td>CRP 369K, Principles of Physical Planning</td>
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<td>E E 331, Electrical Circuits, Electronics, and Machinary</td>
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<td>GOV 310L, American Government</td>
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#### Fifth Year — Fall Semester

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<td>ARC 560R, Advanced Design</td>
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<tr>
<td>ARE 362L, Structural Design in Wood</td>
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<tr>
<td>C E 333T, Engineering Communication</td>
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<tr>
<td>M E 320, Applied Thermodynamics</td>
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<td>HIS 315K, The United States, 1492–1865</td>
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#### Fifth Year — Spring Semester

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<td>ARE 366, Contracts, Liability, and Ethics</td>
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<td>C E 335, Elements of Steel Design</td>
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<td>GOV 312L, Issues and Policies in American Government</td>
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Sixth Year — Fall Semester

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<td>ARC 361T, Technical Communication</td>
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<td>ARC 368R, Topics in the History of Architecture</td>
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<td>HIS 315L, The United States since 1865</td>
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<td>Approved technical elective</td>
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Sixth Year — Spring Semester

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<td>ARC 362, Professional Practice</td>
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<td>ARC 368R, Topics in the History of Architecture</td>
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<tr>
<td>ARE 465, Integrated Design Project</td>
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</table>

BACHELOR OF ARCHITECTURE AND BACHELOR OF ARTS, PLAN II

A limited number of students whose high school class standing and SAT Reasoning Test or ACT scores indicate strong academic potential and motivation may pursue the Bachelor of Architecture and the Bachelor of Arts, Plan II, simultaneously.

This dual degree option, offered jointly by the School of Architecture and the Plan II Honors Program of the College of Liberal Arts, gives students the flexibility they need to take challenging liberal arts courses while pursuing a professional degree in architecture. Admission to both the School of Architecture and the Plan II Honors Program is required.

Students interested in this program should consult pages 309–311 for a more detailed description of the Plan II program, including its separate and early application for admission.

The following outline of courses is a suggested method to complete the requirements for both degrees simultaneously. Students should consult advisers and both this chapter and chapter 10 of this catalog to ensure that their degree programs fulfill all requirements of both degrees.

**CURRICULUM**

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<thead>
<tr>
<th>COURSES</th>
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<td>Community and Regional Planning 369K</td>
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<td>Foreign language 506, 507, 312K, and 312L, or an equivalent sequence</td>
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<tr>
<td>History 315K, 315L</td>
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<tr>
<td>Mathematics 408C</td>
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<tr>
<td>Philosophy 610Q</td>
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<tr>
<td>Physics 302K, 302L, 102M, 102N (or 303K, 303L, 103M, 103N)</td>
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<tr>
<td>Social Science 301</td>
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<tr>
<td>Tutorial Course 301, 357 (taken twice), 359T</td>
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<td>Approved upper-division humanities elective in literature, foreign language, philosophy, or another field approved by the undergraduate dean's office</td>
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<tr>
<td>Electives in the College of Liberal Arts prescribed by the Plan II Committee</td>
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5. In addition to English 603 or Tutorial Course 603, students must include two courses certified as having a substantial writing component in their required or elective coursework. One course must be upper-division. Courses with a substantial writing component are identified in the Course Schedule; Tutorial Course 357 and Philosophy 610Q are generally certified.

6. Other courses that fulfill the legislative requirement for American history may be counted toward this requirement; these courses are identified in the Course Schedule.

7. A student must complete at least 191 semester hours (24 hours beyond the total of 167 required for the Bachelor of Architecture degree) to earn both degrees. Those who fulfill the foreign language requirement by completing fewer than sixteen semester hours must take additional elective coursework to achieve the minimum required total.
### SUGGESTED ARRANGEMENT OF COURSES

#### First Year — Fall Semester

<table>
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<th>COURSES</th>
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<tbody>
<tr>
<td>ARC 310K, Design I</td>
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<tr>
<td>ARC 311K, Visual Communication I</td>
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<td>3</td>
</tr>
<tr>
<td>ARC 308, Architecture and Society</td>
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<tr>
<td>T C 301, The Freshman Tutorial</td>
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<tr>
<td>E 603A or T C 603A, Composition and Reading in World Literature</td>
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<tr>
<td><strong>TOTAL</strong></td>
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#### First Year — Spring Semester

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<tbody>
<tr>
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<td>ARC 311L, Visual Communication II</td>
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<td>ARC 318K, History of Architecture, Survey I</td>
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<td>M 408C, Differential and Integral Calculus</td>
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</tr>
<tr>
<td>E 603B or T C 603B, Composition and Reading in World Literature</td>
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#### First Year — Summer Session

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<tr>
<td>PHY 302K, General Physics—Technical Course: Mechanics, Heat, and Sound</td>
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<tr>
<td>PHY 102M, Laboratory for Physics 302K</td>
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<td>PHY 302L, General Physics—Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics</td>
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<td>PHY 102N, Laboratory for Physics 302L</td>
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#### Second Year — Fall Semester

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<tr>
<td>ARC 221K, Visual Communication III</td>
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<td>ARC 318L, History of Architecture, Survey II</td>
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<td>ARC 415K, Construction I</td>
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<td>HIS 315K, The United States, 1492–1865</td>
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#### Second Year — Spring Semester

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#### Second Year — Summer Session

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#### Third Year — Fall Semester

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<td>ARI 324K, Environmental Controls I</td>
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<td>S S 301, Honors Social Science</td>
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#### Third Year — Spring Semester

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<td>ARC 435L, Construction IV</td>
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#### Third Year — Summer Session

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<td>GOV 312L, Issues and Policies in American Government</td>
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<td>PHL 610QA, Problems of Knowledge and Valuation</td>
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<tr>
<td>T C 357, The Junior Seminar</td>
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<td>HIS 315L, The United States since 1865</td>
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<td>ARC 361T, Technical Communication</td>
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<tr>
<td>PHL 610QB, Problems of Knowledge and Valuation</td>
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<tr>
<td>T C 357, The Junior Seminar</td>
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Fifth Year — Fall Semester

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<tr>
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<td>ARC 368R, Topics in the History of Architecture</td>
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<td>ARC 335M, Construction V</td>
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<td>T C 359T, Essay Course</td>
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Fifth Year — Spring Semester

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<td>ARC 560R, Advanced Design</td>
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<td>ARC 362, Professional Practice</td>
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<td>ARC 368R, Topics in the History of Architecture</td>
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<tr>
<td>CRP 369K, Principles of Physical Planning</td>
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**BACHELOR OF SCIENCE IN ARCHITECTURAL STUDIES**

The four-year Bachelor of Science in Architectural Studies degree program combines architecture with arts and sciences. Students transferring from other disciplines may find that more of their coursework is applicable toward this degree than toward the Bachelor of Architecture.

Applicants for admission to this program must fulfill the requirements for admission to the School of Architecture given on page 23.

The Bachelor of Science in Architectural Studies alone does not fulfill the educational requirements for registration as an architect. Students interested in earning the Master of Architecture as a professional degree in addition to the Bachelor of Science in Architectural Studies, requiring a minimum of six years of study in total, should consult the undergraduate dean’s office.

**CURRICULUM**

<table>
<thead>
<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td><strong>Architecture</strong></td>
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<td>Design: Architecture 310K, 310L, 320K, 520L, 520M;</td>
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<tr>
<td>Visual communication: Architecture 311K, 311L, 221K;</td>
<td></td>
<td></td>
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<tr>
<td>Design theory: Architecture 350R;</td>
<td></td>
<td></td>
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<tr>
<td>Site design: Architecture 333;</td>
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<td></td>
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<tr>
<td>Environmental controls: Architectural Interior Design 324K;</td>
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<tr>
<td>Construction: Architecture 415K, 415L, 435K;</td>
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<tr>
<td>History: Architecture 308, 318K, 318L, 328</td>
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<td>Rhetoric and Writing 306, English 316K</td>
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<tr>
<td>Government 310L, 312L</td>
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<tr>
<td>History 315K, 315L³</td>
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<tr>
<td>Mathematics 408C</td>
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<tr>
<td>Physics 302K, 302L, 102M, 102N (or 303K, 303L, 103M, 103N)</td>
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<td>Upper-division humanities elective in literature, foreign language, philosophy, or another field approved by the undergraduate dean’s office</td>
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<td>Natural science elective</td>
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8. Other courses that fulfill the legislative requirement for American history may be counted toward this requirement; these courses are identified in the Course Schedule.

9. 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.

**Electives.** Thirty-five 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 a social science, three hours in a natural science, three hours in philosophy, and twenty-three additional elective hours generally completed outside the School of Architecture.

**Writing requirement.** In addition to Rhetoric and Writing 306 and English 316K, each student must complete two courses certified as having a substantial writing component. One course must be upper-division. Courses with a substantial writing component are identified in the Course Schedule. Courses used to fulfill the writing requirement may also be counted toward other requirements for the degree.
### SUGGESTED ARRANGEMENT OF COURSES

#### First Year — Fall Semester

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<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>ARC 310K, Design I</td>
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<tr>
<td>ARC 311K, Visual Communication I</td>
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<td>ARC 308, Architecture and Society</td>
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<tr>
<td>M 408C, Differential and Integral Calculus</td>
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<td>RHE 306, Rhetoric and Writing</td>
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#### First Year — Spring Semester

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<td>ARC 311L, Visual Communication II</td>
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<tr>
<td>ARC 318K, History of Architecture, Survey I</td>
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<tr>
<td>PHY 302K, General Physics—Technical</td>
<td>Course: Mechanics, Heat, and Sound</td>
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<tr>
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#### Second Year — Fall Semester

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<td>ARC 318L, History of Architecture, Survey II</td>
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<tr>
<td>ARC 415K, Construction I</td>
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<tr>
<td>PHY 302L, General Physics—Technical</td>
<td>Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics</td>
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<td>PHY 102N, Laboratory for Physics 302L</td>
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#### Second Year — Spring Semester

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<td>ARC 328, History of Architecture, Survey III</td>
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#### Third Year — Fall Semester

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<td>ARI 324K, Environmental Controls I</td>
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<td>E 316K, Masterworks of Literature</td>
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<td>HIS 315K, The United States, 1492–1865</td>
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#### Third Year — Spring Semester

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#### Fourth Year — Fall Semester

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<td>Philosophy elective</td>
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<tr>
<td>Social science elective</td>
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<tr>
<td>HIS 315L, The United States since 1865</td>
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#### Fourth Year — Spring Semester

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35 Degrees
**BACHELOR OF SCIENCE IN INTERIOR DESIGN**

The first year of this degree program is designed to give the student conceptual knowledge and skills, especially in critical thinking. The second year is intended to lay a foundation of knowledge in design, history, structure, technology, and environmental controls, on which the student builds in the third year. The final year emphasizes synthesis, specialization, and the challenge of creating interiors that improve the quality of life.

**CURRICULUM**

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<th>COURSES</th>
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<td>Visual communication: Architectural Interior Design 311K, 311L, 221K;</td>
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<tr>
<td>Design theory: Architectural Interior Design 350R;</td>
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<td>Interior building systems and construction: Architecture 415K,</td>
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<tr>
<td>Architectural Interior Design 434K;</td>
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<td>Professional practice: Architectural Interior Design 362;</td>
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<td>History: Architectural Interior Design 318K, 318M, 368R, Architecture 328;</td>
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<td>Environmental controls: Architectural Interior Design 324K, Architecture 334L;</td>
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<td>Human behavior: Architectural Interior Design 338;</td>
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<td>Professional internship: Architectural Interior Design 130</td>
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<td>Rhetoric and Writing 306, English 316K</td>
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<tr>
<td>Government 310L, 312L</td>
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<tr>
<td>History 315K, 315L.</td>
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<tr>
<td>Mathematics 408C</td>
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<td>Physics 302K, 302L, 102M, 102N</td>
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<td>Architecture 318L or Art History 303</td>
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<td>Art History 302 or 303</td>
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**Writing requirement.** In addition to Rhetoric and Writing 306 and English 316K, each student must complete two courses certified as having a substantial writing component. One course must be upper-division. Courses with a substantial writing component are identified in the *Course Schedule.* Courses used to fulfill the writing requirement may also be counted toward other requirements for the degree.

---

10. Other courses that fulfill the legislative requirement for American history may be counted toward this requirement; these courses are identified in the *Course Schedule.*

11. Art History 303 may be counted toward only one of these requirements.
<table>
<thead>
<tr>
<th>COURSES</th>
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<tbody>
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<tr>
<td>ARI 311K, Visual Communication I</td>
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<tr>
<td>ARI 318K, Interiors and Society</td>
<td></td>
<td>3</td>
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<tr>
<td>M 408C, Differential and Integral Calculus</td>
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<td>PHY 302K, General Physics—Technical Course:</td>
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First Year — Spring Semester

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<th>COURSES</th>
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<td>ARH 302, Survey of Ancient through Medieval</td>
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<td>Art, or ARH 303, Survey of Renaissance through Modern Art</td>
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Second Year — Fall Semester

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<td>or ARH 303, Survey of Renaissance through Modern Art</td>
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Second Year — Spring Semester

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<td>ARI 434K, Construction II—Interior Materials and Assemblies</td>
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Third Year — Fall Semester

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<td>ARI 530K, Design V—Interiors</td>
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<td>ARI 368R, Interior Design History II</td>
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Third Year — Spring Semester

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<td>ARI 530T, Design VI—Interiors</td>
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Third Year — Summer Session

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Fourth Year — Fall Semester

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<td>ARI 338, Designing for Human Behavior</td>
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<tr>
<td>ARI 350R, Topics in Interior Design Theory</td>
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Fourth Year — Spring Semester

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<td>ARI 560R, Advanced Interior Design</td>
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<tr>
<td>GOV 312L, Issues and Policies in American Government</td>
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<td>HIS 315L, The United States since 1865</td>
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37 Degrees
ARCHITECTURAL INTERIOR DESIGN: ARI

Lower-Division Courses

310K. Design I. Restricted to students in the School of Architecture. Introduction to studio design, with an emphasis on foundations in form, space, scale, human aspects of design, movement, structure, and place-making. Nine hours of lecture and studio a week for one semester. Prerequisite: Concurrent enrollment in Architectural Interior Design 311K.

310L. Design II. Restricted to students in the School of Architecture. Application of foundation elements, such as light, color, and texture. Introduction of concerns for program and activity accommodation within interior environments. Nine hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 310K or Architecture 310K.

311K. Visual Communication I. Restricted to students in the School of Architecture. Introduction to freehand drawing and the fundamentals of two- and three-dimensional visual design. Includes exercises in color theory and application, formal and spatial studies, life drawing and building sketching, and the principles of linear perspective. Employs a variety of media. Six hours of lecture and studio a week for one semester. Prerequisite: Concurrent enrollment in Architectural Interior Design 310K.

311L. Visual Communication II. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for designers. Six hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 311K or Architecture 311K.

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. Prerequisite: For students in the School of Architecture, none; for others, consent of instructor.

318M. Interior Design History. Survey of interior design from antiquity through the eighteenth century, including theoretical, social, technical, and environmental forces. Prerequisite: Architectural Interior Design 318K.

Upper-Division Courses

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. 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: Architectural Interior Design 310L with a grade of at least C, and concurrent enrollment in Architectural Interior Design 221K.

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.

221K. Visual Communication III. Restricted to students in the School of Architecture. Introduction to digital tools for communicating design, with an emphasis on integrating digital image, CAD, and 3-D software processes with hand drawing and modeling techniques. Topics include manipulation of digital images, combination of text and image, rendered perspectives, measured drawings, and an introduction to 3-D modeling. Use of advanced visual language. Some projects are based on work done in the student’s design studios. Six hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 311L (or 211L).

324K. Environmental Controls I. 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. Prerequisite: Architectural Interior Design 311L.

130. Interior Design Internship. Practical application of design procedures in a professional design office. At least 250 hours of work in one semester. Prerequisite: Architectural Interior Design 530T.

530K. Design V—Interiors. Examination of the elements of interior space and scale, including specific human factors. Particular emphasis on the design, documentation, production, and placement of objects in interiors. Fifteen hours of lecture and studio a week for one semester. Prerequisite: Architectural Interior Design 520L (or 320L) and 221K and Architecture 415K.
530T. Design VI—Interiors. Capstone studio with projects that are specific design situations 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 530K and 324K.

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: Architectural Interior Design 330R.

338. Designing for Human Behavior. Issues of mood, privacy, perception, proxemics, and preferences applied to the design of interiors. Prerequisite: Upper-division standing.

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. May be repeated for credit when the topics vary. Prerequisite: Architectural Interior Design 318M and Architecture 328 with a grade of at least C in each.

560R. Advanced Interior Design. Synthesis of components covered in other interior design courses, such as human aspects, place-making, the interior envelope, transitional spaces, and conceptual processes. These components form a basis for addressing specific topics related to interiors. 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.

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. Prerequisite: Upper-division standing or consent of instructor.

368R. Interior Design History II. Study of function and aesthetics, and decoration and use, emphasizing interiors from the nineteenth century to the present. Prerequisite: Architectural Interior Design 318M and Architecture 328.

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

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.

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.

308. 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.

310K. Design I. Restricted to students in the School of Architecture. Introduction to forms and methods of 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: Concurrent enrollment in Architecture 311K.

310L. Design II. Restricted to students in the School of Architecture. Introduction to forms and methods of 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: Architecture 310K and 311K.

311K. Visual Communication I. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for architects. Six hours of lecture and studio a week for one semester. Prerequisite: Concurrent enrollment in Architecture 310K.

311L. Visual Communication II. Restricted to students in the School of Architecture. Study and application of drawing and other communication skills for designers. Six hours of lecture and studio a week for one semester. Prerequisite: Architecture 310K and 311K.

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.

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 415K; Mathematics 408C; and Physics 302K and 102M, or 303K and 103M.

318K. History of Architecture, Survey I. 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.

318L. History of Architecture, Survey II. World architecture from postantiquity to the modern era. Prerequisite: Architecture 318K.

Upper-Division Courses

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.

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: Architecture 310L and 311L.
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 320K and 221K.

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 520L.

221K. Visual Communication III. Restricted to students in the School of Architecture. Introduction to digital tools for communicating design, with an emphasis on integrating digital image, CAD, and 3-D software processes with hand drawing and modeling techniques. Topics include manipulation of digital images, combination of text and image, rendered perspectives, measured drawings, and an introduction to 3-D modeling. Use of advanced visual language. Some projects are based on work done in the student’s design studios. Six hours of lecture and studio a week for one semester. Prerequisite: Architecture 310L and 311L.

328. History of Architecture, Survey III. Restricted to students in the School of Architecture. World architecture of the modern era. Prerequisite: Architecture 318K and 318L.

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 multi-disciplinary 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 328C, 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: Upper-division standing. Additional prerequisites may vary with the topic and are given in the Course Schedule.

530T. Design VI. Restricted to students in the School of Architecture. Intermediate-level 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: Architecture 520M.

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. Prerequisite: Upper-division standing.

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 324K.

435K. Construction III. Restricted to students in the School of Architecture. Theories of building construction and materials; structural component analysis and design. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Architecture 415L.

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 435K.

335M. Construction V. Restricted to students in the School of Architecture. Advanced analysis of building envelope, assemblies, detailing, and specifications. Prerequisite: Architecture 435L.

350R. Topics in Design Theory. 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 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: For architecture majors, Architecture 328; for others, upper-division standing.


Topic 4: Economy/Value/Quality of Life. Same as Urban Studies 352 (Topic 4: Economy/Value/Quality of Life).

351R. Visual Communication. Advanced problems for the refinement of visual communication skills and architectural presentation methods, including drawing, photography, and computer-aided graphics. Three lecture hours or six studio hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Architecture 520L.

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.

Topic 5: Descriptive Geometry.

Topic 6: Drawing Clinic.

Topic 7: Introduction to Computer Imaging.

Topic 8: Seeing Things: General Drawing.

Topic 9: Solid Geometry Drawing.


Topic 11: Wood Design.

560R. Advanced Design. Restricted to students in the School of Architecture. Advanced problems in architectural design. Fifteen hours of lecture and studio a week for one semester. May be repeated for credit when the topics and instructors vary. Prerequisite: Architecture 530T and satisfactory completion of third-year portfolio review.

560T. Advanced Design. Restricted to students in the School of Architecture. Comprehensive studio to develop the student’s ability to combine the elements that create a thorough building design. Fifteen studio hours a week for one semester. Prerequisite: Architecture 560R.

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.
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. *Prerequisite:* Architecture 560R.

368R. **Topics in the History of Architecture.** Restricted to students in the School of Architecture. Seminars and lecture/seminars on advanced topics in the history of architecture. Regular topics include ancient, medieval, Renaissance, Latin American, Asian, nineteenth-century, and twentieth-century history of architecture, and historiography of architecture. Three lecture/seminar hours a week for one semester. May be repeated for credit when the topics vary. *Prerequisite:* Architecture 318L and 328.

279, 379, 479, 579. **Architectural 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. A grade of at least C is required for degree credit.

**COMMUNITY AND REGIONAL PLANNING: CRP**

**Upper-Division Course**

369K. **Principles of Physical Planning.** Introductory course in the physical dimension of urban planning. *Prerequisite:* Upper-division standing or six semester hours of upper-division coursework.
GENERAL INFORMATION

OBJECTIVES

The undergraduate program of the Red McCombs School of Business seeks to transform the lives of its students through a well-rounded professional education. The challenging curriculum is designed to provide a balanced perspective of business disciplines and a foundation for the lifelong development of an appreciation of the social, technological, and global economic forces shaping the future; the ability to recognize and promote ethical behavior; interpersonal and leadership skills; and the quantitative and analytical skills necessary for professional progress and advanced study.

HISTORY AND FACILITIES

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 degree of Bachelor of Business Administration was first offered in 1916–1917. The Bureau of Business Research, organized in 1926 as one of the Extramural Divisions of the University, became the research division of the school in September, 1945. In addition to the Bureau of Business Research, the school includes the Departments of Accounting; Finance; Information, Risk, and Operations Management; Management; and Marketing. Coursework in business may lead to the degrees of Bachelor of Business Administration, Master of Business Administration, Master in Professional Accounting, and Doctor of Philosophy.

The Red McCombs School of Business is housed in the George Kozmetsky Center for Business Education. This three-building complex includes modern classrooms and offices, lecture rooms with sophisticated multimedia equipment, and conference and study rooms, as well as lounges for informal student and teacher interaction. Computer and computer-access facilities are also available to students, faculty members, and staff members.

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, seventy to eighty 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 Undergraduate Programs Office Web site in March of each year. The deadline for submission is the end of May for scholarships for the following academic year. Recipients are selected by the Undergraduate Student Affairs Committee 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.

The Undergraduate Programs Office provides administrative support and student services for the school. Student services include maintenance of student academic records, academic counseling by appointment, development of official degree audits for students, and graduation certification.

In addition, every undergraduate student enrolled in the McCombs School of Business is assigned to a professional academic adviser. Academic advisers in the Undergraduate Programs Office are available to assist all students with questions about scholastic progress, degree requirements, rules and regulations, and other available campus services such as career or personal counseling. Faculty advisers are also available in each department to help students explore educational and career goals.

Although all students are encouraged to meet regularly with their assigned advisers, those who have been enrolled in the McCombs School of Business for at least one semester are permitted to self-advice and therefore to register without consulting an academic adviser. To be eligible to self-advice, the student must have a University grade point average of at least 2.00. Like all other students, those who self-advice 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 orderly and timely progress toward the degree.

**FORD CAREER CENTER**

The Ford Career Center offers job search assistance to business students and alumni. The purpose of the center 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 Undergraduate Career Advising team also teaches the required courses Business Administration 101S and 101T to freshman and transfer students. The purpose of these courses is to assist business students with planning, implementing, and evaluating their careers. These courses are designed to provide students with the foundations for executing a successful job search and focus on career management as a lifelong process. 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 requirement for the undergraduate business curriculum, at the end of their junior year. However, the Ford Career Center encourages freshman 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 excellent résumés and job search skills.

The office maintains a career resource library of company literature, videotapes, employment information, and general business publications for students’ use. 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 school each year.

To assist employers, the office provides résumé searches among graduating seniors for full-time positions and among participating juniors for internships; these are sent to organizations nationwide that request them. The office also coordinates about three hundred receptions and information sessions 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 compliments the on-campus recruiting program by allowing companies to recruit candidates for a wider variety of roles in their organizations throughout the calendar year.
Additional information about the office is available at http://fcc.bus.utexas.edu/.

As a complement to the assistance available from the school, the Career Exploration Center provides comprehensive career services to all University students. The center offers 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, but rather provides the tools and resources to ensure that students have access to employment opportunities.

STUDENT ORGANIZATIONS

Student organizations play an important role in the educational experience offered by the school. Becoming involved in extracurricular organizations helps students gain experience in teamwork, time management, and other practical areas. This experience, when combined with the theoretical knowledge gained in the classroom, allows students to develop a well-rounded set of skills for use academically, professionally, and personally.

The Undergraduate Business Council (UBC) is the governing body for student activities in the school. It comprises representatives from each business student organization, an executive board, representatives elected by the student body, and members appointed by the executive board. The UBC acts as a representative of all undergraduate business students and sponsors such programs as Parents’ Day and the VIP Lecture Series.

Business student organizations sponsor professional activities such as guest lectures, field trips, and faculty “fireside chats”; many offer social activities as well. Undergraduate business organizations are American Marketing Association, Asian Business Students Association, International Association of Students in Economics and Commerce (AIESEC), Alpha Kappa Psi (professional business fraternity for men and women), Beta Alpha Psi, Business Mentors Association, Business Students Abroad, CBA Today Newsgroup, Delta Sigma Pi, Engineering Route to Business Association, Freshman Business Association, Honors Business Association, Hispanic Business Students Association, Management Information Systems Association, MIS Connex, National Association of Black Accountants, National Student Business League, Net Impact, Phi Beta Chi (professional business fraternity for men and women), Phi Chi Theta (professional business fraternity for men and women), Students in Free Enterprise, University Accounting Association, Undergraduate Business Career Association, University Finance Association, Undergraduate Management Consulting Association, University Investor’s Association, and University of Texas Management Association.

ADMISSION AND REGISTRATION

REQUIREMENTS FOR ADMISSION TO THE MCCOMBS SCHOOL OF BUSINESS

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

Each year there are more qualified applicants to the McCombs School of Business 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 chapter.

Admission to the school is granted for the fall semester only. Admitted students 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 and SAT Reasoning Test or American College Testing Program (ACT) scores are among the factors used in making admission decisions. Students may be placed in a deferred decision category until they submit additional information. 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 limitations on nonresident enrollment imposed by the Board of Regents, nonresident applicants are considered individually.

APPLICATION PROCEDURES FOR FRESHMAN ADMISSION

Students may apply for admission online through the Office of Admissions Web site at 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 fall semester; this date is given in General Information.

STUDENTS IN OTHER DIVISIONS OF THE UNIVERSITY

Students enrolled in other degree programs at the University who wish to enter a degree program described in this chapter must submit an application for a change of major to the Undergraduate Programs Office by the end of May to be considered for admission in the following fall semester. The following minimum requirements for consideration are in addition to those for transfer from one division to another that are given in General Information.

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 408K, 408C, or the equivalent.
3. A passing score on the Computer Proficiency Test.
4. Completion of at least one of the following courses: Mathematics 408L or 408D, Economics 304K, 304L.
5. Students who have sixty hours or more of college credit must have completed the following courses: Mathematics 408K or 408C, 408L or 408D, Economics 304K, 304L.
6. Completion of the foreign language proficiency requirement of two years of a single foreign language or one year of a single foreign language in college.

Entry into the McCombs School of Business from another university should list business as his or her intended major. All students are required to claim a major before completing seventy-five semester hours. Students may claim their majors online at https://utdirect.utexas.edu/business/bba/. A student seeking admission to another academic program at the University. A student with a grade point average of less than 3.30 is unlikely to be admitted to the McCombs School.

CLAIMING A MAJOR

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 or summer, 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 minimum requirements for consideration are

1. Completion of at least twenty-four semester hours of transferable college coursework. Thirty semester hours are preferred.
2. Completion of Mathematics 408K, 408C, or the equivalent, and Management Information Systems 310 or the equivalent.1
3. Completion of at least one of the following courses: Mathematics 408L, 408D, or the equivalent; Economics 304K; 304L.
4. Students who have sixty hours or more of college credit must have completed the following courses: Mathematics 408K or 408C, Mathematics 408L or 408D or the equivalent, Economics 304K and 304L, and Management Information Systems 310 or the equivalent.
5. 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.
6. 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 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 3.30 is unlikely to be admitted to the McCombs School.

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. 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 claim a major until high school unit deficiencies have been removed.

FOREIGN LANGUAGE PROFICIENCY

Each student must provide evidence that he or she has fulfilled the foreign language proficiency requirement for the Bachelor of Business Administration degree. Students may not claim a major until the foreign language proficiency requirement has been met.

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1. Texas Common Course Numbers BCIS 1305 and 1405 transfer as Management Information Systems 310.
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 BBA degree at the University is readmitted with the classification “degree holder but nondegree seeker.”

A former student who was most recently classified as a prebusiness student or an unspecified business 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 “Students in Other Divisions of the University” on page 46.

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 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 World Wide Web and are accessible through the registrar’s Web site, http://www.utexas.edu/student/registrar/. General Information is also sold at campus-area bookstores.

ACADEMIC POLICIES AND PROCEDURES

COMPUTER PROFICIENCY REQUIREMENT

Business students must demonstrate computer competency by passing the Computer Proficiency Test before they enroll in courses for which the test is a prerequisite. Information about test dates is available from Instructional Assessment and Evaluation (IAE), 2616 Wichita Street, or on the IAE Web site at http://www.utexas.edu/academic/mec/index.shtml. Transfer students should consult their academic advisers before taking the test.

HONORS

BUSINESS 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 on page 56.

UNIVERSITY HONORS

The designation University Honors, awarded 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. Criteria for University Honors are given on page 15.

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 on page 16.

BETA GAMMA SIGMA

The Alpha of Texas chapter of Beta Gamma Sigma, the national scholastic honor society in the field of business and administration, was chartered in 1922. Membership, based on outstanding scholarship, is restricted to the top 7 percent of the junior class, top 10 percent of the senior class, and top 20 percent of graduate students. The objectives of Beta Gamma Sigma are “to encourage and reward scholarship and accomplishment among students of business and administration, to promote the advancement of education in the art and science of business, and to foster integrity in the conduct of business operations.”

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. 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. Only one business core course or one course counted toward the Bachelor of Business Administration degree requirements on pages 50–51 may also be counted toward the minor. The internship course may not be counted toward the minor.

The McCombs School of Business 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 minor ing in some fields. Before planning to take specific courses to fulfill the minor requirement, the student should consult the department that offers those courses.
THE CUSTOMER INSIGHT CONCENTRATION

The concentration in customer insight is a multiarea specialization for BBA students who want to explore how technology is changing customer relationships and to develop expertise in responding to new technological imperatives. The concentration includes courses in supply chain management, new product development, organizational change, data communication and management, and customer relationships. Emphasis is on contemporary business problems and the knowledge of hands-on solutions that students need to cross the traditional boundaries among job functions. Students gain exposure to prospective employers through research projects based on real-world business problems.

The student must fulfill the following requirements. Courses required for the concentration may also be counted toward major and minor requirements.

1. A major in marketing or management information systems.
2. Fifteen semester hours of coursework, consisting of Marketing 372, Management Information Systems 325, one approved management information systems or management elective, and two approved marketing electives. A list of approved electives is available from the student’s academic adviser.

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 courses for which he or she meets the prerequisite. No admission process is required.

Nonbusiness students who wish to build a business course concentration may request certification in the BFP. Students who complete the following certification requirements in either the general track or the global track and submit a request to the BFP director receive a certificate and a letter verifying completion of the program.

BUSINESS FOUNDATIONS CERTIFICATION REQUIREMENTS

GENERAL TRACK

The certification requirements are

1. The following prerequisite courses:
   a. Economics 304K or 304L or the equivalent.
   b. Mathematics 303D or 305G or the equivalent.
2. The following courses, completed in residence:
   a. Accounting 310F; or both Accounting 311 and 312.
   b. Management Information Systems 311F; or Statistics 309 and either Management Information Systems 301 or 310.
3. Finance 320F.
4. Three of the following four courses: International Business 320F, Legal Environment of Business 320F, Management 320F, Marketing 320F.
5. Two of the four courses taken to fulfill requirements 3 and 4 above, with the exception of Legal Environment of Business 320F, may be taken in an approved study abroad program. A list of approved programs is available in the business Undergraduate Programs Office.
6. The student must complete the courses used to fulfill requirements 1, 2, 3, 4, and 5 on the letter-grade basis. He or she must earn a grade point average of at least 2.00 in these courses.
7. The student must complete at least two long-session semesters in residence.

GLOBAL TRACK

The certification requirements are

1. The following prerequisite courses:
   a. Economics 304K or 304L or the equivalent.
   b. Mathematics 303D or 305G or the equivalent.
2. Proficiency in a modern foreign language, demonstrated by earning nine semester hours of credit beyond 507 or the equivalent in the language. Three of these hours must be in an upper-division course in grammar and composition.
3. Completion of at least one semester in an approved study abroad program. A list of approved programs is available in the business Undergraduate Programs Office.
4. The following courses, completed in residence:
   a. Accounting 310F; or both Accounting 311 and 312.
   b. Management Information Systems 311F; or Statistics 309 and either Management Information Systems 301 or 310.
5. International Business 320F. This course must be completed in an approved study abroad program. A list of approved programs is available in the business Undergraduate Programs Office.
6. Finance 320F.
7. Two of the following three courses: Legal Environment of Business 320F, Management 320F, Marketing 320F.
8. Two of the three courses taken to fulfill requirements 6 and 7 above, with the exception of Legal Environment of Business 320F, may be taken in an approved study abroad program. A list of approved programs is available in the business Undergraduate Programs Office.
9. The student must complete the courses listed in requirements 1, 4, 5, 6, and 7 on the letter-grade basis. He or she must earn a grade point average of at least 2.00 in these courses.
10. The student must complete at least two long-session semesters in residence.
GRADUATION

SPECIAL REQUIREMENTS OF THE MCCOMBS SCHOOL OF BUSINESS

All students must fulfill the general requirements for graduation given on pages 18–19. 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 Professional Program in Accounting must have a grade point average of at least 3.00 in all coursework taken as part of the minimum thirty-six-hour MPA 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. For additional requirements, see “Bachelor of Business Administration Degree Requirements” on pages 50–51.

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 and must apply to the dean for the degree no later than the date specified in the official academic calendar.

THE DEGREE AUDIT AND GRADUATION APPLICATION

The student may request a degree audit in the Undergraduate Programs Office when he or she enters a business major. The degree audit is prepared by comparing the degree requirements of the student’s major with the student’s University record, including transferred work. It shows the coursework required for the major, the courses completed that fulfill requirements, the hours of designated coursework that are still needed, grade point averages, and the residency requirements that have been fulfilled. In preparing the degree audit, every effort is made to avoid errors, but it is the student’s responsibility to be aware of and to fulfill all graduation requirements. A degree candidate must apply for the degree no later than the date given in the official academic calendar. No degree will be conferred unless the diploma application form has been properly filed. The graduation application is available at https://www.mccombs.utexas.edu/udean/advising/graduation/index.asp.

DEGREES

Degree requirements are listed in “Bachelor of Business Administration Degree Requirements” on pages 50–51 and in “Program Degree Requirements” beginning on page 51. For a complete list of requirements for a degree, the student should combine the requirements in these two sections with the University-wide graduation requirements on pages 18–19 and the school graduation requirements given on this page.

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. The student may also take examinations for credit on the pass/fail basis; credit earned by examination is not counted toward the total of four courses that the student may take pass/fail. If a student decides to major in a subject in which he or she has taken a course on the pass/fail basis, it is generally the prerogative of the major department to decide whether the course will be counted toward degree requirements; in the McCombs School of Business, such courses may not be counted toward the major. Complete rules on registration on the pass/fail basis are given in General Information.
CORRESPONDENCE AND EXTENSION COURSES

Students planning to take correspondence or extension courses should consult with the Undergraduate Programs Office before doing so to ensure compliance with the following restrictions.

1. Credit that a University student in residence earns simultaneously by correspondence or extension from the University or elsewhere will not be counted toward a business degree unless it is specifically approved in advance by the dean. A student may not be enrolled concurrently for correspondence or extension courses from the University or for correspondence or extension courses from another institution during his or her last semester.

2. Correspondence instruction in the required business core courses may not be counted toward the degree unless specifically approved in advance by the dean.

3. No more than 30 percent of the semester hours required for any degree may be completed by correspondence, extension, or a combination of the two methods.

4. With regard to registration on the pass/fail basis, correspondence and 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” on page 49.

CONCURRENT ENROLLMENT

A business student must have the approval of the dean before registering concurrently at another institution, either for resident coursework or for a distance education course, and before enrolling in correspondence or extension coursework at the University. A student may not be enrolled concurrently during his or her last semester in any course to be counted toward the degree.

BACHELOR OF BUSINESS ADMINISTRATION 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 CR 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 CR, if the course was taken on the pass/fail basis).

2. A candidate for the Bachelor of Business Administration degree must be enrolled in the McCombs School of Business 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 and 5 below in the year specified.

4. Required work of thirty semester hours should be taken in the first year:
   a. Rhetoric and Writing 306.
   b. Economics 304K and 304L.
   c. Mathematics 408K and 408L, Mathematics 408C and 408D, or the equivalent.
   d. Management Information Systems 301.
   e. Three hours of anthropology, psychology, or sociology chosen from approved courses; courses dealing primarily with statistics or data processing may not be used to fulfill this requirement.
   f. Three hours in fine arts or humanities, to be chosen from the following areas: archaeology, architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, humanities, music (including music, instruments, ensemble), philosophy (excluding courses in logic and argumentation), theater and dance.
   g. Three additional hours of anthropology, psychology, or sociology as described in requirement 4e above; or three additional hours of fine arts or humanities as described in requirement 4f above; or three hours of upper-division coursework completed in an approved study abroad program. A list of approved programs is available in the business Undergraduate Programs Office.
   h. 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 continuing progress toward the degree.

5. Required work of thirty-six semester hours should be taken in the second year:
   a. Accounting 311 and 312.
   b. English 316K.
   c. Business Administration 324.
   d. Statistics 309.
   e. Six hours in one of the following fields: astronomy, biology, chemistry, geological sciences, physics.
   f. Six hours of American government, including Texas government.
   g. Six hours of American history.
h. Three hours of public speaking with an emphasis (at least 50 percent of the course content) on the preparation and presentation of professional speeches, using computer technology when appropriate.

6. Fifteen semester hours beyond the first two years are specified as follows:³
   a. Legal Environment of Business 323.
   b. Finance 357.
   c. Marketing 337.
   d. Operations Management 335 or Management 336.
   e. A professional, business-related internship or practicum course chosen from the following: Accounting 353J, 366P, Business Administration 353H, Finance 353, 366P, Management 353, 366P; Management Information Systems 353, 366P; Marketing 353, 366P; Operations Management 353, 366P.
   f. Only one internship course may be counted toward the degree.

7. The following requirements apply in addition to those listed in items 4, 5, and 6 above:
   a. Additional coursework to provide a total of at least sixty semester hours outside the McCombs School of Business. 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” that begins on this page. 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.⁴

³. The following are the “business core courses”: Accounting 311 and 312, Business Administration 324, Finance 357, Legal Environment of Business 323, Management 336 or Operations Management 335, Management Information Systems 301, Marketing 357, and Statistics 309.

⁴. These are the upper-division courses in the major in each program:
   Accounting (BBA): Accounting 326, 327, 329, 362, and 364.
   Engineering route to the BBA: Operations Management 367, Management 374, and nine hours in one of the business block options given on page 54.
   Finance: Finance 357, 367, 370, and the additional courses required for the student’s track.

For additional residence requirements, see the general requirements for graduation on pages 18–19.

8. Proficiency in a foreign language equivalent to that shown by the completion of the first two semesters taught at the University. 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.

9. Any two courses certified as having a substantial writing component; one of these courses must be upper-division. Courses with a substantial writing component are identified in the Course Schedule. They may be taken on the letter-grade basis to fulfill this requirement. They may be used simultaneously to fulfill other requirements.

PROGRAM DEGREE REQUIREMENTS

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 Professional Program in Accounting, which leads to the simultaneous award of 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 Professional Program in Accounting is designed for students who wish to concentrate in accounting and obtain education in an accounting specialization.

Consulting and change management: Operations Management 335, Management 336 and 374, and nine hours chosen from Management 325 and topics of 337.

General management: Management 336, 374, and Operations Management 335, and twelve hours chosen from Management 325, 337, Operations Management 367, 368, and Mechanical Engineering 366L.


Marketing: International Business 350, Marketing 460 and 370, and nine hours chosen from the following courses: Marketing 338, 363, 370K, and 372.
BACHELOR OF BUSINESS ADMINISTRATION

The requirements of this program are

1. The Bachelor of Business Administration degree requirements on pages 50–51.
2. Twenty-one semester hours of accounting: Accounting 311, 312, 326, 327, 329, 362, and 364.
3. Economics 420K.
5. Additional elective coursework, if necessary, to provide a total of at least 121 semester hours.

PROFESSIONAL PROGRAM IN ACCOUNTING

The Professional Program in Accounting (PPA) is a five-year program of undergraduate and graduate coursework that allows the student to earn the Bachelor of Business Administration and the Master in Professional Accounting degrees at the same time. 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 the PPA: 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 PPA students 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 PPA 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 the PPA must have met the following requirements by the June 1 deadline: the foreign language 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, Mathematics 408K or 408C, and Mathematics 408L or 408D.

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 the PPA. Admission may be restricted by the availability of instructional resources. Application materials and information about deadlines are available at http://www.mccombs.utexas.edu/dept/accounting/ppa/.

Before beginning the fifth year, PPA students must be admitted to the Master in Professional Accounting (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: Rhetoric and Writing 306, English 316K, and three hours of public speaking. 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

PPA students are expected to make continuous progress toward the degree by completing required accounting coursework each semester. Students who fail to take PPA 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

The PPA 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 PPA director or assistant director, a student on probation may not take graduate accounting courses.

Dismissal

The student is dismissed from the PPA 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

To receive an MPA degree, a PPA student must have a grade point average of at least 3.00 in all coursework taken as part of the minimum thirty-six-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 of this program are

1. Undergraduate coursework
   a. The Bachelor of Business Administration degree requirements on pages 50–51. Because the PPA program includes a graduate-level internship course, PPA students do not take the undergraduate internship course described in requirement 6e of the BBA degree requirements.5
   b. Economics 420K.
c. Operations Management 335 and Management 336 and 374.
d. The following courses: Accounting 151, 152 or 153, 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, six semester hours of coursework in legal environment of business approved by the PPA adviser.
f. Additional elective work, if necessary, to provide a total of at least 120 semester hours of undergraduate coursework.

2. Graduate coursework
b. Thirty additional semester hours of graduate coursework, including at least twelve hours in accounting and no more than six hours outside business. The PPA adviser must approve coursework in the student's concentration in advance.

ENGINEERING ROUTE TO THE BACHELOR OF BUSINESS ADMINISTRATION

The program of study for the engineering route to the Bachelor of Business Administration provides a sound foundation in mathematics, in science, and in business administration, qualifying the student for more advanced study in the management of technological, engineering, and scientific enterprises. In addition to specific required business and engineering courses, the program contains two block options. Students choose an engineering block option consisting of four courses and a business block option consisting of three courses. The block option program is designed to help students develop greater competence in particular aspects of engineering and business. Students are advised in the Department of Information, Risk, and Operations Management.

All students must take the courses listed below, with a minimum of forty-eight semester hours in the McCombs School of Business. In addition, a block option may include courses that have prerequisite courses that are not part of the engineering route degree requirements. Students should plan their schedules carefully to ensure that the prerequisites of all block option courses are met. Prerequisites for all courses are given in this catalog. Other requirements of the College of Engineering must also be fulfilled.

The requirements of this program are
1. The Bachelor of Business Administration degree requirements on pages 50–51, with the following exceptions:
   a. Students in this program must take Mathematics 408C and 408D or Mathematics 408K, 408L, and 408M.
   
2. To fulfill requirement 5e of the BBA degree requirements, students in this program must take Physics 303K and 303L.
   
3. Operations Management 335 is required as the upper-division management core course.

2. The following business courses: Operations Management 367 and Management 374.
3. The following nonbusiness courses: Chemistry 301, Mechanical Engineering 210, and Physics 103M and 103N.
4. Mathematics 427K or Philosophy 313K.
5. Twelve semester hours of coursework, at least six of which must be upper-division, chosen from one of the engineering block options below.
6. Nine semester hours of coursework, at least six of which must be upper-division, chosen from one of the business block options on page 54.
8. Additional elective coursework, if necessary, to provide a total of at least 121 semester hours.

ENGINEERING BLOCK OPTIONS

Chemical Engineering
Chemical Engineering 317, Introduction to Chemical Engineering Analysis
Chemical Engineering 322, Thermodynamics
Chemical Engineering 348, Numerical Methods in Chemical Engineering and Problem Solving
Chemical Engineering 350, Chemical Engineering Materials
Chemical Engineering 353, Transport Phenomena

Civil Engineering
Architectural Engineering 320K, Introduction to Design I
Architectural Engineering 320L, Introduction to Design II
Architectural Engineering 323K, Project Management and Economics—required
Architectural Engineering 335, Materials and Methods of Building Construction
Architectural Engineering 346N, Building Environmental Systems
Architectural Engineering 358, Cost Estimating in Building Construction
Architectural Engineering 366, Contracts, Liability, and Ethics
Civil Engineering 311K, Introduction to Computer Methods
Civil Engineering 311S, Elementary Statistics for Civil Engineers
Civil Engineering 314K, Properties and Behavior of Engineering Materials
Civil Engineering 319F, Elementary Mechanics of Fluids
Civil Engineering 321, Transportation Systems
Computer Engineering
Computer Sciences 307, Foundations of Computer Science
Computer Sciences 315, Algorithms and Data Structures
Computer Sciences 328, Advanced Programming
Computer Sciences 336, Analysis of Programs
Electrical Engineering 306, Introduction to Computing
Electrical Engineering 312, Introduction to Programming, or Computer Sciences 310, Computer Organization and Programming—required
Electrical Engineering 313, Linear Systems and Signals
Electrical Engineering 316, Digital Logic Design
Electrical Engineering 319K, Introduction to Microcontrollers
Electrical Engineering 360C, Algorithms
Electrical Engineering 360F, Software Engineering Processes
Electrical Engineering 360N, Computer Architecture

Electrical Engineering
Electrical Engineering 306, Introduction to Computing
Electrical Engineering 312, Introduction to Programming
Electrical Engineering 313, Linear Systems and Signals
Electrical Engineering 316, Digital Logic Design
Electrical Engineering 331, Electrical Circuits, Electronics, and Machinery—required
Electrical Engineering 438, Electronic Circuits I

Mechanical Systems
Engineering Mechanics 306, Statics
Mechanical Engineering 311, Materials Engineering
Mechanical Engineering 320, Applied Thermodynamics
Mechanical Engineering 324, Dynamics
Mechanical Engineering 326, Thermodynamics
Mechanical Engineering 330, Fluid Mechanics
Mechanical Engineering 336, Materials Processing
Mechanical Engineering 338, Machine Elements
Mechanical Engineering 365L, Industrial Design for Production
Mechanical Engineering 368J, Computer-Aided Design
Mechanical Engineering 373K, Basic Industrial Engineering

Operations Engineering
Architectural Engineering 323K, Project Management and Economics
Mechanical Engineering 205, Introduction to Computers and Programming, and 218, Engineering Computational Methods
Mechanical Engineering 311, Materials Engineering
Mechanical Engineering 324, Dynamics
Mechanical Engineering 366L, Operations Research Models
Mechanical Engineering 367S, Simulation Modeling
Mechanical Engineering 373K, Basic Industrial Engineering

BUSINESS BLOCK OPTIONS
Accounting/Finance
Accounting 326, Financial Accounting—Intermediate
Accounting 327, Financial Statement Analysis
Accounting 329, Managerial Accounting and Control
Accounting 362, Auditing and Control
Accounting 364, Fundamentals of Taxation
Finance 367, Investment Management
Finance 370, Integrative Finance
Finance 371M, Money and Capital Markets
Finance 374C, Financial Planning and Policy for Large Corporations
Finance 374S, Entrepreneurial Finance
Finance 376, International Finance
Finance 377, Advanced Investment Analysis

Management Information Systems
Management Information Systems 304, Introduction to Problem Solving and Programming
Management Information Systems 325, Introduction to Data Management
Management Information Systems 333K, Computer System Utilization in Business
Management Information Systems 373, Topics in Management Information Systems
Management Information Systems 374, Business System Development

Marketing
International Business 350, International Trade
Marketing 338, Promotional Policies
Marketing 460, Information and Analysis
Marketing 363, Professional Selling and Sales Management
Marketing 370, Marketing Policies
Marketing 370K, Retail Merchandising
Marketing 372, Marketing Seminar

Supply Chain Management
Operations Management 368, Logistics and Inventory Management—required
Operations Management 337, Topic 1: Total Quality Management
Operations Management 337, Topic 2: Supply Chain Modeling and Optimization
Operations Management 337, Topic 3: Procurement and Supplier Management
Operations Management 337, Topic 4: Information Systems for Operations
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 five tracks: corporate finance and investment banking, energy finance, investment management, financial markets/banking, or real estate; students who do not wish to specialize may choose the general finance program.

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. 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 and one-half year program allows competitively selected outstanding 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. Information about the FAP is available in the Department of Finance and at http://www.mcombs.utexas.edu/AIMCenter/FAPMain.htm.

The requirements of this program are

1. The Bachelor of Business Administration degree requirements on pages 50–51.
2. Finance 367 and 370.
3. One of the following:
   A. Corporate Finance and Investment Banking
      1. Accounting 326 and Finance 374C.
      2. One of the following courses: Accounting 327, 329, 362, or 364.

B. Energy Finance


C. Investment Management

1. Accounting 326 and Finance 377 (Topic 1: Portfolio Analysis and Management).

D. Financial Markets/Banking

1. Accounting 326, and Finance 354 or 371M.

E. General Finance

1. Fifteen semester hours of upper-division coursework in finance, real estate, or risk management. The following courses may not be used to fulfill this requirement: Finance 353, 357, 367, and 370. 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.
2. Only one independent study course may be counted toward the general finance option.

F. Real Estate

1. Finance 354 or 371M.
3. Six semester hours of coursework in real estate.
5. Only one independent study course may be counted toward the real estate option.
4. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.
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 one of the major programs in business or both. Business Honors Program students take twelve business courses in special sections open only to them. At least two and one-half years are required to complete the Business Honors Program sequence of courses. 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 application form available from the Business Honors Program Office. 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 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; coursework must include Economics 304K and 304L, Mathematics 408K or 408C, and Mathematics 408L or 408D. The student must also have fulfilled the foreign language requirement for the BBA degree. 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. No student will be admitted to the Business Honors Program who has received credit for more than one of the core courses listed below in a regular (nonhonors) section.

Application materials and information about deadlines are available at http://www.mccombs.utexas.edu/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, one of the major subject degree plans, or both. Requirements for the Bachelor of Business Administration with a general program of study are

1. The Bachelor of Business Administration degree requirements on pages 50–51.
3. Nine semester hours of upper-division business electives.
4. Additional elective coursework, if necessary, to provide a total of at least 121 semester hours.

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 help prepare students for positions in global business operations, government, or international agencies in the fields of economic development and international trade.

The requirements of this program are

1. The Bachelor of Business Administration degree requirements on pages 50–51.
2. Twelve semester hours of coursework beyond the freshman level in a foreign language associated with the area studies specialization the student chooses to fulfill requirement 6 below. Six of the twelve required hours must be at the upper-division level.
5. Six 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.

7. All international business majors must study abroad for at least one semester or summer session. Students should study 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 in advance. Any McCombs School of Business Program is acceptable if it takes place in a country in which English is not the dominant language. (The CIBER Summer Study Abroad programs will not fulfill this requirement.) In addition, most affiliated study abroad programs available through the University's Center for Global Educational Opportunities 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.

8. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

**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. From time to time, every organization experiences the need to 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 process of implementing the changes must be managed. Examples of such changes are 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 Bachelor of Business Administration degree requirements on pages 50–51.
2. The following courses: Management 336, 374, and Operations Management 335.
3. Twelve semester hours chosen from the following courses: Management 325, 337, Mechanical Engineering 366L, and Operations Management 337, 367, and 368.
4. Six semester hours of upper-division coursework in social science.
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 Bachelor of Business Administration degree requirements on pages 50–51.
2. The following courses: Management 328, 336, 374, and Operations Management 335.
4. Six semester hours of upper-division coursework in social science.
5. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

**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 systems design. The graduate is expected to have both the technical and 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 Bachelor of Business Administration degree requirements on pages 50–51.
MARKETING

Marketers provide the link between businesses that have goods and services to sell and customers who want to purchase them. The marketing process involves a variety of activities, including research, strategic planning, product development, sales management, and marketing communications. Because the opportunities in the profession are diverse, the marketing degree program allows students to specialize in areas in which they have the strongest interest, while offering them a solid background in the concepts of marketing and business. A marketing degree can lead to a career in such areas as sales management, retail merchandising and management, marketing management, marketing research, and promotional strategy and management.

The requirements of this program are
1. The Bachelor of Business Administration degree requirements on pages 50–51.
2. International Business 350 and Marketing 460 and 370.
4. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

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 are advised in the Department of Information, Risk, and Operations Management.

The requirements of this program are
1. The Bachelor of Business Administration degree requirements on pages 50–51.
5. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours.

7. Final approval of the major in supply chain management is pending.
The faculty has approval to offer the following courses in the academic years 2006–2007 and 2007–2008; 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

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

BUSINESS ADMINISTRATION: B A

Lower-Division Courses

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.

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.

101H. Professional Development and Career Planning: Honors. Restricted to students admitted to the McCombs School of Business Honors Program. Professional development issues including self-assessment, identification of personal life goals, identification of business majors and exploration of potential career fields for each major, and analysis and discussion of the academic planning process and how it relates to professional development and career planning. One lecture hour a week for one semester. Offered on the letter-grade basis only. Business Administration 101H and 102 may not both be counted.

101S. Career Planning: Freshman. Restricted to 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, résumés, networking, and job search ethics. Focus on career management as a lifelong process. One lecture hour a week for one semester. Offered on the letter-grade basis only. Only one of the following may be counted: Business Administration 101, 101S, 101T, 102H.

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

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.

Upper-Division Courses

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.

320F. Foundations of Entrepreneurship. Introduction to the mechanics and strategies for starting a business. May not be counted toward the Bachelor of Business Administration degree. Prerequisite: Sixty semester hours of college coursework, and Accounting 310F and Management Information Systems 311F or their equivalents.

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. Only one of the following may be counted: Business Administration 324, 324H, Management Information Systems 324, 324H. Prerequisite: Rhetoric and Writing 306, Management Information Systems 310 or a score of at least 79 on the Computer Proficiency Test, and credit or registration for Business Administration 101H (or 101 or 102H), 101S (or 101), or 101T (or 101).

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. Only one of the following may be counted: Business Administration 324, 324H, Management Information Systems 324, 324H. Prerequisite: Rhetoric and Writing 306, and credit or registration for Business Administration 101H (or 101 or 102H), 101S (or 101), or 101T (or 101).
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.

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

DEPARTMENT OF ACCOUNTING

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ACCOUNTING: ACC

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 on pages 658–662.

Lower-Division Courses

310F. Foundations of Accounting. An introduction to financial and managerial accounting, with emphasis on the context, interpretation, and uses of accounting reports. Discussion of the determination and reporting of net income and financial position, and the theories underlying 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. May not be counted toward the Bachelor of Business Administration degree.


311H. Fundamentals of Financial Accounting: Honors. Restricted to students admitted to the McCombs School of Business Honors Program. Concepts and their application in transaction analysis and financial statement preparation; analysis of financial statements. Accounting 311 and 311H may not both be counted. Prerequisite: Twenty-four semester hours of college credit, and Management Information Systems 310 or a score of at least 79 on the Computer Proficiency Test.

312 (TCCN: ACCT 2302). Fundamentals of Managerial Accounting. Introduction to cost behavior, budgeting, responsibility accounting, cost control, and product costing. Accounting 312 and 312H may not both be counted. Prerequisite: Accounting 311.

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. Accounting 312 and 312H may not both be counted. Prerequisite: Accounting 311H and credit or registration for Business Administration 151H.

Upper-Division Courses

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. Offered on the letter-grade basis only. Accounting 326 and 380K (Topic 1: Financial Accounting Standards and Analysis I) may not both be counted. Prerequisite: Accounting 311 and 312 with a grade of at least C in each.

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. Prerequisite: Accounting 326 with a grade of at least C.

329. Managerial Accounting and Control. Restricted to students in a business major. The origin, processing, reporting, and use in business operations of accounting information for management purposes. Only one of the following may be counted: Business Administration 380E, Accounting 329, 359, 459, 387 (Topic 1: Introduction to Managerial Accounting). Prerequisite: Accounting 311 and 312 with a grade of at least C in each.

140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. 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 Center for Global Educational Opportunities 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.

151. PPA Lyceum—Third Year. Presentations by professional accountants and managers. One and one-half lecture hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Admission to the Professional Program in Accounting.

152. PPA Lyceum—Fourth Year. 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. Prerequisite: Admission to the Professional Program in Accounting.

153. PPA Lyceum—Fifth Year. 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. Prerequisite: Admission to the Professional Program in Accounting.

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353J. Internship in Accounting. 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. Offered on the pass/fail basis only. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353C, 353E, 353H, 353K, 353M, 353S, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student’s major requirement. Prerequisite: Completion of forty-five semester hours of college coursework, admission to a business major, and consent of the departmental internship coordinator.

355. Introduction to Taxation. The role of taxes in contemporary society and their impact on individuals and business. Offered on the letter-grade basis only. Only one of the following may be counted: Accounting 355, 455, 364, 380K (Topic 11: Introduction to Taxation). Prerequisite: Admission to the Professional Program in Accounting.

356. Financial Accounting Concepts and Research. Conceptual framework of financial accounting; research methods in financial reporting; and financial reporting institutions and regulations. Offered on the letter-grade basis only. Prerequisite: Admission to the Professional Program in Accounting.

457. Financial Accounting Standards and Analysis I. Theoretical concepts, standards, and procedures underlying financial statements. Four lecture hours a week for one semester. Prerequisite: Admission to the Professional Program in Accounting.

385C. Introduction to Assurance Services. Information quality assurance, auditing, and control, considered from the perspective of a business manager who must decide the type and amount of assurance to acquire. Offered on the letter-grade basis only. Only one of the following may be counted: Accounting 358C, 362, 380K (Topic 4: Introduction to Assurance Services). Prerequisite: Accounting 356 (or 456) or the equivalent.

458K. Financial Accounting Standards and Analysis II. Further study of the concepts, standards, and procedures underlying financial statements, including those of consolidated enterprises and foreign entities. Four lecture hours a week for one semester. Prerequisite: Accounting 457 with a grade of at least C.

359. Managerial/Cost Accounting. Analysis of manufacturing costs, development of cost estimates, and preparation of relevant information for management decision making. Offered on the letter-grade basis only. Only one of the following may be counted: Business Administration 380F, Accounting 359, 459, 387 (Topic 1: Introduction to Managerial Accounting). Prerequisite: Admission to the Professional Program in Accounting.

360. Financial Accounting—Advanced. Accounting problems in respect to multiple ownership; consolidated financial statements and partnership accounts; foreign currency translation; segmental reporting; other special topics. Offered on the letter-grade basis only. Accounting 360 and 380K (Topic 2: Financial Accounting Standards and Analysis II) may not both be counted. Prerequisite: Accounting 327 with a grade of at least C and admission to a business major.

361. Governmental and Institutional Accounting. Budgeting, accounting, auditing, and financial reporting principles and practices for government and other nonprofit entities. Offered on the letter-grade basis only. Accounting 361 and 380K (Topic 6: Issues in Accounting and Control for Nonprofit Organizations) may not both be counted. Prerequisite: Accounting 311 and 312 with a grade of at least C in each, and admission to a business major.


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. Only one of the following may be counted: Accounting 355, 455, 364, 380K (Topic 11: Introduction to Taxation). Prerequisite: Accounting 311 and 312 with a grade of at least C in each.

365. Fundamentals of Financial and Administrative Information Systems. Accounting information systems of organizations. Topics include selected hardware and software concepts, fundamentals of accounting information systems analysis, design, implementation, and control. Offered on the letter-grade basis only. Accounting 365 and 382K (Topic 1: Principles of Systems Analysis) may not both be counted. Prerequisite: Accounting 311 and 312 with a grade of at least C in each, Management Information Systems 310, and admission to a business major.

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. Prerequisite: Forty-five semester hours of college coursework and consent of instructor.

378. Contemporary Accounting Topics. Restricted to students in a business major. In-depth study of selected accounting topics. Offered on the letter-grade basis only. May be repeated for credit when the topics vary. Prerequisite: Accounting 311 and 312 with a grade of at least C in each. Some topics have additional prerequisites; these are given in the Course Schedule. Topic 1: Hardware, Software, and Telecommunications.

179C, 379C. Problems in Accounting. Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business Administration 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 312 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.
DEPARTMENT OF FINANCE

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

FINANCE: FIN

Upper-Division Courses

320F. Foundations of Finance. Principles of effective financial management, including planning, organization, and control; financial intermediaries; securities markets; evaluating alternative assets, debt, and capital structures. May not be counted toward the Bachelor of Business Administration degree. Prerequisite: Completion of sixty semester hours of college coursework; Accounting 311 and 312, or Accounting 310F; and Management Information Systems 310 and Statistics 309, or Management Information Systems 311F.

314S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. 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 Center for Global Educational Opportunities for 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.

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. Offered on the pass/fail basis only. One only of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353C, 353F, 353H, 353K, 353M, 353S, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student's major requirement. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

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. Only one of the following may be counted: Economics 322, Finance 354, 354H. Prerequisite: Accounting 311, credit or registration for Business Administration 324, and Economics 304K and 304L.

354H. Money, Banking, and Economic Conditions: Honors. The monetary system, financial markets, national income components, and their relationship to business activity. Only one of the following may be counted: Economics 322, Finance 354, 354H. Prerequisite: Admission to the McCombs School of Business Honors Program, forty-five semester hours of college coursework, Accounting 311H, credit or registration for Business Administration 324H (or credit for Management Information Systems 324H), Economics 304K and 304L, and Mathematics 408K and 408L.

357. Business Finance. Restricted to students in a 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. Finance 357 and 357H may not both be counted. Prerequisite: Accounting 312, credit or registration for Business Administration 324, Economics 304K and 304L, and Statistics 309.

357H. Business Finance: Honors. Restricted to students admitted to the McCombs School of Business Honors Program. 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. Finance 357 and 357H may not both be counted. Prerequisite: Forty-five semester hours of college coursework, Accounting 312H, credit or registration for Business Administration 324H, Statistics 309H, Economics 304K, and credit or registration for Economics 304L.

366P. Finance 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: Forty-five semester hours of college coursework and consent of instructor.

367. Investment Management. Investment theory, alternatives, and decision making under differing uncertainties and constraints; formulation of objectives and strategies; development of conceptual managerial perspectives and philosophies for investment environments. Prerequisite: Finance 357.

370. Integrative Finance. Restricted to students in a 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. Prerequisite: Ninety semester hours of college coursework; Finance 357 and 367; credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353H, Finance 353, 366P, Management 353, 366P, Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, 366P; and three additional semester hours of coursework in finance, real estate, or risk management.

371M. Money and Capital Markets. Development of modern financial markets, with emphasis on the factors that determine interest rates; institutional characteristics and pricing mechanisms of various interest-sensitive securities. Prerequisite: Finance 357.

372. Advanced Topics in Finance. Restricted to students in a 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: Finance 357.

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.

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.

374C. Financial Planning and Policy for Large Corporations. 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. Prerequisite: Finance 357.

374E. Entrepreneurial Finance. Development, implementation, and control of financial plans, strategies, and policies by owner-managers of small and medium-sized firms; analysis of alternatives and decision making. Prerequisite: Finance 357.
375F. Banking and Financial Intermediation. Theory of financial
intermediation, regulatory environment, interest rates, and
asset/liability management with a focus on commercial bank-
ing; depository and contractual intermediation. Prerequisite:
Finance 357.

376. International Finance. The international financial environ-
ment, with emphasis on the factors affecting exchange rates and
how exchange rate changes affect the firm. Prerequisite:
Finance 357.

377. Advanced Investment Analysis. Second course in invest-
ments, with emphasis on quantitative applications and the
underlying theory in the analysis and management of securities
and portfolios. May be repeated for credit when the topics vary.

Topic 1: Portfolio Analysis and Management. Restricted to stu-

Topic 2: 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: Credit or registration
for Finance 367; and Mathematics 408D or 408L.

Topic 3: Security Analysis. For finance majors only. Finance
377 (Topic 3) and 377 (Topic 4) may not both be counted.
Additional prerequisite: Credit or registration for Finance 367
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.

Topic 5: Energy Financial Risk Management. Restricted to stu-
dents in a business major. Finance 377 (Topic 2) and 377 (Topic
5) may not both be counted. Additional prerequisite: Credit or registration
for Finance 367.

377L. Portfolio Analysis and Management. Quantitative applica-
tions and the underlying theory in the analysis and manage-
ment of securities and portfolios; designed for students with
career goals in investment. Prerequisite: Finance 367.

179C, 379C. Problems in Finance. Conference course. Only
two of the following may be counted toward the Bachelor of
Business Administration: Accounting 179C, 379C, Business
Administration 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
Prerequisite: Eighteen semester hours of coursework in business
and economics, six of which must be upper-division; Real Estate
358 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

Upper-Division Courses

140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. Topics in
Real Estate. This course is used to record credit the student
earns while enrolled at another institution in a program ad-
ministered by the University's Center for Global Educational
Opportunities or the school's BBA Exchange Programs. Credit is
recorded as assigned by the study abroad adviser in the Depart-
ment 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.

358. Introduction to Real Estate and Urban Land Development.
Principles of real estate and urban land economics, includ-
ing an examination of investment, valuation, financing, and
public policy in real estate and mortgage markets. Prerequisite:
Admission to a business major, sixty semester hours of college
coursework, and Economics 304K and 304L.

376G. Real Estate Appraisal and Investment. Restricted to stu-
dents in a business major. Study of the setting and measurement
of property values in real estate markets and an analysis of real
estate assets as investments. Prerequisite: Real Estate 358.

378K. Real Estate Finance and Syndication. Restricted to students
in a business major. Debt and equity financing of residential
and commercial properties; mortgage markets and instru-
ments; lender and investor decisions in real estate financing.
Prerequisite: Real Estate 358.

179C, 379C. Problems in Real Estate. Conference course. Only
two of the following may be counted toward the Bachelor of
Business Administration: Accounting 179C, 379C, Business
Administration 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
Prerequisite: Eighteen semester hours of coursework in business
and economics, six of which must be upper-division; Real Estate
358 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.

Related Course
Legal Environment of Business 363. Real Estate Law. See Department
of Information, Risk, and Operations Management.

INTERNATIONAL BUSINESS
See Department of Marketing, page 69.

DEPARTMENT OF INFORMATION, RISK, AND
OPERATIONS MANAGEMENT

Upper-Division Courses

320F. Foundations of the Legal Environment of Business. Not
open to law students. Introduction to the legal problems
confronting businesses in the global environment. May not
be counted toward the Bachelor of Business Administration de-
gree. Prerequisite: Sixty semester hours of college coursework.

323. Business Law. Restricted to students in a business major.
Role of law in society; introduction to legal reasoning, dispute
resolution, judicial process, constitutional law, agency, torts,
government regulations; business ethics; study of contracts.
Legal Environment of Business 323 and 323H may not both
be counted. Prerequisite: Credit or registration for Business
Administration 324 (or credit for Management Information
Systems 324).
323H. Business Law: Honors. Restricted to students admitted to
the McCombs School of Business Honors Program. Role of law
in society; introduction to legal reasoning, dispute resolution,
judicial process, constitutional law, agency, torts, government
regulations; business ethics; study of contracts. Legal Environ-
ment of Business 323 and 323H may not both be counted.
Prerequisite: Ninety semester hours of college coursework,
Accounting 312H, and credit or registration for Business Ad-
ministration 324H.

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
Center for Global Educational Opportunities or by the school's
BBA Exchange Programs. Credit is recorded as assigned by the
study abroad advisor in the Department of Information, Risk,
and Operations Management. University credit is awarded for
work in an exchange program; it may be counted as course-
work taken in residence. May be repeated for credit when the
topics vary.

361. Law of Business Organizations. Not open to law students.
Study of basic legal principles of business organizations and
operations, including practical comparison and assessment of
advantages and disadvantages of different types of organiza-
tion. Prerequisite: Legal Environment of Business 323.

363. Real Estate Law. Not open to law students. Law pertaining
to estates and interests in land, conveyances and mortgages,
brokers, easements, contracts, default and foreclosures. Prere-
quisite: Legal Environment of Business 323 or the equivalent,
or consent of instructor.

business transactions, with emphasis on the Uniform Commer-
cial Code; emphasis on bailments, sales of goods, commercial
paper, bank-customer relationships, creditor security devices,
and bankruptcy. Prerequisite: Legal Environment of Business
323 or the equivalent, or consent of instructor.

370. Topics in the Legal Environment of Business. Not open to
law students. Selected topics on legal constraints affecting
managerial decision making and business behavior. May be
repeated for credit when the topics vary. Prerequisite: Legal
Environment of Business 323 with a grade of at least C. Some
topics may have different prerequisites; these prerequisites are
given in the Course Schedule.

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 7: Business Torts.
Topic 8: Constitutional Issues in Business.
Topic 9: Business Dispute Resolution.
Survey of the law as it relates to amateur and professional sports
and sports management. Includes an entertainment law com-
ponent 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.

179, 379. Problems in the Legal Environment of Business. Con-
ference course. Only two of the following may be counted
toward the Bachelor of Business Administration: Accounting
179C, 379C, Business Administration 179, 379, Finance 179C,
of Business 179, 379, Management 179C, 379C, Management
Information Systems 179, 379, Marketing 179C, 379C, Op-
erations 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 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.

MANAGEMENT INFORMATION SYSTEMS: MIS

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 on pages 658–662.

Lower-Division Courses

301. Information Technology in Business. Restricted to students
in the McCombs School of Business. Explores how informa-
tion 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 op-
erations. Prerequisite: A score of at least 79 on the Computer
Proficiency Test.

304. Introduction to Problem Solving and Programming. Restrict-
ed to students in the McCombs School of Business. Program-
ning skills for creating easy-to-maintain systems for business
applications. Object-oriented and structured methodologies
with C++. Offered on the letter-grade basis only.

310 (TCCN: BCIS 1305). Introduction to Management Informa-
tion Systems. Basic computer terminology, hardware and soft-
ware, 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, includ-
ing 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.

311F. Foundations of Data Analysis and Information Systems.
Open only to nonbusiness majors. Basic concepts of informa-
tion systems and statistics as they apply to business: computer
terminology, hardware, software, descriptive statistics, simple
regression, and inference, with experience using spreadsheet
software to analyze real data. May not be counted toward the
Bachelor of Business Administration degree.

Upper-Division Courses

325. Introduction to Data Management. Beginning and in-
termediate topics in data modeling for relational database
management systems; development of desktop systems with
technology such as Access and Visual Basic. Offered on the
letter-grade basis only.
333K. Computer System Utilization in Business. Concepts and practices of information systems. Advanced programming techniques used to generate menu-driven applications. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 304 and 325.

140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. 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 Center for Global Educational Opportunities 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.

353. Internship in Management Information Systems. 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. Offered on the pass/fail basis only. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353C, 353F, 353H, 353K, 353M, 353S, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not count toward the student’s major requirement. Prerequisite: Completion of forty-five semester hours of college coursework, admission to a business major, and consent of the departmental internship coordinator.

365. Data Communications and Networking. Reviews of data communications and networking standards and implementation in business settings. Two lecture hours and two laboratory hours a week for one semester. Offered on the letter-grade basis only. Management Information Systems 365 and 373 (Topic 2: Applied Data Communication Systems) may not both be counted. Prerequisite: Management Information Systems 304 and 325.

365P. Management Information Systems 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: Forty-five semester hours of college coursework and consent of instructor.

373. Topics in Management Information Systems. Provides in-depth treatment of business data processing concerns such as database management, telecommunications, and development of commercial systems. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 6: Advanced Application of Software Development. Prerequisite: Management Information Systems 333K and consent of instructor.


Topic 12: Technical Consulting, Prerequisite: Management Information Systems 304 and consent of instructor.

Topic 13: Supply-Chain Management. Prerequisite: Management Information Systems 325 with a grade of at least C.

334. Business Systems Development. Provides background in business system analysis, evaluations, design, and implementation, using basic business knowledge and computer skills. Offered on the letter-grade basis only. Prerequisite: Management Information Systems 333K and credit or registration for Management Information Systems 365 (or credit for 373 [Topic 2: Applied Data Communication Systems]).

375. Strategic Information Technology Management. Restricted to students in a business major.


OPERATIONS MANAGEMENT: O M

Upper-Division Courses

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. Only one of the following may be counted: Management 335, 335H, Management Science 335, 335H, Operations Management 335, 335H. Prerequisite: Credit or registration for Business Administration 324 (or credit for Management Information Systems 324) and credit or registration for Statistics 309.

335H. Operations Management: Honors. Restricted to students admitted to the McCombs School of Business Honors Program. The operations or production function and the skills required for analyzing and solving related problems. Only one of the following may be counted: Management 335, 335H, Management Science 335, 335H, Operations Management 335, 335H. Prerequisite: Business Administration 151H and credit or registration for Statistics 309H.
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. May be repeated for credit when the topics vary. Some sections are offered on the letter-grade basis only; these are identified in the Course Schedule. Only one of the following may be counted unless the topics vary: Management 337, Management Science 337, Operations Management 337. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

**Topic 1: Total Quality Management.** Three lecture hours a week for one semester. **Prerequisite:** For business majors, one of the following with a grade of at least C: Management 335, 335H, Management Science 335, 335H, Operations Management 335, 335H; 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. **Prerequisite:** Management 335, 335H, Management Science 335, 335H, Operations Management 335, or 335H with a grade of at least C.

**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. **Prerequisite:** Management 335, 335H, Management Science 335, 335H, Operations Management 335, or 335H with a grade of at least C.

**Topic 4: Information Systems for Operations.** Data modeling of how firms gather, represent, process, and distribute information and knowledge; forecasting, including trends and seasonality; data mining and total data quality management; simultaneous material-data process redesign; and systems development and implementation in an operations context. Three lecture hours a week for one semester. **Prerequisite:** One of the following courses with a grade of at least C: Management 335, 335H, Management Science 335, 335H, Operations Management 335, 335H.

140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. **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 Center for Global Educational Opportunities 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.

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. Offered on the pass/fail basis only. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353C, 353E, 353H, 353K, 353M, 353S, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. **Prerequisite:** Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

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. Only one of the following may be counted: Management 366P, Management Science 366P, Operations Management 366P. **Prerequisite:** Forty-five semester hours of college coursework and consent of instructor.

367. **Strategic Supply Chain Management.** Restricted to students in a business major. Management of manufacturing process technology in international competition. Only one of the following may be counted: Management 367, Management Science 367, Operations Management 367. **Prerequisite:** One of the following courses: Management 335, 335H, Management Science 335, 335H, Operations Management 335, 335H.

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. Only one of the following may be counted: Management 368, Management Science 368, Operations Management 368. **Prerequisite:** One of the following courses: Management 335, 335H, Management Science 335, 335H, Operations Management 335, 335H.

179, 379. **Problems 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 Administration 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; Operations Management 335 or 336 with a grade of at least C; and consent of instructor. A student registering for this course must have written approval from the department chair's office, on forms provided for that purpose, before the first meeting of the course.

**RISK MANAGEMENT: R M**

**Upper-Division Courses**

140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. **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 Center for Global Educational Opportunities 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.

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.

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.


STATISTICS: STA

Lower-Division Courses

309. Elementary Business Statistics. Training in the use of data to gain insight into business problems; describing distributions (center, spread, change, and relationships), producing data (experiments and sampling), probability and inference (means, proportions, differences, regression and correlation). Only one of the following may be counted: Economics 329, Statistics 309, 309H. Prerequisite: Mathematics 408C or 408K and Mathematics 408D or 408L.

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). Only one of the following may be counted: Economics 329, Statistics 309, 309H. Prerequisite: Mathematics 408C or 408K, and Mathematics 408D or 408L.

Upper-Division Courses

140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. 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 Center for Global Educational Opportunities 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.

371H. Statistics and Modeling: Honors. Restricted to students admitted to the McCombs School of Business Honors Program. Optimization techniques for deterministic models (linear and integer programming) and stochastic models (queueing, simulation, Markov chains). Only one of the following may be counted: Management Science 371, 371H, Statistics 371H. Prerequisite: Mathematics 408D, 408L, or 308M; Management Information Systems 301 or 310; and Statistics 309 or 309H.

376. Intermediate Statistics. Analysis of forecasting techniques and theory; macroeconomic models; long-range and short-term forecasting; forecasting for the firm, using case material. Prerequisite: Statistics 309.

DEPARTMENT OF MANAGEMENT

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

MANAGEMENT: MAN

Upper-Division Courses

320F. Foundations of Organizational Behavior and Administration. An introduction to the management of organizations. Issues are addressed from the perspectives of strategy and planning, organizational behavior, and operations management. May not be counted toward the Bachelor of Business Administration degree. Prerequisite: Sixty semester hours of college coursework.

325. Strategic Human Resources Management. Overview of the personnel function, covering recruitment, compensation, equal employment, job analysis, training, benefits, employee discipline, collective bargaining, safety, and health. Prerequisite: Credit or registration for Management 336 or 336H.

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, internally as managerial employees or externally as outside consultants. Prerequisite: Management 336 or 336H with a grade of at least C.

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. Management 336 and 336H may not both be counted. Prerequisite: Credit or registration for Business Administration 324 (or credit for Management Information Systems 324); and credit or registration for three semester hours of coursework in psychology, sociology, or anthropology.

336H. Organizational Behavior: Honors. Restricted to students admitted to the McCombs School of Business Program. The process of managing organizations and the behavior of individuals and groups within the organizational setting. Management 336 and 336H may not both be counted. Prerequisite: Credit or registration for Business Administration 324 (or credit for Management Information Systems 324); and twenty-seven semester hours of college coursework, including credit or registration for three semester hours of coursework in psychology, sociology, or anthropology.

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. May be repeated for credit when the topics vary. Some sections are offered on the letter-grade basis only; these are identified in the Course Schedule. Only one of the following may be counted unless the topics vary: Management 337, Management Science 337, Operations Management 337. 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 336H with a grade of at least C.

Topic 11: Management of Cultural Differences. Restricted to students in a business major. Three lecture hours a week for one semester. Management 337 (Topic 11) and Middle Eastern Studies 322K (Topic 6: Management of Cultural Differences) may not both be counted. Prerequisite: One of the following courses with a grade of at least C, or two of the following courses with a grade of at least C in each: Management 335, 335H, 336, 336H, Operations Management 335, 335H.
Topic 15: **Government in the Business Environment.** Three lecture hours a week for one semester. Government 370L (Topic 4: Government in the Business Environment) and Management 337 (Topic 15) may not both be counted. Prerequisite: One of the following courses with a grade of at least C, or two of the following courses with a grade of at least C in each: Management 335, 335H, 336, 336H, Operations Management 335, 335H.

Topic 16: **Sociology of Entrepreneurship.** Same as African and African American Studies 358C and Sociology 358C. Three lecture hours a week for one semester. Only one of the following may be counted: African and African American Studies 374 (Topic: Sociology of Entrepreneurship), Management 337 (Topic 16), Sociology 321K (Topic: Sociology of Entrepreneurship). Prerequisite: For management majors, one of the following courses with a grade of at least C, or two of the following courses with a grade of at least C in each: Management 335, 335H, 336, 336H, Operations Management 335, 335H; for others, sixty semester hours of college coursework.

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 the business, growing the business, and harvesting the profits. Three lecture hours a week for one semester. Prerequisite: One of the following courses with a grade of at least C, or two of the following courses with a grade of at least C in each: Management 335, 335H, 336, 336H, Operations Management 335, 335H; Accounting 311; 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 336H with a grade of at least C.

**140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. 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 Center for Global Educational Opportunities 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.

**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. Offered on the pass/fail basis only. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353C, 353F, 353H, 353K, 353M, 353S, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student's major requirement. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

**366P. Management 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. Only one of the following may be counted: Management 366P, Management Science 366P, Operations Management 366P. Prerequisite: Forty-five semester hours of college coursework and consent of instructor.

**374. General Management and Strategy.** Restricted to students in a 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 insure the long-term health of the entire firm or a major division. Management 374 and 374H may not both be counted. Prerequisite: Seventy-five semester hours of college coursework; credit for one of the following: Management 335, 335H, 336, 336H, Operations Management 335, 335H; and credit or registration for Finance 357, Marketing 337, and one of the following: Accounting 353J, 366P, Business Administration 353H, Finance 353, 366P, Management 353, 366P, Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, 366P.

**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 insure the long-term health of the entire firm or a major division. Management 374 and 374H may not both be counted. Prerequisite: Ninety semester hours of college coursework; credit for one of the following: Management 335, 335H, 336, 336H, Operations Management 335, 335H; and credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353H, Finance 353, 366P, Management 353, 366P, Management Information Systems 353, 366P, Marketing 353, 366P, Operations Management 353, 366P; and credit or registration for Finance 357 and Marketing 337.

**179C, 379C. Problems in Management.** Conference course. Only two of the following may be counted toward the Bachelor of Business Administration: Accounting 179C, 379C, Business Administration 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 335 or 336 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.
DEPARTMENT OF MARKETING

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

INTERNATIONAL BUSINESS: IB

Upper-Division Courses

320F. Foundations of International Business. Fundamentals of international trade and the international economy; international dimensions of several functional areas of business, including management, marketing, finance, and human resource management; theoretical, institutional, and functional foundations of international business. May not be counted toward the Bachelor of Business Administration degree. Prerequisite: Completion of sixty semester hours of college coursework.

140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. 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 Center for Global Educational Opportunities 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.

350. International Trade. Restricted to students in a business major. Study of the principles, policies, and problems of the international exchange of goods and investments. Economics 339K and International Business 350 may not both be counted. Prerequisite: Credit or registration for Business Administration 324 (or credit for Management Information Systems 324).

372. Seminar in International Business. 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 322K (Topic 4: Business in Emerging Markets). Only one of the following may be counted: International Business 372 (Topic 2), 372 (Topic: Business in Developing Countries), Latin American Studies 322 (Topic: Business in Developing Countries), Middle Eastern Studies 322K (Topic: Business in Developing Countries).

Topic 3: Managing the Global Corporation.

Topic 4: Competing with the Japanese.

Topic 5: Business in Latin America.

Topic 6: Business German. Only one of the following may be counted: German 612, 312L, 312S, 312W, International Business 372 (Topic 6). Additional prerequisite: German 312K or 312W 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. Only one of the following may be counted: German 336W, 356W, International Business 372 (Topic 7). 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. Only one of the following may be counted: International Business 372 (Topic 8), Mexican American Studies 350, Spanish 327. Additional prerequisite: Spanish 327G and 327W.

MARKETING: MKT

Upper-Division Courses

320F. Foundations of Marketing. Introduction to basic concepts and terminology in marketing: the process of developing marketing strategy, the role of marketing activities within the firm, external influences that affect the development of marketing strategy, and basic analytical tools appropriate to marketing decision making. May not be counted toward the Bachelor of Business Administration degree. Prerequisite: Sixty semester hours of college coursework.

337. Principles of Marketing. Restricted to students in a business major. Designed to expand the student’s 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. Marketing 337 and 337H may not both be counted. Prerequisite: Credit or registration for Business Administration 324 (or credit for Management Information Systems 324), and credit or registration for Accounting 312 and Statistics 309.

337H. Principles of Marketing: Honors. Restricted to students admitted to the McCombs School of Business Honors Program. Designed to expand the student’s 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. Marketing 337 and 337H may not both be counted. Prerequisite: Credit or registration for Business Administration 324H (or credit for Management Information Systems 324H), and Accounting 312H.

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. Prerequisite: Marketing 337.
140S, 240S, 340S, 440S, 540S, 640S, 740S, 840S, 940S. 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 Center for Global Educational Opportunities 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.

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. Offered on the pass/fail basis only. Only one of the following may be counted toward the Bachelor of Business Administration: Accounting 353J, Business Administration 353C, 353F, 353H, 353K, 353M, 353S, Finance 353, Management 353, Management Information Systems 353, Marketing 353, Operations Management 353. May not be counted toward the student’s major requirement. Prerequisite: Completion of forty-five semester hours of college coursework and consent of the departmental internship coordinator.

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 and Statistics 309.

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. Prerequisite: Marketing 337.

366P. 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: Forty-five semester hours of college coursework and consent of instructor.

370. Marketing Policies. Restricted to students in a 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. Prerequisite: Finance 357 and Marketing 460; credit or registration for one of the following: Accounting 353J, 366P, Business Administration 353H, Finance 353, 366P, Management 353, 366P, Management Information Systems 353, 366P, Operations Management 353, 366P; and six additional semester hours of coursework in marketing.

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. Prerequisite: Marketing 337.

372. Marketing Seminar. Restricted to students in a business major. May be repeated for credit when the topics vary. Prerequisite: Marketing 337. 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.

179C, 379C. Problems 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 Administration 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; Marketing 337 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.

OPERATIONS MANAGEMENT
See Department of Information, Risk, and Operations Management, page 65.

REAL ESTATE
See Department of Finance, page 63.

RISK MANAGEMENT
See Department of Information, Risk, and Operations Management, page 66.

STATISTICS
See Department of Information, Risk, and Operations Management, page 67.
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 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 multimedia facilities. All of the instructional and office spaces are equipped with Ethernet. Communication Building B (CMB), a nine-level production building, houses Austin’s public television station, KLRU, and the National Public Radio station KUT-FM. Also housed in Communication
opportunities and allow students to explore their careers.

Career exploration programs provide networking, interviewing, and a wide range of job search workshops, communication job and internship fairs, on-campus career counseling services to all students.

The center offers 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 Communication Council is the governing body for student activities in the college. The Communication Council acts as a representative of all undergraduate communication students and sponsors college-wide programs such as “Comm Week” and the “Communication Career Expo,” as well as a number of day-to-day services tailored for individual student needs. A list of other student organizations within the college is available online at http://communication.utexas.edu/OSA/current/student_org.html.

FINANCIAL ASSISTANCE AVAILABLE THROUGH THE COLLEGE OF COMMUNICATION

The College of Communication has a large number of scholarships that are awarded annually. Students interested in receiving one of these scholarships should apply by January 25 for scholarships to be awarded the following fall semester. Application forms are available in the Office of Student Affairs, Jesse H. Jones Communication Center (Building A) A4.140, (512) 471-1553. Each academic unit also awards scholarships. For further information, contact the Office of Student Affairs or the academic unit.

ACADEMIC ADVISING

The Office of Student Affairs (CMA 4.140), in collaboration with the academic units, oversees all advising in the college. Students should consult advisers in the student affairs office to make sure that they are meeting all degree requirements and are taking courses appropriate to the degree.

For advising in depth on specific programs of study, courses, and career choices in their majors, students should consult their academic advisers. Some academic units require that the student be advised before registering to ensure that he or she takes courses in sequential order. Students in these units must see the academic adviser or a specific faculty member for approval to register for courses in the major. Finally, each student should consult advisers in the student affairs office for assistance in preparing for graduation.

COMMUNICATION CAREER SERVICES

Communication Career Services (CCS) provides a variety of career development and job/internship search programs for students, alumni, and employers. 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 other related industries.

As a complement to the assistance available from the college, the University’s Career Exploration Center provides career counseling services to all students. The center offers 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 Communication Council is the governing body for student activities in the college. The Communication Council acts as a representative of all undergraduate communication students and sponsors college-wide programs such as “Comm Week” and the “Communication Career Expo,” as well as a number of day-to-day services tailored for individual student needs. A list of other student organizations within the college is available online at http://communication.utexas.edu/OSA/current/student_org.html.

ADMISSION AND REGISTRATION

ADMISSION TO THE UNIVERSITY

Admission and readmission of all students to the University is the responsibility of the director of admissions. Information about admission to the University is given in General Information. Admission to a major may be restricted by the availability of instructional resources.

ADMISSION POLICIES OF THE COLLEGE OF COMMUNICATION

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 chair 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, 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 World Wide Web and are accessible through the registrar's Web site, http://www.utexas.edu/student/registrar/. General Information is also sold at campus-area bookstores.

Enrollment in upper-division courses in the College of Communication may be restricted because of limitations on instructional resources.

ACADEMIC POLICIES AND PROCEDURES

GRAMMAR, SPELLING AND PUNCTUATION TEST

Journalism and public relations majors must earn a passing score of 45 on the College of Communication Grammar, Spelling and Punctuation (GSP) Test as described in the requirements of their major. Students who receive transfer credit for Journalism 315 must also take and pass the test before enrolling in subsequent courses in the major. All students must pass the test before enrolling in courses for which it is a prerequisite.

Students may take the test up to three times. If a journalism student has not passed the test after three trials, the student may enroll in a GSP review class offered each semester by the School of Journalism. The student may take the test a fourth and final time upon completion of the review class. If the student does not pass the test on the fourth trial, he or she may not enroll in any course for which the test is a prerequisite. Public relations majors may take the GSP review class with the permission of the School of Journalism; permission is granted only when space is available. Students whose native language is not English may appeal to the School of Journalism to waive the three-trial limit. Information about test dates is available from Instructional Assessment and Evaluation, 2616 Wichita, and the School of Journalism.

HONORS

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 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.

DEPARTMENTAL HONORS PROGRAMS

Each academic unit in the 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 3.25 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 379H, Honors Tutorial Course, with a grade of at least B; (2) a University grade point average of at least 3.25 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 3.25 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 379H, Honors Tutorial Course, with a grade of at least B; (2) a University grade point average of at least 3.25 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.

UNIVERSITY HONORS

The designation University Honors, awarded 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. Criteria for University Honors are given on page 15.

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 on page 16.

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 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 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 hours are counted toward the degree of Bachelor of Science in Communication and Society.
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 Office of Student Affairs. 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, Communication and Ethnic Groups
Communication Studies 306M, Professional Communication Skills
Communication Studies 332K, Theories of Persuasion
Communication Studies 342K, Political Communication
Journalism 360, Media Law and Ethics
Journalism 364E, The Mass Media and Society

UNITED STATES LATINO AND LATIN AMERICAN MEDIA STUDIES CONCENTRATION

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. Completion of the concentration requires twelve semester hours of coursework, consisting of one required course and nine hours of elective work in upper-division courses. Any 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 concentration. Certain course prerequisites may be waived once the student completes the concentration application form.

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 concentration, these limits may be modified with the approval of the Office of Student Affairs.

Students should consult the Office of Student Affairs for additional information about the program and the coursework that meets concentration requirements. The courses that may be counted toward this concentration include, but are not limited to, the following.

CONCENTRATION COURSES

REQUIRED COURSE
Communication 316M, Communication and Ethnic Groups or Radio-Television-Film 316M, Communication and Ethnic Groups

ELECTIVES
Advertising 334, International Advertising
Advertising 378, Topic: Advertising in Multicultural Markets
Journalism 340C, Topic 1: Mass Media and Minorities
Journalism 349T, Topic 4: International Reporting
Journalism 367E, Journalism in Latin America
Radio-Television-Film 359S, Topic: Brazilian Media and Culture
Radio-Television-Film 365, Topic: Race, Class, and Media

COURSES FOR TEACHER PREPARATION

The college does not currently offer a teaching certification program for any of its degrees. Students wishing to pursue teacher certification should consult the teacher certification officer in the College of Education.

GRADUATION

SPECIAL REQUIREMENTS OF THE COLLEGE OF COMMUNICATION

All students must fulfill the general requirements for graduation given in chapter 1. Students in the 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 College of Communication, a student who fails to achieve this grade point average in the normal 120 hours 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 CR.
3. The University requires that the student complete in residence at least sixty semester hours of the coursework counted toward the degree. In the 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 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.

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 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 College of Communication may repeat for credit a course in which he or she has earned a grade of C or better.

THE 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 Office of Student Affairs. 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://www.utexas.edu/student/registrar/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 entitled to graduate and for registering so as to fulfill those requirements. Because the student is responsible for registering for the classes needed to fulfill degree requirements, he or she should seek an official ruling in the student affairs office before registering if in doubt about any requirement.

APPLYING FOR GRADUATION

To graduate, a student must be registered in the College of Communication and must file a graduation application with the Office of Student Affairs. A student who is enrolled in residence must submit the application online at http://communication.utexas.edu/OSA/faqs/apply_graduate.html. A student who is not currently enrolled should contact the Office of Student Affairs 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

DEGREES OFFERED

In the 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. The requirements of each degree are divided into 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 given on pages 18–19 and the special requirements of the College of Communication given on page 75.

A student may not earn more than two undergraduate degrees from the College of Communication. A student may not earn both the Bachelor of Science in Advertising and the Bachelor of Science in Public Relations.

WRITING REQUIREMENT

As part of the prescribed work for all degrees in the college, students must complete two courses certified as having a substantial writing component. If the writing requirement is not fulfilled by courses specified for the degree, the two courses certified as having a substantial writing component must either be included within the electives or be taken in addition to the minimum number of semester hours for the degree. Courses with a substantial writing component are identified in the Course Schedule.
COMMUNICATION AND CULTURE REQUIREMENT
As part of the prescribed work for all degrees, students must complete three semester hours of coursework in the 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 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.

Advertising 371J, Advertising and Society
Advertising 378, Topic 2: Advanced Issues in Multicultural Markets
Advertising 378, Topic: African Americans and the Media
Communication 316M, Communication and Ethnic Groups
Communication Sciences and Disorders 308K, Perspectives on Deafness
Communication Sciences and Disorders 360M, Communication and Deaf People
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
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: African American Athletes and the Media
Journalism 340C, Topic: Leadership, Management, and the Media
Journalism 340C, Topic: Women and the News
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 359S, Topic 1: Hispanic Images and Counterimages
Radio-Television-Film 365, Topic 4: History of United States Latino Media
Radio-Television-Film 365, Topic 6: Latinos and Media
Radio-Television-Film 370, Topic: Women and Film

APPLICATION 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 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 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 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 College of Communication may be taken by correspondence.

COURSES TAKEN ON THE PASS/FAIL BASIS
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 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 College of Communication may be taken by correspondence.

A student in the College of Communication may count toward the degree up to fifteen semester hours of coursework in elective subjects outside the 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-wide graduation requirements on pages 18–19, the college graduation requirements on page 75, and the special requirements, prescribed work, and major requirements on pages 79–80.

**AREAS OF STUDY**

**TEXAS ADVERTISING MANAGEMENT PROGRAM**

All students seeking a Bachelor of Science in Advertising begin in the Texas Advertising Management program. This program is designed for students interested in a variety of professional careers, including 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 also may 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 eight core courses: Advertising 318J, 325, 344K, 345J, 350 (or 468K, if applicable), 370J, 371J, and 373. In addition, all students must complete at least twelve semester hours of electives within the Department of Advertising. Students may remain in this program for flexibility in their choice of electives, or they may choose to apply for acceptance into one of three specialty areas of study described below: Texas Creative program, Texas Media program, or Texas Interactive program.

**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 343K, Portfolio I; 468K, Portfolio II; and 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.

All students enrolled in Advertising 325 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. Student work is reviewed each semester, and advancement through the program is contingent on 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, and new media development. 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 accepted online each semester during the consent period; applicants are also interviewed briefly. A list of those admitted is posted before registration for the following semester. Those who are not admitted may apply again the following semester.

Texas Media students complete three upper-division courses, which may be counted as upper-division advertising electives. All students in the program complete Advertising 377 (Topic 1: Advanced Media Strategies), a seminar and hands-on, project-based course. For their other two courses, students choose from topics of Advertising 377. Courses in the program may be taken concurrently. Most students complete the program in two semesters.

**TEXAS INTERACTIVE PROGRAM**

This program is designed to give students a better understanding of interactive communication in the context of advertising, direct response, sales promotion, and other forms of integrated promotional communication. It encourages students to explore cornerstone communication topics not only as academic subjects or business applications but also as part of their everyday lives and the lives of the consumers with whom they interact. The classes are intended to develop in students the creative and critical thinking skills necessary to participate in the interactive marketplace and, ultimately, to contribute to its development.

Students who complete Advertising 345J with a grade of at least B may apply for admission to the Texas Interactive program. Applications are available from the undergraduate adviser's office in the Department of Advertising; completed applications are accepted each semester during the consent period.
Texas Interactive students complete three upper-division courses, which may be counted as upper-division advertising electives; these are Advertising 447, 350, and 377 (Topic 3: Digital Media). They also complete a section of Advertising 373 that is limited to Texas Interactive students. Students must take Advertising 447 and 377 before 350 and 373.

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 online 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 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 if they are designed to provide first-division coursework. While he or she is establishing a University grade point average. Students may enroll in Advertising 318J no more than twice.

In addition, a student with a major in advertising must have a grade of at least C in each course taken in the 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 CR.

PRESCRIBED WORK

1. Rhetoric and Writing 306, English 316K, and an additional three-semester-hour course in either English or rhetoric and writing.

2. Two courses certified as having a substantial writing component, both of which may be taken within the College of Communication. Courses with a substantial writing component are identified in the Course Schedule.

3. Three semester hours of coursework in the 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 on page 77; a complete list is available in the college’s Office of Student Affairs before registration for each semester and summer session. The courses are also identified in the Course Schedule.

4. Three semester hours of fine arts, chosen from courses in art (including art history, studio art, visual art studies), fine arts, music (including music, instruments, ensemble), and theatre and dance.

5. Students must demonstrate fourth-semester-level proficiency in a foreign language. Courses taken to meet this requirement may not be taken on the pass/fail basis.

Students who enter the University with a foreign language deficiency must take the first two semesters in a foreign language without degree credit to remove the deficiency. The usual course sequence is 406 or 506, 407 or 507 or 508K, 312K, and 312L. For some languages, different course numbers are used; such courses may be counted toward this requirement if they are designed to provide first-semester-level through fourth-semester-level proficiency. Credit may be earned by examination for any part of the 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 the Division of Instructional Innovation and Assessment or the department concerned for information on testing.

6. Fifteen semester hours of social science, consisting of six hours of American history; six hours of American government, including Texas government; and three hours of anthropology, economics, geography, linguistics, psychology, or sociology.

7. Mathematics 303D, 305G, or a substitute acceptable to the Business Foundations Program.

8. Nine semester hours of natural sciences, of which six hours (and no more than six) must be in one field of study. Courses must be chosen from the following fields: astronomy, biology, chemistry, computer sciences, geological sciences, marine science, physical science, and physics. For this requirement, a student may take three hours of mathematics beyond those used to fulfill requirement 7.

9. Twelve semester hours of coursework in the Red 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.

10. At least thirty-six semester hours of upper-division coursework.

11. No more than twelve semester hours of transfer credit in advertising may be counted toward the degree.
12. Enough additional coursework to make a total of 120 semester hours. No more than forty-two hours in advertising and no more than thirty-six 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 coursework, of which at least twenty-four hours must be upper-division. The following courses are required: Advertising 318J, 325, 344K, 345J, 350 or 468K, 370J, 371J, and 373. The student must complete Advertising 318J in residence with a grade of at least B.
2. At least six semester hours of coursework must be taken in the College of Communication but outside the department. However, no student may count toward the degree more than forty-eight 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 requirements 6, 7, and 8 of the prescribed work.
   c. Courses in a foreign language.
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.

SECOND YEAR

1. The student must take three courses from the following group each semester; four are recommended:
   a. English 316K and any three-semester-hour course in English or rhetoric and writing.
   b. Courses to be counted toward requirements 6, 7, and 8 of the prescribed work, including courses in American government or American history.
   c. Courses in the foreign language, unless the language requirement has been fulfilled.
2. Advertising 318J.
3. A statistics course approved by the college, to meet the prerequisite for Advertising 344K.
4. Enough additional coursework, if needed, to raise the student's course load to fifteen or sixteen hours each semester. Basic courses in accounting, studio art, and computer sciences are especially recommended.

THIRD AND FOURTH YEARS

1. Two courses certified as having a substantial writing component.
2. Any outstanding requirements included in the prescribed work.
3. The remaining courses listed as major requirements.
4. Upper-division electives chosen to support the major. Advertising majors normally emphasize economics, government, history, English, sociology, psychology, marketing, or management.

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-wide graduation requirements on pages 18–19, the college graduation requirements on page 75, and the 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 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 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.

PRESCRIBED WORK

1. Rhetoric and Writing 306, English 316K, and an additional three-semester-hour course in either English or rhetoric and writing.
2. Two courses certified as having a substantial writing component, both of which may be taken within the College of Communication. Courses with a substantial writing component are identified in the Course Schedule.
3. Three semester hours of coursework in the 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 communica-
tion and culture courses is given on page 77; a complete list is available in the college's Office of Student Affairs before registration for each semester and summer session. The courses are also identified in the Course Schedule.

4. Three semester hours of fine arts, chosen from courses in art (including art history, studio art, visual art studies), fine arts, music (including music, instruments, ensemble), and theatre and dance.

5. Students must demonstrate fourth-semester-level proficiency in a foreign language. Courses taken to meet this requirement may not be taken on the pass/fail basis.

Students who enter the University with a foreign language deficiency must take the first two semesters in a foreign language without degree credit to remove the deficiency.

The usual course sequence is 406 or 506, 407 or 507 or 508K, 312K, and 312L. For some languages, different course numbers are used; such courses may be counted toward this requirement if they are designed to provide first-semester-level through fourth-semester-level proficiency. Coursework in American Sign Language may be used to fulfill this requirement. Credit may be earned by examination for any part of the 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 the Division of Instructional Innovation and Assessment or the department concerned for information on testing.

6. Fifteen semester hours of social science, consisting of six hours of American history; six hours of American government, including Texas government; and three hours of anthropology, economics, geography, linguistics, psychology, or sociology.

7. Three semester hours of mathematics.

8. Nine semester hours of natural sciences, of which six hours (and no more than six) must be taken in one field of study. Courses must be chosen from the following fields: astronomy, biology, chemistry, computer sciences, geological sciences, marine science, physical science, and physics. For this requirement, a student may take three hours of mathematics beyond those used to fulfill requirement 7.

9. At least thirty-six semester hours of upper-division coursework.

10. No more than twelve semester hours of transfer credit in communication sciences and disorders may be counted toward the degree.

11. Enough additional coursework to make a total of 120 semester hours. No more than thirty-six semester hours in one subject 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-one semester hours of coursework in communication sciences and disorders; those specializing in audiology must complete at least thirty-five hours; those specializing in education of the deaf/hearing-impaired must complete at least twenty-eight hours. For students in all three specializations, fifteen hours of this coursework must be upper-division. No more than thirty-eight semester hours of coursework in communication sciences and disorders may be counted toward the degree. Coursework in American Sign Language may not be used to satisfy requirement 1 and is not included in the thirty-eight hours allowed for the degree. The following courses are required:


2. At least six semester hours of coursework must be taken in the College of Communication but outside communication sciences and disorders. However, no student may count toward the degree more than forty-four 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.

81 Degrees
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 requirements 6, 7, and 8 of the prescribed work.
   c. Courses in a foreign language. Students in education of the deaf/hearing-impaired are encouraged to take American Sign Language.
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 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 316K and any three-semester-hour course in English or rhetoric and writing.
   b. Courses to be counted toward requirements 6, 7, and 8 of the prescribed work, including courses in American government or American history.
   c. Courses in the foreign language, unless the language requirement has been fulfilled.
2. Communication Sciences and Disorders 306K (for students in speech/language pathology or audiology) or 308K (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. Two courses certified as having a substantial writing component.
2. Any outstanding requirements included in the prescribed work.
3. The remaining courses listed as major requirements.
4. Enough additional coursework to raise the student's course load to fifteen or sixteen hours each semester.

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-wide graduation requirements on pages 18–19, the college graduation requirements on page 75, and the 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. 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 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 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.

A student majoring in communication studies may not register for more than nine semester hours of communication studies in one semester or summer session.

PRESCRIBED WORK
1. Rhetoric and Writing 306, English 316K, and an additional three-semester-hour course in either English or rhetoric and writing.
2. Two courses certified as having a substantial writing component, both of which may be taken within the College of Communication. Courses with a substantial writing component are identified in the Course Schedule.
3. Three semester hours of coursework in the 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 on page 77; a complete list is available in the college's Office of Student Affairs before registration for each semester and summer session. The courses are also identified in the Course Schedule.
4. Three semester hours of fine arts, chosen from courses in art (including art history, studio art, visual art studies), fine arts, music (including music, instruments, ensemble), and theatre and dance.
5. Students must demonstrate fourth-semester-level proficiency in a foreign language. Courses taken to meet this requirement may not be taken on the pass/fail basis.

Students who enter the University with a foreign language deficiency must take the first two semesters in a foreign language without degree credit to remove the deficiency.

The usual course sequence is 406 or 506, 407 or 507 or 508K, 312K, and 312L. In some languages, different course numbers are used; such courses may be counted toward this requirement if they are designed to provide first-semester-level through fourth-semester-level proficiency. Credit may be earned by examination for any part of the 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 the Division of Instructional Innovation and Assessment or the department concerned for information on testing.

6. Fifteen semester hours of social science, consisting of six hours of American history; six hours of American government, including Texas government; and three hours of anthropology, economics, geography, linguistics, psychology, or sociology.

7. Three semester hours of mathematics.

8. Nine semester hours of natural sciences, of which six hours (and no more than six) must be taken in one field of study. Courses must be chosen from the following fields: astronomy, biology, chemistry, computer sciences, geological sciences, marine science, physical science, and physics. For this requirement, a student may take three hours of mathematics beyond those used to fulfill requirement 7.

9. At least thirty-six semester hours of upper-division coursework.

10. No more than twelve semester hours of transfer credit in communication studies may be counted toward the degree.

11. Enough additional coursework to make a total of 120 semester hours. No more than thirty-six semester hours in one subject 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 upper-division coursework. Each student must complete one of the following tracks:
   a. Corporate Communication
      1. Communication Studies 306M, 313M, and 332K.
   b. Human Relations
      1. Communication Studies 306M and 332K.
   c. Political Communication
      1. Communication Studies 306M and 332K.

2. Six semester hours chosen from the following courses: Communication Studies 310K, 316L, 352, 353, and 372K.

3. Fifteen additional semester hours of communication studies.

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 requirements 6, 7, and 8 of the prescribed work.
   c. Courses in the foreign language, unless the language requirement has been fulfilled.

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.

3. First-year students may not take two beginning 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 316K and any three-semester-hour course in English or rhetoric and writing.
   b. Courses to be counted toward requirements 6, 7, and 8 of the prescribed work.
   c. Courses in the foreign language, unless the language requirement has been fulfilled.
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. Two courses certified as having a substantial writing component.
2. Any outstanding requirements included in the prescribed work.
3. The remaining courses listed as major requirements. Students should note that some upper-division courses have a series of prerequisites that take up to three semesters to complete.
4. Enough additional coursework to raise the student’s course load to fifteen or sixteen hours each semester.

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-wide graduation requirements on pages 18–19, the college graduation requirements on page 75, and the special requirements, prescribed work, and major requirements below.

AREAS OF STUDY
Journalism courses are divided broadly into skills and studies courses and more narrowly within these two categories according to their level and probable writing content. Not all courses are offered every semester.


Studies courses that may contain a substantial writing component (numbered 340–349): Journalism 340C, 347S, 348S, 349T

Skills courses (numbered 315–319): Journalism 315, 316

Introductory skills courses (numbered 320–329): Journalism 320D, 321C, 322D, 325, 327

Open skills courses (numbered 330–339): Journalism 330, 331, 331K, 131P, 334, 335, 336, 338, 339D. In general, these courses are open to all students who have completed the skills core (Journalism 315 and 321C) and either 320D (print, photojournalism, and multimedia majors) or 322D (broadcast majors).

Intermediate skills courses (numbered 350–359): Journalism 353D, 355, 359T


In addition, courses are divided into the school’s four areas of professional concentration: broadcast journalism, multimedia journalism, photojournalism, and print journalism. The print concentration is divided into three sequences: newspaper reporting and writing, magazine writing and editing, and copy editing and design.

Courses in each concentration have prerequisites appropriate to their skill level; prerequisites may include testing, an interview, or other procedures in conjunction with the school’s application process. Information about these additional requirements is available from the School of Journalism adviser.

SPECIAL REQUIREMENTS
Students who seek to study journalism are admitted to the University as prejournalism majors. To continue in the major, each student must be admitted to the concentration in broadcast journalism, multimedia journalism, photojournalism, or to one of the three sequences—newspaper reporting and writing, magazine writing and editing, and copy editing and design—within the concentration in print journalism. The student should apply for admission to a concentration or sequence while taking or upon completing Journalism 315. Admission decisions for each concentration or sequence are made by the head of that area.

A student may not take any upper-division journalism course except Journalism 320D unless he or she has been admitted to an area of concentration or a sequence.

To enroll in upper-division journalism courses, a student must have a University grade point average of at least 2.25 and a grade point average in courses in the College of Communication of at least 2.00. Students who do not fulfill this requirement will be unable to register for upper-division courses. 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.

The student must complete at least eighty semester hours outside journalism. At least sixty-five hours must be in liberal arts and natural sciences.

A score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test and a score of at least 29 on the School of Journalism Word Processing Test are required for admission to most journalism courses. Students will be unable to register for these courses if they have not passed the tests.

A student majoring in journalism may not register for more than nine semester hours in journalism in one semester or summer session. Exceptions to this rule may be made by the director or associate director for seniors who need additional journalism courses in order to graduate in a timely manner.

Any student enrolled in a journalism course who does not attend the first class meeting or laboratory session may be dropped from that course.

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 CR.
Additional information about the preceding requirements is available from the School of Journalism at (512) 471-1845 or http://journalism.utexas.edu/.

PRESCRIBED WORK

1. Rhetoric and Writing 306, English 316K, and an additional three-semester-hour course in either English or rhetoric and writing.
2. Two courses certified as having a substantial writing component, both of which may be taken within the College of Communication. Courses with a substantial writing component are identified in the Course Schedule.
3. Three semester hours of coursework in the 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 on page 77; a complete list is available in the college’s Office of Student Affairs before registration for each semester and summer session. The courses are also identified in the Course Schedule.
4. Three semester hours of fine arts, chosen from courses in art (including art history, studio art, visual art studies), fine arts, music (including music, instruments, ensemble), and theatre and dance.
5. Students must demonstrate fourth-semester-level proficiency in a foreign language. Courses taken to meet this requirement may not be taken on the pass/fail basis.
   
   Students who enter the University with a foreign language deficiency must take the first two semesters in a foreign language without degree credit to remove the deficiency.
   
   The usual course sequence is 406 or 506, 407 or 507 or 508K, 312K, and 312L. For some languages, different course numbers are used; such courses may be counted toward this requirement if they are designed to provide first-semester-level through fourth-semester-level proficiency. Credit may be earned by examination for any part of the 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 the Division of Instructional Innovation and Assessment or the department concerned for information on testing.
6. Fifteen semester hours of social science, consisting of six hours of American history; six hours of American government, including Texas government; and three hours of anthropology, economics, geography, linguistics, psychology, or sociology.
7. Three semester hours of mathematics.
8. Nine semester hours of natural sciences, of which six hours (and no more than six) must be taken in one field of study. Courses must be chosen from the following fields: astronomy, biology, chemistry, computer sciences, geological sciences, marine science, physical science, and physics. For this requirement, a student may take three hours of mathematics beyond those used to fulfill requirement 7.
9. At least thirty-six semester hours of upper-division coursework.
10. No more than twelve semester hours of transfer credit in journalism may be counted toward the degree.
11. Enough additional coursework to make a total of 120 semester hours. No more than thirty-six semester hours in any subject may be counted toward the degree, except as indicated under “Major Requirements” below. Photojournalism students are encouraged to take a three-semester-hour survey or history course in the visual arts. Such a course may be a prerequisite to photojournalism courses.

MAJOR REQUIREMENTS

1. Broadcast, multimedia, and print journalism students must complete at least thirty-three but no more than thirty-six semester hours in journalism. Photojournalism students must complete thirty-six semester hours.
2. The studies core, Journalism 310 and 360, and the skills core, Journalism 315 and 321C, are required of all journalism majors. Students must complete the skills core before taking most open, intermediate, and advanced skills courses.
3. At least six semester hours chosen from the following studies courses: Journalism 310K, 340C, 347S, 348S, 349T, 361E, 363, 364E, 366E, 367E.
   
   These courses must be completed in addition to those for the student’s concentration or sequence listed in requirement 4 below.
4. Skills courses required for the student’s concentration or sequence:
   a. Broadcast journalism: Journalism 322D, 353D, 372D, and a three-hour journalism course with a substantial writing component.
   b. Multimedia journalism: Journalism 320D, 331, 334, 359T (Topic: Writing for Online Publications), and an advanced skills course.
   c. Photojournalism: Journalism 316, 320D, 325, 336, 355, and either 370K or 371K.
   d. Print journalism:
      1. Newspaper reporting and writing sequence: Journalism 320D, 327, 330, and either 373D or 374D.
      2. Magazine writing and editing sequence: Journalism 320D, 327, 330, 347S, and either 373D, 374D, or 377D.
      3. Copy editing and design sequence: Journalism 320D, 330, 336, and 377D.
5. 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.

6. 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 requirements 6, 7, and 8 of the prescribed work above. Students who plan to concentrate in photojournalism are encouraged to take courses in chemistry, physics, and mathematics to fulfill requirement 8.
   c. Courses in a foreign language.

2. Journalism 310.

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.

4. Students who plan to concentrate in photojournalism are encouraged to take Journalism 316 in their second semester.

First-year students may not take two beginning 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 316K and any three-semester-hour course in English or rhetoric and writing.
   b. Courses to be counted toward requirements 6, 7, and 8 of the prescribed work, including courses in American government or American history.
   c. Courses in the foreign language, unless the language requirement has been fulfilled.

2. Journalism 315 and additional coursework to fulfill the major requirements. Students may take Journalism 320D if they have met the prerequisite.

3. Enough additional coursework, if needed, to raise the student's course load to fifteen or sixteen hours each semester. Basic courses in accounting and computer sciences are especially recommended.

THIRD YEAR

1. Two courses certified as having a substantial writing component.

2. Any outstanding requirements included in the prescribed work.

3. Journalism 321C and 360 and additional coursework to fulfill the major requirements. Students who are required to take Journalism 320D are strongly encouraged to do so as soon as they have been admitted to an area of concentration or a sequence.

4. Upper-division electives chosen to support the major.

FOURTH YEAR

1. Upper-division electives chosen to support the major.

2. Any remaining major requirements. All students must complete at least one advanced skills course.

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-wide graduation requirements on pages 18–19, the college graduation requirements on page 75, and the special requirements, prescribed work, and major requirements below.

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 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 318J 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 College of Communication that is counted toward the degree and a grade of at least C in each course counted toward the major require-
ments; if the course is offered on the pass/fail basis only, the student must have the symbol CR.

A score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test and a score of at least 29 on the School of Journalism Word Processing Test are prerequisites for Journalism 315. Students who do not fulfill this requirement will be unable to register for the course.

**PRESCRIBED WORK**


2. Two courses certified as having a substantial writing component, both of which may be taken within the College of Communication. Courses with a substantial writing component are identified in the Course Schedule.

3. Three semester hours of coursework in the 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 on page 77; a complete list is available in the college’s Office of Student Affairs before registration for each semester and summer session. The courses are also identified in the Course Schedule.

4. Three semester hours of fine arts, chosen from courses in art (including art history, studio art, visual art studies), fine arts, music (including music, instruments, ensemble), and theatre and dance.

5. Students must demonstrate fourth-semester-level proficiency in a foreign language. Courses taken to meet this requirement may not be taken on the pass/fail basis.

   Students who enter the University with a foreign language deficiency must take the first two semesters in a foreign language without degree credit to remove the deficiency.

   The usual course sequence is 406 or 506, 407 or 507 or 508K, 312K, and 312L. For some languages, different course numbers are used; such courses may be counted toward this requirement if they are designed to provide first-semester-level through fourth-semester-level proficiency. Credit may be earned by examination for any part of the 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 the Division of Instructional Innovation and Assessment or the department concerned for information on testing.

6. Fifteen semester hours of social science, consisting of six hours of American history; six hours of American government, including Texas government; and three hours of anthropology, economics, geography, linguistics, psychology, or sociology.

7. Mathematics 303D, 305G, or a substitute acceptable to the Business Foundations Program.

8. Nine semester hours of natural sciences, of which six hours (and no more than six) must be taken in one field of study. Courses must be chosen from the following fields: astronomy, biology, chemistry, computer sciences, geological sciences, marine science, physical science, and physics. For this requirement, a student may take three hours of mathematics beyond those used to fulfill requirement 7.

9. 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 upper-division coursework. Marketing 338 may not be counted toward this requirement.

10. At least thirty-six semester hours of upper-division coursework.

11. No more than twelve semester hours of transfer credit may be counted toward the major requirements given below.

12. Enough additional coursework to make a total of 120 semester hours. No more than thirty-six semester hours in one subject 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 upper-division. The following courses are required:

   a. Advertising 318J, 344K, Journalism 315, 360, Public Relations 319 or 331, 348, 350, 352, 367, and 377K. The student must complete Advertising 318J in residence with a grade of at least B.

      A statistics course is a prerequisite for certain upper-division courses in the major. A list of statistics courses that may be used is available from the public relations adviser.

   b. Six additional hours in public relations, advertising, and journalism, preferably chosen from Advertising 378, Public Relations 378, and Journalism 327.

2. At least six semester hours of coursework must be taken in the College of Communication but outside advertising and public relations. The following are preferred: Communication Studies 306M, 313M, 332, 367 (approved topics), Journalism 363; a list of approved topics of Communication Studies 367 is available from
the public relations adviser. No student may count toward the degree more than forty-eight 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 requirements 6, 7, and 8 of the prescribed work above.
   c. Courses in a foreign language.

2. Advertising 318J.

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 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 316K and rhetoric and writing courses to be counted toward requirement 1 of the prescribed work.
   b. Courses to be counted toward requirements 6, 7, and 8 of the prescribed work, including courses in American government or American history.
   c. Courses in the foreign language, unless the language requirement has been fulfilled.


3. A statistics course approved by the college, to meet the prerequisite for Advertising 344K.

4. 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 AND FOURTH YEARS

1. Two courses certified as having a substantial writing component.

2. Any outstanding requirements included in the prescribed work.

3. The remaining courses listed as major requirements.

4. 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.

BACHELOR OF SCIENCE
IN RADIO-TELEVISION-FILM

To be awarded the degree of Bachelor of Science in Radio-Television-Film, the candidate must complete 120 semester hours of coursework and must fulfill the University-wide graduation requirements on pages 18–19, the college graduation requirements on page 75, and the 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 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 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.

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. The departmental consent process is described on page 101; complete course prerequisites are given on pages 102–106.

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.

PRESCRIBED WORK

1. Rhetoric and Writing 306, English 316K, and an additional three-semester-hour course in either English or rhetoric and writing.

2. Two courses certified as having a substantial writing component, both of which may be taken within the College of Communication. Courses with a substantial writing component are identified in the Course Schedule.

3. Three semester hours of coursework in the 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 on page 77; a complete list is available from the college’s Office of Student Affairs before registration for each semester and summer session. The courses are also identified in the Course Schedule.

4. Three semester hours of fine arts, chosen from courses in art (including art history, studio art, visual art studies), fine arts, music (including music, instruments, ensemble), and theatre and dance.

5. Students must demonstrate fourth-semester-level proficiency in a foreign language. Courses taken to meet this requirement may not be taken on the pass/fail basis.

Students who enter the University with a foreign language deficiency must take the first two semesters in a foreign language without degree credit to remove the deficiency.

The usual course sequence is 406 or 506, 407 or 507 or 508K, 312K, and 312L. For some languages, different course numbers are used; such courses may be counted toward this requirement if they are designed to provide first-semester-level through fourth-semester-level proficiency. Credit may be earned by examination for any part of the 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 the Division of Instructional Innovation and Assessment or the department concerned for information on testing.

6. Fifteen semester hours of social science, consisting of six hours of American history: six hours of American government, including Texas government; and three hours of anthropology, economics, geography, linguistics, psychology, or sociology.

7. Three semester hours of mathematics.

8. Nine semester hours of natural sciences, of which six hours (and no more than six) must be taken in one field of study. Courses must be chosen from the following fields: astronomy, biology, chemistry, computer sciences, geological sciences, marine science, physical science, and physics. For this requirement, a student may take three hours of mathematics beyond those used to fulfill requirement 7.

9. At least thirty-six semester hours of upper-division coursework.

10. No more than twelve semester hours of transfer credit in radio-television-film may be counted toward the degree.

11. 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 upper-division. All students must take Radio-Television-Film 305, nine additional hours of lower-division coursework, and two courses chosen from the following: Radio-Television-Film 330K, 331J, 331K, 331M, 331N, 331P, 334, 335, 342, 342T, 345, 347C, 348, 359, 359S, 365, 365M, 369, and 370.

Each student may design an individual program to fulfill requirement 1 by choosing from one or more of the principal areas described in the section “Areas of Study” below.

2. At least six semester hours of coursework must be taken in the College of Communication but outside the department. However, no student may count toward the degree more than forty-eight 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.

AREAS OF STUDY

The program in radio-television-film is designed to prepare students for careers in media research, creative writing, and various production fields. It is also intended to train students to analyze the role in society of communication media and technologies. To meet these goals, the department offers a multidisciplinary curriculum. The three principal areas of study are production, screenwriting, and media studies. Students in media studies may focus on critical and cultural studies, ethnic and minority studies, gender and sexuality studies, mass communication, international communication, or communication technology and policy.

Each student’s program of study is planned by the student and the adviser to meet the student’s academic and professional goals. Since upper-division courses in each area require specific lower-division prerequisites, students should choose their lower-division courses with care. The following are the upper-division radio-television-film courses in each area, and the prerequisite lower-division courses. Complete course prerequisites are given on pages 102–106.

1. Production
   Prerequisite lower-division courses: Radio-Television-Film 305, 317, 318, and three additional semester hours of lower-division coursework in radio-television-film.
b. Radio-Television-Film 331Q, 331R, 331T, and 344M. Prerequisite lower-division courses: Radio-Television-Film 305, 318 or 319, and six additional semester hours chosen from Radio-Television-Film 309, 314, 316, 317, 318, and 319.

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 each 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 the college Learning Equipment Fee and the incidental fees assessed for each course.

2. Screenwriting: Radio-Television-Film 333 and 369. Prerequisite lower-division courses: Radio-Television-Film 305, either 314 or 316, and six additional semester hours of lower-division coursework in radio-television-film.

3. Media studies
   a. Critical and cultural studies, ethnic and minority studies, gender and sexuality studies: Radio-Television-Film 331K, 335, 345, 359, 365 (Topic 4: History of United States Latino Media), 365 (Topic 5: Latin American Media), 365 (Topic 7: Narrowcasting), and 370. Prerequisite lower-division courses: Radio-Television-Film 305, either 314 or 316, and six additional semester hours of lower-division coursework in radio-television-film.

4. Options for independent study
   Radio-Television-Film 330L, Internship in Film and Electronic Media
   Radio-Television-Film 336, Special Projects in Radio-Television-Film
   Radio-Television-Film 178, Radio-Television-Film Internship
   Radio-Television-Film 378H, Honors Tutorial Course

Prerequisites for these courses vary; they are given later in this chapter and in the Course Schedule.

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 requirements 6, 7, and 8 of the prescribed work.
   c. Courses in a foreign language.

2. Radio-Television-Film 305 and one of the following: Radio-Television-Film 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 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 316K and any three-semester-hour course in English or rhetoric and writing.
   b. Courses to be counted toward requirements 6, 7, and 8 of the prescribed work, including courses in American government or American history.
   c. Courses in the foreign language, unless the language requirement has been fulfilled.

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. Two courses certified as having a substantial writing component.

2. Any outstanding requirements included in the prescribed work.

3. Two upper-division radio-television-film courses to be counted toward requirement 1 of the major requirements.

4. Twelve to twenty-four semester hours of upper-division coursework in radio-television-film.

5. Enough additional coursework to raise the student's course load to fifteen or sixteen hours each semester.
## COURSES

The faculty has approval to offer the following courses in the academic years 2006–2007 and 2007–2008; 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.

### COMMUNICATION

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

#### COMMUNICATION: COM

**Lower-Division Courses**

**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.

**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.

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

**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 non-profit 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.

**309. Communication Technology and Society.** Same as Radio-Television-Film 309. Study of communication technologies, their uses in interpersonal, group, mass, and international contexts, and the impact of technologies on work. **Prerequisite:** For radio-television-film majors, Radio-Television-Film 305; for others, none.

**314. Special Topics in Communication.** Contemporary issues and practices in communication. May be repeated for credit when the topics vary.

**316M. Communication and Ethnic Groups.** 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, policy, and institutions. Three lecture hours and one discussion hour a week for one semester. **Prerequisite:** A major in the College of Communication. Additional prerequisite for radio-television-film majors: Radio-Television-Film 305.

**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.

**119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

**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.

**324. Topics and Skills in Communication.** Contemporary issues, practices, and skills in communication and the entertainment industry, including studies in the business of entertainment, the creative process, and contemporary Hollywood cinema. May be repeated for credit when the topics vary. **Prerequisite:** Upper-division standing. Radio-Television-Film 305, admission to the Semester in Los Angeles program, and a University grade point average of at least 2.25.
129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. **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 Center for Global Educational Opportunities. 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.

350. **Communication Internship.** Restricted to students in the College of Communication with upper-division standing. 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. Offered on the pass/fail basis only. May not be taken by students who have credit for any three-semester-hour communication internship course. **Prerequisite:** Completion of the prerequisite for the three-semester-hour internship course in the student’s major department. Applications are available in the college’s career services office and must be submitted by the sixth class day in a long-session semester and by the second class day in the summer term.

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, Radio-Television-Film 305, admission to the Semester in Los Angeles program, and a University grade point average of at least 2.25.

360. **Communication Research Design.** An introduction to sampling, measurement, data collection, and analytic procedures as applied to research problems in communication. **Prerequisite:** Upper-division standing.

370. **Advanced Study in Communication.** 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.

178. **Communication Internship.** Restricted to students in the College of Communication with upper-division standing. 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. Offered on the pass/fail basis only. May be repeated, but only one hour may be counted toward a degree in the College of Communication. **Prerequisite:** Completion of a three-hour internship course in the College of Communication. Applications are available in the college’s career services office and must be submitted by the sixth class day in a long-session semester and by the second class day in the summer term.

**DEPARTMENT OF ADVERTISING**

Unless otherwise stated below, each course meets for three lecture hours a week for one semester. Because prerequisites are subject to change, students should consult the Course Schedule before registering.

**ADVERTISING: ADV**

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 on pages 658–662.

**Lower-Division Courses**

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. May not be counted toward the Bachelor of Science in Advertising degree.

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.

305. **Fundamentals of Advertising.** Fundamentals and practices of advertising in relation to economies, societies, and mass communication. May not be counted toward the Bachelor of Science in Advertising degree.

315. **History and Development of Advertising.** The evolution and development of advertising in the United States in a social, historical, economic, and cultural context. Advertising 315 and 335 may not both be counted.

316. **Creativity and American Culture.** A cross-disciplinary view of the creative process and creative products. The conceptual core of film, fine arts, advertising, architecture, and literature. May not be counted toward the Bachelor of Science in Advertising degree.

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.

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.

**Upper-Division Courses**

To enroll in any upper-division advertising course, an advertising major must have fulfilled the special requirements for the Bachelor of Science in Advertising given on page 79.

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:** Upper-division standing, and Advertising 318J with a grade of at least B.

334. **International Advertising.** Major issues in international advertising and advertising directed at cultural minorities within countries. **Prerequisite:** Advertising 318J or Marketing 320F or 337.

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. **Prerequisite:** Advertising 325 with a grade of at least C, and instructor’s approval of the student’s previous work in advertising courses.

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 C, and admission to the Texas Creative sequence.
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 318J with a grade of at least B, and completion of an approved statistics course with a grade of at least C. A list of approved courses is available from the Office of Student Affairs in the Department of Advertising.

345J. Advertising Media Planning. Media characteristics and media-market measurements; development of media plans. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Credit with a grade of at least C or registration for Advertising 325, and completion of an approved statistics course with a grade of at least C.

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 318J with a grade of at least B and consent of instructor received prior to registering.

Topic 1: Advertising Design for Interactive Media.

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. Prerequisite: Upper-division standing.

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. Advertising 350 and 468K may not both be counted. Prerequisite: Advertising 344K and 345J with a grade of at least C in each. An internship application and a letter from the employer must be submitted by the twelfth class day in long-session semesters and by the fourth class day in the summer session.

151. Advertising Practicum. Internship and discussion hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Advertising 350 or 468K, consent of departmental internship coordinator, and completion of department requirements for enrollment in an internship course.

366. Special Topics in Advertising. May be repeated for credit when the topics vary. May not be counted toward the Bachelor of Science in Advertising degree.

368C. Advertising Senior Seminar. May be repeated for credit when the topics vary. Prerequisite: Credit or registration for Advertising 370J and written consent of instructor received prior to registering.

Topic 1: Agency Practices.
Topic 2: Affect and Emotion.
Topic 3: Advertising Ethics.

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. Advertising 350 and 468K may not both be counted. Prerequisite: Advertising 343K.

468L. Portfolio III. Advanced advertising art direction and advertising creative concepts. Three lecture hours and three studio hours a week for one semester. Prerequisite: Advertising 468K.

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. Advertising 370J and Public Relations 367 may not both be counted. Prerequisite: Advertising 344K and 345J with a grade of at least C in each; and Marketing 320F or 337.

371J. Advertising and Society. A study of the social, legal, and ethical issues in advertising. Prerequisite: Advertising 344K and 345J with a grade of at least C in each; and Marketing 320F or 337.

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 and three laboratory hours a week for one semester. Only one of the following may be counted: Advertising 369J, 373, Public Relations 377K. Prerequisite: Advertising 370J or Public Relations 367.

475. Portfolio IV. Restricted enrollment; selected students may register only after critique. 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.

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. Additional prerequisite: Experience using HTML. Students may be added to the class on the first class day.

Topic 3: Digital Media. Additional prerequisite: Experience using HTML. Students may be added to the class on the first class day.

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.

378. Advanced Studies in Advertising. May be repeated for credit when the topics vary. Prerequisite: Advertising 318J with a grade of at least B, and written consent of instructor.


Topic 4: Direct Marketing. Additional prerequisite: Marketing 320F.

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. Prerequisite: Admission to the Advertising Honors Program.
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. Public Relations 334 and 352 may not both be counted. **Prerequisite:** Public Relations 319 (or 333) or 331, and 348.

366. **Special Topics in Public Relations.** May be repeated for credit when the topics vary. May not be counted toward the Bachelor of Science in Public Relations degree.

367. **Integrated Communications Management.** Public relations as a managerial problem-solving process; strategic management of programs to enhance public-organizational relationships. Advertising 370J and Public Relations 367 may not both be counted. **Prerequisite:** Advertising 344K; Marketing 320F; Public Relations 319 (or 333) or 331; Public Relations 348; and Journalism 315 or one of the following courses: Rhetoric and Writing 309K, 309L, 309S, 325M, 379C (Topic: Grammar and Style for Writers).

374. **Public Relations Publications.** Production of controlled public relations media for internal and external publics; analysis of annual reports, trade magazines, and electronic publishing. **Prerequisite:** Public Relations 319 (or 333) or 331, and 348, or consent of instructor; and Journalism 315 or one of the following courses: Rhetoric and Writing 309K, 309L, 309S, 325M, 379C (Topic: Grammar and Style for Writers).

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. Only one of the following may be counted: Advertising 369J, 373, Public Relations 377K. **Prerequisite:** Public Relations 367 or Advertising 370J.

378. **Advanced Studies in Public Relations.** May be repeated for credit when the topics vary. **Prerequisite:** Public Relations 305, 319 (or 333), or 331. 179, 279, 379. **Public Relations Problems.** Individual instruction. **Prerequisite:** Public Relations 352 (or 334).

379K. **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. **Prerequisite:** Admission to the Public Relations Honors Program.

**DEPARTMENT OF COMMUNICATION SCIENCES AND DISORDERS**

Unless otherwise stated below, each course meets for three lecture hours a week for one semester. Because prerequisites are subject to change, students should consult the **Course Schedule** before registering.

**COMMUNICATION SCIENCES AND DISORDERS: CSD**

**Lower-Division Courses**

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.

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.

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.

313L. **Hearing Science.** Acoustical, physiological, and psychological bases of normal human hearing; theories of audition; laboratory techniques in hearing science research.
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.

315S. Speech Science. Same as Linguistics 315. Physiological and acoustical bases of speech production; theories of motor control of speech; laboratory techniques in speech science research.

Upper-Division Courses

341. Principles of Audiology. Causes of hearing disorders; diagnostic procedures and treatment. Prerequisite: Upper-division standing, and Communication Sciences and Disorders 313L or consent of instructor.


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 Sciences and Disorders Honors Program.

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. Offered in the fall semester only. Prerequisite: Upper-division standing and Communication Sciences and Disorders 308K.

367. Topics in Communication Sciences and Disorders. May be repeated for credit when the topics vary. Communication Sciences and Disorders 367 and Communication Studies 367 may not both be counted unless the topics vary. Prerequisite: Upper-division standing.

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. Communication Sciences and Disorders 367 (Topic: Communication, Culture, and the Disabled) and 367C may not both be counted. Fulfills the communication and culture requirement.

367K. Introduction to Speech and Language Disorders Assessment and Treatment in Children. Introduction to assessment procedures and treatment strategies for children with speech and language disorders. Prerequisite: Upper-division standing, twelve semester hours of lower-division coursework in communication sciences and disorders, and Communication Sciences and Disorders 368K.

367M. Clinical Practicum. Supervised clinical practicum in speech/language pathology, audiology, and education of the deaf. One lecture hour and two hours of clinical teaching a week for one semester. Offered on the pass/fail basis only. Prerequisite: Communication Sciences and Disorders 367K, 371, or 378; and consent of instructor.

368K. Acquisition of Communicative Abilities in Children. Development in the very young child of capacities for speaking and listening; how these abilities are employed for communicative purposes. Prerequisite: Upper-division standing and concurrent enrollment in Communication Sciences and Disorders 168L.

368L. Acquisition of Communicative Abilities in Children: Laboratory. Clinical laboratory experience in child language. One lecture hour a week for one semester. Prerequisite: Upper-division standing and concurrent enrollment in Communication Sciences and Disorders 368K.

371. Introduction to Speech and Language Disorders Assessment and Treatment in Adults. Introduction to assessment procedures and treatment strategies for adults with speech and language disorders. Prerequisite: Upper-division standing, twelve semester hours of lower-division coursework in communication sciences and disorders, and Communication Sciences and Disorders 350.

373. Principles of Aural Rehabilitation. Rationale, methods, materials, procedures, and criteria for aural rehabilitation for hearing-impaired persons. Prerequisite: Upper-division standing and twelve semester hours of lower-division coursework in communication sciences and disorders.

175K. Symposium on Deafness. Discussion of selected topics in social, political, and educational aspects of deafness. One lecture hour a week for one semester. Offered on the pass/fail basis only. May not be counted toward any degree. Prerequisite: Upper-division standing.

378. Clinical Audiology. Differential diagnostic procedures for evaluation of auditory disorders—theoretical concepts and clinical applications. Prerequisite: Upper-division standing, Communication Sciences and Disorders 341, and concurrent enrollment in Communication Sciences and Disorders 178L.

178K, 378K. Studies in Communication Sciences and Disorders. Supervised individual research. With consent of the department chair, may be repeated, but only three hours may count toward a degree in the College of Communication. Prerequisite: Eighteen semester hours of coursework in communication sciences and disorders, 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.

178L. Clinical Audiology Laboratory. Clinical laboratory experience in audiology. One lecture hour a week for one semester. Prerequisite: Upper-division standing and concurrent enrollment in Communication Sciences and Disorders 378.

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 Sciences and Disorders 359H.

DEPARTMENT OF COMMUNICATION STUDIES

Unless otherwise stated below, each course meets for three lecture hours a week for one semester. Because prerequisites are subject to change, students should consult the Course Schedule before registering.

COMMUNICATION STUDIES: CMS

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 on pages 658–662.

Lower-Division Courses

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. Only one of the following may be counted: Communication Studies 305, 306M, 319.
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.

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.

312C. **Sales Communication.** Focus on communication and the sales process. Includes making effective sales presentations, handling objections, and closing skills. Communication Studies 312C and 317M may not both be counted. *Prerequisite:* Communication Studies 306M (or 305 or 319).

313M. **Organizational Communication.** Communication processes within government, private, and volunteer organizations. Communication Studies 313M and 350K may not both be counted.

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.

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.

316L (TCCN: SPCH 2316). **Interviewing Principles and Practices.** Introduction to interviewing theory, emphasizing the acquisition and application of interviewing skills.

317C. **Speecmaking and Society.** The impact of public discourse on the ideas and issues of culture and history in the United States.

317M. **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. Communication Studies 312C and 317M may not both be counted. *Prerequisite:* Communication Studies 306M (or 305 or 319).

**Upper-Division Courses**

331K. **Speech Writing and Criticism.** Composition and analysis of oral messages; emphasis on creating and arranging ideas, style, delivery, critical method. *Prerequisite:* Upper-division standing; and Communication Studies 306M or the equivalent, or consent of instructor.

332. **Argumentation and Advocacy.** Nature of argumentative controversy; variables of form, method, and ethics; analysis of argumentative rhetorical works. *Prerequisite:* Upper-division standing.

332K. **Theories of Persuasion.** A study of motivational factors involved in persuasive speaking to secure belief and action. *Prerequisite:* Upper-division standing.

334K. **Nonverbal Communication.** Survey of the effects of space, physical appearance, movement, eye behavior, and vocal behavior on interpersonal communication. *Prerequisite:* Upper-division standing.

340K. **Communication and Social Change.** Analysis of how persuasion is used in mass movements: civil rights, consumerism, feminism, pacifism, religious sects. *Prerequisite:* Upper-division standing.

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. *Prerequisite:* Upper-division standing.

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. Communication Studies 344K and 367 (Topic: Lying and Deception) may not both be counted. *Prerequisite:* Upper-division standing.

345K. **Perspectives on Rhetoric.** Four different meanings of rhetoric; how these meanings contribute to the current understanding of communication studies. *Prerequisite:* Upper-division standing.

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. Communication Studies 347K and 367 (Topic: Rhetoric of Popular Culture) may not both be counted. *Prerequisite:* Upper-division standing.

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). *Prerequisite:* Upper-division standing.

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:* Communication Studies 347K.

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. *Prerequisite:* Upper-division standing.

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. *Prerequisite:* Upper-division standing.

352. **Organizational Leadership.** Theories, styles, and components of organizational leadership; communication behaviors of leaders in organizations. History of the study of leadership: new theories and concepts related to leaders as managers of organizational culture and change. *Prerequisite:* Upper-division standing.

353. **New Communication Technologies in Organizations.** Theory, research, and application of interactive communication technologies in traditional and virtual work settings. Specific attention is given to new technologies, including communicative features, and their effects. *Prerequisite:* Upper-division standing.

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. *Prerequisite:* Upper-division standing.
355K. **Intercultural Communication.** Theories of speech and language that concern interaction between persons from different cultures who speak different languages or dialects. **Prerequisite:** Upper-division standing.

356M. **Communication and Human Resource Management.** Three general functions associated with human resource management: employee transitioning, feedback and appraisal, and planned change implementation. Communication Studies 356M and 367 (Topic: Communication and Human Resource Management) may not both be counted. **Prerequisite:** Upper-division standing and Communication Studies 313M (or 350K).

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. **Prerequisite:** Upper-division standing.

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. **Prerequisite:** Upper-division standing.

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.

361M. **Communication and Organizational Change.** Review of theoretical and practitioner literatures on planned change, including implementing change programs and coping with change that occurs in organizational settings. **Prerequisite:** Upper-division standing and Communication Studies 313M (or 350K).

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. Communication Studies 364K and 367 (Topic: Gender and Communication) may not both be counted. **Prerequisite:** Upper-division standing.

364M, 264M, 364M. **Communication Studies Mentorship.** Directed study of one or more areas of an academic discipline. Individual instruction. With consent of the department chair, may be repeated for credit, but no more than three hours may be taken. **Prerequisite:** Upper-division standing.

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. Communication Studies 365K and Women's Studies 345 (Topic 21: Male-Female Communication) may not both be counted. **Prerequisite:** Upper-division standing.

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. Communication Studies 365L and 367 (Topic: Communication, Controversy, and Citizenship) may not both be counted. **Prerequisite:** Upper-division standing.

366K. **Conversation Analysis.** Theory and practice of detailed analysis of patterns in natural spoken interaction, including techniques for field recording of speech, transcription, and analytic induction from examples. **Prerequisite:** Upper-division standing.

367. **Topics in Communication Studies.** May be repeated for credit when the topics vary. Communication Sciences and Disorders 367 and Communication Studies 367 may not both be counted unless the topics vary. **Prerequisite:** Upper-division standing.

368L. **Communication Theory and Application.** Survey of a broad range of theoretical issues involving human communication, including communication in small groups, organizational communication, rhetorical studies, persuasion, new communication technologies, gender and communication, and intercultural communication. Communication Studies 367 (Topic: Communication Theory and Application) and 368L may not both be counted. **Prerequisite:** Upper-division standing.

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.

371K. **Practicum in Conflict Mediation.** Three lecture hours a week for one semester, and ten to twenty hours of work a week with the College of Communication Conflict Mediation Project. Offered on the pass/fail basis only. With consent of instructor, may be repeated once for credit.

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.

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. **Prerequisite:** Upper-division standing and Communication Studies 313M (or 350K).

178K, 278K, 378K, 478K, 578K, 678K. **Research in Communication Studies.** Supervised individual research. **Prerequisite:** Twelve semester hours of coursework in communication studies (or speech), consent of instructor, and approval of project by the department chair prior to registering.

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. Exceptions to this rule may be made by the director or associate director for seniors who need additional journalism courses in order to graduate in a timely manner. 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 affect registration in journalism courses. These include the Grammar, Spelling and Punctuation Test requirement described on page 73 and the policies described in the section “Special Requirements” on page 84. Unless otherwise stated below, each course meets for three lecture hours a week for one semester. Because prerequisites are subject to change, students should consult the Course Schedule before registering.

JOURNALISM: J

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 on pages 658–662.

Lower-Division Courses


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.

315 (TCCN: COMM 2311). News Media Writing and Editing. Restricted to prejournalism and pre–public relations majors. Introduction to fundamental journalistic writing skills for the media and to fundamental copyediting, including selection, processing, and display of news and other information; studies in news audience interests; readability, clarity, verification, and style. Two lecture hours and three to four and one-half laboratory hours a week, as required, for one semester. Prerequisite: Journalism 310 and 315 with a grade of at least C and six laboratory hours a week for one semester.

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 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.

Upper-Division Courses

320D. Intermediate Reporting. Restricted to journalism majors. Information-gathering and information-retrieval skills, reporting and editing techniques, and interviewing. Introduction to electronic resources for journalists. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Journalism 310 and 315 with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; a score of at least 29 on the School of Journalism Word Processing Test; and acceptance into the major in journalism.

321C. Fundamentals of Multimedia Journalism. Restricted to journalism majors. Focuses on new forms of journalism based on the Internet and other digital platforms. Examines the digital revolution and the creation of a global information society, with a special focus on the effects upon journalism, such as computer-assisted reporting in the area of news gathering, and media convergence in news dissemination. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Journalism 310 and 315 with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.

322D. Broadcast Newswriting and Radio Reporting. Restricted to journalism majors. Examination and practice of writing news for broadcast and of basic broadcast reporting skills. Students write, report, edit, and produce a radio news program on deadline. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Journalism 310 and 315 with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; a score of at least 29 on the School of Journalism Word Processing Test; and acceptance into the broadcast journalism area.

325. Photography I. Restricted to journalism majors. Intensive training in basic digital and black-and-white professional photography; darkroom techniques; fundamental approaches to producing images. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Journalism 310, 315, and 316 with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; a score of at least 29 on the School of Journalism Word Processing Test; a three-semester-hour survey or history course in the visual arts; and acceptance into the photojournalism area.

327. Feature Writing. Restricted to journalism majors. 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. 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 310 and 315 with a grade of at least C in each; credit or registration for Journalism 320D; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.

330. News Editing. Restricted to journalism majors. Advanced editing for news media. Emphasis on news judgment, language use, and print editing, as well as skills necessary for the collaborative production of multimedia news. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Journalism 310, 315, and 320D with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.
331. **Web Publishing.** Restricted to journalism majors. 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 310, 315, and 320D with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.

331K. **Projects in Professional Experience.** Restricted to journalism majors. Internships to be arranged by student and approved by instructor. Offered on the pass/fail basis only. May be taken only once. *Prerequisite:* Journalism 310, 315, and 320D with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; a score of at least 29 on the School of Journalism Word Processing Test; and consent of instructor. Each student must also have earned a grade of at least C in the following course or courses appropriate to his or her area of concentration: broadcast news: Journalism 322D; print journalism: Journalism 320D; photojournalism: Journalism 325; or, for students with approval to complete a multimedia internship: Journalism 320D.

131P. **Internship.** Restricted to journalism majors. Internship and discussion hours to be arranged. Offered on the pass/fail basis only. May be repeated for credit, but only one hour may be counted toward a degree in the College of Communication. *Prerequisite:* Journalism 331K; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; a score of at least 29 on the School of Journalism Word Processing Test; and consent of instructor.

334. **Multimedia Journalism.** Restricted to journalism majors. 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 310, 315, and 320D with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.

335. **Narrative Journalism.** Restricted to journalism majors. 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 310, 315, and 320D with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.

336. **Visual Design.** The history, design, and production of media materials. Topics include design principles, visual perception, typography, and manipulation of images and photographs; printing processes and color reproduction; and page design for print. Three lecture hours and two laboratory hours a week for one semester. *Prerequisite:* Journalism 310 and 315 with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.

338. **Computer-Assisted Reporting.** Restricted to journalism majors. Study of computer-assisted journalism, including electronic document retrieval and manipulation, spreadsheet and database management, and Internet skills. Collaborative work on major investigative projects. *Prerequisite:* Journalism 310, 315, and 320D with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; a score of at least 29 on the School of Journalism Word Processing Test; and consent of instructor.

339D. **News Documentaries and Public Affairs.** Restricted to journalism majors. Study and practice of researching, writing, and producing short-form and magazine documentaries for television. *Prerequisite:* Journalism 310, 315, and 320D with a grade of at least C in each; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; a score of at least 29 on the School of Journalism Word Processing Test; and consent of instructor.

340C. **Topics in Journalism, Communication, and Culture.** Issues concerning minority or nondominate groups within the United States. 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 1: Mass Media and Minorities.** Survey of minority communication problems: alienation, fragmentation, media 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), Latin American Studies 322 (Topic 10: *Mass Media and Minorities*), Mexican American Studies 374 (Topic 22: *Mass Media and Minorities*). *Prerequisite:* Upper-division standing; a major in journalism; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.

- **Topic 2: African Americans and the Media.** Same as African American Studies 374 (Topic 23: *African Americans and the Media*). *Prerequisite:* Upper-division standing.

- **Topic 3: Journalism and Religion.** How journalists from different faiths view the news and how religion-based organizations may be understood and covered. *Prerequisite:* Upper-division standing; a major in journalism; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.

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:* Upper-division standing; a major in journalism; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.

348S. **Media Management.** Print and broadcast management and planning in operations, personnel, content, marketing, finance, technology, and regulation. *Prerequisite:* Upper-division standing; a major in journalism; a score of at least 45 on the College of Communication Grammar, Spelling and Punctuation Test; and a score of at least 29 on the School of Journalism Word Processing Test.

349T. **Topics in Journalism.** Contemporary social, professional, and intellectual concerns in the practice of journalism. 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*. 
360. **Media Law and Ethics.** Social and ethical responsibilities; legal rights and restrictions, including Constitutional guarantees, libel, invasion of privacy, and contempt of court. **Prerequisite:** Upper-division standing and a major in journalism or public relations; or consent of instructor.

361E. **International News.** Survey of international news flow patterns; barriers to free news flow; comparative studies of the foreign press; the role of foreign correspondents and international news agencies. **Prerequisite:** Upper-division standing and a major in journalism, or consent of instructor.

362E. **History of Photography.** Development of photojournalism and commercial, documentary, amateur, and art photography; historical processes, the evolution of stylistic trends, and the careers of major photographers. **Prerequisite:** Upper-division standing and a major in journalism, or consent of instructor.

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. **Prerequisite:** Upper-division standing and a major in journalism or public relations; or consent of instructor.

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. **Prerequisite:** Upper-division standing and a major in journalism, or consent of instructor.

366E. **History of Journalism.** Development of the mass media; social, economic, and political factors that have contributed to changes in the press. **Prerequisite:** Upper-division standing and a major in journalism, or consent of instructor.
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. Prerequisite: Upper-division standing and a major in journalism, or consent of instructor.

370K. Advanced Photojournalism. Restricted to journalism majors. 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.

371K. Photographic Illustration. Restricted to journalism majors. 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.

372D. Television Producing. Restricted to journalism majors. Philosophy and execution of producing television news programs. Advanced writing and reporting skills. Students are responsible for collaborative production of television news programs on deadline. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Journalism 322D and 353D with a grade of at least C in each, and acceptance into the broadcast journalism area.

373D. Advanced News Reporting. Restricted to journalism majors. 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 320D with a grade of at least C.

374D. Advanced Feature Writing. Restricted to journalism majors. Study of researching, reporting, writing, and structuring advanced feature stories for consumer/trade publications and newspapers, with a concentration on identifying and contacting appropriate freelance markets regarding queries and stories. Prerequisite: Journalism 320D and 327 with a grade of at least C in each.

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 349T (Topic 6: Print Design), 375, 376D, 377D. Prerequisite: Journalism 330 and 336 with a grade of at least C in each.

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 349T (Topic 6: Print Design), 375, 376D, 377D. Prerequisite: Journalism 330 and 336 with a grade of at least C in each.

377D. Print Design. Restricted to journalism majors. 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 349T (Topic 6: Print Design), 375, 376D, 377D. Prerequisite: Journalism 330 and 336 with a grade of at least C in each.

379. Journalism Research Projects. 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: Consent of the director of the school.

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.

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: Consent of the director of the school.

DEPARTMENT OF RADIO-TELEVISION-FILM

Attendance is required at the first class meeting of Radio-Television-Film 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 fees. 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. Most upper-division radio-television-film courses are restricted to radio-television-film majors. At any time, a nonmajor may ask the instructor for consent to register for his or her course. However, faculty members often do not give nonmajors consent to enroll until demand for the course can be determined on the first day.

Consent of the instructor is part of the prerequisite given below for a small number of upper-division courses. Students request consent the semester before they plan to take a course. Consent Week is usually the first week of October for the spring semester, and the first week of April for the summer sessions and the fall semester. Dates are posted outside the department office and published at http://rtf.utexas.edu/. Instructions for applying for consent are available at http://rtf.utexas.edu/.

Requirements for consent are posted along with course descriptions and publicized by the department. The student should check the posted course descriptions prior to Consent Week and should see the instructor for more information.

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.
Unless otherwise stated below, each course meets for three lecture hours a week for one semester. Because prerequisites are subject to change, students should consult the Course Schedule before registering.

RADIO-TELEVISION-FILM: RTF

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 on pages 658–662.

Lower-Division Courses

305 (TCCN: COMM 1307). Introduction to Media Studies. Introduction to historical, cultural, political, economic, and international characteristics of mass media in society. Three lecture hours, one discussion hour, and one two-hour film screening a week for one semester. Required of all radio-television-film majors.

309. Communication Technology and Society. Same as Communication 309. Study of communication technologies, 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. Prerequisite: For radio-television-film majors, Radio-Television-Film 305; for others, none.

312C. Introduction to International Communication. A world perspective on information, news, and entertainment communication systems; politics, technology, economics, and culture. Prerequisite: Radio-Television-Film 305.

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, and visual aesthetics. Three lecture hours and one two-hour film screening a week for one semester. Prerequisite: Radio-Television-Film 305.

316 (TCCN: COMM 1335). History of Radio and Television. Survey of history, technology, regulation, audience, and economics of radio, television, and related electronic media. Three lecture hours a week for one semester, with one screening of up to two hours a week as required. Prerequisite: Radio-Television-Film 305.

316M. Communication and Ethnic Groups. Same as Communication 316M. Critical review of contemporary and historical media images of, and discourses on, race and ethnicity. Introduction to relevant communication research, policy, and institutions. Three lecture hours and one discussion hour a week for one semester. Prerequisite: A major in the College of Communication. Additional prerequisite for radio-television-film majors, Radio-Television-Film 305.

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 one two-hour film screening a week for one semester. Required of all students in the production area. Prerequisite: Radio-Television-Film 305.

318. Introduction to Image and Sound. Restricted to radio-television-film majors. Basic information, skills, and theories required to equip students to communicate through audiovisual media. Lectures and practical applications. Three lecture hours a week for one semester, with studio hours to be arranged. Required of all students in the production area. Prerequisite: Radio-Television-Film 305.

319. Introduction to Digital Media. Basic information, skills, and theories of digital media. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Radio-Television-Film 305.

Upper-Division Courses

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. 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.

330L. Internship in Film and Electronic Media. Restricted to radio-television-film majors. Position availability depends on qualifications of student and number of internships open at time of enrollment. Practical work experience related to the study of film, television, radio, or other media. Students must make their own arrangements to secure relevant internships. Internship listings are available in the college's career services office. The equivalent of ten class hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: 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; and consent of the internship coordinator.

331J. Policy Issues in New Communication Technologies. Restricted to radio-television-film majors. Overview of policy and regulation of communication systems in the United States, with emphasis on contemporary technologies. 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, 309, and six additional semester hours of lower-division coursework in radio-television-film.

331K. Film, Video, and Television Theory. Restricted to radio-television-film majors. Survey of basic theories that seek to explain the structure and process of film, video, and television communication. 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, 309, and six additional semester hours of lower-division coursework in radio-television-film.

Topic 1: Cult Movies and Gender Issues.
Topic 2: Television and Theories of Gender.
Topic 4: Feminist Media Theory. Survey of basic feminist media theory.
Topic 5: Screen Theory. Survey of basic screen theory.

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.
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. 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, 309, and six additional semester hours of lower-division coursework in radio-television-film.

331N. The Information Society. Restricted to radio-television-film majors. Introduction to information technologies and their relation to existing media; includes history, policy, economics, and social impact. 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, 309, and six additional semester hours of lower-division coursework in radio-television-film.

331P. Topics in New Communication Technologies. Restricted to radio-television-film majors. Applications and potential effects of new telecommunication and information technologies in the home and the workplace, and for education and social services. 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 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.

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, 319; for others, upper-division standing and consent of instructor.

331R. Topics in New Media. Examination of the impact of technology on the visual, spatial, and textual environment. 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, 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, 319; for others, upper-division standing and consent of instructor.

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, 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, 319; for others, upper-division standing and consent of instructor.

333. Introduction to Screenwriting. Restricted to radio-television-film majors. Development of skills and practice in the art of writing for media; emphasis on particular aspects of each medium: audience, objectives, economic structures. Many short scripts will be written and evaluated. Three lecture hours and two workshop 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, either 314 or 316, and six additional semester hours of lower-division coursework in radio-television-film.

334. Broadcast Programming and Audience Effects. Restricted to radio-television-film majors. Study of broadcast programming and its cognitive and behavioral impact on audiences. 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 and nine additional semester hours of lower-division coursework in radio-television-film.

335. Television Analysis and Criticism. Restricted to radio-television-film majors. 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 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.

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; 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; and consent of instructor and the chair of the department.

337. Radio Fundamentals. Restricted to radio-television-film majors. Theory and practice of directing, producing, and performing for radio. 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 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.

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 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.

338. Introduction to Film. Restricted to radio-television-film majors. Introduction to 16-mm film production. Three lecture hours and six laboratory hours a week for one semester. Prerequisite: Radio-Television-Film 340, 366, or 366K.
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 be repeated for credit when the topics vary. May not be taken concurrently with Radio-Television-Film 366 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.

Topic 1: Drama/Music Production.
Topic 2: Public Affairs Production.

341. **Audio Production.** Restricted to radio-television-film majors. Theory and practice of stereo and multitrack audio recording for applications in radio, television, and film. Software costs borne by the student. 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 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.

341C. **Advanced Audio for Broadcasting and Film.** Restricted to radio-television-film majors. Specialized problems in broadcast audio and in recording for film, television, and multimedia. Software costs borne by the student. 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 or 341.

342. **International Communication.** Restricted to radio-television-film majors. Study of political, social, cultural, and economic factors affecting the use and impact of new and old communication technologies. Topics in addition to those below may be listed in the Course Schedule. 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 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 2: Comparative Media Systems.
Topic 4: Participatory Media.
Topic 5: Intercultural Communication.
Topic 6: Development Communication. Same as Middle Eastern Studies 322K (Topic 14: Development Communication). Asian Studies 361 (Topic 17: Development Communication) and Radio-Television-Film 342 (Topic 6) may not both be counted.
Topic 7: Global Media Systems.

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. 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, 309, and six additional semester hours of lower-division coursework in radio-television-film.

343. **Advanced Video Production.** Restricted to radio-television-film majors. Specialized problems in film and video production for producer, director, and performer; professional-level 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.

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 B in each. Additional prerequisites vary with the topic and are given in the Course Schedule.

344M. **Special Applications of Digital Media Production.** Special topics in digital media theory, design, or development. 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, 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, 319; for others, upper-division standing and consent of instructor.

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 361 (Topic 6: Israeli Cinema and Television), 363 (Topic 16: Israeli Cinema and Television), Middle Eastern Languages and Cultures 372 (Topic 15: Israeli Cinema and Television), Middle Eastern Studies 325 (Topic 2: Israeli Cinema and Television), Radio-Television-Film 345 (Topic 2).
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.

346. **Introduction to Editing.** Restricted to radio-television-film majors. Theory and practice of linear video and film editing techniques. 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; 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.
346C. **Intermediate Editing.** Restricted to radio-television-film majors. Advanced theory and practice of video and film editing techniques. 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 346.

347C. **The Business of Film and Television.** Restricted to radio-television-film majors. Survey of business practices in film, television, and music industries: development, production, distribution, and exhibition. 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 and nine additional semester hours of lower-division coursework in radio-television-film.

348. **Studies in Film and Electronic Media Industries.** Restricted to radio-television-film majors. Examination of the economics and the production, research, management, and distribution practices of the film and electronic media industries. 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 and nine additional semester hours of lower-division coursework in radio-television-film.

351. **Film Animation and Graphics.** Restricted to radio-television-film majors. Principles and practice of graphics for film, including animation basics. 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.

351C. **Digital Animation and Graphics.** 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. **Prerequisite:** Upper-division standing; and 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.

359. **Studies in Media and Culture.** Restricted to radio-television-film majors. Special topics related to the critical analysis of media in cultural contexts. May be repeated for credit when the topics vary. Radio-Television-Film 359 and 359S may not both be counted unless 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 course: Radio-Television-Film 305, either 314 or 316, and six additional semester hours of lower-division coursework in radio-television-film; for others, prerequisites vary with the topic and are given in the Course Schedule.


3595. **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 one two-hour film screening a week for one semester. May be repeated for credit when the topics vary. Radio-Television-Film 359 and 359S may not both be counted unless 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 course: Radio-Television-Film 305, either 314 or 316, and six additional semester hours of lower-division coursework in radio-television-film; for others, prerequisites vary with the topic and are given in the Course Schedule.

**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. **Prerequisite:** For non-radio-television-film majors: Upper-division standing and consent of instructor.

**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.

365. **Topical Studies in Mass Communication.** Restricted to radio-television-film majors. Advanced problems in international communication, mass communication studies, and communication technologies, with extensive treatment of specific research methods. 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:** Varies with the topic and is given in the Course Schedule.

**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 lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.

**Topic 4:** History of United States Latino Media. **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; for others, upper-division standing and consent of instructor.

**Topic 5:** Latin American Media. **Prerequisite:** Upper-division standing; and the following coursework, with a grade of at 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.
365M. Broadcast Programming Theory and Research. Restricted to radio-television-film majors. Examination of the theory and practice of broadcast programming, with emphasis on social applications, current trends, philosophies, and audience research. 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.

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.

366K. Digital Video Production. Restricted to radio-television-film majors. Single-camera narrative or documentary field production, including instruction in digital cameras and digital off-line editing. Three lecture hours and three laboratory hours a week for one semester. May be repeated for credit when the topics vary. May not be taken concurrently with Radio-Television-Film 340 or 366. 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.

367K. Producing Film and Television. Restricted to radio-television-film majors. Comprehensive consideration of the production process from the standpoint of fiscal and creative management; preproduction and production planning using computer budgeting and scheduling. Software costs borne by the student. Three lecture hours a week for one semester, with studio 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.

367L. Narrative Filmmaking: 16-mm. Restricted to radio-television-film majors. Theory and techniques in 16-mm film 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-Television-Film 338.

368. Production III. Restricted to radio-television-film majors. Advanced study of production crafts in film, video 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 338 or 343. Topic 2: Cinematography. Topic 3: Advanced Production. Topic 4: Directing.

368S. Production IV. Restricted to radio-television-film majors. Advanced film and video production topics. 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.

369. Advanced Writing for Film and Electronic Media. Restricted to radio-television-film majors. Development of proposals, treatments, and shooting scripts for film and electronic media. May be repeated for credit when the topics vary. Prerequisite: Radio-Television-Film 333 and consent of instructor. Additional prerequisites vary with the topic and are given in the Course Schedule.

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 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; Radio-Television-Film 343, 367L, or 368.

376. Portfolio in Media Production. Restricted to radio-television-film majors. Workshop in professional-level productions. 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: 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.

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. Internship listings are available in the college's career services office. The equivalent of ten class hours a week for one semester. Offered on the pass/fail basis only. May be repeated once for credit. Prerequisite: Radio-Television-Film 330L and consent of the internship coordinator.

378H. Honors Tutorial Course. Intensive reading and research project. Individual instruction. May be repeated once for credit. Prerequisite: Upper-division standing; 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; consent of instructor; 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 consent of the department chair.
5 COLLEGE OF EDUCATION

GENERAL INFORMATION

MISSION AND FUNCTIONS

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 four generalist or bilingual generalist teacher certification or generic special education certification for early childhood through grade twelve. The second degree, the Bachelor of Science in Kinesiology, 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.

The college also offers degree programs that do not lead to teacher certification. These programs, in youth and community studies, athletic training, health promotion and fitness, sport management, and kinesiology, 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 five 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, racquetsport courts, and faculty offices. College of Education faculty members and programs are also housed in Anna Hiss Gymnasium, Gregory Gymnasium, and the Lee and Joe Jamail Texas Swimming Center.
FINANCIAL ASSISTANCE AVAILABLE THROUGH THE COLLEGE OF EDUCATION

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 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.

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, Mu Iota Epsilon (Society of Minorities in Education), and the Student Council for Exceptional Children. Pi Lambda Theta, Phi Delta Kappa, and Kappa Delta Pi are honorary organizations for men and women.

EDUCATION CAREER SERVICES

The College of Education offers career services to assist University students in making informed career choices. Education Services makes job search materials, events, and counseling accessible to students on a regular basis. Information about these services is available at http://www.utexas.edu/education/careerServ.html.

As a complement to the assistance available from the college, the Career Exploration Center provides comprehensive career services to all students. The center offers 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.

ADMISSION AND REGISTRATION

ADMISSION

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

Information about admission to teacher preparation programs is available in the Office of the Dean, George I. Sánchez Building 216.

Admission to majors in kinesiology is restricted. Students should see an adviser for information.

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 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 World Wide Web and are accessible through the registrar’s Web site, http://www.utexas.edu/student/registrar/. General Information is also sold at campus-area bookstores.

ACADEMIC ADVISING

The College of Education encourages all students to see their advisers during the registration period and at least once a semester outside the registration period for a more comprehensive discussion of their programs. Academic advisers are available in George I. Sánchez Building 216 and Bellmont Hall 222.

ADMISSION TO THE PROFESSIONAL DEVELOPMENT SEQUENCE

All students seeking teacher certification must complete a sequence of professional development courses. Admission to the professional development sequence is restricted, and students must apply for admission to it. Academic performance, completion of prerequisite courses, documented evidence of proficiency in reading and in oral and written communication, and the number of hours needed to complete the program may be factors in the admission decision.

For students seeking early childhood through grade four, all-level generic special education, or all-level physical education certification, admission to the professional development sequence requires a University grade point average of at least 2.50 and a grade of at least C in each prerequisite course and in each course in the major. To progress within the sequence, the student must maintain a University grade point average of at least 2.50.
grade point average of at least 2.50 and must earn a grade of at least C in each course in the sequence. In addition, when they enter the professional development sequence, students seeking early childhood through grade four and all-level generic special education certification may lack no more than twelve semester hours of coursework outside the sequence. Additional information about these requirements is available in the Office of the Dean, George I. Sánchez Building 216.

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.

ACADEMIC POLICIES AND PROCEDURES

HONORS
UNIVERSITY HONORS
The designation University Honors, awarded 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. Criteria for University Honors are given on page 15.

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 on page 16.

GRADUATION

SPECIAL REQUIREMENTS OF THE COLLEGE OF EDUCATION
All students must fulfill the general requirements for graduation given in chapter 1. Students in the College of Education must also fulfill the following requirements.
1. The student must have been registered in the College of Education for at least two long-session semesters or the equivalent.
2. A candidate for a degree must be registered in the College of Education 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 A DEGREE
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. 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 entitled 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, and must have had a degree audit.

DEGREES

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 as 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. Credit earned by examination on the pass/fail basis may be counted toward degree and certification requirements.
5. To graduate, all students must have a University grade point average of at least 2.00.
6. A student may not earn both the Bachelor of Science in Kinesiology and the Bachelor of Arts with an intercollege major in kinesiology and health.

APPLICABILITY OF CERTAIN COURSES

PHYSICAL ACTIVITY COURSES
Physical activity (PED) courses are offered by the Department of Kinesiology and Health Education. Although physical instruction is not a degree requirement in the College of Education, students are encouraged to take physical activity courses, particularly in activities that can be pursued throughout a lifetime. 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 nine 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.

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 Education unless specifically approved in advance by the dean. In the semester they plan to graduate, students may not take any course to be counted toward the degree at another institution or by correspondence; 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 three components: (a) basic education requirements, (b) major requirements, and (c) electives. Students choose one of three majors: early childhood through grade four generalist, which can lead to early childhood through grade four generalist certification or early childhood through grade four bilingual generalist certification; all-level generic special education, which can lead to all-level generic special education certification; or youth and community studies, which can lead to all-level generic special education, all-level generic special education, or early childhood through grade four 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.

BASIC EDUCATION REQUIREMENTS
The basic education requirements below apply to all majors leading to the Bachelor of Science in Applied Learning and Development.

AREA A: ENGLISH COMPOSITION AND LITERATURE, WRITING, FOREIGN LANGUAGE
1. English composition and literature: Rhetoric and Writing 306, English 316K, three additional semester hours in English or rhetoric and writing, and Information Studies 322T.
2. Writing: In addition to Rhetoric and Writing 306 and English 316K, the student must complete two courses certified as having a substantial writing component. These courses are identified in the Course Schedule. One of these two courses must be at the upper-division level.
3. 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.

Courses used to fulfill the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be counted.

College of Education students who are not pursuing teacher certification may substitute nine semester hours in specific multicultural and language/communication courses for the foreign language requirement. This program is available only to students who have completed two years of a single foreign language in high school. A list of the acceptable substitute courses is available in the Student Dean’s Office.

AREA B: SOCIAL SCIENCES
1. History 315K and 315L, or six semester hours in other United States history courses that fulfill the legislative requirement described in chapter 1.
2. Government 310L and 312L.
3. Psychology 301.

AREA C: MATHEMATICS AND NATURAL SCIENCES
1. Three semester hours chosen from Mathematics 302, 303D, 305G, and 316. Coursework in calculus may be substituted for all or part of this three-semester-hour requirement.
2. Six semester hours in one of the following: astronomy, biology, chemistry, geological sciences, physical science, and physics.
3. Three additional semester hours in computer applications, astronomy, biology, chemistry, geological sciences, physical science, physics, experimental psychology, physical anthropology, physical geography, or history of science and philosophy of science.
4. Geography 301C.

At least one laboratory course must be taken as part of the science requirement.

AREA D: CULTURE AND DIVERSITY
1. Three semester hours in art (including art history, design, studio art, visual art studies), music (including music, instruments, ensemble), or theatre and dance.
2. Three semester hours of coursework dealing with at least one minority or nondominant group in the United States. A list of acceptable courses is available in the Student Dean’s Office,
George I. Sánchez Building 216, and in the Department of Kinesiology and Health Education, Bellmont 222.

It is recommended that teacher certification students meet requirement 1 with three semester hours chosen from Music 313, 354D, Theatre and Dance 326C, 326D, Visual Art Studies 221C, 121D, 222C, and 122D, since these courses cover the essential elements of knowledge in the fine arts needed by an elementary school teacher.

MAJOR REQUIREMENTS

EARLY CHILDHOOD THROUGH GRADE FOUR

GENERALIST

Students who have completed the early childhood through grade four generalist major are eligible to teach prekindergarten through grade four after meeting additional state requirements. By choosing appropriate options within this program, students may also become qualified for certification in bilingual education.

For this major, students must complete the following in addition to the basic education requirements and electives.

1. Prescribed work in applied learning and development:
   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.
   d. Three semester hours in the development and learning of language and literacy chosen from Applied Learning and Development 324, 325, and Psychology 338K1.
   e. Applied Learning and Development 327.
   f. Applied Learning and Development 328.

2. A curricular specialization consisting of Curriculum and Instruction 670E (Topic 19: Reading/Language Arts), Kinesiology 314 and 333, Mathematics 316K and 316L, and either Special Education 378T (Topic: Reading Difficulties, Disabilities, and Dyslexia) or Curriculum and Instruction 371R.

3. A minor of at least fifteen semester hours, six of which must be upper-division, in any approved field of study in the University. At least six of the required fifteen semester hours must be taken in residence. No more than six semester hours in the minor may count 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.

   Students seeking bilingual education certification must complete a minor in that area.

   1. Students who wish to include bilingual education certification must take Applied Learning and Development 325.

4. Prescribed work in professional development:
   b. Curriculum and Instruction 331E.
   c. Curriculum and Instruction 371G.
   d. Curriculum and Instruction 950E.

   Students seeking bilingual education certification must take a special sequence of these professional development courses with an appropriate emphasis.

   Admission to the professional development sequence is restricted; admission requirements are given on pages 108–109.

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 in addition to the basic education requirements and electives.

1. Prescribed work in applied learning and development:
   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.
   d. Three semester hours in the development and learning of language and literacy chosen from Applied Learning and Development 324, 325, and Psychology 338K1.
   e. Applied Learning and Development 327.
   f. Applied Learning and Development 328.

2. A curricular specialization consisting of Kinesiology 314 and Mathematics 316K and 316L.


4. Prescribed work in professional development:
   a. Curriculum and Instruction 370E (Topic 5: Mathematics) and 670E (Topic 19: Reading/Language Arts).
   b. Curriculum and Instruction 331E.
   c. Special Education 960.

   Admission to the professional development sequence is restricted; admission requirements are given on pages 108–109.

YOUTH AND COMMUNITY STUDIES

Completion of a major in youth and community studies does not entitle the student to receive a teaching certificate. For this major the student must complete basic education requirements, prescribed work in applied learning and development, prescribed work in a minor, prescribed work in professional development, and electives.

111 Degrees
1. Basic education requirements: The coursework described on pages 110–111, with the following modifications:
   a. A fourth course in English or rhetoric and writing may be counted toward the Area A English composition and literature requirement in place of Information Studies 322T.
   b. Students must take a three-semester-hour course in anthropology, economics, geography, or sociology in addition to the Area B social studies requirement.
   c. A laboratory course is not required as part of the Area C mathematics and natural sciences requirement.
   d. Students must take a three-semester-hour computer applications course instead of Geography 301C.
2. Prescribed work in applied learning and development:
   a. Three semester hours chosen from Educational Psychology 332, 363M (Topic 3: Adolescent Development), Human Development and Family Sciences 313, Psychology 304, 309, and other approved courses.
   b. Applied Learning and Development 320 or 321, 322, and 327.
   c. Three semester hours chosen from Applied Learning and Development 324, 325, and other approved courses.
   d. Three additional semester hours of coursework in applied learning and development.
   e. Six semester hours of coursework in kinesiology.
3. A minor of at least eighteen semester hours, nine of which must be upper-division, in any approved field of study in the University. At least six of the required eighteen semester hours must be completed in residence. No more than six semester 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.

Electives

Additional elective coursework may be needed to provide the total number of semester hours required for the student’s major. The early childhood through grade four generalist major and the youth and community studies major require 130 hours of coursework; the early childhood through grade four generalist major with bilingual generalist certification requires 139 hours of coursework; and the all-level generalist special education major requires 133 hours of coursework. Students in all majors must complete at least 42 hours of upper-division coursework.

Bachelor of Science in Kinesiology

The field of kinesiology consists of biomechanical, physiological, psychological, and sociocultural approaches to the study of movement. The Bachelor of Science in Kinesiology degree program offers four majors: athletic training, health promotion and fitness, kinesiology, and sport management. Within the kinesiology major, students choose from two options: general kinesiology (noncertification), and all-level teacher certification. The kinesiology certification program is designed for students interested in studying human movement as a background for teacher certification in physical education; students who have completed the program may be entitled to teach in prekindergarten through grade twelve.

The general kinesiology (noncertification) 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 and fitness major is designed to prepare graduates for a number of professions involving wellness, fitness, rehabilitation, and disease prevention. The sport management major is designed for students who are interested in the organization, marketing, and management of sports programs. The athletic training major is designed to prepare the student for a career as an athletic trainer. The major is also appropriate for students interested in continuing their education in medicine, sports medicine, physical therapy, occupational therapy, or another allied health care profession.

A total of at least 130 semester hours of credit, forty-two of which must be upper-division, is required for the degree. The curriculum for the degree has three components: basic education requirements, major requirements, and electives.

Basic Education Requirements

The basic education requirements below apply to all majors leading to the Bachelor of Science in Kinesiology degree. However, the kinesiology teacher certification option calls for specific courses to meet some of the basic education requirements; information about these courses is available in the advising offices in George I. Sánchez Building 216 and Bellmont Hall 222.

Area A: English Composition and Literature, Writing, Foreign Language

1. English composition and literature: Rhetoric and Writing 306 and English 316K.
2. Writing: In addition, the student must complete six semester hours in courses certified as having a substantial writing component. These courses are identified in the Course Schedule. At least three of these six semester hours must be at the upper-division level.
3. 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.

Courses used to fulfill the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be counted.

College of Education students who are not pursuing teacher certification may substitute nine semester hours in specific multicultural and language/communication courses for the foreign language requirement. This program is open only to students who have completed two years of a single foreign language in high school. A list of acceptable substitute courses is available in the Student Dean's Office, George I. Sánchez Building 216, or in the Department of Kinesiology and Health Education, Bellmont 222.

### AREA B: SOCIAL SCIENCES

1. History 315K and 315L, or six semester hours in other United States history courses that fulfill the legislative requirement described in chapter 1.
2. Government 310L and 312L.
3. Psychology 301.
4. Three semester hours in anthropology, economics, geography, linguistics, or sociology.

### AREA C: MATHEMATICS AND NATURAL SCIENCES

1. Three semester hours of mathematics. Kinesiology and athletic training majors must complete either Mathematics 305G or coursework in calculus. Health promotion and fitness and sport management majors may choose any mathematics course, excluding Mathematics 301.
2. Biology 301L or 311C.
3. Six semester hours in chemistry.
4. Six additional semester hours chosen from astronomy, biology, chemistry, computer applications, computer sciences, geological sciences, mathematics, physical science, physics, experimental psychology, physical anthropology, physical geography, and history of science and philosophy of science.

Kinesiology majors seeking teacher certification must take at least one laboratory course as part of the science requirement.

### AREA D: GENERAL CULTURE

1. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), drama, fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.
2. Communication Studies 306M.

### MAJOR REQUIREMENTS

#### ATHLETIC TRAINING

Students who plan to major in athletic training must be admitted to the Athletic Training Educational Program (ATEP). 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/atep/main.htm](http://www.edb.utexas.edu/atep/main.htm).

In addition to completing the coursework associated with the athletic training major, students in the ATEP must participate in a series of clinical assignments 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 ATEP.

For the athletic training major, students must complete

1. The basic education requirements given above for the Bachelor of Science in Kinesiology, with the following modifications:
   a. In fulfilling the Area C mathematics and natural sciences requirement, athletic training majors must complete Biology 309D.
   b. In fulfilling the Area D general culture requirement, athletic training majors must complete Classical Civilization 306M.
2. Prescribed work in the area of specialization:
   a. Major: Forty-five semester hours, consisting of
      3. Kinesiology 324K.
      4. Kinesiology 325K.
      5. Kinesiology 326K.
2. Prescribed work in the area of specialization:

a. Major: Thirty-two semester hours, consisting of
   1. Two semester hours of coursework chosen from Kinesiology 119 core courses.
   4. Twelve additional semester hours in kinesiology, six of which must be upper-division.

b. Minor: Eighteen semester hours of coursework outside kinesiology, nine of which must be upper-division, in an area approved by an academic adviser. No more than six semester hours may be counted toward both the minor and the basic education requirements. Additional information is available from an academic adviser.

**Kinesiology with All-Level Teacher Certification**

Students who plan to major in kinesiology with the all-level certification option should see an adviser in the Student Dean’s Office, George I. Sánchez Building 216, or the Department of Kinesiology and Health Education, Bellmont Hall 222, for a list of requirements.

**HEALTH PROMOTION AND FITNESS**

For the health promotion and fitness major, students must complete

1. The basic education requirements given above for the Bachelor of Science in Kinesiology.
2. Prescribed work in the area of specialization:
   a. Major: Forty-five semester hours, consisting of
      1. Twenty-one hours of core coursework: Kinesiology 324K, 310 or 325K, 352K (Topic 4: Management of Sport and Health Promotion Programs), 352K (Topic: Diagnosis and Evaluation of Fitness), 370K (Topic 2: Introduction to Health Promotion), 373, and 377.
   2. Nine hours of elective coursework. A list of approved electives is available from advisers in the Department of Kinesiology and Health Education.
   3. Fifteen hours of professional development courses within the major, consisting of Kinesiology 352K (Topic 12: Techniques of Fitness Leadership), 352K (Topic 14: Techniques of Health Promotion), 627L, and one of the following courses: Kinesiology 327L (Topic 1: Fieldwork in Health Promotion), 327L (Topic 5: Personal Training), 327L (Topic 6: Clinical Exercise Testing).

b. Minor: Nutrition 311 and twelve additional semester hours of coursework outside kinesiology, six of which must be upper-division, in an area approved by an adviser. No more than three semester hours may be counted toward both the minor and the basic education requirements. Additional information is available from an academic adviser.

**SPORT MANAGEMENT**

Students who plan to major in sport management must apply for admission to the program. The student’s grade point average and completion of prescribed prerequisite coursework are factors in the admission decision. For information about admission requirements, see an academic adviser.
For the sport management major, students must complete

1. The basic education requirements given above for the Bachelor of Science in Kinesiology, with the following modifications:
   a. Sociology 302 may be counted toward the Area B requirement in place of Psychology 301.
   b. The student must choose an economics course to fulfill the Area B requirement for three hours in anthropology, economics, geography, linguistics, or sociology.
   c. In fulfilling the Area C requirement, the student must complete the following:
      1. Six hours in one science, rather than Biology 301L or 311C.
      2. Three hours in mathematics, science, computer applications, or computer science, rather than six hours in chemistry.
      3. Three hours in computer applications, rather than five or six additional hours in astronomy, biology, chemistry, computer applications, computer sciences, geological sciences, mathematics, physical science, physics, experimental psychology, physical anthropology, physical geography, or history of science and philosophy of science.

2. Prescribed work in the area of specialization
   a. Major: Forty-five semester hours, consisting of
      2. Twenty-one semester hours of professional development courses, including Kinesiology 627L. A complete list of professional development courses is available from advisers in the Department of Kinesiology and Health Education. To enroll in Kinesiology 627L, the student must have a grade point average in kinesiology of at least 2.50 and must have completed at least twelve semester hours of coursework to be counted toward major requirement 1 above.
      b. Minor: Eighteen semester hours of coursework outside kinesiology, nine of which must be upper-division, in an area approved by an adviser. No more than six semester hours may be counted toward both the minor and the basic education requirements. Additional information is available from an academic adviser.

ELECTIVES

Additional semester hours of coursework to bring the total to 130 semester hours. No more than twelve semester hours in Kinesiology 127L, 227L, 327L, and 627L may be counted toward the degree.

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, or Natural Sciences or the Jackson School of Geosciences, as well as the preprofessional and professional education courses.

Students pursuing middle grades or secondary teacher certification in mathematics, computer science, or science 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 from the College of Natural Sciences Office of Special Projects and at http://www.uteach.utexas.edu/.

Students pursuing middle grades or secondary teacher certification in English language arts and reading, history, languages other than English, or social studies must follow the curriculum prescribed by the UTeach-Liberal Arts program, a collaborative partnership between the College of Education and the College of Liberal Arts. Program advising is housed in the College of Liberal Arts. Information is available from the College of Liberal Arts Office of Special Projects and at http://www.uteach.utexas.edu/cola/uteach/.

Program advising for students seeking all-level certification in art, music, and theatre arts is provided in the College of Fine Arts and in the College of Education.

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 State Board for Educator Certification. 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 State Board for Educator Certification 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 Texas Oral Proficiency Test (TOPT) in the appropriate language.

**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, kinesiology, languages other than English (French, German, Latin, or Spanish), music, special education, and theatre arts.
COURSES

The faculty has approval to offer the following courses in the academic years 2006–2007 and 2007–2008; 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.

APPLIED LEARNING AND DEVELOPMENT

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

APPLIED LEARNING AND DEVELOPMENT: ALD

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 on pages 658–662.

Lower-Division Courses

001. First-Year Interest Group Seminar. Restricted to students in the First-Year Interest Group Program. Basic issues in various applied learning and development disciplines. One lecture hour a week for one semester.

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.

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.

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.

Upper-Division Courses


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.

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 fieldwork to be arranged. Required for the academic specialization in childhood studies. Prerequisite: Psychology 301 or the equivalent.

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 fieldwork to be arranged. Required for certification in generic special education. Prerequisite: Psychology 301 or the equivalent.

323. Language Acquisition. Language structure; sequence, process, cognitive and social aspects of language acquisition and use; language variation. Required for certification in early childhood education. Prerequisite: Psychology 301 or the equivalent.

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. This course or Psychology 338K is required for the reading specialization. Prerequisite: Psychology 301 or the equivalent.

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. Required for certification in bilingual education. Prerequisite: Psychology 301 or the equivalent.

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. Required for certification in generic special education.
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 and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Psychology 301 or the equivalent.

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.

DEPARTMENT OF CURRICULUM AND INSTRUCTION

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

CURRICULUM AND INSTRUCTION: EDC

Lower-Division Courses

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.

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

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.

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. Curriculum and Instruction 331C (Topic 1: School Organization and Classroom Management in Elementary Schools) and 331E may not both be counted. 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.

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. Curriculum and Instruction 331C (Topic 2: School Organization and Classroom Management in Secondary Schools) and 331S may not both be counted. 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.

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.

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.

350. Topics in Educational Studies. Analysis of selected topics and problems in education. May be repeated for credit when the topics vary.

Topic 1: Introduction to the Philosophy of Education. Same as Philosophy 319K.

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.

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.

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.

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.

364, 664. Internship. Internship in an all-level teaching field. Three or six lecture hours a week for one semester. Offered on the pass/fail basis only. Prerequisite: Concurrent enrollment in the appropriate student teaching course.
365C. **Knowing and Learning in Math and Science.** Same as UTeach-Natural Sciences 350. 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. Curriculum and Instruction 365C and 371 (Topic 21: **Knowing and Learning in Math and Science**) may not both be counted. **Prerequisite:** Admission to the UTeach-Natural Sciences program, a University grade point average of at least 2.50, and UTeach-Natural Sciences 101 or consent of the UTeach adviser in the College of Natural Sciences.

365D. **Classroom Interactions.** Same as UTeach-Natural Sciences 355. 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. Curriculum and Instruction 365D and 371 (Topic 22: **Classroom Interactions**) may not both be counted. **Prerequisite:** Admission to the UTeach-Natural Sciences program, a University grade point average of at least 2.50, UTeach-Natural Sciences 110, and credit or registration for Curriculum and Instruction 365C or UTeach-Natural Sciences 350 (or credit for Curriculum and Instruction 371 [Topic 21: **Knowing and Learning in Math and Science**]).

365E. **Project-Based Instruction.** Same as UTeach-Natural Sciences 360. Foundations of project-based, case-based, and problem-based learning environments; principles of project-based curriculum development in mathematics and science education; classroom management and organization of project-based learning classrooms. Three lecture hours a week for one semester; additional hours may be required. Curriculum and Instruction 365E and 371 (Topic 23: **Project-Based Instruction**) may not both be counted. **Prerequisite:** Admission to the UTeach-Natural Sciences program, a University grade point average of at least 2.50, and Curriculum and Instruction 365D or UTeach-Natural Sciences 355 (or Curriculum and Instruction 371 [Topic 20: **Classroom Interactions**]).

370E, 670E. **Elementary School Subjects.** Curriculum content and organization, teaching procedures, materials, and research in elementary school subjects. Three class hours a week for one or two semesters, including fieldwork in elementary schools. May be repeated for credit when the topics vary. Topics 3, 4, 5, and 15 are offered only as 370E. Topic 19 is offered only as 670E; either half may be taken for independent credit. **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: **Kinesiology.**

370S. **Secondary School Subjects.** Curriculum content and organization, teaching procedures, materials, and research in one secondary school subject. May be repeated for credit when the topics vary. The topic in the appropriate field is required for secondary school teacher certification. **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.

Topic 1: **Advanced Methods in English, Language Arts, and Reading.** Restricted to students in the UTeach-Liberal Arts program. Additional prerequisite: UTeach-Liberal Arts 303E (or 303).

Topic 3: **Advanced Methods in Social Studies.** Restricted to students in the UTeach-Liberal Arts program. Additional prerequisite: UTeach-Liberal Arts 303L (or 303).

Topic 5: **Advanced Methods in Foreign Language.** Restricted to students in the UTeach-Liberal Arts program. Additional prerequisite: UTeach-Liberal Arts 303L (or 303).

Topic 7: **Art.** Additional prerequisite: Curriculum and Instruction 331S (or 331C) and 332S.

Topic 8: **Music (Vocal).** Additional prerequisite: Curriculum and Instruction 331S (or 331C) and 332S.

Topic 9: **Music (Instrumental).** Additional prerequisite: Curriculum and Instruction 331S (or 331C) and 332S.

Topic 10: **Drama.** Additional prerequisite: Curriculum and Instruction 331S (or 331C) and 332S.

Topic 11: **Speech.** Additional prerequisite: Consent of instructor.

Topic 12: **Kinesiology.** Additional prerequisite: Kinesiology 219S, 219T, 360, and Curriculum and Instruction 370E (Topic 21: **Kinesiology**); nine semester hours chosen from the following courses: Kinesiology 321M, 324K, 325K, 326K, 335; and credit or registration for the following topics of Kinesiology 119: (Topic 8: **Swimming**; Topic 11: **Rhythmic Activities**; Topic 12: **Gymnastics**; Topic 14: **Tennis**; Topic 15: **Volleyball** or Topic 17: **Basketball**; Topic 16: **Ballroom Dance**; Topic 18: **Adventure Activities**).

370W. **All-Level School Subjects.** Curriculum content and organization; teaching procedures, materials, and research in one school subject at all grade levels. May be repeated for credit when the topics vary. The topic in the appropriate field is required for all-level school teacher certification. **Prerequisite:** Admission to the professional development sequence of courses.

Topic 1: **English as a Second Language.**

Topic 2: **Art.**

Topic 3: **Music.**

Topic 4: **Theatre.**

Topic 5: **Foreign Language Education.**

371. **Upper-Division Seminar.** An elective course for advanced students. Intensive investigations of instruction problems. Additional hours may be required for some topics. May be repeated for credit when the topics vary. **Prerequisite:** Upper-division standing, twelve semester hours of upper-division coursework in education, or consent of the education adviser.

Topic 1: **Community Literacy.**

Topic 2: **Reading Assessment and Development.**
Upper-Division Courses

371G. Guiding Young Children in Groups. 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 center-based 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: 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.

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.

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

EDUCATIONAL PSYCHOLOGY: EDP

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 on pages 658–662.

Lower-Division Courses

110, 210, 310. Introduction to Educational Psychology. An elective course open to lower-division students in any division of the University. Principles of psychology, human development, learning, and teaching. One, two, or three lecture hours a week for one semester. May be repeated for credit when the topics vary. Topic 1 (TCCN: EDUC 1100, 1200, 1300): Individual Learning Skills. Topic 2: Selected Topics.

312. Lower-Division Seminar. Issues and research in various areas of educational psychology and the behavioral sciences. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

Upper-Division Courses

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. Prerequisite: Upper-division standing.

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: Upper-division 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).
362T. Tests and Measurements. Fundamental psychometric concepts; educational and psychological measurement instruments; constructing, administering, scoring, and interpreting tests for educational and individual evaluation. 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.

363. Personality and Behavior. Selected approaches to the study of the dynamics of behavior, its antecedents and its appraisal. May be repeated for credit when the topics vary. Prerequisite: Educational Psychology 310 or another introductory behavioral science course.

Topic 1: Selected Topics.
Topic 2: Personality Development.
Topic 3: Human Sexuality.
Topic 4: Dynamics of Interpersonal Communication.

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. May be repeated for credit when the topics vary. Prerequisite: Educational Psychology 310 or another introductory behavioral science course.

Topic 1: Character Development.
Topic 2: School Promotion of Mental Health.
Topic 3: Adolescent Development.
Topic 4: Life Span Adjustment.

367. Studies in Counseling and Psychotherapy. Nature of the counseling process, dynamics of behavior change, client-counselor roles and relationships; an experiencing of the group process as a basis for studying dynamics of individual and group behavior. 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: Introduction to Individual Counseling and Psychotherapy.

169K, 269K, 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. May be repeated for credit when the topics vary. Some topics are offered on the pass/fail basis only; these are identified in the Course Schedule. 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.

371. Introduction to Statistics. Measures of central tendency and variability; correlation and regression; probability and statistical inference; analysis of variance; nonparametric statistics.

379L. Problems in Educational Psychology. Supervised individual research on selected problems in educational psychology. May be repeated for credit. Prerequisite: Educational Psychology 310 or another introductory behavioral science course.

DEPARTMENT OF KINESIOLOGY AND HEALTH EDUCATION

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

KINESIOLOGY: KIN

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 on pages 658–662.

Lower-Division Courses

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


311K. Sport Psychology. The influence of psychological variables on sport performance, and the influence of sport participation on psychological phenomena.

312. Issues in Kinesiology: Topical Studies. Analysis and discussion of current issues within the discipline of kinesiology. 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. Kinesiology 312 (Topic 2) and 352K (Topic 1: Care and Prevention of Athletic Injuries) may not both be counted.

213 (TCCN: PHED 1206). 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: First Aid.
Topic 2: Water Safety Instruction.
Topic 3: Lifeguarding.
Topic 4: Lifeguarding Instruction.

314 (TCCN: PHED 1331). Children’s Movement. Principles and practices related to the development of children’s movement skills, fitness, and commitment to a physically active lifestyle. Includes the scientific basis for motor performance, curricular organization, and pedagogical methodology related to elementary school physical education. Involves group work, field experience in elementary school physical education classes, and participation in community activities. Three lecture hours and three laboratory hours a week for one semester, including off-campus observation of children’s movement programs. Prerequisite: Fifteen semester hours of college coursework.
315. **Motor Learning.** Psychological factors affecting performance and acquisition of motor skills. Three lecture hours and one laboratory hour a week for one semester. Kinesiology 315 and 335 may not both be counted.

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. May be repeated once for credit.

119. **Movement Competence.** Acquisition and knowledge of techniques, with emphasis on 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 or consent of the director of the degree program in kinesiology.

**Topic 1:** Archery.
**Topic 2:** Ballet.
**Topic 3:** Bowling.
**Topic 4:** Divining.
**Topic 5:** Fencing.
**Topic 6:** Golf.
**Topic 7:** Scuba Diving.
**Topic 8:** Swimming.
**Topic 10:** Conditioning.
**Topic 11:** Rhythmic Activities.
**Topic 12:** Gymnastics.
**Topic 13:** Manipulative Activities.
**Topic 14:** Tennis.
**Topic 15:** Volleyball.
**Topic 16:** Ballroom Dance.
**Topic 17:** Basketball.
**Topic 18:** Adventure Activities. Study of the skills involved in adventure activities, such as orienteering, hiking, camping, rock climbing, fishing, canoeing, and in-line skating. Focus on methods, progressions, drills, performance cues, and safety standards. Activities may vary each semester. Includes off-campus activities.

**219D. Movement Analysis: Dual Activities.** Application of scientific 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.

**219K. Athletics.** Knowledge and skills required for officials, coaches, and 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 and is given in the **Course Schedule**.

**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.

**219S. Movement Analysis: Individual Activities.** Application of scientific principles to the analysis of selected movement activities, with emphasis on individual activities. Two lecture hours and one laboratory hour a week for one semester. **Prerequisite:** Approved proficiency in swimming, dance, and conditioning.

**219T. Movement Analysis: Team Activities.** Application of scientific principles to the analysis of selected movement activities, with particular emphasis on team sports. Two lecture hours and one laboratory hour a week for one semester.

**Upper-Division Courses**

**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.

**324K. Applied Human Anatomy.** Skeletal system, attachments and actions of muscles, principal blood vessels and nerves; emphasis on the mechanics of support and motion; laboratory studies on human cadaver material. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Biology 478L, Kinesiology 324K, Zoology 314K, 453.

**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 324K or a course in human physiology.

**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 324K, Mathematics 305G, and either Physics 302K or consent of instructor.

**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. Students taking Kinesiology 127L, 227L, or 327L 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 letter-grade 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 1:** Fieldwork in Health Promotion.
**Topic 3:** Aiding in Fitness Leadership.
**Topic 4:** Fieldwork in Kinesiology.
**Topic 5:** Personal Training.
**Topic 6:** Clinical Exercise Testing.
**Topic 7:** Fieldwork in Athletic Training.
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.

329. Philosophy of Sport and Physical Activity. 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. Prerequisite: Upper-division standing.

330. History of Sport and Physical Activity. Significant developments in sport and physical activity since prehistoric time; emphasis on events influencing contemporary American programs and the International Olympic Games. Prerequisite: Upper-division standing.

333. Child and Adolescent Health. Biological, psychological, social, and developmental factors contributing to the health of children and adolescents in school and community settings. Prerequisite: A major in applied learning and development or consent of instructor.

336. Motor Control. Nervous system control of movement, with a focus on voluntary movement. Three lecture hours and one laboratory hour a week for one semester. Kinesiology 335 (Topic 1: Motor Control) and 336 may not both be counted. Prerequisite: Kinesiology 324K or a course in human physiology.


352K. Studies in Human Movement: Topical Studies. Analysis and synthesis of the literature and discussion of current and specific issues in kinesiology. 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: Physiological Basis of Conditioning. Kinesiology 310 and 352K (Topic 2) may not both be counted.

Topic 3: Women and Sport. Same as Women's and Gender Studies 345 (Topic 5: Women and Sport). Kinesiology 352K (Topic 3) and Women's Studies 345 (Topic 5: Women and Sport) may not both be counted.

Topic 4: Management of Sport and Health Promotion Programs. Examination of management and service delivery systems in sport and health promotions programs. Designed to develop specific knowledge and management skills in the areas of human resources, events, facilities, and risk management.


Topic 7: 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 21: 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 résumé development and career planning. Prerequisite: Kinesiology 219K (Topic 3: Introduction to Athletic Training) or 352K (Topics 19, 22, and 24); or consent of instructor.

Topic 22: 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 219K (Topic 3: Introduction to Athletic Training), 324K, and concurrent enrollment in 352K (Topic 15: Clinical Evaluation of Athletics Injuries in the Upper Body); or consent of instructor.

Topic 24: Advanced Athletic Training: Therapeutic Exercise and Rehabilitation. 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 352K (Topic 22); or consent of instructor.

Topic 25: Sport and Law. Introduction of 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.

Topic 26: 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.


Programming for People with Disabilities. Design and implementation of modifications that enable people with disabilities to participate in all activities. Three lecture hours a week for one semester; ten hours of field observation per semester are also required. Prerequisite: Six semester hours of coursework in kinesiology or consent of instructor.


Theories of Substance Abuse Prevention. Physiological, psychological, and social effects of alcohol, tobacco, narcotics, and other agents that modify an individual's behavior.

Topical Seminar in Health Promotion. Identification, causes, incidence, prevention, control, and social implications of major problems in health. 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.
Topic 2: Introduction to Health Promotion.
Topic 3: Adolescent Health Risk Behavior.

Evaluation and Research Design. Overview of the theory and practice of evaluation research. Application of fundamentals of evaluation to the design and implementation of health promotion and disease prevention programs. Prerequisite: Educational Psychology 371.

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.

Measurement in Kinesiology. Measurement and assessment procedures; application of statistical procedures; standards for authentic assessment; measurement/assessment selection and evaluation; use of microcomputers in tracking development of motor skills. Prerequisite: Six semester hours of upper-division coursework in kinesiology.

Epidemiology in Health Promotion. An introduction to the principles of epidemiology; disease causation and patterns of occurrence, agent, host, environmental factors, and vital statistics. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Consent of instructor.

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. May be repeated for credit when the topics vary. Offered on the pass/fail basis only. Prerequisite: Upper-division standing and consent of instructor.

Substance Abuse Prevention I.
Substance Abuse Prevention II.
Sexual Health I.

Honors Tutorial Course. Readings or a research project, under the supervision of a faculty member, in specific areas of research within kinesiology. May be repeated for credit. Prerequisite: A University grade point average of at least 3.00 and consent of instructor.

Physical Education (Activity Courses): PED

Aquatics

Swimming. Three laboratory hours a week for one semester. May be repeated for credit when the topics vary.

Beginning Swimming I. For nonswimmers. Elementary physical and mental adjustments, four basic strokes, water safety.

Beginning Swimming II. For well-adjusted but weak swimmers. Five basic strokes, elementary diving, water safety.

Intermediate Swimming. For the average swimmer. Six power strokes, diving, water safety, introduction to conditioning.

Stroke Technique and Fitness Swimming.
Related Aquatic Activities

105G (TCCN: PHED 1151, 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.

Dance

103L. Dance. Three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Topic 1: Ballroom Dance. Topic 2: Educational Dance.

Racquet Sports


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.

Dual Activities


105M. Fencing. Three laboratory hours a week for one semester. May be repeated for credit when the topics vary. Topic 1: Beginning Fencing: Foil.

105S. 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. 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.

Conditioning


Individual Activities


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.

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: Intermediate-level 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.

Team Activities
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.

108F. 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.

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.

SCIENCE

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

SCIENCE: SCI

Upper-Division Course

360. Seminar on Recent Advances in Science. Recent advances in the life, earth, space, and physical sciences. 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.

DEPARTMENT OF SPECIAL EDUCATION

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

SPECIAL EDUCATION: SED

Upper-Division Courses

332. Field Experiences in Special Education. Observation and participation in a variety of educational settings that serve children with disabilities. One lecture hour and two four-hour sessions of fieldwork a week for one semester. Fieldwork sessions must be arranged between 8:00 AM and noon. Special Education 322 and 332 may not both be counted. Required for all undergraduate students seeking special education certification.

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. Required for all undergraduate students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

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. Offered on the pass/fail basis only. Required for undergraduate students seeking special education certification. Prerequisite: Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

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.

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.
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. Required for students seeking special education certification. **Prerequisite:** Admission to the teacher preparation program and consent of the Office of Student Field Experiences.

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.

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.

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. Required for students seeking special education certification.

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.

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.

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.

378R. **Reading Difficulties within 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 grades K–5. 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.

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.

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.

379. **Seminar in Special Education.** Specialized study in an identified area of interest in education of the exceptional child. May be repeated for credit. **Prerequisite:** Applied Learning and Development 322 and consent of the undergraduate adviser.
GENERAL INFORMATION

HISTORY
The College of Engineering was established in 1884 as the Department of Engineering, an outgrowth of work in applied mathematics first offered in the Department of Literature, Science, and Arts. 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.

ENGINEERING EDUCATION
The mission of the College of Engineering is to achieve excellence in undergraduate and graduate education, research, and public service. The college 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 College 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 College of Engineering is organized into aca-
demic 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 engi-
neering problems, developing skills in defining a
problem, translating available information into
equations that can be analyzed logically, creating
additional information when necessary, and choos-
ing a course of action that has a reasonable chance
of producing the desired results.
The college seeks to give students the knowledge
necessary to take advantage of opportunities in a
number of areas. The engineer who begins a profes-
sional career immediately following graduation usu-
ally 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 incor-
porated into the degree structure of the College of
Engineering through technical area options and
electives that permit students to define programs
of study that best suit their needs.

**INSTRUCTIONAL FACILITIES**
The College of Engineering occupies five 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.

**LIBRARIES**
The University Libraries, one of the largest aca-
demic libraries in the United States, includes the
Perry-Castañeda Library, the Tarlton Law Library,
the Harry Ransom Humanities Research Center,
and several branch libraries and special collections.
The units together house 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 in Ernest
Cockrell Jr. Hall, supports teaching and research in
all fields offered by the college. Extensive facilities
are available for computer retrieval of technical
literature at http://www.lib.utexas.edu/. Special files
include manufacturing catalogs, industry standards,
United States patents, and selected technical material
issued by NASA and other government agencies.
Other branch libraries of special interest to engineers
are the Architecture and Planning Library, the Mallet
Chemistry Library (which includes chemical engi-
neering), the Walter Geology Library, the Kuehne
Physics Mathematics Astronomy Library, and the
Life Science Library.
All units of the University Libraries offer reference
services, circulation and reserve, access to com-
puter-based information and electronic media, and
interlibrary loan services.

**OFFICE OF STUDENT AFFAIRS**
The mission of the Office of Student Affairs (SAO) is
to serve the University and the public by helping to
recruit, retain, and graduate engineering students.
The office aims to accomplish this mission by provid-
ing 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 University.
The SAO represents the Office of the Dean in student matters. Academic advisers and SAO staff members are available to assist students in the following areas: adding, dropping, and withdrawing; application to take less than fourteen hours; application to take more than seventeen hours; concurrent enrollment approval; correspondence course approval; course selection for new students; crisis intervention; degree holder/nondegree seeker; engineering loans; extension course approval; final degree audits; First-Year Interest Groups (FIGs); supplemental instruction courses; grade change processing; graduation; the Engineering Honors Program; internal transfer application (change of major); major sequence application; new student orientation; probation and dismissal; prospective student visits; recruitment; resource referral; students with disabilities; and global educational opportunities.

The SAO also serves as a clearinghouse for information about the college and the University. Students may seek assistance in person in Ernest Cockrell Jr. Hall 2.200, by phone at (512) 471-4321, or by e-mail at student-affairs@engr.utexas.edu. The SAO also provides information online at http://www.engr.utexas.edu/current/services/sao.cfm. The SAO represents the Office of the Dean in student matters. Academic advisers and SAO staff members are available to assist students in the following areas: adding, dropping, and withdrawing; application to take less than fourteen hours; application to take more than seventeen hours; concurrent enrollment approval; correspondence course approval; course selection for new students; crisis intervention; degree holder/nondegree seeker; engineering loans; extension course approval; final degree audits; First-Year Interest Groups (FIGs); supplemental instruction courses; grade change processing; graduation; the Engineering Honors Program; internal transfer application (change of major); major sequence application; new student orientation; probation and dismissal; prospective student visits; recruitment; resource referral; students with disabilities; and global educational opportunities.

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ENGINEERING STUDENTS WITH DISABILITIES

The coordinator of the Engineering Students with Disabilities Program (ESD) assists students with disabilities to meet the challenges of their academic programs. The coordinator works with students, faculty members, and administrators to remove barriers that limit qualified people in their pursuit of educational goals. Confidentiality and privacy are respected. Students must be registered with Services for Students with Disabilities (SSD) in the Office of the Dean of Students every semester in which they wish to receive accommodations and services. Information about registration is available from SSD in Student Services Building 4.104 and at (512) 471-6259. The ESD coordinator is available in Ernest Cockrell Jr. Hall 2.200 and at (512) 471-4321. Students can also find information at http://www.engr.utexas.edu/current/services/esd.cfm.

GLOBAL ENGINEERING EDUCATION

Each semester, a growing number of students in the College of Engineering pursue interests in traveling abroad and studying in a foreign country. Practicing engineers who are undergraduates today are likely to work with foreign nationals and to be involved professionally in international projects. There are several programs that allow students to take courses that will count toward their degrees. Some programs require proficiency in a foreign language, while others allow for study in English.

Students are able to earn a certificate in international engineering studies (IES) by completing the following requirements:

1. Students must apply to the IES program through the Office of Student Affairs.

2. As part of the application, the student must submit an IES program plan for approval by the Office of Student Affairs. The plan must provide for the student to complete at least three of the following requirements:
   a. Language training
   b. Study of local culture
   c. Academic courses in engineering
   d. Work experience or internship

For more information, contact the Global Engineering Education Adviser, Ernest Cockrell Jr. Hall 2.200, or see http://www.engr.utexas.edu/current/services/studyabroad.cfm.

ENGINEERING CAREER ASSISTANCE CENTER

The College of Engineering assists students as they pursue professional career opportunities through the Engineering Career Assistance Center (ECAC). The Career Center helps to prepare engineering students for the job search through counseling, workshops, and a comprehensive on-campus recruiting program. Students should register with the ECAC in August each academic year to receive full benefit of the center’s services.

Located in Ernest Cockrell Jr. Hall 2.400, the Engineering Career Assistance Center hosts as many as twenty-five interviewers daily throughout the fall and spring recruiting seasons. Interviewers represent hundreds of companies seeking graduates, co-op students, and summer interns in all engineering disciplines to fill positions worldwide.

ECAC offers individual career counseling services to engineering students on a walk-in basis or by appointment. Topics addressed in individual counseling sessions and workshops include résumé and letter writing, interviewing skills, dressing for success, site visits, salary negotiation, online job searches, and other career issues.

Contact the Career Center at (512) 471-1915 or http://ecac.engr.utexas.edu/.

COOPERATIVE ENGINEERING EDUCATION PROGRAM

The Cooperative Engineering Education (Co-op) Program is an academic program that allows undergraduates to obtain full-time engineering experience before they graduate. Students gain quality work experience directly related to their field of engineering by alternating semesters of full-time campus study with training in industry.

Students should apply for the Co-op Program in Ernest Cockrell Jr. Hall 2.400 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 must include eight hours each of physics and calculus, and coursework in the selected engineering discipline. Students must have a University grade point average of at least 2.50, a grade point average of at least 2.00 in the major
area of study, and at least twelve semester hours of degree-applicable coursework left to complete after the final Co-op term. Transfer students may apply for the program after one semester at the University.

To realize the full academic and professional value of the Co-op Program, the student must complete either the two-semester or the three-semester cooperative work term. The student is then eligible to receive two or three hours of letter-grade credit that may be applied toward the engineering degree as a technical elective.

Contact the Co-op office at (512) 471-5954 or at http://ecac.engr.utexas.edu/students/coop/.

EQUAL OPPORTUNITY IN ENGINEERING PROGRAM

The Equal Opportunity in Engineering Program (EOE) seeks to promote academic excellence by providing tutoring and research opportunities to all engineering students. Students from groups that traditionally have been underrepresented in the engineering profession, such as African Americans, Hispanics, and Native Americans, may benefit particularly from the program. EOE encourages community support and student involvement in the promotion of academic excellence by conducting mentoring programs.

EOE also promotes career and professional development by providing engineering students contact with industry and federal and state agencies. These contacts can help students find summer, co-op, and permanent employment.

In addition, EOE works to encourage precollege students to pursue careers in engineering through outreach initiatives.

For more information about EOE programs, contact the EOE office at (512) 471-5953 or visit http://www.engr.utexas.edu/oeo/.

ENGINEERING SCHOLARSHIP PROGRAM

Information regarding undergraduate scholarships, graduate fellowships, and other financial resources available to students in the College of Engineering can be found by visiting http://www.engr.utexas.edu/scholarships/index.cfm, by e-mailing scholarships@engr.utexas.edu, or by visiting the Engineering Scholarship Program in Ernest Cockrell Jr. Hall 2.106.

OFFICE OF STUDENT LIFE

The Office of Student Life provides a variety of student development programs for engineering students to create a sense of community in the college, to involve students in the life of the college, and to provide opportunities outside the classroom to help students develop skills in leadership, teamwork, and communication. To find out more about the Office of Student Life, visit Ernest Cockrell Jr. Hall 1.224 or http://www.engr.utexas.edu/studentlife/.

WOMEN IN ENGINEERING PROGRAM

The Women in Engineering Program (WEP) connects students to opportunities and careers in engineering and introduces them to mentors, peers, and resources in the field. The mission of WEP is to increase the overall percentage of women in the College of Engineering at the University of Texas at Austin. WEP strives to educate girls and women about engineering, inspire women to pursue the unlimited opportunities within the world of engineering, and empower women engineers to benefit society.

WEP provides a supportive structure to help women succeed in the College of Engineering and offers a wide variety of activities to help students meet other students and faculty members, form study groups, and explore engineering career options. Programs include first- and second-year programs, luncheons and dinners, workshops and seminars, and opportunities to meet corporate representatives.

Additional information is available in the WEP office, Ernest Cockrell Jr. Hall 2.108; by phone at (512) 471-5650; by e-mail at wep@engr.utexas.edu; and online at http://www.engr.utexas.edu/wep/.

RESEARCH ORGANIZATIONS

Faculty members and students of the College 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. Over 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 Advanced Manufacturing Center; the Center for Aeromechanics Research; Computer Engineering Research Center; Center for Mechanics of Solids, Structures, and Materials; Construction Industry Institute; Center for Energy and Environmental Resources; Geotechnical Engineering Center; Microelectronics Research Center; Offshore Technology Research Center; Center for Petroleum and Geosystems Engineering; Center for Space Research; Phil M. Ferguson Structural Engineering Laboratory; Center for Biological and Medical Engineering; Center for Transportation Research; Center for Excellence in Distributed Global Environments; and Center for Research in Water Resources.

The Nuclear Engineering Teaching Laboratory is an academic unit of the College of Engineering. The Manufacturing Systems Center is an affiliated research center. Interdisciplinary research units operated cooperatively by the College of Engineering and other colleges are the Center for Vision and Image
Sciences, Institute for Computational Engineering and Sciences, and Texas Materials Institute. Research organizations are located both on the central campus and at the J. J. Pickle Research Campus.

ENGINEERING FOUNDATION

In 1955, the University’s Board of Regents authorized establishment of the Engineering Foundation and the Engineering Foundation Advisory Council to promote academic excellence in engineering education. Since then, the generous contributions of alumni and individual and corporate friends of the college have enabled the Engineering Foundation to develop a program of excellence through the encouragement and support of innovation in teaching and research; the creation of academic and leadership enhancement programs for engineering students; the establishment of funds for scholarships and fellowships; the recognition of outstanding engineering faculty members with meritorious service awards; and the endowment of chairs, professorships, faculty fellowships, lectureships, and named rooms, laboratories, library collections, and book collections.

The Engineering Foundation office supports the work of the Engineering Foundation Advisory Council, a body of corporate leaders who volunteer to advise and assist the college. Through the Engineering Foundation, the college conducts fund-raising efforts in six areas of emphasis: corporate involvement and support; Friends of Alec (alumni support); student involvement through the Student Engineering Gift Campaign and the START (Student Alumni Relations Team) program (student-led fundraising); alumni relations; endowments; and bequests and estate planning. The staff of the Engineering Foundation coordinates these efforts, and the Engineering Foundation Advisory Council provides strategic leadership.

ADMISSION AND REGISTRATION

Admission and readmission of all 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. However, enrollment in any engineering degree plan may be limited by the availability of adequate academic resources. Hence, a student may be admitted to the University but denied admission to a specific engineering degree plan. An applicant who is denied admission to an engineering degree plan may seek to enter another major in the College of Engineering or in another college or school.

REQUIRED AND OPTIONAL PLACEMENT TESTS

To establish appropriate course placement, all new students must take the SAT Subject Test in Writing and the SAT Subject Test in Mathematics, either Level 1 or Level 2. Each requirement may also be fulfilled by credit for a specific college-level course or credit earned through the appropriate College Board advanced placement examination. Students are encouraged to take subject tests in their home communities. The subject tests are offered at the University during most orientation periods.

Optional placement tests are available in a number of other fields. These tests include the UT Austin Test for Credit in Chemistry (for credit for Chemistry 301), the UT Austin Test for Credit in Physics: Mechanics (for credit for Physics 303K and 103M), and the UT Austin Test for Credit in Physics: Electricity and Magnetism (for credit for Physics 303L and 103N). More information about these and other placement examinations is published by the Division of Instructional Innovation and Assessment at http://www.utexas.edu/academic/mec/index.shtml.

ENTRY-LEVEL COURSES IN CHEMISTRY, MATHEMATICS, AND PHYSICS

Students in engineering concentrate on mathematics, chemistry, and physics in the freshman year, building competence for the engineering courses to follow. Entry-level courses in these areas require an adequate background gained from high school work. Any courses a student must take to fulfill prerequisites for the entry-level courses are in addition to those listed in the curricula.

Course prerequisites are given in chapters 2 through 15 under the heading “Courses.” Many are also given in the Course Schedule, which is available before registration. Since prerequisites are subject to change, the student should consult the Course Schedule at http://www.utexas.edu/student/registrar/schedules/ for the most current information.

INFORMATION FOR TRANSFER STUDENTS

Below are general guidelines for prospective transfer students; additional information is given at http://bealonghorn.utexas.edu/transfer/. Because significant differences may exist among courses that appear to be quite similar, students are encouraged to contact the College of Engineering about the applicability to University degrees of courses offered at other schools. General information is available from The University of Texas at Austin, Office of Student Affairs, College of Engineering, 1 University Station C2108, Austin TX 78712. The telephone number is (512) 471-4321. Prospective engineering students who have not chosen a major should consult this office. If the student consults the college early enough, loss of credit may be avoided.
Students should also consult the automated transfer equivalency Web site at http://www.utexas.edu/student/admissions/ate/.

Students who have questions about the requirements of a specific degree plan should contact the appropriate transfer student adviser at the following address: aerospace engineering: W. R. Woolrich Laboratories 211; architectural engineering: Ernest Cockrell Jr. Hall 4.200; biomedical engineering: Engineering-Science Building 602E; chemical engineering: Chemical and Petroleum Engineering Building 2.706; civil engineering: Ernest Cockrell Jr. Hall 4.200; electrical engineering: Engineering-Science Building 135; geosystems engineering and hydrogeology: Chemical and Petroleum Engineering Building 3.104 or Geology Building 118; mechanical engineering: Engineering Teaching Center 5.202; petroleum engineering: Chemical and Petroleum Engineering Building 3.104.

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 College of Engineering are listed on page 144. These may be taken at any school offering courses acceptable for transfer to the University.

4. Transfer students must have completed at least the equivalent of Mathematics 408C.

5. 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.

6. Transfer students with more than forty semester hours of credit in an engineering or preengineering program may be eligible for admission to a major sequence as explained in the following section.

ADMISSION TO A MAJOR SEQUENCE IN THE COLLEGE OF ENGINEERING

In engineering degree programs, the major sequence 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 college 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 College of Engineering. 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 College of Engineering each semester. The criteria for admission vary from semester to semester; current criteria are published at http://www.engr.utexas.edu/current/policies/majorsequence.cfm.

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 College of Engineering. For the basic sequence of courses in each degree plan, see the outline of the plan later in this chapter.

3. No engineering student may register for a course identified as a major sequence course in any of the degree plans of the College of Engineering 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 College of Engineering. 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/current/policies/majorsequence.cfm.
   a. A student who is currently enrolled in the college must submit a completed application form.
   b. A student seeking to transfer from another institution must first be admitted to the University by the Office of Admissions. Each transfer student must then confer with the transfer adviser for the major under which the student was admitted to the College of Engineering. A student who wishes to change majors within the College of Engineering after being admitted to the University must meet the requirements given in the section “Transfer to an Engineering Major (Internal Transfer),” page 136.

6. Deadlines for submitting completed applications to the College of Engineering Admissions Committee for admission to a major sequence are October 1 for entrance in the following
students must take the required tests. Abbreviated
these sessions. Before they register, all engineering
tests described on page 133 are given during
locations, and the times, places, and instructors of
Course Schedule,
auditing a course. The
from one division of the University to another, and
administration, adding and dropping courses, transfer
8. A student who has been enrolled in a major
prerequisite given in the catalog or
To register for a course, a student must fulfill the
required and optional place
or she must obtain the approval of the department
approval process is available in the Office of Student
session semester must apply for readmission to
sequence and wishes to return to the college
after being out for one or more semesters must apply for admission or readmission to a major
sequence on the basis of all requirements in
at the time of return. A student who has
been out of the University for at least one long-
session semester must apply for readmission to
the University.
9. Any student who has been denied admission
to a major sequence will not be considered for
admission for a subsequent semester unless reaplication is made.

REGISTRATION

General Information gives information about reg-
istration, adding and dropping courses, transfer
from one division of the University to another, and
auditing a course. The Course Schedule, published
before registration each semester and summer ses-
son, includes registration instructions, advising
locations, and the times, places, and instructors of
classes. The Course Schedule and General Information
are available on the World Wide Web and are accessible
utexas.edu/student/registrat/. General Information is
also sold at campus-area bookstores.

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.
During the summer, orientation sessions are held to
acquaint entering students with many aspects of life
at the University. The required and optional place-
ment tests described on page 133 are given during
these sessions. Before they register, all engineering
students must take the required tests. Abbreviated
orientation programs are offered just before the be-
inning of each semester and summer session.

CONCURRENT ENROLLMENT

An engineering student must have the approval of
the dean before registering concurrently at another
institution, either for coursework in residence or for
a distance education course, and before enrolling
in correspondence or extension coursework either
at the University or elsewhere. Application for this
approval should be made online at http://www.engr.
utexas.edu/current/policies/pol_concurrent.cfm.
The student may not enroll concurrently during
his or her last semester in any course to be counted
toward the degree. More information about the ap-
proval process is available in the Office of Student

ADVISING

ACADEMIC ADVISING

To facilitate movement through an academic pro-
gram, each engineering student must be advised in
his or her major department before registering for
each semester or summer session. The student may
not register until his or her proposed schedule of
courses has been approved. Approval as specified by
the student's major department is required for any
change from the set of courses initially approved.
Continued registration for courses without proper
approval is justification for the student to be dropped
from such courses. Students are also required to
consult their advisers whenever they change their
academic programs. Departmental advisers are avail-
able throughout the year to discuss matters that
affect the student's performance.

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 require-
ments, 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
and for registering so as to fulfill those requirements.
The student should seek an official ruling in the Of-
fice of Student Affairs before registering if in doubt
about any requirement.

A transfer student registering in the College of Engi-
eering for the first time is advised by an undergrad-
uate adviser in the department in which the student
will be enrolled. To be advised properly, the student
must have both the transcripts of work completed
at other colleges and the evaluation of that work by
the University's Office of Admissions.
Many students find the advising they receive from
their academic advisers and from other faculty
members and students will suffice. However, some
find it desirable to discuss matters with academic
advisers in the college's Office of Student Affairs,

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 college.
In addition, University counseling services are avail-
able from the Counseling and Mental Health Center,
the Telephone Counseling Service, the UT Learning
Center, and University Health Services. These offices
are described in General Information.
TRANSFER TO AN ENGINEERING MAJOR
(INTERNAL TRANSFER)

A student may transfer to the College of Engineering from another division of the University in accordance with the regulations given in General Information.

A University student, either an engineering major or a nonmajor, who wants to transfer to a major in the College of Engineering must

1. Have completed at least twenty-four semester hours of coursework in residence at the University.
2. Submit an application for admission to the major. The application form is available at http://www.engr.utexas.edu/current/policies/pol_change-major.cfm.
3. Submit the application by March 1 for admission in the summer or fall or by October 1 for admission in the spring.

Admission to all engineering majors is offered to the students who are best qualified as space is available.

If a student who has been admitted to a major sequence is granted admission to another major, he or she must complete all the requirements of the basic sequence of the new major and must apply for admission to the new major sequence on the basis of the curriculum in effect at the time of application.

ACADEMIC POLICIES AND PROCEDURES

GRADE POINT AVERAGE FOR ACADEMIC DECISIONS

In the College 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 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/current/policies/pol_max-hours.cfm.
2. No student may register for more than twenty-one semester hours of coursework during any long-session semester.

MINIMUM NUMBER OF HOURS IN THE LONG SESSION

A normal course load in the College of Engineering is fifteen to seventeen hours a semester; the suggested arrangement of courses for each degree program is based on this load. An engineering student may not enroll in fewer than fourteen semester hours of coursework except with an approved application to do so. Application is made online at http://www.engr.utexas.edu/current/policies/pol_min-hours.cfm. Twelve of the fourteen hours must be applicable to the degree. All elective courses counted toward the twelve hours applicable to the degree must be on the lists on page 143 or be approved by the departmental undergraduate adviser. Physical activity courses may not be used to meet these requirements.

RULES FOR THE SUMMER SESSION

A student may not receive credit for more than fourteen semester hours during a twelve-week summer session nor 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.

COMBINED WORK-STUDY LOAD

A student who is employed, either by the University or elsewhere, must report the number of hours of employment to his or her adviser when meeting with the adviser before registering each semester or summer session.

University regulations specify that the combined number of hours of University employment and semester hour load may not exceed forty hours a week. A useful guideline is that the number of hours of employment plus three times the semester hour load should not exceed fifty-six. Some students may find a lower number to be more realistic.
REPETITION OF A COURSE
An undergraduate in the College of Engineering may not enroll in any course required in his or her engineering degree plan more than once without written consent of an adviser in his or her department. If the student registers for a course without having received consent, his or her registration may be cancelled. If the student is denied approval to repeat 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. Except in unusual circumstances that can be documented, it is unlikely that an engineering student will be given consent to enroll in a required course more than twice.

To be “enrolled” is to be registered for the course as of the eleventh class day in the fall or spring or the fourth class day in the summer. If the student drops a course or withdraws from the University after this date, the student is considered to have been enrolled.

A student in the College of Engineering may not repeat for a letter grade a course in which he or she has earned a grade of C or better.

The application to repeat a course is submitted online at http://www.engr.utexas.edu/students/current/policies/pol_repetition.cfm.

The official grade in a course is the last final grade reported. If a student repeats a course and has two or more grades, all grades and all semester hours are used in calculating the University grade point average, in determining the student’s scholastic eligibility to remain in the University, and in determining the student’s academic standing in the College of Engineering.

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.

STANDARD OF WORK REQUIRED AND SCHOLASTIC POLICIES
In addition to the scholastic standards described in General Information, the College of Engineering 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 college standards is “engineering probation.” In cases with extenuating circumstances, the student may apply 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, after the student has taken at least six semester hours in the major area of study, 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 College of Engineering, 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 college.

A student seeking to reenter the college 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 college after having been dismissed from engineering must enroll as an undeclared major. Students who are undeclared majors may not enroll in engineering courses.
A student may transfer to the College of Engineering from another division of the University in accordance with the regulations given in General Information.

To receive credit for any course, a student must earn a grade of D or better. However, admission to many courses requires a grade of at least C in prerequisite courses. Students should consult this catalog or the department for specific grade requirements.

Any student having academic difficulty should discuss his or her status with an academic adviser in the Office of Student Affairs, Ernest Cockrell Jr. Hall 2.200.

PASS/FAIL OPTION

With the approval of the departmental undergraduate adviser, a student may elect to take the degree-required approved nontechnical electives or any extra courses (taken for benefit and not to be counted toward the degree) on the pass/fail basis rather than for a letter grade. All other courses required for the degree, and Mathematics 305G, Chemistry 304K, and Physics 306, if taken, must be taken for a letter grade.

To elect the pass/fail system of grading, a student must have received thirty semester hours of college credit. He or she may take no more than one course applicable to the degree program on this basis each semester. Credit by examination may be earned only on the pass/fail basis; such credit is not counted toward the University’s maximum of five courses taken pass/fail that may be counted toward the degree. For more information on how to receive credit by examination, see General Information.

HONORS

ENGINEERING HONORS PROGRAM

The Engineering Honors Program (EHP) is designed to provide an intellectual challenge, opportunities for leadership development, and social interaction for students who have distinguished themselves academically and in leadership roles outside the classroom.

Admission to the program is limited to a small number of exceptional students who are chosen on a competitive basis by the Engineering Honors Program Committee. Most students enter the program when they enter college; selection is based on class rank, standardized test scores, leadership roles, academic extracurricular activities, letters of recommendation, an essay related to engineering, and faculty review.

Engineering students may also apply for admission to the EHP when they have completed in residence at least twenty-four hours of the coursework to be counted toward the degree. To be invited to apply, the student must have at least sixty hours of coursework remaining in the degree program and must have an in-residence grade point average of at least 3.50. Selection is based on the student’s rank in his or her degree plan class, in-residence grade point average on courses to be counted toward the degree, extracurricular activities, letters of recommendation from faculty members, an essay related to engineering, and faculty review.

To remain in the EHP, the student 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 semester have been awarded.

To earn Special Honors in Engineering and to have that designation placed on the academic record, the student must complete the undergraduate honors thesis course in his or her discipline.

Additional information is available from the Engineering Office of Student Affairs.

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 College of Engineering, must have completed at least twenty-four semester hours of coursework in residence while enrolled in the college, must have a grade point average that places him or her in the top 5 percent of the class, must be of good character, and must 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.

UNIVERSITY HONORS

The designation University Honors, awarded 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. Criteria for University Honors are given on page 15.

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 on page 16.

PROFESSIONAL AND HONOR SOCIETIES

Professional and honor societies play an important role in the life of an engineering student. Membership in the professional societies is open to all students studying engineering and related fields. Many of these societies are student branches of national professional societies that endeavor to advance the profession of engineering by education, publication, and sponsorship of meetings and conferences. A complete list of professional societies for engineering students is published online at http://www.engr.utexas.edu/current/studentorgs/.
The purpose of the honor societies is to recognize through membership those students who have established outstanding scholastic records and have demonstrated desirable character and personality traits. Honor societies frequently support projects that aid students and benefit the College of Engineering. The engineering honor societies are Engineering Honors Council, Chi Epsilon (architectural and civil engineering), Beta Mu Epsilon (biomedical engineering), Eta Kappa Nu (electrical engineering), Omega Chi Epsilon (chemical engineering), Phi Lambda Upsilon (chemical engineering and chemistry), Pi Epsilon Tau (petroleum engineering), Pi Tau Sigma (mechanical engineering), Sigma Gamma Epsilon (geological sciences and petroleum engineering), and Sigma Gamma Tau (aerospace engineering).

Embracing all branches of engineering is the Texas Alpha Chapter of Tau Beta Pi, which was organized at the University in 1916. 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 membership consideration. Character and personality traits are also considered in selecting new members. Generally the chapter elects fewer members than the number of eligible students.

Engineering students are eligible for membership in Phi Kappa Phi, a national academic honor society that elects its membership from the top few percent of the entire student body, and in the Golden Key National Honor Society.

The Student Engineering Council is the governing body representing all undergraduate engineering students. Representatives to the council are selected by the professional and honor societies in the college.

GRADUATION

SPECIAL REQUIREMENTS OF THE COLLEGE OF ENGINEERING

All University students must have a grade point average of at least 2.00 to graduate. Students in the College of Engineering must also have an in-residence grade point average of at least 2.00 in the major area of study and in required technical courses. “Major area of study” and “required technical courses” are defined in the section “Standard of Work Required and Scholastic Policies,” pages 137–138.

A candidate for a degree in engineering must be registered in the College of Engineering 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/current/graduation/index.cfm.

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 College of Engineering, 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 Office of Student Affairs, Ernest Cockrell Jr. Hall 2.200.

THE DEGREE AUDIT

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 Office of Student Affairs in Ernest Cockrell Jr. Hall 2.200. 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 College of Engineering 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 is available at http://www.engr.utexas.edu/current/graduation/index.cfm.

**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 State Board of Registration for Professional Engineers or the equivalent agency in another state.

**DEGREES**

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. The curricula leading to degrees in engineering include forty-seven semester hours of coursework common to all engineering plans.

All University curricula leading to bachelor’s degrees in engineering except the biomedical engineering curriculum are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). 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 DUAL DEGREE 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 College of Engineering and the Plan II Honors Program of the College of Liberal Arts, provides the student with challenging liberal arts courses while he or she 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 College of Engineering Office of Student Affairs and the Plan II office for more information on applications and early deadlines.

**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 on pages 30–32; 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.

**INTERDISCIPLINARY OPTIONS**

Interdisciplinary options are offered in the following areas: biomedical engineering (for chemical, electrical, and mechanical engineering majors), biotechnology (for chemical engineering majors), engineering management (for civil engineering majors), environmental engineering (for chemical and civil engineering majors), materials engineering (for mechanical engineering majors), operations research and industrial engineering (for mechanical engineering majors), and product engineering (for chemical engineering majors). New interdisciplinary options are created in response to the changing needs of society; students who are interested in areas not mentioned above should contact the dean of the college for more information. Information about materials science is available from the director of the Materials Science and Engineering Program in Engineering Teaching Center 9.104.

Additional areas of concentration can be developed by selecting appropriate elective courses. For example, students in chemical engineering and mechanical engineering who wish to work in the area of petroleum and mineral resources may elect to take some courses in the Department of Petroleum and Geosystems Engineering and the Department of Geological Sciences.

**PREPARATION FOR PROFESSIONAL SCHOOL**

Technical area options also allow the student to fulfill the special course requirements for admission to professional schools. Medical schools. 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. Medical school admission requirements for which engineering students may have to make special arrangements include eight semester hours of organic chemistry and fourteen semester hours in the life sciences. A competitive grade point average, a suitable score on the Medical College Admission Test, and letters of recommendation are requirements for admission to most medical schools. Arrangements for providing the necessary data must be completed during the summer preceding the student’s senior year. Preliminary planning should be initiated early in the sophomore year. Students who intend to apply for admission to a medical school should contact the Health Professions Office, Geography Building 234, for information about admission requirements and application and test deadlines. Additional information about combining engineering and medical school requirements is available from the Department of Biomedical Engineering, Engineering-Science Building 610.

**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 Health Professions Office, Geography Building 234.

**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 catalog of the School of Law.

**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 graduate business programs are outlined in the catalog of the Graduate School. Many engineering departments 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 college. 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 lower-division 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 College of Engineering allows the student to minor in any field outside of 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.

**ABET CRITERIA**

To be accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), a degree plan of the College of Engineering must include the following:

1. One year of an appropriate combination of mathematics and basic sciences.
2. One-half year of humanities and social sciences.
3. One and one-half years of engineering topics and any requirements listed in ABET’s Program Criteria for that program.

Although the degree plans that follow have been designed to meet these criteria, it is the student’s responsibility, in consultation with the adviser, to choose elective courses that satisfy them. Courses in such subjects as accounting, industrial management, finance, and personnel administration; introductory language courses; and ROTC courses normally do not fulfill the humanities and social sciences requirement, regardless of their general value in the engineering program.

**LIBERAL EDUCATION OF ENGINEERS**

Courses in social sciences, humanities, and related nontechnical areas 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. All degree programs must include the following nontechnical courses.

1. Three semester hours of writing (Rhetoric and Writing 306).
2. Three semester hours of literature (English 316K).
3. Two courses, one of which must be upper-division, certified as having a substantial writing component.
4. Three semester hours of engineering communication (Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, Petroleum and Geosystems Engineering 333T, or another course approved by the department).
5. Six semester hours of American government (Government 310L and 312L, or equivalent courses that fulfill the legislative requirement described in chapter 1).
6. Six semester hours of American history (History 315K and 315L, or equivalent courses that fulfill the legislative requirement described in chapter 1).
7. Three semester hours of social science (anthropology, economics, geography, linguistics, psychology, or sociology).
8. Three semester hours of fine arts or humanities (archaeology, architecture, art, art history, classical civilization, fine arts, humanities, music [excluding instruments and ensemble], philosophy [excluding courses in logic], or theatre and dance).
Courses used to satisfy requirements 7 and 8 must fulfill the ABET accreditation criteria given above as well as the University’s basic education requirements. Lists of courses that fulfill these requirements are given below. Students preparing for the professional practice of engineering are encouraged to elect coursework in economics to fulfill requirement 7 and coursework in professional ethics to fulfill requirement 8.

SOCIAL SCIENCE ELECTIVE

Each student must complete three semester hours of coursework in anthropology, economics, geography, linguistics, psychology, or sociology. The following courses may be used to fulfill this requirement. Additional courses may be approved by the student's department faculty adviser; to be counted toward the requirement, the course must be approved before the student enrolls in it.

Anthropology 302, Cultural Anthropology
Anthropology 318L, Mexican American Culture
Anthropology 322M, Topics in Cultures of the World
Anthropology 324L, Topics in Anthropology
Anthropology 327C, Topics in American Cultures
Economics 304K, Introduction to Microeconomics
Economics 304L, Introduction to Macroeconomics
Geography 305, This Human World: An Introduction to Geography
Geography 315, The City: An Introduction to Urban Geography
Geography 334, Conservation, Resources, and Technology
Geography 337, The Modern American City
Linguistics 306, Introduction to the Study of Language
Psychology 301, Introduction to Psychology
Sociology 302, Introduction to the Study of Society
Sociology 309, Chicanos in American Society
Sociology 333K, Sociology of Gender
Sociology 344, Racial and Ethnic Relations

FINE ARTS/HUMANITIES ELECTIVE

Each student must complete three semester hours of coursework in archaeology, architecture, art, art history, classical civilization, fine arts, humanities, music (excluding instruments and ensemble), philosophy (excluding courses in logic), or theatre and dance. Architectural engineering majors must take an approved architecture history course to fulfill this requirement. Students in other fields may choose from the following courses. Additional courses may be approved by the student’s department faculty adviser; to be counted toward the requirement, the course must be approved before the student enrolls in it.

Architecture 308, Architecture and Society
Architecture 368R, Topics in the History of Architecture

Art History 301, Introduction to the Visual Arts
Art History 302, Survey of Ancient through Medieval Art
Art History 303, Survey of Renaissance through Modern Art
Classical Civilization 301, Introduction to Ancient Greece
Classical Civilization 302, Introduction to Ancient Rome
Classical Civilization 303, Introduction to Classical Mythology
Classical Civilization 305, Topics in Roman Civilization
Classical Civilization 306M, Introduction to Medical and Scientific Terminology
Humanities 350, Topics in the Humanities
Music 302L, An Introduction to Western Music
Music 303M, Introduction to Traditional Musics in World Cultures
Philosophy 301, Introduction to Philosophy
Philosophy 304, Contemporary Moral Problems
Philosophy 305, Introduction to the Philosophy of Religion
Philosophy 310, Knowledge and Reality
Philosophy 318, Introduction to Ethics
Philosophy 325K, Ethical Theories
Philosophy 325L, Business, Ethics, and Public Policy
Philosophy 327, Contemporary Philosophy
Theatre and Dance 301, Introduction to Theatre
Theatre and Dance 317C, Theatre History through the Eighteenth Century

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 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.

WRITING REQUIREMENT

In accordance with the University’s basic education requirements, all students must complete at least two courses, one of which must be upper-division, certified as having a substantial writing component. Courses with a substantial writing component are identified in the Course Schedule. The required work for each engineering degree plan includes courses that fulfill this requirement.
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 Engineering or toward the college’s minimum course load requirement. However, they are counted among courses for which the student is enrolled, and the grades are included in the grade point average.

ROTC COURSES

The dean, on the recommendation of the department chair, may substitute credit for air force science, military science, or naval science courses for other courses prescribed in an engineering degree program. Six semester hours of ROTC coursework may be substituted for three hours of American government and three hours of elective work. 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 College of Engineering unless specifically approved in advance by the dean. Application for this approval should be made online or at the Office of Student Affairs, Ernest Cockrell Jr. Hall 2.200. No more than twenty semester hours required for any degree offered in the College of Engineering may be taken by correspondence.

REQUIREMENTS INCLUDED IN ALL ENGINEERING DEGREE PLANS

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<th>COURSES</th>
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<td>American history</td>
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<td>English composition and literature</td>
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<td>Aerospace Engineering 333T, Biomedical Engineering 333T, Chemical Engineering 333T, Civil Engineering 333T, Electrical Engineering 333T, Mechanical Engineering 333T, or Petroleum and Geosystems Engineering 333T</td>
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<td>Fine arts or humanities</td>
<td>3</td>
</tr>
<tr>
<td>Three semester hours chosen from archaeology, architecture, art, art history, classical civilization, fine arts, humanities, music (excluding instruments and ensemble), philosophy (excluding courses in logic), or theatre and dance</td>
<td>3</td>
</tr>
<tr>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics 408C, Differential and Integral Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics 408D, Sequences, Series, and Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>Mathematics 427K, Advanced Calculus for Applications I</td>
<td>4</td>
</tr>
<tr>
<td>Social sciences</td>
<td>3</td>
</tr>
<tr>
<td>Three semester hours in anthropology, economics, geography, linguistics, psychology, or sociology</td>
<td>3</td>
</tr>
<tr>
<td>Physics</td>
<td>3</td>
</tr>
<tr>
<td>Physics 303K, Engineering Physics I</td>
<td>3</td>
</tr>
<tr>
<td>Physics 103M, Laboratory for Physics 303K</td>
<td>1</td>
</tr>
<tr>
<td>Physics 303L, Engineering Physics II</td>
<td>3</td>
</tr>
<tr>
<td>Physics 103N, Laboratory for Physics 303L</td>
<td>1</td>
</tr>
</tbody>
</table>

1. Architectural engineering majors must take an approved architecture history course to fulfill this requirement.

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 undergraduate engineering curricula contain many of the same courses. This commonality provides students with a certain amount of 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 aeronautics, 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 computation, and integrates classroom and laboratory experiences in the engineering disciplines of aerodynamics and propulsion, structural mechanics, mechanics of materials, flight and orbital mechanics, controls, measurements and instrumentation, design, and technical communication. The curriculum requires students to use modern engineering tools and to work individually and in teams.

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. The courses required for each option are listed on page 146. 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), aeroelasticty, 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; 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.

CURRICULUM

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. 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 by the College of Engineering Admissions Committee. (Requirements for admission to a major sequence are given on pages 134–135.) 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 aerospace engineering faculty before the student enrolls in them. Courses that fulfill the social science and fine arts/humanities requirements are listed on pages 142–143. 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 course. The only exceptions to this policy are the fine arts/humanities and social science electives. They may be taken on the pass/fail basis if the student meets the University requirements for pass/fail registration; these requirements are given in General Information.

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Sequence Courses</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Major Sequence Courses</strong></td>
<td></td>
</tr>
<tr>
<td>Technical area courses</td>
<td>7</td>
</tr>
<tr>
<td>Approved technical electives</td>
<td>6</td>
</tr>
<tr>
<td><strong>Other Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>Electrical Engineering 331K, Mechanical Engineering 210, 326</td>
<td>8</td>
</tr>
<tr>
<td>American government, including Texas government</td>
<td>6</td>
</tr>
<tr>
<td>American history</td>
<td>6</td>
</tr>
<tr>
<td>Approved social science elective</td>
<td>3</td>
</tr>
<tr>
<td>Approved fine arts or humanities elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**MINIMUM REQUIRED**

**TECHNICAL AREA OPTIONS**

The technical area option allows the student to choose seven 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 electives and that, with the addition of only one semester hour beyond the minimum number required, the student can complete all required courses in both technical areas. This route provides a greater emphasis on the design process and gives students more flexibility in the job market.

**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 362K, *Compressible Fluid Mechanics*
- Aerospace Engineering 162M, *Applied Compressible Fluid Mechanics*
- Aerospace Engineering 261K, *Aircraft Design*
- Aerospace Engineering 161M, *Aircraft Design Laboratory*

**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 and design. 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 166M, *Space Applications Laboratory*
- Aerospace Engineering 372K, *Advanced Spacecraft Dynamics*
- Aerospace Engineering 274L, *Spacecraft/Mission Design Principles*
- Aerospace Engineering 174M, *Spacecraft/Mission Design Laboratory*
## SUGGESTED ARRANGEMENT OF COURSES

### First Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASE 102, Introduction to Aerospace Engineering</td>
<td>1</td>
</tr>
<tr>
<td>CH 301, Principles of Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>M 408C, Differential and Integral Calculus</td>
<td>4</td>
</tr>
<tr>
<td>M E 210, Engineering Design Graphics</td>
<td>2</td>
</tr>
<tr>
<td>RHE 306, Rhetoric and Writing</td>
<td>3</td>
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<tr>
<td>Social science or fine arts/humanities elective</td>
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**TOTAL** 16

### First Year — Spring Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASE 201, Introduction to Computer Programming</td>
<td>2</td>
</tr>
<tr>
<td>M 408D, Sequences, Series, and Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>PHY 303K, Engineering Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 103M, Laboratory for Physics 303K</td>
<td>1</td>
</tr>
<tr>
<td>American government</td>
<td>3</td>
</tr>
<tr>
<td>Social science or fine arts/humanities elective</td>
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</tbody>
</table>

**TOTAL** 16

### Second Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASE 211, Engineering Computation</td>
<td>2</td>
</tr>
<tr>
<td>E 316K, Masterworks of Literature</td>
<td>3</td>
</tr>
<tr>
<td>E M 306, Statics</td>
<td>3</td>
</tr>
<tr>
<td>M 427K, Advanced Calculus for Applications I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 303L, Engineering Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHY 103N, Laboratory for Physics 303L</td>
<td>1</td>
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</tbody>
</table>

**TOTAL** 16

### Second Year — Spring Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>E M 311M, Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>E M 319, Mechanics of Solids</td>
<td>3</td>
</tr>
<tr>
<td>M 427L, Advanced Calculus for Applications II</td>
<td>4</td>
</tr>
<tr>
<td>M E 326, Thermodynamics</td>
<td>3</td>
</tr>
<tr>
<td>American history</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** 16

### Third Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASE 320, Introduction to Fluid Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>ASE 120K, Applications of Fluid Mechanics</td>
<td>1</td>
</tr>
<tr>
<td>ASE 321K, Structural Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ASE 330M, Linear System Analysis</td>
<td>3</td>
</tr>
<tr>
<td>ASE 366K, Spacecraft Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>E E 331K, Electric Circuits and Electronics</td>
<td>3</td>
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</tbody>
</table>

**TOTAL** 16

### Third Year — Spring Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASE 365, Structural Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ASE 367K, Flight Dynamics</td>
<td>3</td>
</tr>
<tr>
<td>ASE 167M, Flight Dynamics Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>ASE 369K, Measurements and Instrumentation</td>
<td>3</td>
</tr>
<tr>
<td>ASE 376K, Propulsion</td>
<td>3</td>
</tr>
<tr>
<td>ASE 333T, Engineering Communication</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** 16

### Fourth Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASE 324L, Aerospace Materials Laboratory</td>
<td>3</td>
</tr>
<tr>
<td>ASE 340, Boundary Layer Theory and Heat Transfer</td>
<td>3</td>
</tr>
<tr>
<td>ASE 370L, Flight Control Systems</td>
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<tr>
<td>Technical area courses</td>
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<td>Approved technical elective</td>
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</tbody>
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**TOTAL** 16

### Fourth Year — Spring Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASE 463Q, Design and Testing of Aerospace Structures</td>
<td>4</td>
</tr>
<tr>
<td>Technical area courses</td>
<td>3</td>
</tr>
<tr>
<td>American government</td>
<td>3</td>
</tr>
<tr>
<td>American history</td>
<td>3</td>
</tr>
<tr>
<td>Approved technical elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL** 16
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 environmental systems, or building construction/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 structures, building environmental systems, or building construction/materials.

Graduates of the architectural engineering program are expected to (1) understand the historical context, multidisciplinary nature, and state of the art of architectural engineering in addressing contemporary issues in society; and stay informed of emerging technologies and the challenges facing the profession in the future, (2) demonstrate strong reasoning and quantitative skills in order to identify, structure, and formulate architectural engineering–related problems, as well as design creative solutions that reflect social, economic, and environmental sensitivities, (3) integrate increasingly complex components of architectural, structural, and building environmental systems, as well as project management, for the built environment, (4) display a spirit of curiosity and lifelong learning, and conduct themselves in a professionally responsible and ethical manner, and (5) exhibit strong communication, interpersonal, and resource management skills so that they can become leaders in the architectural engineering profession and contribute to the enhancement of life and community. To meet these objectives, the faculty has designed a curriculum in which students may learn how to apply mathematics, science, and empirical observation to design the fundamental elements of architectural engineering systems. Along with these basic skills, students are expected to use teamwork skills in a design environment that encourages multidisciplinary learning, imparts depth in technical knowledge, and acknowledges the broader societal impact of architectural engineering design. Students are also expected to be able to communicate architectural engineering solutions to a diverse audience in a professional and ethical manner. Overall, the architectural engineering curriculum has the scientific content, the technical rigor, the flexibility, and the breadth to provide students with an academic environment that fosters lifelong learning in a constantly evolving 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 on pages 30–32; 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. 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 by the College of Engineering Admissions Committee. (Requirements for admission to a major sequence are given on pages 134–135.) 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 architectural engineering faculty before the student enrolls in them. Courses that fulfill the social science and fine arts/humanities requirements are listed on page 143.
TECHNICAL ELECTIVES

Technical electives in architectural engineering are listed in three areas of specialization below. Fifteen semester hours must be chosen from the following approved technical elective courses or selected with the approval of the department undergraduate adviser. The fifteen semester hours (five courses) may be chosen from one or more of the areas of specialization. Lower-division courses may not be used as technical electives.

AREA 1, STRUCTURES

Architectural Engineering 345K, Masonry Engineering
Architectural Engineering 362L, Structural Design in Wood
Civil Engineering 331, Reinforced Concrete Design, or Civil Engineering 335, Elements of Steel Design
Civil Engineering 360K, Foundation Engineering
Civil Engineering 362M, Advanced Reinforced Concrete Design
Civil Engineering 362N, Advanced Steel Design
Civil Engineering 363, Advanced Structural Analysis
Civil Engineering 375, Earth Slopes and Retaining Structures

AREA 2, BUILDING ENVIRONMENTAL SYSTEMS

Architectural Engineering 346P, HVAC Design
Architectural Engineering 370, Design of Energy Efficient and Healthy Buildings
Architectural Engineering 371, Energy Simulation in Building Design
Architectural Engineering 372, Modeling of Air and Pollutant Flows in Buildings
Architectural Engineering 377K, Topic 2: Indoor Air Quality: Transport and Control
Civil Engineering 341, Introduction to Environmental Engineering
Mechanical Engineering 339, Heat Transfer
Mechanical Engineering 374S, Solar Energy Systems Design
Mechanical Engineering 379M, Topic: Fire Science
Mechanical Engineering 379N, Engineering Acoustics

AREA 3, BUILDING CONSTRUCTION/MATERIALS

Architectural Engineering 350, Advanced CAD Procedures
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 — Fall Semester**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARE 102, *Introduction to Architectural</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Engineering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CH 301, <em>Principles of Chemistry I</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>M 408C, <em>Differential and Integral Calculus</em></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>RHE 306, <em>Rhetoric and Writing</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Approved social science elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>14</strong></td>
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</table>

**First Year — Spring Semester**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>E M 306, <em>Statics</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>GEO 312K, <em>Geology of Engineering</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>M 408D, *Sequences, Series, and</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Multivariable Calculus*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY 303K, <em>Engineering Physics I</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PHY 103M, <em>Laboratory for Physics 303K</em></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>American government</td>
<td></td>
<td>3</td>
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<tr>
<td><strong>TOTAL</strong></td>
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<td><strong>17</strong></td>
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**Second Year — Fall Semester**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>C E 311K, <em>Introduction to Computer Methods</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>M 427K, <em>Advanced Calculus for Applications I</em></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>PHY 303L, <em>Engineering Physics II</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PHY 103N, <em>Laboratory for Physics 303L</em></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Approved architectural history elective</td>
<td></td>
<td>3</td>
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<tr>
<td><strong>TOTAL</strong></td>
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**Second Year — Spring Semester**

<table>
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<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
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</thead>
<tbody>
<tr>
<td>ARE 217, <em>Computer-Aided Design and Graphics</em></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>C E 311S, <em>Elementary Statistics for Civil Engineers</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>E 316K, <em>Masterworks of Literature</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HIS 315K, <em>The United States, 1492–1865</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Approved mathematics/science elective</td>
<td></td>
<td>3</td>
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<tr>
<td><strong>TOTAL</strong></td>
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**Third Year — Fall Semester**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARE 320K, <em>Introduction to Design I</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>C E 329, <em>Structural Analysis</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>M E 320, <em>Applied Thermodynamics</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>American government</td>
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<tr>
<td><strong>TOTAL</strong></td>
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**Third Year — Spring Semester**

<table>
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<tr>
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<th>SEMESTER</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARE 320L, <em>Introduction to Design II</em></td>
<td></td>
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<tr>
<td>ARE 335, <em>Materials and Methods of Building Construction</em></td>
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<tr>
<td>ARE 346N, <em>Building Environmental Systems</em></td>
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<tr>
<td>C E 331, <em>Reinforced Concrete Design</em></td>
<td></td>
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<td>or C E 335, <em>Elements of Steel Design</em></td>
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<tr>
<td>C E 333T, <em>Engineering Communication</em></td>
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<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>15</strong></td>
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**Fourth Year — Fall Semester**

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>ARE 323K, <em>Project Management and Economics</em></td>
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<tr>
<td>C E 357, <em>Geotechnical Engineering</em></td>
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<td>Approved technical elective</td>
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<tr>
<td>Approved technical elective</td>
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<td><strong>TOTAL</strong></td>
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**Fourth Year — Spring Semester**

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<tr>
<th>COURSES</th>
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</thead>
<tbody>
<tr>
<td>ARE 465, <em>Integrated Design Project</em></td>
<td></td>
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</tr>
<tr>
<td>ARE 366, <em>Contracts, Liability, and Ethics</em></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>HIS 315L, <em>The United States since 1865</em></td>
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</tr>
<tr>
<td>Approved technical electives</td>
<td></td>
<td>6</td>
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<td><strong>TOTAL</strong></td>
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</table>
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, cellular and biomolecular engineering, or computational biomedical engineering), and culminates in a team capstone design experience. Research, industrial, and clinical internships provide students with novel educational experiences and unique perspectives on biomedical engineering applications. 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 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.

PROGRAM OUTCOMES

Graduates of the biomedical engineering program are expected to be able to

- Apply knowledge of biological and physical sciences, mathematics, and engineering to solve problems at the interface of engineering and biology.
- Design and conduct experiments and analyze and interpret data to support the understanding of biological systems and processes.
- Design a biomedical engineering system, component, and/or process that meets specific needs; and demonstrate understanding of relevant technical, professional, and ethical issues.
- Function on multidisciplinary teams.
- Communicate effectively in oral, written, and graphical formats.
- Identify, formulate, and solve biomedical engineering problems that address contemporary issues within a global, societal, and economic context.
- Recognize the need to pursue continuing educational opportunities in biomedical engineering and have the ability to do so.

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. The first two years of the curriculum consist of basic sequence core courses for all biomedical engineering students. Subsequent enrollment in major sequence courses and one of three 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 by the College of Engineering Admissions Committee. (Requirements for admission to a major sequence are given on pages 134–135.) 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 Undergraduate Advising Office for courses to be used to fulfill technical and nontechnical elective requirements. Courses that fulfill the social science and fine arts/humanities requirements are listed on page 143. 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.
Basic Sequence Courses

- Biology 205L or 206L, 311C, Biomedical Engineering 102, 303, 311, 313, 314, 333T
- Chemistry 302, 204, 310M or 318M, Mathematics 408C, 408D, 427K
- Physics 303K, 303L, 103M, 103N, Rhetoric and Writing 306

Major Sequence Courses

- Biomedical Engineering 221, 335, 348, 251, 353, 365R, 365S, 370, 371
- Chemistry 339K or 369
- Approved technical area electives
- Senior engineering electives

Other Required Courses

- Chemistry 118K, 353 or 353M, English 316K
- American government, including Texas government
- American history
- Approved social science elective
- Approved fine arts or humanities elective

**MINIMUM REQUIRED** 132

**TECHNICAL AREA OPTIONS**

The technical area option allows the student to build on the biomedical engineering core curriculum by choosing twenty-one semester hours of technical area coursework in biomedical imaging and instrumentation, cellular and biomolecular engineering, or computational biomedical engineering. 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 BSBmE 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 the Health Professions Office in the College of Natural Sciences, Geography Building 234. Additional information is available at http://cns.utexas.edu/hpo/.

**Preparation for law.** There is no sequential arrangement of courses prescribed for a prelaw 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 prelaw students are provided by Liberal Arts Career Services (LACS), Dorothy Gebauer Building 1.308. Engineering prelaw students may consult the prelaw adviser in LACS. Additional information is available at http://www.lacs.utexas.edu/.

**Plan II Honors Program.** Students enrolled in the Plan II Honors Program are encouraged to contact the Biomedical Engineering Plan II faculty adviser, the Biomedical Engineering Undergraduate Advising Office, and 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 Business Foundations Program is described on page 48. For more information, contact the McCombs School or the Biomedical Engineering Undergraduate Advising Office, or visit http://www.mccombs.utexas.edu/udean/major/foundations/.

Elements of Computing. Students who wish to learn about computer sciences may take the coursework that leads to the certificate in the Elements of Computing, awarded by the Department of Computer Sciences. The Elements of Computing Program is described on page 447. For more information, contact the Department of Computer Sciences or the Biomedical Engineering Undergraduate Advising Office, or visit http://academics.cs.utexas.edu/undergraduate/nonmajor/elements.html.

TECHNICAL AREA 1, BIOMEDICAL IMAGING AND INSTRUMENTATION

This technical area is design for students interested in the general area of medical instrumentation and imaging science. The main objective is to prepare students to design and use biomedical instrumentation for imaging, diagnostic, and therapeutic applications, with focus on the new fields of molecular engineering, cell and tissue engineering, and biotechnology. 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.

Students must complete the following five courses:

Biomedical Engineering 343, Biomedical Engineering Signal and Systems Analysis
Biomedical Engineering 319K, Introduction to Microcontrollers
Electrical Engineering 322C, Data Structures
Electrical Engineering 438, Electronic Circuits I
Electrical Engineering 345S, Real-Time Digital Signal Processing Laboratory

In addition, students must complete six hours of coursework chosen from the following list:

Astronomy 376, Topic: Astronomical Instrumentation
Biomedical Engineering 357, Biomedical Imaging Modalities Laboratory
Biomedical Engineering 374K, Biomedical Electronics, and Biomedical Engineering 374L, Applications of Biomedical Engineering Laboratory
Electrical Engineering 345L, Microprocessor Applications and Organization, and Electrical Engineering 345M, Embedded and Real-Time Systems Laboratory
Electrical Engineering 347, Modern Optics
Electrical Engineering 351M, Digital Signal Processing
Electrical Engineering 371R, Digital Image and Video 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. Three disciplines within this technical area are tissue engineering as it relates to the underlying molecular biology issues; materials science, with an emphasis on bioactive materials and construction of nanoscale devices and probes; and bioengineering analysis of infectious diseases and immunological responses.

Students must take the following four courses:

Biology 325, Genetics
Biomedical Engineering 339, Biochemical Engineering
Biomedical Engineering 352, Advanced Engineering Biomaterials
Chemical Engineering 350, Chemical Engineering Materials

In addition, students must complete nine hours of coursework chosen from the following list; at least three hours must be in biomedical engineering.

Biomedical Engineering 354, Molecular Sensors and Nanodevices for Biomedical Engineering Applications
Biomedical Engineering 379, Cell and Tissue Engineering
Approved upper-division biology courses
Chemistry 318N, Organic Chemistry II, and 118L, Organic Chemistry Laboratory; or 310N, Organic Chemistry II, and 210C, Organic Chemistry Laboratory
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.

All students must complete the following six courses:

- Biomedical Engineering 341, Engineering Tools for Computational Biology Laboratory, or Biomedical Engineering 346, Introduction to Computational Structural Biology
- Computer Sciences 323E, Elements of Scientific Computing
- Electrical Engineering 322C, Data Structures
- Electrical Engineering 360C, Algorithms
- Mathematics 325K, Discrete Mathematics, or Philosophy 313K, Logic, Sets, and Functions
- Mathematics 340L, Matrices and Matrix Calculations

In addition, students must complete six hours of coursework chosen from the following list:

- Biomedical Engineering 341, Engineering Tools for Computational Biology Laboratory
- Biomedical Engineering 342, Computational Biomechanics
- Biomedical Engineering 345, Graphics and Visualization Laboratory
- Biomedical Engineering 346, Introduction to Computational Structural Biology
- Computer Sciences 313E, Elements of Software Design
- Computer Sciences 327E, Elements of Databases
- Other approved computer sciences courses

SENIOR ENGINEERING ELECTIVES

All students must complete six hours in senior engineering electives. At least three hours must be in a lecture or laboratory course. Three hours may be in a research project or an internship. The following may be counted toward this requirement:

- An engineering course in any one of the three technical areas. A course may not be counted toward both the technical area requirement and the senior elective requirement.
- An approved upper-division engineering, physics, mathematics, or computer sciences course. A course may not be counted toward both the technical area requirement and the senior elective requirement.
- Three hours of coursework chosen from the following list:
  - Biomedical Engineering 325L, Cooperative Engineering, or Biomedical Engineering 225M, Cooperative Engineering
  - Biomedical Engineering 177, 277, 377, Undergraduate Research Project
  - Biomedical Engineering 377P, Clinical Research Internship
  - Biomedical Engineering 377Q, Clinical Medical Internship
  - Biomedical Engineering 377R, Research Internship
  - Biomedical Engineering 377S, Industrial Internship
### Suggested Arrangement of Courses

#### First Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 311C, Introductory Biology I</td>
<td></td>
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</tr>
<tr>
<td>BME 102, Principles of Biomedical Engineering</td>
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<tr>
<td>BME 303, Introduction to Computing for Biomedical Engineering</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CH 302, Principles of Chemistry II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CH 204, Introduction to Chemical Practice</td>
<td></td>
<td>2</td>
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<tr>
<td>M 408C, Differential and Integral Calculus</td>
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<tr>
<td><strong>TOTAL</strong></td>
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#### First Year — Spring Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO 205L, Laboratory Experiments in Biology: Cellular and Molecular Biology, or BIO 206L, Laboratory Experiments in Biology: Structure and Function of Organisms</td>
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<tr>
<td>BME 313, Numerical Methods in Biomedical Engineering</td>
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<tr>
<td>M 408D, Sequences, Series, and Multivariable Calculus</td>
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<tr>
<td>PHY 303K, Engineering Physics I</td>
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<td>PHY 103M, Laboratory for Physics 303K</td>
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<td>RHE 306, Rhetoric and Writing</td>
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<td><strong>TOTAL</strong></td>
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#### Second Year — Fall Semester

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<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>BME 314, Engineering Foundations of Biomedical Engineering</td>
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<tr>
<td>CH 310M, Organic Chemistry I, or CH 318M, Organic Chemistry I</td>
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<tr>
<td>CH 118K, Organic Chemistry Laboratory</td>
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</tr>
<tr>
<td>E 316K, Masterworks of Literature</td>
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<tr>
<td>M 427K, Advanced Calculus for Applications I</td>
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<tr>
<td>PHY 303L, Engineering Physics II</td>
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<tr>
<td>PHY 103N, Laboratory for Physics 303L</td>
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<td><strong>TOTAL</strong></td>
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#### Second Year — Spring Semester

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<th>COURSES</th>
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<tbody>
<tr>
<td>BME 311, Network Analysis in Biomedical Engineering</td>
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<tr>
<td>BME 333T, Engineering Communication</td>
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<td>BME 335, Engineering Probability and Statistics</td>
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<tr>
<td>CH 353, Physical Chemistry I, or CH 353M, Physical Chemistry I for Life Sciences</td>
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<tr>
<td>CH 369, Fundamentals of Biochemistry</td>
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<tr>
<td>Approved fine arts/humanities elective</td>
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<td><strong>TOTAL</strong></td>
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#### Third Year — Fall Semester

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<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>BME 221, Measurement and Instrumentation Laboratory</td>
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<tr>
<td>BME 348, Systems Analysis in Biomedical Engineering</td>
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<tr>
<td>BME 365R, Quantitative Engineering Physiology I</td>
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<td>Technical area electives</td>
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#### Third Year — Spring Semester

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<tr>
<th>COURSES</th>
<th>SEMESTER</th>
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</thead>
<tbody>
<tr>
<td>BME 251, Biomedical Image and Signal Processing Laboratory</td>
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<tr>
<td>BME 353, Transport Phenomena in Living Systems</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BME 365S, Quantitative Engineering Physiology II</td>
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<td>3</td>
</tr>
<tr>
<td>Technical area electives</td>
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<tr>
<td>American history</td>
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#### Fourth Year — Fall Semester

<table>
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<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
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</thead>
<tbody>
<tr>
<td>BME 370, Principles of Engineering Design</td>
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<tr>
<td>Technical area elective</td>
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<td>3</td>
</tr>
<tr>
<td>Senior engineering elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>GOV 310L, American Government</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Approved social science elective</td>
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<tr>
<td><strong>TOTAL</strong></td>
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<td><strong>15</strong></td>
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#### Fourth Year — Spring Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>BME 371, Biomedical Engineering Design Project</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Senior engineering elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Technical area elective</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>GOV 312L, Issues and Policies in American Government</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>American history</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>15</strong></td>
</tr>
</tbody>
</table>

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4. Students who plan to complete technical area 1 should take BME 311, Network Theory, and E E 322C, Data Structures, in this semester. Those who plan to complete technical area 2 should take CH 369, Fundamentals of Biochemistry. Those who plan to complete technical area 3 should take CH 369, Fundamentals of Biochemistry, and E E 322C, Data Structures.
# 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. Since 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 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, state-of-the-art curriculum that integrates lectures and laboratory experience in basic science, mathematics, engineering science, engineering design, and the liberal arts.

## CURRICULUM

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. 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 by the College of Engineering Admissions Committee. (Requirements for admission to a major sequence are given on pages 134–135.) 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 chemical engineering faculty before the student enrolls in them. Courses that fulfill the social science and fine arts/humanities requirements are listed on page 143.

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Sequence Courses</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Major Sequence Courses</strong></td>
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<tr>
<td>Approved area electives in chemical engineering</td>
<td>6</td>
</tr>
<tr>
<td><strong>Other Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>Biology 311C, Chemistry 118L, 318N, 353, 153K, Electrical Engineering 331, English 316K</td>
<td>17</td>
</tr>
<tr>
<td>Chemistry elective with a laboratory experience chosen from Chemistry 431, 354 and 154K, 154K and 354L, and 455; or Chemical Engineering 179 and Chemistry 339K, 354, or 369K</td>
<td>4</td>
</tr>
<tr>
<td>Approved advanced mathematics, physics, chemistry, or biology elective</td>
<td>3</td>
</tr>
<tr>
<td>American government, including Texas government</td>
<td>6</td>
</tr>
<tr>
<td>American history</td>
<td>6</td>
</tr>
<tr>
<td>Approved fine arts or humanities elective</td>
<td>3</td>
</tr>
<tr>
<td>Approved social science elective</td>
<td>3</td>
</tr>
<tr>
<td>Approved area electives</td>
<td>6</td>
</tr>
</tbody>
</table>

**MINIMUM REQUIRED** 128

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5. Chemical Engineering 179 is an independent study course taken under the supervision of a chemical engineering faculty member. The student’s area of study is arranged by the student and the faculty member to provide a laboratory experience that complements one of the three chemistry courses.
HONORS PROGRAM

Chemical engineering students who maintain a grade point average of at least 3.50 may take the honors research course, Chemical Engineering 679H. 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 AREA OPTIONS

Because of the broad training received by the chemical engineer in natural sciences and engineering, 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 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 an exclusive list of technical area courses but illustrate the types of courses that are generally suitable for a given area.

Students with a grade point average of at least 3.00 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 academic adviser. Chemical Engineering 377K may be counted only once toward the degree.

AREA 1, PROCESS ANALYSIS AND CONTROL

The chemical process industry is one of the most advanced in the applications of modern control techniques and computer technology. These rapidly developing techniques are of great utility to the practicing engineer.

Chemical Engineering 341, Design for Environment
Chemical Engineering 342, Chemical Engineering Economics and Business Analysis
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
Mechanical Engineering 335, Engineering Statistics
Mechanical Engineering 348D, Introduction to Mechatronics II
Mechanical Engineering 366L, Operations Research Models
Upper-division mathematics course

AREA 2, POLYMER AND MATERIALS ENGINEERING

Polymers and related special products make possible many of the conveniences of modern life. Chemical engineers continue to be major contributors in this area.

Chemical Engineering 322M, Molecular Thermodynamics
Chemical Engineering 339P, Introduction to Biological Physics
Chemical Engineering 355, Introduction to Polymers
Chemical Engineering 356, Optimization: Theory and Practice
Chemical Engineering 357, Technology and Its Impact on the Environment
Chemical Engineering 376K, Process Evaluation and Quality Control
Chemistry 367L, Macromolecular Chemistry
Mechanical Engineering 336, Materials Processing
Mechanical Engineering 378C, Electroceramics
Mechanical Engineering 378K, Mechanical Behavior of Materials
Mechanical Engineering 378P, Properties and Applications of Polymers
**AREA 3, ELECTRONIC MATERIALS ENGINEERING**

Electronic equipment of all types requires devices produced by carefully controlled chemical processes. Chemical engineers can assume a creative role in this technology when provided with the appropriate fundamentals and applications background.

Chemical Engineering 322M, Molecular Thermodynamics
Chemical Engineering 323, Chemical Engineering for Microelectronics
Chemical Engineering 355, Introduction to Polymers
Chemical Engineering 357, Technology and Its Impact on the Environment
Chemical Engineering 376K, Process Evaluation and Quality Control
Chemistry 431, Inorganic Chemistry
Chemistry 455, Fundamentals of Analytical Chemistry
Electrical Engineering 339, Solid-State Electronic Devices
Mechanical Engineering 349, Corrosion Engineering
Physics 338K, Electronic Techniques

**AREA 4, 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.

Biology 311D, Introductory Biology II
Biology 226R, General Microbiology: Microbial Cell Structure and Genetics
Biology 339, Metabolism and Biochemistry of Microorganisms
Chemical Engineering 322M, Molecular Thermodynamics
Chemical Engineering 339, Introduction to Biochemical Engineering
Chemical Engineering 339P, Introduction to Biological Physics
Chemical Engineering 341, Design for Environment
Chemical Engineering 357, Technology and Its Impact on the Environment
Chemical Engineering 376K, Process Evaluation and Quality Control
Civil Engineering 341, Introduction to Environmental Engineering
Civil Engineering 342, Water and Wastewater Treatment Engineering
Civil Engineering 346K, Hazardous Waste Management
Civil Engineering 364, Design of Wastewater and Water Treatment Facilities
Civil Engineering 369L, Air Pollution Engineering
Civil Engineering 370K, EnvironmentalSampling and Analysis

**AREA 5, PROCESS ENGINEERING**

The design and operation of processes is a major function of chemical engineers that is essential to any successful product. Competence in design, economics, fault detection, optimization, control, and simulation is essential.

Architectural Engineering 323K, Project Management and Economics
Chemical Engineering 341, Design for Environment
Chemical Engineering 342, Chemical Engineering Economics and Business Analysis
Chemical Engineering 355, Introduction to Polymers
Chemical Engineering 356, Optimization: Theory and Practice
Chemical Engineering 357, Technology and Its Impact on the Environment
Chemical Engineering 376K, Process Evaluation and Quality Control
Mechanical Engineering 335, Engineering Statistics
Mechanical Engineering 353, Engineering Economic Analysis
Physics 338K, Electronic Techniques

**AREA 6, PRODUCT ENGINEERING**

Chemical engineers are 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 341, Design for Environment
Chemical Engineering 342, Chemical Engineering Economics and Business Analysis
AREA 7, BIOMEDICAL ENGINEERING AND PREMEDICAL/PREDENTAL PROGRAM

The biomedical option is designed for students who have an interest in the life sciences in addition to the physical sciences, mathematics, and engineering. Courses included under this plan are applicable to the entrance requirements for most medical schools, dental schools, and graduate programs in biomedical engineering. For additional information, see the departmental biomedical adviser.

Biology 311D, Introductory Biology II
Biology 320, Cell Biology
Biology 325, Genetics
Biology 226R, General Microbiology: Microbial Cell Structure and Genetics
Biology 365R, Vertebrate Physiology I
Biology 365S, Vertebrate Physiology II
Biomedical Engineering 352, Advanced Engineering Biomaterials
Biomedical Engineering 353, Transport Phenomena in Living Systems
Biomedical Engineering 365R, Quantitative Engineering Physiology I
Chemical Engineering 322M, Molecular Thermodynamics
Chemical Engineering 339, Introduction to Biochemical Engineering
Chemical Engineering 339P, Introduction to Biological Physics
Chemical Engineering 355, Introduction to Polymers
Chemical Engineering 376K, Process Evaluation and Quality Control
Chemistry 339K, Biochemistry I
Chemistry 339L, Biochemistry II
Chemistry 370, Physical Methods for Biochemistry

AREA 8, BIOTECHNOLOGY

The discoveries in the biological sciences that placed large areas of these sciences on a molecular basis provide great potential for new products to improve living standards and health. Those with proper training in the basics of chemical engineering and in application techniques will make major contributions to commercial development of such products.

Biology 311D, Introductory Biology II
Biology 325, Genetics
Biology 226R, General Microbiology: Microbial Cell Structure and Genetics
Biomedical Engineering 352, Advanced Engineering Biomaterials
Biomedical Engineering 353, Transport Phenomena in Living Systems
Biomedical Engineering 365R, Quantitative Engineering Physiology I
Chemical Engineering 322M, Molecular Thermodynamics
Chemical Engineering 339, Introduction to Biochemical Engineering
Chemical Engineering 339P, Introduction to Biological Physics
Chemical Engineering 355, Introduction to Polymers
Chemical Engineering 357, Technology and Its Impact on the Environment
Chemical Engineering 376K, Process Evaluation and Quality Control
Chemistry 339K, Biochemistry I
Chemistry 339L, Biochemistry II
Chemistry 370, Physical Methods for Biochemistry
### First Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
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<tbody>
<tr>
<td>CH 302, Principles of Chemistry II</td>
<td>3</td>
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<tr>
<td>CHE 102, Introduction to Chemical Engineering</td>
<td>4</td>
</tr>
<tr>
<td>CHE 210, Introduction to Computing</td>
<td>2</td>
</tr>
<tr>
<td>M 408C, Differential and Integral Calculus</td>
<td>4</td>
</tr>
<tr>
<td>RHE 306, Rhetoric and Writing</td>
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<tr>
<td>Social science elective</td>
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<tr>
<td><strong>TOTAL</strong></td>
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</tbody>
</table>

6. Chemical Engineering 102 is not a degree requirement. Students who do not take this course will take fifteen hours of coursework in the fall semester of the first year.

### First Year — Spring Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
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</thead>
<tbody>
<tr>
<td>BIO 311C, Introductory Biology I</td>
<td>3</td>
</tr>
<tr>
<td>CH 204, Introduction to Chemical Practice</td>
<td>2</td>
</tr>
<tr>
<td>M 408D, Sequences, Series, and Multivariable Calculus</td>
<td>4</td>
</tr>
<tr>
<td>PHY 303K, Engineering Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 103M, Laboratory for Physics 303K</td>
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<tr>
<td>American government</td>
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<td><strong>TOTAL</strong></td>
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### Second Year — Fall Semester

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<tr>
<td>CH 118K, Organic Chemistry Laboratory</td>
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</tr>
<tr>
<td>CH 318M, Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td>CHE 317, Introduction to Chemical Engineering Analysis</td>
<td>3</td>
</tr>
<tr>
<td>M 427K, Advanced Calculus for Applications I</td>
<td>4</td>
</tr>
<tr>
<td>PHY 303L, Engineering Physics II</td>
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<tr>
<td>PHY 103N, Laboratory for Physics 303L</td>
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### Second Year — Spring Semester

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<td>CH 318N, Organic Chemistry II</td>
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<tr>
<td>CH 353, Physical Chemistry I</td>
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<tr>
<td>CHE 348, Numerical Methods in Chemical Engineering and Problem Solving</td>
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<tr>
<td>CHE 353, Transport Phenomena</td>
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</tr>
<tr>
<td>E 316K, Masterworks of Literature</td>
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### Third Year — Fall Semester

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<tr>
<td>CH 153K, Physical Chemistry Laboratory</td>
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<tr>
<td>CHE 322, Thermodynamics</td>
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</tr>
<tr>
<td>CHE 333T, Engineering Communication</td>
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</tr>
<tr>
<td>CHE 253K, Applied Statistics</td>
<td>2</td>
</tr>
<tr>
<td>CHE 354, Transport Processes</td>
<td>3</td>
</tr>
<tr>
<td>Chemistry elective</td>
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<td><strong>TOTAL</strong></td>
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### Third Year — Spring Semester

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<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>CHE 253M, Measurement, Control, and Data Analysis Laboratory</td>
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</tr>
<tr>
<td>CHE 363, Separation Processes and Mass Transfer</td>
<td>3</td>
</tr>
<tr>
<td>E E 331, Electrical Circuits, Electronics, and Machinery</td>
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<td>American history</td>
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<tr>
<td>Approved technical area course</td>
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<tr>
<td>Fine arts/humanities elective</td>
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<tr>
<td><strong>TOTAL</strong></td>
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### Fourth Year — Fall Semester

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<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>CHE 350, Chemical Engineering Materials</td>
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</tr>
<tr>
<td>CHE 264, Chemical Engineering Process and Projects Laboratory</td>
<td>2</td>
</tr>
<tr>
<td>CHE 372, Chemical Reactor Analysis and Design</td>
<td>3</td>
</tr>
<tr>
<td>Approved chemical engineering area course</td>
<td>3</td>
</tr>
<tr>
<td>American government</td>
<td>3</td>
</tr>
<tr>
<td>Approved advanced mathematics, physics, chemistry, or biology elective</td>
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<td><strong>TOTAL</strong></td>
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### Fourth Year — Spring Semester

<table>
<thead>
<tr>
<th>COURSES</th>
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<tr>
<td>CHE 360, Process Control</td>
<td>3</td>
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<tr>
<td>CHE 473K, Process Design and Operations</td>
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<tr>
<td>American history</td>
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</tr>
<tr>
<td>Approved chemical engineering area course</td>
<td>3</td>
</tr>
<tr>
<td>Approved technical area course</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>
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.

Graduates of the civil engineering program are expected to (1) understand the historical context, multidisciplinary nature, and state of the art of civil engineering in addressing contemporary issues in society; and stay informed of emerging technologies and the challenges facing the profession in the future, (2) demonstrate strong reasoning and quantitative skills in order to identify, structure, and formulate civil engineering–related problems, as well as design creative solutions that reflect social, economic, and environmental sensitivities, (3) display a spirit of curiosity and lifelong learning and conduct themselves in a professionally responsible and ethical manner, and (4) exhibit strong communication, interpersonal, and resource management skills so that they can become leaders in the civil engineering profession and contribute to the enhancement of life and community. To meet these objectives, the faculty has designed a curriculum in which students may learn how to apply mathematics, science, and empirical observation to design the fundamental elements of civil engineering systems. Along with these basic skills, students are expected to use teamwork skills in a design environment that encourages multidisciplinary learning, imparts depth in technical knowledge, and acknowledges the broader societal impact of civil engineering design. Students are also expected to be able to communicate civil engineering solutions to a diverse audience in a professional and ethical manner. Overall, the civil engineering curriculum has the scientific content, the technical rigor, the flexibility, and the breadth to provide students with an academic environment that fosters lifelong learning in a constantly evolving profession.
CURRICULUM

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. 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 by the College of Engineering Admissions Committee. (Requirements for admission to a major sequence are given on pages 134–135.) 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 civil engineering faculty before the student enrolls in them. Courses that fulfill the social science and fine arts/humanities requirements are listed on page 143.

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
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</thead>
<tbody>
<tr>
<td><strong>Basic Sequence Courses</strong></td>
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</tr>
<tr>
<td><strong>Major Sequence Courses</strong></td>
<td></td>
</tr>
<tr>
<td>Base level courses: Architectural Engineering 323K, Civil Engineering 321, 329, 341, 356, 357</td>
<td>18</td>
</tr>
<tr>
<td>Civil Engineering 333T</td>
<td>3</td>
</tr>
<tr>
<td>Level I electives</td>
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<tr>
<td>Level II elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Other Required Courses</strong></td>
<td></td>
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<tr>
<td>English 316K, Mathematics 427K, Mechanical Engineering 320</td>
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</tr>
<tr>
<td>American government, including Texas government</td>
<td>6</td>
</tr>
<tr>
<td>American history</td>
<td>6</td>
</tr>
<tr>
<td>Approved fine arts or humanities elective</td>
<td>3</td>
</tr>
<tr>
<td>Approved social science elective</td>
<td>3</td>
</tr>
<tr>
<td>Approved mathematics or science elective</td>
<td>3</td>
</tr>
<tr>
<td>Approved mathematics, science, or engineering science elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>MINIMUM REQUIRED</strong></td>
<td>124</td>
</tr>
</tbody>
</table>
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.

To assure a background in design, 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 350, Advanced CAD Procedures
- Architectural Engineering 358, Cost Estimating in Building Construction
- Architectural Engineering 366, Contracts, Liability, and Ethics

**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 346K, Hazardous Waste 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

**Geotechnical Engineering**
- Civil Engineering 360K, Foundation Engineering

**Structures**
- Civil Engineering 362M, Advanced Reinforced Concrete Design
- Civil Engineering 362N, Advanced Steel Design

**Transportation**
- Civil Engineering 367, Highway Engineering
- Civil Engineering 376, Airport Design

**Water Resources**
- Civil Engineering 365K, Hydraulic Engineering Design
### SUGGESTED ARRANGEMENT OF COURSES

#### First Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>C E 301, Civil Engineering Systems</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>CH 301, Principles of Chemistry I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>M 408C, Differential and Integral Calculus</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>M E 210, Engineering Design Graphics</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Social science or fine arts/humanities elective</td>
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<td>3</td>
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<tr>
<td><strong>TOTAL</strong></td>
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#### First Year — Spring Semester

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<tr>
<th>COURSES</th>
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</tr>
</thead>
<tbody>
<tr>
<td>CH 302, Principles of Chemistry II</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>E M 306, Statics</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>M 408D, Sequences, Series, and Multivariable Calculus</td>
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<td>4</td>
</tr>
<tr>
<td>PHY 303K, Engineering Physics I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>PHY 103M, Laboratory for Physics 303K</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>RHE 306, Rhetoric and Writing</td>
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<tr>
<td><strong>TOTAL</strong></td>
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#### Second Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>C E 311K, Introduction to Computer Methods</td>
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</tr>
<tr>
<td>E M 311M, Dynamics</td>
<td></td>
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<tr>
<td>E M 319, Mechanics of Solids</td>
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<td>PHY 303L, Engineering Physics II</td>
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<td>PHY 103N, Laboratory for Physics 303L</td>
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#### Second Year — Spring Semester

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<th>COURSES</th>
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</thead>
<tbody>
<tr>
<td>C E 311S, Elementary Statistics for Civil Engineers</td>
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<td>3</td>
</tr>
<tr>
<td>C E 314K, Properties and Behavior of Engineering Materials</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>C E 319F, Elementary Mechanics of Fluids</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>E 316K, Masterworks of Literature</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>M 427K, Advanced Calculus for Applications I</td>
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<td><strong>TOTAL</strong></td>
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#### Third Year — Fall Semester

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<th>COURSES</th>
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<tbody>
<tr>
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<tr>
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<tr>
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#### Third Year — Spring Semester

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<th>COURSES</th>
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<th>HOURS</th>
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<tr>
<td>C E 333T, Engineering Communication</td>
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</tr>
<tr>
<td>Base level courses&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>9</td>
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<tr>
<td>Approved mathematics or science elective</td>
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<td><strong>TOTAL</strong></td>
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#### Fourth Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
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<th>HOURS</th>
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<tbody>
<tr>
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#### Fourth Year — Spring Semester

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<tr>
<td>Level I electives</td>
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<td>Social science or fine arts/humanities elective</td>
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<tr>
<td><strong>TOTAL</strong></td>
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<td>15</td>
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</tbody>
</table>

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<sup>7</sup> These nontechnical electives may be taken in any semester. They must include a three-hour approved social science elective and a three-hour approved fine arts/humanities elective.

<sup>8</sup> Architectural Engineering 323K and Civil Engineering 321, 329, 341, 356, and 357 are the base level courses.
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. The electrical engineering curriculum is accredited in electrical engineering by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). The computer engineering curriculum is accredited by ABET in both electrical engineering and computer engineering. Both curricula contain the fundamentals of electrical engineering and computer engineering; they differ in their core and technical area 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 computer and communication systems; control, robotic, and manufacturing systems; power and energy systems; biomedical instrumentation systems; electronic materials; and device design and manufacturing. Typical career paths of graduates include design, development, management, consulting, teaching, and research. Many graduates seek further education in law, medicine, business, or engineering.

The core requirements of the Bachelor of Science in Electrical Engineering provide a foundation of engineering fundamentals. Students then build on the core requirements by choosing a primary and a secondary technical area and a mathematics or science technical elective; students following the electrical engineering curriculum also choose an advanced laboratory course. Once the primary technical area is chosen, the student is assigned a faculty adviser with expertise in that area to help the student select technical area courses that are appropriate to his or her career and educational goals. The curricula thus ensure breadth through the core courses and the choice of a technical elective; technical area coursework provides additional depth.

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, graduate study.
- 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.

CURRICULA

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. Enrollment in major sequence courses is restricted to students who have passed the basic sequence courses with acceptable performance. Enrollment in other required courses is not restricted by completion of the basic sequence.

Courses used to fulfill technical area, math or science technical elective, and other elective requirements must be approved by the electrical and computer engineering faculty before the student enrolls in them. Courses that fulfill the social science and fine arts/humanities requirements are listed on page 143.
### ELECTRICAL ENGINEERING CURRICULUM

<table>
<thead>
<tr>
<th>COURSES</th>
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<td><strong>Basic Sequence Courses</strong></td>
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<td><strong>Major Sequence Courses</strong></td>
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<td>Approved technical area courses</td>
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<tr>
<td><strong>Other Required Courses</strong></td>
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<td>American government, including Texas government</td>
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<tr>
<td>American history</td>
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</tr>
<tr>
<td>Approved fine arts or humanities elective</td>
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<tr>
<td>Approved social science elective</td>
<td>3</td>
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<tr>
<td>Approved elective</td>
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<tr>
<td><strong>MINIMUM REQUIRED</strong></td>
<td>125 OR 126</td>
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</tbody>
</table>

9. Students who take Electrical Engineering 440 as a technical area course complete nineteen hours of technical area coursework and a total of 126 hours counted toward the degree; others complete eighteen hours of technical area coursework and a total of 125 hours counted toward the degree.

### COMPUTER ENGINEERING CURRICULUM

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Sequence Courses</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Major Sequence Courses</strong></td>
<td></td>
</tr>
<tr>
<td>Approved technical area courses</td>
<td>18</td>
</tr>
<tr>
<td>Approved mathematics or science technical elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Other Required Courses</strong></td>
<td></td>
</tr>
<tr>
<td>American government, including Texas government</td>
<td>6</td>
</tr>
<tr>
<td>American history</td>
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<tr>
<td>Approved fine arts or humanities elective</td>
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<td>Approved social science elective</td>
<td>3</td>
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<td>Approved elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>MINIMUM REQUIRED</strong></td>
<td>125</td>
</tr>
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</table>
MATHEMATICS OR SCIENCE TECHNICAL ELECTIVE

The math or science technical elective is designed to strengthen a student’s foundation in mathematics or science. This foundation will help graduates adapt to technological change throughout their careers and be better prepared for graduate study in science and engineering. This course must be an upper-division course in one of the following fields of study: mathematics, astronomy, biology, chemistry, or physics. The student may not use a course in one of these fields that is designed for nonmajors. Electrical Engineering 325L may also be used to fulfill this requirement.

TECHNICAL AREA OPTIONS

Both electrical engineering and computer engineering students must choose a primary and a secondary technical area. Electrical engineering students must choose their primary technical area from the electrical engineering technical areas listed below; computer engineering students must choose theirs from the computer engineering areas. For the secondary technical area, students may choose any technical area, including academic enrichment.

For all technical areas, the student must complete at least three courses in the area on the letter-grade basis. A course may not be counted toward more than one technical area.

Electrical engineering students may count one of the following advanced laboratory courses toward a technical area requirement: Electrical Engineering 321K, 440, 345L, 345S, 362L, 371C, 372L, and 374L.

ACADEMIC ENRICHMENT TECHNICAL AREA

A student may choose the academic enrichment technical area as his or her secondary technical area. For this area, the student selects nine hours of coursework to support his or her personal or career goals. Before registering for these courses, the student must prepare a career plan statement and a list of relevant electives in consultation with a faculty mentor; this plan must be approved by the student, the faculty mentor, and the undergraduate adviser. The faculty mentor must be a full-time faculty member in the Department of Electrical and Computer Engineering.

These electives may include traditional upper-division technical courses in electrical engineering and other engineering fields; courses in other fields at the University, such as business, economics, communication, music, and philosophy; or research done with a faculty member in Electrical Engineering 360. The courses must be completed in residence; courses in an approved study abroad program require the approval of the undergraduate adviser. The nine hours must include at least six hours of upper-division coursework; they may include no more than three hours in Electrical Engineering 125S, Internship in Electrical and Computer Engineering.

ELECTRICAL ENGINEERING TECHNICAL AREAS

Biomedical Engineering

Electrical engineers working in biomedical engineering have traditionally been involved in the design and analysis of electronic instruments and therapeutic devices, collection and analysis of biomedical signals and data, and interactions between tissues and electromagnetic fields. Typical medical instruments include biopotential amplifiers (ECG, EMG, and EEG signals), stimulators of electrically excitable tissues (including pacemakers), defibrillators, and devices to measure physical variables such as temperature, pressure, flow, and tissue impedance and admittance. Therapeutic devices include surgical lasers and radio frequency devices and radio frequency, microwave, and ultrasound diathermy. Students should choose the biomedical engineering area if they are interested in applying their electrical engineering expertise to patient care or biological research. Graduates should be prepared for graduate study and for career opportunities in industrial board-level (or chip-level) circuit design and in information and signal processing applications.

Students must complete the following course:

Electrical Engineering 374K, Biomedical Electronics and one of the following laboratory courses:

Electrical Engineering 345M, Embedded and Real-Time Systems Laboratory
Electrical Engineering 345S, Real-Time Digital Signal Processing Laboratory
Electrical Engineering 374L, Applications of Biomedical Engineering

and one course from the following list:

Electrical Engineering 325K, Antennas and Wireless Propagation
Electrical Engineering 345M, Embedded and Real-Time Systems Laboratory
Electrical Engineering 345S, Real-Time Digital Signal Processing Laboratory
Electrical Engineering 347, Modern Optics
Electrical Engineering 351M, Digital Signal Processing
Electrical Engineering 374L, Applications of Biomedical Engineering

Biomedical Engineering 365R, Quantitative Engineering Physiology I

Biomedical Engineering 365S, Quantitative Engineering Physiology II

Mechanical Engineering 354, Introduction to Biomechanical Engineering
Communications and Networking

Communications and networking 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 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 must complete three of the following courses:

- Electrical Engineering 345S, Real-Time Digital Signal Processing Laboratory
- Electrical Engineering 360K, Introduction to Digital Communications
- Electrical Engineering 371C, Wireless Communications Laboratory
- Electrical Engineering 371M, Communication Systems
- Electrical Engineering 372L, Network Engineering Laboratory
- Electrical Engineering 372N, Telecommunication Networks
- Electrical Engineering 372S, Cryptography and Network Security
- Mechanical Engineering 366L, Operations Research Models

Electromagnetic Engineering

This technical area exposes students to 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 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 must complete three of the following courses:

- Electrical Engineering 321K, Mixed Signal and Circuits Laboratory
- Electrical Engineering 325K, Antennas and Wireless Propagation
- Electrical Engineering 347, Modern Optics
- Electrical Engineering 348, Laser and Optical Engineering
- Electrical Engineering 361R, Radio Frequency Circuit Design
- Electrical Engineering 363M, Microwave and Radio Frequency Engineering
- Electrical Engineering 363N, Engineering Acoustics
- Physics 355, Modern Physics for Engineers

Electronics

Electronics 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. A student should choose the electronics area if he or she is interested in chip-level integrated circuit design, as opposed to system-level design, and in career opportunities in either chip-level circuit layout, analysis, and design or circuit design management.

Students must complete three of the following courses:

- Electrical Engineering 321K, Mixed Signal and Circuits Laboratory
- Electrical Engineering 338K, Electronic Circuits II
- Electrical Engineering 338L, Analog Integrated Circuit Design
- Electrical Engineering 360S, Digital Integrated Circuit Design
- Electrical Engineering 361R, Radio Frequency Circuit Design
- Electrical Engineering 362L, Power Electronics
- Electrical Engineering 374K, Biomedical Electronics
- Mathematics 346, Applied Linear Algebra
Electronic Materials and Devices

Within electronic materials and devices, students learn about the materials and devices used in modern electronic and optoelectronic systems. With a heavy emphasis on semiconductors, courses in this area include the fundamentals of charge transport and interactions with light. Devices studied begin with p-n junctions and transistors, the building blocks of integrated circuits. Later courses concentrate on semiconductor lasers and detectors used in optoelectronics. With exposure to the topics in this area, students are well positioned to work in a wide variety of areas that rely on semiconductor technology, such as computers, telecommunications, the automotive industry, and consumer electronics.

Students must complete the following course:

Electrical Engineering 440, *Microelectronics Fabrication Techniques*

and two of the following courses:


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*

Physics 355, *Modern Physics for Engineers*

Power Systems and Energy Conversion

This area provides the foundation for a career in electric power systems, generation, grid operation, motors and drives, and renewable energy sources. Power systems 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 and the conversion of various sources of energy into electrical energy.

Students must complete three of the following courses:

Electrical Engineering 341, *Electric Drives and Machines*

Electrical Engineering 362L, *Power Electronics*

Electrical Engineering 362Q, *Power Quality and Harmonics*

Electrical Engineering 368, *Electrical Power Transmission and Distribution*

Electrical Engineering 369, *Power Systems Engineering*

Mechanical Engineering 337C, *Introduction to Nuclear Power Systems*

Mechanical Engineering 374S, *Solar Energy Systems Design*

Premedical

The premedical technical area is designed to allow students preparing for medical school to count some of their premedical requirements toward the electrical engineering degree.

Students must complete the following course:

Electrical Engineering 374K, *Biomedical Electronics*

and one of the following laboratory courses:

Electrical Engineering 345M, *Embedded and Real-Time Systems Laboratory*

Electrical Engineering 345S, *Real-Time Digital Signal Processing Laboratory*

Electrical Engineering 374L, *Applications of Biomedical Engineering*

and one of the following courses:

Biology 325, *Genetics*

Biology 365R, *Vertebrate Physiology I*

Chemistry 310M, *Organic Chemistry I*

Chemistry 310N, *Organic Chemistry II*

Robotics and Control

The focus of this technical area is robotics and computer controlled systems. The field of robotics includes designing precession control systems. Today, all robots have highly reliable microcontrollers or computers used as controllers. Control systems are present in many forms of transportation, including automobiles, aircraft, and ships, and in manufacturing plants, especially in technologically advanced areas like integrated circuit fabrication. Students with a background in robotics and control will be prepared to seek employment involving design and management of projects within these industries.

Students must complete three of the following courses:

Electrical Engineering 345L, *Microprocessor Applications and Organization*¹⁰

Electrical Engineering 362K, *Introduction to Automatic Control*¹¹

Electrical Engineering 370, *Automatic Control II*

Electrical Engineering 370K, *Computer Control Systems*

Electrical Engineering 370N, *Introduction to Robotics and Mechatronics*

Electrical Engineering 371D, *Introduction to Neural Networks*

Mathematics 374, *Fourier and Laplace Transforms*

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¹⁰ Only students following the electrical engineering curriculum may count Electrical Engineering 345L in this technical area.

¹¹ Only students following the computer engineering curriculum may count Electrical Engineering 362K in this technical area.
**Signal and Image Processing**

Signal and image processing involves the improvement of signals, images, and videos by digital means. The reasons for improvement include analysis, information extraction, communication, display, detection, and recognition. Students who have exposure to this technical area will be well positioned for software and hardware jobs in digital signal processing and digital image processing.

Students must complete three of the following courses:

- Electrical Engineering 345S, *Real-Time Digital Signal Processing Laboratory*
- Electrical Engineering 351M, *Digital Signal Processing*
- Electrical Engineering 371C, *Wireless Communications Laboratory*
- Electrical Engineering 371D, *Introduction to Neural Networks*
- Electrical Engineering 371R, *Digital Image and Video Processing*
- Mathematics 374, *Fourier and Laplace Transforms*

**COMPUTER ENGINEERING TECHNICAL AREAS**

**Computer Design**

Computer design involves understanding the operation and design of computers on many levels, including the instruction set, microarchitecture, logic design, and low-level system software. The student who chooses computer design as a technical area 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 should be well positioned to become the chief architect of a new design.

Students must complete the following two courses:

- Electrical Engineering 345M, *Embedded and Real-Time Systems Laboratory*
- Electrical Engineering 360N, *Computer Architecture*

and one of the following courses:

- Electrical Engineering 345L, *Microprocessor Applications and Organization*¹²
- Electrical Engineering 345S, *Real-Time Digital Signal Processing Laboratory*
- Electrical Engineering 360P, *Concurrent and Distributed Systems*

¹² Only students following the electrical engineering curriculum may count Electrical Engineering 345L in this technical area.

**Embedded Systems**

Embedded systems are combinations of software and hardware designed to perform specific functions. These systems may stand alone, or they may be integral parts of a larger system. Within this technical area, students are exposed to logic design, programming, computer architecture, systems design, and digital signal processing. Exposure to these topics positions students for jobs in automotive electronics, consumer devices, and telecommunications.

Students must complete three of the following courses, including at least one course in group 1 and one course in group 2:

**Group 1: Embedded Hardware**

- Electrical Engineering 360M, *Digital Systems Design Using VHDL*

**Group 2: Embedded Software**

- Electrical Engineering 345L, *Microprocessor Applications and Organization*¹²
- Electrical Engineering 345M, *Embedded and Real-Time Systems Laboratory*
- Electrical Engineering 345S, *Real-Time Digital Signal Processing Laboratory*
- Electrical Engineering 360P, *Concurrent and Distributed Systems*

**At-Large Course in Embedded Systems**

- Electrical Engineering 360N, *Computer Architecture*
Software Engineering: Foundations

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.

Students must complete the following courses:

- Electrical Engineering 360C, *Algorithms*
- Electrical Engineering 360F, *Software Engineering Processes*

and one of the following courses:

- Electrical Engineering 360P, *Concurrent and Distributed Systems*
- Electrical Engineering 361Q, *Requirements Engineering*
- Computer Sciences 345, *Programming Languages*

Software Engineering: Systems

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 must complete the following course:

- Electrical Engineering 360C, *Algorithms*

and two of the following courses:

- Computer Sciences 347, *Data Management*
- Computer Sciences 375, *Compilers*
- Electrical Engineering 345L, *Microprocessor Applications and Organization*
- Electrical Engineering 345M, *Embedded and Real-Time Systems Laboratory*
- Electrical Engineering 360P, *Concurrent and Distributed Systems*
- Electrical Engineering 372N, *Telecommunication Networks*

VLSI Design

VLSI design involves the design and implementation of circuits and systems using analog and digital building blocks. A student should choose this technical area if he or she is interested in designing chips for applications such as computing, telecommunications, and signal processing. A student who is exposed to topics in VLSI design is well positioned to design state-of-the-art chips.

Students must complete two of the following courses:

- Electrical Engineering 338L, *Analog Integrated Circuit Design*
- Electrical Engineering 360S, *Digital Integrated Circuit Design*

and one of the following courses:

- Electrical Engineering 338L, *Analog Integrated Circuit Design*
- Electrical Engineering 440, *Microelectronics Fabrication Techniques*
- Electrical Engineering 360M, *Digital Systems Design Using VHDL*
- Electrical Engineering 360N, *Computer Architecture*
- Electrical Engineering 360S, *Digital Integrated Circuit Design*
## SUGGESTED ARRANGEMENT OF COURSES

### ELECTRICAL ENGINEERING CURRICULUM

#### First Year—Fall Semester

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<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>E E 302, <em>Introduction to Electrical and Computer Engineering</em></td>
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<td>E E 306, <em>Introduction to Computing</em></td>
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<tr>
<td>M 408C, <em>Differential and Integral Calculus</em></td>
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<td>RHE 306, <em>Rhetoric and Writing</em></td>
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<tr>
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#### First Year—Spring Semester

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<th>COURSES</th>
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<tr>
<td>E E 312, <em>Introduction to Programming</em></td>
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<td>M 408D, <em>Sequences, Series, and Multivariable Calculus</em></td>
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<td>PHY 303K, <em>Engineering Physics I</em></td>
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<td>PHY 103M, Laboratory for Physics 303K</td>
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<td>Approved fine arts/humanities or social science elective</td>
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<tr>
<td><strong>TOTAL</strong></td>
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#### Second Year—Fall Semester

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<th>COURSES</th>
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<td>E E 411, <em>Circuit Theory</em></td>
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<tr>
<td>E E 322C, <em>Data Structures</em></td>
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<tr>
<td>M 427K, <em>Advanced Calculus for Applications I</em></td>
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</tr>
<tr>
<td>PHY 303L, <em>Engineering Physics II</em></td>
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<tr>
<td>PHY 103N, Laboratory for Physics 303L</td>
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<td>1</td>
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<tr>
<td><strong>TOTAL</strong></td>
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#### Second Year—Spring Semester

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<th>COURSES</th>
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</thead>
<tbody>
<tr>
<td>E E 313, <em>Linear Systems and Signals</em></td>
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</tr>
<tr>
<td>E E 316, <em>Digital Logic Design</em></td>
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<tr>
<td>E E 319K, <em>Introduction to Microcontrollers</em></td>
<td></td>
<td>3</td>
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<tr>
<td>M 340L, <em>Matrices and Matrix Calculations</em></td>
<td></td>
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<tr>
<td>E 316K, <em>Masterworks of Literature</em></td>
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<tr>
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#### Third Year—Fall Semester

<table>
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<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>E E 333T, <em>Engineering Communication</em></td>
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<td>E E 438, <em>Electronic Circuits I</em></td>
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<td>E E 351K, <em>Probability and Random Processes</em></td>
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#### Third Year—Spring Semester

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<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>E E 364D, <em>Introduction to Engineering Design</em></td>
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</tr>
<tr>
<td>E E 366, <em>Engineering Economics I</em></td>
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<tr>
<td>Approved technical area course or advanced electrical engineering laboratory elective</td>
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<td>3 or 4</td>
</tr>
<tr>
<td>Approved technical area course</td>
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<td><strong>TOTAL</strong></td>
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#### Fourth Year—Fall Semester

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<tr>
<th>COURSES</th>
<th>SEMESTER</th>
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#### Fourth Year—Spring Semester

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*Each student should take these courses in the appropriate order to meet the prerequisites of courses in her or her technical areas.*
### COMPUTER ENGINEERING CURRICULUM

#### First Year — Fall Semester

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<tr>
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<tr>
<td>E E 306, <em>Introduction to Computing</em></td>
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<tr>
<td>M 408C, <em>Differential and Integral Calculus</em></td>
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<td>RHE 306, <em>Rhetoric and Writing</em></td>
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<td>M 408D, <em>Sequences, Series, and Multivariable Calculus</em></td>
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<tr>
<td>PHY 303K, <em>Engineering Physics I</em></td>
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<td>PHY 103M, <em>Laboratory for Physics 303K</em></td>
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<td>E E 322C, <em>Data Structures</em></td>
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<td>M 427K, <em>Advanced Calculus for Applications I</em></td>
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<td>PHY 303L, <em>Engineering Physics II</em></td>
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<td>E E 319K, <em>Introduction to Microcontrollers</em></td>
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<td>M 325K, <em>Discrete Mathematics</em></td>
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<td>E 316K, <em>Masterworks of Literature</em></td>
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#### Third Year — Fall Semester

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<tr>
<td>E E 333T, <em>Engineering Communication</em></td>
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#### Third Year — Spring Semester

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#### Fourth Year — Fall Semester

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</table>

13. Each student should take these courses in the appropriate order to meet the prerequisites of courses in her or her technical areas.
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 College 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. Better-qualified 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, 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, probability and statistics, 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.
Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. 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 by the College of Engineering Admissions Committee. (Requirements for admission to a major sequence are given on pages 134–135.) 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 enrolls in them. Courses that fulfill the social science and fine arts/humanities requirements are listed in this chapter.

<table>
<thead>
<tr>
<th>COURSES</th>
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<td>Major Sequence Courses</td>
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<td>Other Required Courses</td>
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MINIMUM REQUIRED 128
### SUGGESTED ARRANGEMENT OF COURSES

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<td>M 408C, Differential and Integral Calculus</td>
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<td>RHE 306, Rhetoric and Writing</td>
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#### First Year — Spring Semester

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<tr>
<td>GEO 416M, Sedimentary Rocks</td>
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<td>M 408D, Sequences, Series, and Multivariable Calculus</td>
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<td>PHY 303K, Engineering Physics I</td>
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#### Second Year — Fall Semester

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<tr>
<td>E M 306, Statics</td>
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<tr>
<td>GEO 416K, Earth Materials</td>
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<td>M 427K, Advanced Calculus for Applications I</td>
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<td>PGE 210, Formulation and Solution of Geosystems Engineering Problems</td>
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#### Second Year — Spring Semester

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<td>E M 319, Mechanics of Solids</td>
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<td>PGE 312, Physical and Chemical Behavior of Fluids I</td>
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<td>PGE 322K, Transport Phenomena in Geosystems</td>
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<td>PGE 333T, Engineering Communication</td>
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<td>PHY 303L, Engineering Physics II</td>
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#### Third Year — Fall Semester

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<td>PGE 323K, Reservoir Engineering I: Primary Recovery</td>
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<td>PGE 424, Petrophysics</td>
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<td>PGE 326, Thermodynamics and Phase Behavior</td>
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<tbody>
<tr>
<td>C E 357, Geotechnical Engineering</td>
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<td>GEO 420K, Introduction to Field and Stratigraphic Methods</td>
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<td>PGE 323L, Reservoir Engineering II: Secondary and Tertiary Recovery</td>
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<td>PGE 368, Fundamentals of Well Logging</td>
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#### Third Year — Summer Session

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<tr>
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<tbody>
<tr>
<td>E 316K, Masterworks of Literature</td>
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<td>GEO 428, Structural Geology</td>
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<td>GEO 376S, Physical Hydrology</td>
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<td>PGE 323M, Reservoir Engineering III: Numerical Simulation</td>
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<td>PGE 365, Resource Economics and Valuation</td>
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<tr>
<td>GEO 468K, Geophysics for Geological Sciences Majors</td>
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<td>PGE 373L, Geosystems Engineering Design and Analysis</td>
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THEME: TECHNIQUE & INNOVATION

177 Degrees

BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING

Mechanical engineers are broadly concerned with the engineering systems used to control and transform energy to meet the needs of humanity. They design, develop, and produce devices and systems from space probes to washing machines, from turbojet engines to lawn mowers, from automatic machine tools and vending machines to computer-controlled systems. Because mechanical engineering is one of the broadest-based fields of technical study, it is also an excellent foundation for further education in business, law, medicine, and other professions that require a good working knowledge of science and technology.

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; are prepared for 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, electric circuits and electronics, 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.
- General education courses, including social sciences, humanities, and fine 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)

In 2000, the mechanical engineering faculty initiated a major curriculum reform initiative called PROCEED, an acronym for project-centered education. A number of courses throughout the curriculum have been redesigned 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 obtained from industry and communicate with engineering experts from outside the University through state-of-the-art videoconferencing facilities. Undergraduate laboratory and computer facilities have been dramatically upgraded, and a Web-based portfolio system has been developed to provide a mechanism for students to showcase project-based work to prospective employers and graduate schools.
CURRICULUM

Course requirements are divided into three categories: basic sequence courses, major sequence courses, and other required courses. 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 by the College of Engineering Admissions Committee. (Requirements for admission to a major sequence are given on pages 134–135.) Enrollment in other required courses is not restricted by completion of the basic sequence. Courses that fulfill the social science and fine arts/humanities requirements are listed on page 143.

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<th>COURSES</th>
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<td>Basic Sequence Courses</td>
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<td>Other Required Courses</td>
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<td>Approved mathematics elective</td>
<td>3</td>
</tr>
<tr>
<td>Approved natural science/mathematics elective</td>
<td>3</td>
</tr>
<tr>
<td>Approved social science elective</td>
<td>3</td>
</tr>
<tr>
<td>MINIMUM REQUIRED</td>
<td>127</td>
</tr>
</tbody>
</table>

BRIDGES TO THE FUTURE CERTIFICATE PROGRAM

The Bridges to the Future certificate program offers highly qualified senior-level undergraduate students an opportunity for in-depth study and research in an emerging area of mechanical engineering. Upon completion of the requirements given below, students receive a certificate and a letter from the department chair that describes the program and the work completed. These, plus supporting letters from supervising faculty and graduate mentors, are valuable assets for students applying to graduate school and pursuing competitive job opportunities.

Students may earn a certificate in the following areas:

- Advanced design
- Advanced energy systems
- Advanced manufacturing
- Advanced materials engineering
- Automotive engineering
- Biomechanical engineering
- Foundations of nanotechnology
- International affairs and engineering
- Mechatronics, robotics, and control
- Nuclear and radiation engineering
- Systems engineering and optimization

Students must apply for admission to the certificate program during the junior year; they 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. Students admitted to the program must complete fifteen hours of coursework in the specific certificate area. This coursework includes nine hours of undergraduate courses that fulfill the career gateway elective requirement described below, a three-hour graduate course, and a three-hour undergraduate research course in which the student completes an independent project under the direction of a faculty member. In most cases, the graduate course may be reserved for credit toward a University master’s degree. For the program in international affairs and engineering, part of the coursework must be completed abroad; detailed information is available from the International Studies Office in the Department of Mechanical Engineering.

Details on course offerings and admission procedures are available from the Department of Mechanical Engineering undergraduate office.
CAREER GATEWAY ELECTIVE OPTIONS

The mechanical engineering curriculum includes nine hours of career gateway electives, which are to be selected by the student to support his or her career goals. These courses must be chosen carefully and must be pertinent to each other and to the student's career goals.

Before registering for any potential career gateway elective courses, students must prepare a career statement and a list of relevant, related courses, and a mechanical engineering faculty mentor 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 potential 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.

Career gateway electives may include traditional upper-division technical courses from mechanical engineering and other engineering departments, approved advanced courses in natural sciences, and preparatory courses for graduate study in the health professions. Highly qualified students are encouraged to combine the career gateway electives with the Bridges to the Future certificate program described above.

Students who pursue the Business Foundations or Elements of Computing program may count nine hours of required upper-division coursework in either program as career gateway electives. The approval process is the same as that for other career gateway elective options. It is expected that students will complete the program and receive a certificate. The Business Foundations Program is described on page 48 and the Elements of Computing Program is described on page 447. For additional information, contact the Department of Mechanical Engineering undergraduate office.

Career gateway elective options may include a total of three hours of special topics coursework (Mechanical Engineering 179M, 279M, 379M) without special approval or projects coursework (Mechanical Engineering 177K, 277K, 377K) with special approval by the undergraduate adviser. Students who wish to count additional topics or projects for credit must petition for consent by the undergraduate adviser. Options may also include either Mechanical Engineering 325L or Mechanical Engineering 225M.

With special approval of the Engineering Honors Program director, a mechanical engineering student in the honors program may include Mechanical Engineering 679H in the career gateway elective option.

Some possible career gateway elective options and related courses are listed below.

BIOMECHANICAL ENGINEERING

Biomechanical engineering is one of the most exciting emerging areas of engineering, and mechanical engineers will play an important role in this field. Areas of special interest include biomaterials, biomechanics, fluid flow, heat transfer, mechanical design, nuclear science, and systems analysis. This option also can be tailored to provide a background for professional education in medicine or dentistry or for graduate study in biomedical engineering. Courses supporting a career in biomechanical engineering include

Mechanical Engineering 354, Introduction to Biomechanical Engineering
Mechanical Engineering 354M, Biomechanics of Human Movement
Mechanical Engineering 372J, Robotics and Automation
Mechanical Engineering 379N, Engineering Acoustics
Approved biomedical engineering and natural science electives

DYNAMICS AND CONTROL

The engineering of "intelligent machines" is a rapidly growing field, demanding an understanding of mechanical and electronic components, of software, and of the ways these elements interact in complex systems. Courses supporting career paths in this area include

Mechanical Engineering 348C, Introduction to Mechatronics I
Mechanical Engineering 348D, Introduction to Mechatronics II
Mechanical Engineering 355K, Engineering Vibrations
Mechanical Engineering 364L, Automatic Control System Design
Mechanical Engineering 372J, Robotics and Automation
Mechanical Engineering 372M, Mechanism Design
Mechanical Engineering 372N, Design of Smart Mechanisms
Mechanical Engineering 379N, Engineering Acoustics
Approved electrical and computer engineering and natural science electives

MANUFACTURING AND DESIGN

Mechanical engineering is the focal point for design and manufacturing of components and systems ranging from automobiles to computer chips. The manufacturing and design option prepares students for leadership in this important field. Suggested courses include

Mechanical Engineering 350, Machine Tool Operations for Engineers
Mechanical Engineering 352K, Engineering Computer Graphics
Mechanical Engineering 364L, Automatic Control System Design
Mechanical Engineering 365K, *Finite Element Method*
Mechanical Engineering 365L, *Industrial Design for Production*
Mechanical Engineering 368J, *Computer-Aided Design*
Mechanical Engineering 372J, *Robotics and Automation*
Mechanical Engineering 372M, *Mechanism Design*
Mechanical Engineering 372N, *Design of Smart Mechanisms*

Approved engineering and natural science electives

**MATERIALS ENGINEERING**
The design and manufacture of most engineering devices and systems is heavily constrained by materials properties and the availability of materials. This option allows students to obtain a concentration in materials engineering as a basis for practice and graduate study in this field. Relevant courses include

Mechanical Engineering 349, *Corrosion Engineering*
Mechanical Engineering 359, *Materials Selection*
Mechanical Engineering 378C, *Electroceramics*
Mechanical Engineering 378K, *Mechanical Behavior of Materials*
Mechanical Engineering 378P, *Properties and Applications of Polymers*
Mechanical Engineering 378S, *Structural Ceramics*

Approved materials-related engineering and natural science electives

**NUCLEAR AND RADIATION ENGINEERING**
Engineers with a background in nuclear and radiation engineering find opportunities providing electrical power in safe, efficient, and environmentally benign ways for commercial or defense purposes; extending nuclear reactor plant life; developing new ways of producing and using radioisotopes in medical physics for organ imaging or cancer therapy; developing new industrial applications for neutron or gamma-ray radiation use; developing long-term strategies for radioactive waste disposal; and developing systems to maintain the security of nuclear materials. They also work with nuclear-related national security issues and in nuclear chemical engineering. It is recommended that students interested in this area take one or more of the following courses.

Mechanical Engineering 136N, 236N, *Concepts in Nuclear and Radiation Engineering*
Mechanical Engineering 337C, *Introduction to Nuclear Power Systems*
Mechanical Engineering 337D, *Radiation and Radiation Protection*
Mechanical Engineering 337E, *Radioactive Waste Management*
Mechanical Engineering 361E, *Nuclear Reactor Engineering*
Mechanical Engineering 361F, *Radiation and Radiation Protection Laboratory*

**OPERATIONS RESEARCH AND INDUSTRIAL ENGINEERING**
Today’s industrial planners and managers commonly use quantitative decision-making techniques. This option melds traditional industrial engineering and its modern outgrowth, operations research. Emphasis is on mathematical modeling, applied statistics, and the use of the computer to assist the decision maker. Students interested in this option should consider courses such as

Mechanical Engineering 366L, *Operations Research Models*
Mechanical Engineering 366Q, *Deterministic Methods for Operations Research*
Mechanical Engineering 366R, *Stochastic Methods for Operations Research*
Mechanical Engineering 367S, *Simulation Modeling*
Mechanical Engineering 373K, *Basic Industrial Engineering*
Mechanical Engineering 375K, *Production Engineering Management*

Approved engineering, business, or mathematics electives

**THERMAL/FLUID SYSTEMS ENGINEERING**
A traditional field of mechanical engineering is the design and manufacture of systems for the production, transmission, storage, and use of energy. This option is designed to prepare students for careers and graduate study in energy conversion, thermal system design, thermodynamics, heat transfer, and fluid mechanics. Suggested courses include

Aerospace Engineering 362K, *Compressible Fluid Mechanics*
Mechanical Engineering 337C, *Introduction to Nuclear Power Systems*
Mechanical Engineering 360L, *Turbo machinery and Compressible Flow*
Mechanical Engineering 360N, *Intermediate Heat Transfer*
Mechanical Engineering 361E, *Nuclear Reactor Engineering*
Mechanical Engineering 363L, *Energy Systems Laboratory*
Mechanical Engineering 369L, *Introduction to Computational Fluid Dynamics*
Mechanical Engineering 374C, *Combustion Engine Processes*
Mechanical Engineering 374D, *Automotive Engineering Laboratory*
Mechanical Engineering 374L, *Design of Thermal Systems*
Mechanical Engineering 374R, *Design of Air Conditioning Systems*
Mechanical Engineering 374S, *Solar Energy Systems Design*

Approved engineering and natural science electives
# Suggested Arrangement of Courses

## First Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
</tr>
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<tbody>
<tr>
<td>CH 301, Principles of Chemistry I</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>M 408C, Differential and Integral Calculus</td>
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<td>4</td>
</tr>
<tr>
<td>M E 302, Introduction to Engineering Design and Graphics</td>
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<td>3</td>
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<tr>
<td>RHE 306, Rhetoric and Writing</td>
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<td>3</td>
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<td><strong>TOTAL</strong></td>
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## First Year — Spring Semester

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<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>E M 306, Statics</td>
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<tr>
<td>M 408D, Sequences, Series, and Multivariable Calculus</td>
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<tr>
<td>M E 205, Computers and Programming</td>
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<tr>
<td>PHY 303K, Engineering Physics I</td>
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<tr>
<td>PHY 103M, Laboratory for Physics 303K</td>
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<td>Social science or fine arts/humanities elective</td>
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<td><strong>TOTAL</strong></td>
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## Second Year — Fall Semester

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<th>COURSES</th>
<th>SEMESTER</th>
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</thead>
<tbody>
<tr>
<td>E 316K, Masterworks of Literature</td>
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<tr>
<td>E M 319, Mechanics of Solids</td>
<td></td>
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<tr>
<td>M 427K, Advanced Calculus for Applications I</td>
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<tr>
<td>M E 326, Thermodynamics</td>
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<tr>
<td>PHY 303L, Engineering Physics II</td>
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<tr>
<td>PHY 103N, Laboratory for Physics 303L</td>
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## Second Year — Spring Semester

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<tbody>
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<tr>
<td>M E 111L, Materials Engineering Laboratory</td>
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<tr>
<td>M E 218, Engineering Computational Methods</td>
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<tr>
<td>M E 324, Dynamics</td>
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<tr>
<td>M E 330, Fluid Mechanics</td>
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<tr>
<td>M E 130L, Experimental Fluid Mechanics</td>
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## Third Year — Fall Semester

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<td>M E 335, Engineering Statistics</td>
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<tr>
<td>M E 336, Materials Processing</td>
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<tr>
<td>M E 136L, Materials Processing Laboratory</td>
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<tr>
<td>M E 338, Machine Elements</td>
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<tr>
<td>M E 339, Heat Transfer</td>
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<tr>
<td>M E 139L, Experimental Heat Laboratory</td>
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<td><strong>TOTAL</strong></td>
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## Third Year — Spring Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>M E 333T, Engineering Communication</td>
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<tr>
<td>M E 340, Mechatronics</td>
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<tr>
<td>M E 140L, Mechatronics Laboratory</td>
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<tr>
<td>M E 343, Thermal-Fluid Systems</td>
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<tr>
<td>American history</td>
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<tr>
<td>Approved mathematics elective</td>
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<td><strong>TOTAL</strong></td>
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## Fourth Year — Fall Semester

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<th>COURSES</th>
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<tbody>
<tr>
<td>M E 344, Dynamic Systems and Controls</td>
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<tr>
<td>M E 144L, Dynamic Systems and Controls Laboratory</td>
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<tr>
<td>M E 353, Engineering Finance</td>
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<tr>
<td>M E 366J, Mechanical Engineering Design Methodology</td>
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<tr>
<td>Approved career gateway elective</td>
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<td>3</td>
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<td>American history</td>
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## Fourth Year — Spring Semester

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<tr>
<th>COURSES</th>
<th>SEMESTER</th>
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</thead>
<tbody>
<tr>
<td>M E 266K, Mechanical Engineering Design Project</td>
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<td>M E 266P, Design Project Laboratory</td>
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<td><strong>TOTAL</strong></td>
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</table>
BACHELOR OF SCIENCE IN PETROLEUM ENGINEERING

Producing oil, gas, and other fluid resources from the earth is the task of the petroleum engineer. This challenging field of engineering requires application of a wide range of knowledge—from the basic sciences of mathematics, physics, geology, and chemistry to the principles of engineering analysis, design, and management.

Petroleum engineers provide the technological expertise to bring oil and natural gas from deep within the earth to the surface for delivery to processing facilities. Petroleum engineers focus on the efficient and safe extraction of fluids from their natural geologic formations.

Once geologists have located potential oil- or gas-bearing formations, petroleum engineers design and monitor the drilling of exploratory and development wells used to locate and produce the fluids contained within these formations. Drilling operations can be extremely expensive and technologically challenging, especially in offshore and remote areas or when drilling horizontal wells. In addition to overseeing drilling, petroleum engineers evaluate the characteristics of oil and gas reservoirs, select and implement recovery methods, develop methods to lift fluids, and design surface collection and treatment facilities to prepare produced hydrocarbons for delivery to a refinery or pipeline. Petroleum engineers are asked to devise novel advanced technologies to recover more oil or gas than what is naturally released from the rock pore system. Advanced computational methods are often used to aid in accurate acquisition and analysis of data, simulation of alternative recovery schemes, and other difficult design problems.

In addition to traditional petroleum engineering career choices, there are other emerging careers for petroleum engineering graduates in pollution cleanup, underground waste disposal, and hydrology. These disciplines increasingly rely on the expertise of petroleum engineers. Additional energy-related applications for which petroleum engineers are uniquely educated include in situ uranium leaching, geothermal energy production, and coal gasification.

Worldwide proved oil and gas reserves are larger than ever before. Experts agree that oil and gas will continue to play an important role in the global energy supply. Because hydrocarbon reserves are found in such diverse areas as Asia, South America, and the Middle East, petroleum engineers will have opportunities for challenging assignments all over the world.

The challenges facing the petroleum industry require large investments in technologically complex projects. The task of making wise and cost-effective investments falls to a great extent upon petroleum engineers, providing them with a high degree of challenge and responsibility.

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 self-instruction 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.
- 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. 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 by the College of Engineering Admissions Committee. (Requirements for admission to a major sequence are given on pages 134–135.) 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. Courses that fulfill the social science and fine arts/humanities requirements are listed on page 143.

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Sequence Courses</td>
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<tr>
<td>Major Sequence Courses</td>
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<tr>
<td>Approved technical area electives</td>
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<tr>
<td>Other Required Courses</td>
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<tr>
<td>English 316K</td>
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<td>American history</td>
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<td>Approved fine arts or humanities elective</td>
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<td>Approved social science elective</td>
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<td><strong>MINIMUM REQUIRED</strong></td>
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## SUGGESTED ARRANGEMENT OF COURSES

### First Year — Fall Semester

<table>
<thead>
<tr>
<th>COURSES</th>
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<tbody>
<tr>
<td>CH 301, Principles of Chemistry I</td>
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<tr>
<td>GEO 312K, Geology of Engineering</td>
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<tr>
<td>M 408C, Differential and Integral Calculus</td>
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<tr>
<td>PGE 102, Introduction to Petroleum and Geosystems Engineering</td>
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</tr>
<tr>
<td>RHE 306, Rhetoric and Writing</td>
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<td><strong>TOTAL</strong></td>
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### First Year — Spring Semester

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<th>COURSES</th>
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<tbody>
<tr>
<td>CH 302, Principles of Chemistry II</td>
<td>3</td>
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<tr>
<td>M 408D, Sequences, Series, and Multivariable Calculus</td>
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</tr>
<tr>
<td>PGE 203, Problem Solving in Petroleum and Geosystems Engineering</td>
<td>2</td>
</tr>
<tr>
<td>PHY 303K, Engineering Physics I</td>
<td>3</td>
</tr>
<tr>
<td>PHY 103M, Laboratory for Physics 303K</td>
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</tr>
<tr>
<td>Social science or fine arts/humanities elective</td>
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### Second Year — Fall Semester

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<tr>
<td>E M 306, Statics</td>
<td>3</td>
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<tr>
<td>GEO 416M, Sedimentary Rocks</td>
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<tr>
<td>M 427K, Advanced Calculus for Applications I</td>
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<tr>
<td>PGE 210, Formulation and Solution of Geosystems Engineering Problems</td>
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<tr>
<td>PGE 312, Physical and Chemical Behavior of Fluids I</td>
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<th>COURSES</th>
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<tbody>
<tr>
<td>E 316K, Masterworks of Literature</td>
<td>3</td>
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<td>E M 319, Mechanics of Solids</td>
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<td>PGE 322K, Transport Phenomena in Geosystems</td>
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<td>PGE 333T, Engineering Communication</td>
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<td>PHY 303L, Engineering Physics II</td>
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<tr>
<td>PHY 103N, Laboratory for Physics 303L</td>
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### Third Year — Fall Semester

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<tr>
<td>PGE 323K, Reservoir Engineering I: Primary Recovery</td>
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<td>PGE 424, Petrophysics</td>
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<td>PGE 326, Thermodynamics and Phase Behavior</td>
<td>3</td>
</tr>
<tr>
<td>PGE 430, Drilling and Well Completions</td>
<td>4</td>
</tr>
<tr>
<td>American government</td>
<td>3</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>17</strong></td>
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### Third Year — Spring Semester

<table>
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<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
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<tr>
<td>PGE 421K, Physical and Chemical Behavior of Fluids II</td>
<td>4</td>
</tr>
<tr>
<td>PGE 323L, Reservoir Engineering II: Secondary and Tertiary Recovery</td>
<td>3</td>
</tr>
<tr>
<td>PGE 362, Production Technology and Design</td>
<td>3</td>
</tr>
<tr>
<td>PGE 368, Fundamentals of Well Logging</td>
<td>3</td>
</tr>
<tr>
<td>American history</td>
<td>3</td>
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<td><strong>TOTAL</strong></td>
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### Fourth Year — Fall Semester

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<tr>
<th>COURSES</th>
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<tr>
<td>PGE 323M, Reservoir Engineering III: Numerical Simulation</td>
<td>3</td>
</tr>
<tr>
<td>PGE 334, Geology and Mechanics of Geologic Structures</td>
<td>3</td>
</tr>
<tr>
<td>PGE 337, Introduction to Geostatistics</td>
<td>3</td>
</tr>
<tr>
<td>PGE 365, Resource Economics and Valuation</td>
<td>3</td>
</tr>
<tr>
<td>American government</td>
<td>3</td>
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<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
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### Fourth Year — Spring Semester

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<th>COURSES</th>
<th>SEMESTER HOURS</th>
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<tr>
<td>GEO 330K, Petroleum Geology: Basin and Trend Analysis</td>
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<tr>
<td>PGE 373L, Geosystems Engineering Design and Analysis II</td>
<td>3</td>
</tr>
<tr>
<td>American history</td>
<td>3</td>
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<tr>
<td>Approved technical area electives</td>
<td>6</td>
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<tr>
<td><strong>TOTAL</strong></td>
<td><strong>15</strong></td>
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COURSES

The faculty has approval to offer the following courses in the academic years 2006–2007 and 2007–2008; 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.

GENERAL ENGINEERING

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

GENERAL ENGINEERING: G E

Lower-Division Courses

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.

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.

001F. First-Year Interest Group Seminar. Restricted to students in the First-Year Interest Group Program. One lecture hour a week for one semester.

102. Introduction to Engineering. Enrollment restricted to undeclared freshmen in engineering. Introduction to engineering as a profession, including opportunities and responsibilities of a career in engineering. Individual learning skills. Two lecture hours a week for one semester. Offered on the pass/fail basis only. May not be counted toward any engineering degree.

206C. Supplemental Instruction for Chemistry 304K. Restricted to engineering students. Development of problem-solving skills in the material covered in Chemistry 304K. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Chemistry 304K.

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.

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.

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.

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.

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.

207G. Supplemental Instruction for Mathematics 305G. Restricted to engineering students. Development of problem-solving skills in the material covered in Mathematics 305G. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Mathematics 305G.

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.

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.

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.

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.

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.
208C. Supplemental Instruction for Physics 306. Restricted to engineering students. Development of problem-solving skills in the material covered in Physics 306. Two two-hour laboratory sessions a week for one semester. May not be counted toward any engineering degree. Prerequisite: Concurrent enrollment in Physics 306.

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.

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.

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.

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.

Upper-Division Courses

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.

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. 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 3.0.

DEPARTMENT OF AEROSPACE ENGINEERING AND ENGINEERING MECHANICS

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

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.

AEROSPACE ENGINEERING: ASE

Lower-Division Courses

201. Introduction to Computer Programming. Fundamentals of a programming language, with applications to simple engineering and physics problems. Introduction to computer resources available in the Department of Aerospace Engineering and Engineering Mechanics. Two lecture hours a week for one semester.

102. Introduction to Aerospace Engineering. Introduction to engineering analysis and design; introduction to aerodynamics, propulsion, flight mechanics, structural analysis, and orbital mechanics. One lecture hour a week for one semester. Prerequisite: Credit with a grade of at least C or registration for Mathematics 408C or 408K, and credit for high school physics or credit with a grade of at least C for Physics 306.

211. Engineering Computation. Numerical methods and applications to aerospace engineering problems. Two lecture hours a week for one semester. Prerequisite: Aerospace Engineering 201 with a grade of at least C, and credit with a grade of at least C or registration for Mathematics 427K.

Upper-Division Courses

320. Introduction to Fluid Mechanics. Fundamental concepts, fluid statics; integral and differential analysis; detailed analysis of inviscid, incompressible flows; aerodynamics of airfoils and wings. Prerequisite: Mathematics 427L with a grade of at least C, and credit with a grade of at least C or registration for Aerospace Engineering 120K.

120K. Applications of Fluid Mechanics. Wind tunnel and water channel experiments at subsonic speeds; use of instrumentation and written reports. Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C or registration for Aerospace Engineering 320, and Mathematics 427L with a grade of at least C.

321K. Structural Analysis. Analysis of aerospace structural systems, with emphasis on matrix methods. Three lecture hours a week for one semester, with discussion hours to be arranged. Prerequisite: Engineering Mechanics 319 and Aerospace Engineering 211 with a grade of at least C in each.

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.

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 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, 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.

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 225MBA 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.

327. Private Pilot Aeronautics. Open to any University student. Introduction to the principles of private flying: weather, navigation, instruments, aircraft and engine operation, radio use, visual flight planning. 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.
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. Prerequisite: Engineering Mechanics 311M and Mathematics 427K with a grade of at least C in each.

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. Prerequisite: English 316K with a grade of at least C and admission to an appropriate major sequence in engineering.


340. Boundary Layer Theory and Heat Transfer. Character of viscous fluid motion; laminar and turbulent boundary layer solutions; convective heat transfer solutions for low-speed and high-speed flows; energy transfer by conduction in one and two independent variables; energy transfer by radiation. Prerequisite: Aerospace Engineering 320 with a grade of at least C.


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. Prerequisite: Aerospace Engineering 211 and 320 with a grade of at least C in each.

355. Aeroelasticity. Flutter, divergence, control reversal, flexibility effects on aircraft stability and control; design implications; stability augmentation and response suppression; introduction to quasi-steady aerodynamic theories. Prerequisite: Aerospace Engineering 321K (or 221K and 121M) and 330M with a grade of at least C in each.

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. Prerequisite: Aerospace Engineering 321K (or 221K and 121M) with a grade of at least C.

261K. Aircraft Design. Application of aerodynamics, structures, propulsion, stability, and performance principles to the design of aircraft; mission requirements; configuration selection; cost; ethics and liability. Two lecture hours a week for one semester. Prerequisite: Aerospace Engineering 367K, 376K, and 335T (or another approved engineering communication course) with a grade of at least C in each, and concurrent enrollment in Aerospace Engineering 161M.

161M. Aircraft Design Laboratory. Computer-aided aircraft design; trade-off analyses, conceptual and preliminary design reviews. Written reports. Three laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Aerospace Engineering 261K.

362K. Compressible Fluid Mechanics. Shock and expansion waves; compressibility effects on aerodynamics of airfoils and bodies; subsonic and supersonic airfoil design. Prerequisite: Aerospace Engineering 376K with a grade of at least C.

162M. Applied Compressible Fluid Mechanics. Wind tunnel and ballistic range experiments with supersonic flows; safety. Written reports. Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C or registration for Aerospace Engineering 362K.

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. 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: Upper-division standing or consent of instructor.

463Q. Design and Testing of Aerospace Structures. Design of structural components; experimental study of static and dynamic behavior of structures; liability and ethics. Written reports. Three lecture hours and four laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 369K and 333T (or another approved engineering communication course) with a grade of at least C in each, and credit with a grade of at least C or registration for Aerospace Engineering 365.

366K. Spacecraft Dynamics. Basic satellite and spacecraft motion, orbital elements, coordinate systems and transformations; basic three-dimensional spacecraft attitude dynamics. Prerequisite: Engineering Mechanics 311M and Mathematics 427K with a grade of at least C in each.

366L. Applied Orbital Mechanics. Selected topics in satellite motion and satellite applications, orbital coordinate systems, time, rendezvous and intercept, interplanetary trajectories, perturbing forces and perturbed trajectories. Prerequisite: Aerospace Engineering 366K with a grade of at least C.

166M. Space Applications Laboratory. Mission design program library, numerical techniques, mission planning references, mission constraints, mission design projects. Written reports. Three laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 366K with a grade of at least C.

367K. Flight Dynamics. Equations of motion for rigid aircraft; aircraft performance, weight and balance, static stability and control, and dynamic stability; design implications. Prerequisite: Aerospace Engineering 320 and 330M with a grade of at least C in each.

167M. Flight Dynamics Laboratory. Introduction to flight testing; instrumentation and methodology; performance testing. Computer modeling and dynamic simulation of aircraft motion; aircraft sizing. Written reports. Three laboratory hours a week for one semester. Prerequisite: Credit with a grade of at least C or registration for Aerospace Engineering 367K.
Engineering Mechanics: E M

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 on pages 658–662.

Lower-Division Courses

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: Credit with a grade of at least C or registration for Mathematics 408D or 408L, and Physics 303K and 103M.

311M (TCCN: ENGR 2302). Dynamics. Two- and three-dimensional kinematics and dynamics, applied to a broad class of 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.

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.

369K. Measurements and Instrumentation. Design of measurement systems; standards; calibration; digital signal processing, time-domain and frequency-domain representation of data; transducers and signal conditioning; measurement of acceleration, displacement, force, length, strain, and temperature; safety. Written reports. Two lecture hours and three laboratory hours a week for one semester. Prerequisite: Aerospace Mechanics 319 and Electrical Engineering 331 (or 331K) with a grade of at least C in each, and credit with a grade of at least C or registration for Aerospace Engineering 333T (or another approved engineering communication course).

370L. Flight Control Systems. Fundamentals of linear control analysis and design for single-input, single-output systems; stability and performance measures; Root Hurwitz analysis; root locus methods; frequency response (Bode and Nyquist); introduction to full-state feedback. Prerequisite: Aerospace Engineering 367K with a grade of at least C.

170P. Controls Laboratory. Three laboratory hours a week for one semester. Prerequisite: Aerospace Engineering 370L with a grade of at least C.

172G. Satellite Navigation Laboratory. Experimentation with Global Positioning System receivers; determination of performance; special applications, such as surveying and kinematic positioning. Includes prelab and laboratory assignments. Three laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Aerospace Engineering 272N.

372K. Advanced Spacecraft Dynamics. Satellite and interplanetary orbit determination, orbit and mission design, proximity operations, vehicle attitude descriptions, attitude determination, attitude control systems, attitude perturbations, vehicle attitude design considerations. Prerequisite: Aerospace Engineering 366K with a grade of at least C.

372L. Satellite Applications. Classical and modern orbit determination, remote sensors and their outputs, pattern recognition, image enhancement, satellite data analysis projects. Prerequisite: Aerospace Engineering 366K with a grade of at least C.

272N. Satellite 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. Two lecture hours a week for a semester. Prerequisite: Aerospace Engineering 366K with a grade of at least C and concurrent enrollment in Aerospace Engineering 172G.

274L. Spacecraft/Mission Design Principles. Spacecraft systems characteristics, mission requirements, sensors, consumables analyses; mission phases—launch, on-orbit, termination; communications, trajectory design; ethics, liability. Two lecture hours a week for one semester. Prerequisite: Aerospace Engineering 333T (or another approved engineering communication course) with a grade of at least C, credit with a grade of at least C or registration for Aerospace Engineering 376K, 372K, and 166M, and concurrent enrollment in Aerospace Engineering 174M.

174M. Spacecraft/Mission Design Laboratory. Request for proposal, problem definition, ideation, proposal preparation, conceptual design review, preliminary design development and review, design report preparation. Written reports. Three laboratory hours a week for one semester. Prerequisite: Concurrent enrollment in Aerospace Engineering 274L.

376K. Propulsion. Aspects of one-dimensional compressible flow, including isentropic flow and normal shocks; effects of friction and combustion; analysis and design of rockets and air-breathing engines, including performance and cycle analysis; flow in nozzles, diffusers, compressors, and turbines; combustion chamber processes and propellants. Prerequisite: Aerospace Engineering 320 and Mechanical Engineering 326 with a grade of at least C in each.

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.

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 grade point average of at least 3.00, selection of project, and consent of the faculty member directing project and the undergraduate adviser.

Upper-Division Courses

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. Prerequisite: Engineering Mechanics 319 with a grade of at least C.

360. Studies in Engineering Mechanics. Advanced work in the various areas of engineering mechanics, based on recent developments. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing in engineering and consent of instructor.

Topic 11: Biomedical Materials.
Topic 17: Individual Research.

DEPARTMENT OF BIOMEDICAL ENGINEERING

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

BIOMEDICAL ENGINEERING: BME

Lower-Division Courses

301. World Health and Biotechnology. Overview of contemporary technological advances to improve human health. Introduction to major human health problems, the engineering method as applied to medical technologies, and legal and ethical issues involved with the development of new medical technologies. May not be counted toward the Bachelor of Science in Biomedical Engineering. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I.

102. Principles of Biomedical Engineering. Restricted to biomedical engineering majors. Examines the engineering method as applied to medical technologies used to improve human health. One lecture hour a week for one semester.

303. Introduction to Computing for Biomedical Engineering. Restricted to biomedical engineering majors. Introduction to computing, with emphasis on processor architecture and programming structures. Emphasis throughout the course is on biomedical engineering applications of computing. Three lecture hours and two recitation hours a week for one semester.

311. Network Theory. Restricted to biomedical engineering majors. Analysis and design of linear circuits; steady-state response to signals; simple transient response, nodal and loop analysis; two-port networks. Three lecture hours and two laboratory hours a week for one semester.

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.

314. Engineering Foundations of Biomedical Engineering. Restricted to biomedical engineering majors. Application of engineering and mathematics (MATLAB) to analysis and constructive manipulation of biological systems and the development of biomedical therapies. Physiological mass and heat transfer; biomechanics; structure, properties, and behavior of biological materials; electrophysiology and linear circuits. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Biology 211 and 212, Chemistry 302, Physics 303K and 103M, and credit or registration for Mathematics 427K, Physics 303L, 103N.

Upper-Division Courses

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. Three laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 314.

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 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, 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.

225M. Cooperative Engineering. 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 full-time cooperative work tour; for 225MB, Biomedical Engineering 225MA and appointment for a full-time cooperative work tour.

333T. Engineering Communication. Restricted to biomedical engineering majors. Advanced technical communication skills, with emphasis on writing strategies for technical documents, oral presentations, and visual aids. Introduction to the concept of intellectual property and the patent process, especially as related to the biomedical and biotechnology fields. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: English 316K and Rhetoric and Writing 306.

335. Engineering Probability and Statistics. Restricted to biomedical engineering majors. Fundamentals of probability, random processes, distribution theory, data analysis and statistics, interval estimation, hypothesis testing, experimental and clinical trial design, and ethics. Prerequisite: Mathematics 408D.

339. Biochemical Engineering. Restricted to biomedical engineering majors. 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. Only one of the following may be counted: Biology 335, Biomedical Engineering 339, Chemical Engineering 339, 379 (Topic: Introduction to Biochemical Engineering). Prerequisite: Upper-division standing; Biology 311C; Chemistry 353 or 353M; and admission to an appropriate major sequence in engineering or consent of the undergraduate adviser.
341. Engineering Tools for Computational Biology Laboratory. Restricted to biomedical engineering majors. Introduction to computational algorithms and software packages commonly used to search, archive, analyze, and interpret biological data. Students use computational software during weekly laboratory sessions. Four laboratory hours a week for one semester. Prerequisite: Electrical Engineering 360C.

342. Computational Biomechanics. Introduction to computational modeling and simulation of musculoskeletal systems, with emphasis on lumped-parameter models of muscle, bone, tendon, and ligament. Prerequisite: Computer Sciences 323E, Engineering Mechanics 306 (or 314), and Mathematics 340L.

343. Biomedical Engineering Signal and Systems Analysis. Signal representation; sampling and quantization; Laplace and z-transforms, transfer functions, and frequency response; convolution; stability; Fourier series; Fourier transform; and applications to biomedical signals. Prerequisite: Biomedical Engineering 311 and Mathematics 427K.

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 laboratory hours a week for one semester. Prerequisite: Computer Sciences 323E, Electrical Engineering 322C, and Mathematics 340L.

346. Introduction to Computational Structural Biology. Restricted to biomedical engineering majors. Introduction to computational structural biology and biomolecular engineering, including the fundamentals of structural biology, thermodynamic driving forces in biomolecular structure and interactions, and molecular modeling techniques. Laboratory includes exercises in molecular simulations, protein engineering, and drug discovery. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Chemistry 353, 369, and Electrical Engineering 312; or consent of instructor.

348. Systems Analysis in Biomedical Engineering. 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. Prerequisite: Biomedical Engineering 353, Mathematics 427K, and credit or registration for Biomedical Engineering 251.

251. Biomedical Image and Signal Processing Laboratory. Restricted to biomedical engineering majors. Processing and analysis of signals and images recorded from human tissue. Convolution; continuous and discrete-time Fourier transforms and time and frequency characterization. Lab projects are drawn from electrocardiograms and image digitization and reconstruction. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Mathematics 427K and credit or registration for Biomedical Engineering 348.

352. Advanced 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. Prerequisite: Chemical Engineering 350.

353. Transport Phenomena in Living Systems. Restricted to biomedical engineering majors. Study of momentum, energy, and mass transport in living systems; includes heat transfer and mass diffusion. Prerequisite: Mathematics 427K.

354. Molecular Sensors and Nanodevices for Biomedical Engineering Applications. Restricted to biomedical engineering majors. Introduction to the relevant research in the area of nanotechnology, including microanalysis of biomolecules, molecular templates, and miniature biomachines. Prerequisite: Chemical Engineering 350.

357. Biomedical Imaging Modalities Laboratory. Restricted to biomedical engineering majors. Physical principles of medical imaging. Imaging devices for X-ray, ultrasound, and magnetic resonance. Image quality descriptions. Patient risk. Three lecture hours a week for one semester, with additional laboratory hours to be arranged. Prerequisite: Biomedical Engineering 251.

360. Engineering Applications of Immunology and Disease Pathology. Restricted to biomedical engineering majors. Introduction to basic pathophysiologic mechanisms and health effects of selected human diseases. Critical examination of related biomedical engineering diagnostic and treatment applications and challenges. Prerequisite: Biomedical Engineering 365S or consent of instructor.

361. Biomedical Engineering Industrial and Business Projects. Restricted to biomedical engineering majors. Development of a framework that integrates the philosophy, theory, tools, and organizational models used in industry; and application of the framework to real-world situations in the biomedical industry. Addresses management strategy and the processes used to develop strategies, goals, and objectives. Prerequisite: Biomedical Engineering 303, 314, and 333T.

365R. Quantitative Engineering Physiology I. Restricted to biomedical engineering majors. Vertebrate systems physiology: basic cellular physiology, electrophysiology of nerve and muscle, the motor system, the central nervous system, sensory systems. Focuses on a quantitative, model-oriented approach to physiological systems. Prerequisite: Biology 203L or 206L; Biomedical Engineering 314; Chemistry 318M and 369; Mathematics 427K, and Physics 303L and 103N.

365S. Quantitative Engineering Physiology II. Restricted to biomedical engineering majors. Biological control systems: cardiovascular, renal, respiratory, gastrointestinal, and immune systems. Focuses on a quantitative, model-oriented approach to physiological systems. Prerequisite: Biomedical Engineering 365R.

370. Principles of Engineering Design. Restricted to biomedical engineering majors. Structured methodologies for designing systems containing living components or to interface with living systems. Reverse engineering and redesign projects. FDA regulations and procedures. Entrepreneurship principles. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 221, 335, 348, and 365S.

371. Biomedical Engineering Design Project. Restricted to biomedical engineering majors. Creative design, analysis, selection, development, and fabrication and growth of biomedical engineering components and systems. Development of team projects with a faculty adviser and a sponsoring engineer. Two lecture hours and four laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 370, and completion of at least four courses in the student’s technical area.
374K. Biomedical Electronics. Restricted to biomedical engineering, electrical engineering, or mechanical engineering majors. Application of electrical engineering techniques to analysis and instrumentation in the biological sciences. Includes pressure, flow, and temperature measurement; bioelectric signals; pacemakers; ultrasonics; electrical safety; electrotherapeutics; and lasers. Prerequisite: Biomedical Engineering 311 and Electrical Engineering 438, or Electrical Engineering 313 and 438.

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 microcirculatory 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.

177, 277, 377. Undergraduate Research Project. Restricted to biomedical engineering majors. Recommended for students considering graduate study. Topic is selected in conjunction with a biomedical engineering faculty member, with approval by department chair. A final written report is required. Three, six, or nine laboratory hours a week for one semester. Prerequisite: Biomedical Engineering 333T and 348.

377P. Clinical Research Internship. Restricted to biomedical engineering majors. Students perform clinical research with biomedical engineering or medical faculty members at the Texas Medical Center in Houston. Requires a substantial final report. The equivalent of three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 333T and 348.

377Q. Clinical Medical Internship. Restricted to biomedical engineering majors. Students participate in clinical inpatient rounds, outpatient visits, operating room procedures, and medical grand rounds. Designed to provide direct contact with the medical needs addressed by biomedical engineering. Requires a substantial final report. The equivalent of three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 333T and 348.

377R. Research Internship. Restricted to biomedical engineering majors. Students perform biomedical research with biomedical engineering faculty or medical faculty at UT Austin and/or the Texas Medical Center in Houston or an approved medical school. Requires a substantial final report. The equivalent of three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 333T and 348.

377S. Industrial Internship. Restricted to biomedical engineering majors. Students conduct research in biomedical companies in Texas and nationwide. Research may range from imaging and instrumentation to tissue engineering and bioinformatics. Requires a substantial final report. The equivalent of three lecture hours a week for one semester. Prerequisite: Biomedical Engineering 333T and 348.

377T, 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; additional prerequisites vary with the topic and are given in the Course Schedule.

379. Cell and 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. Only one of the following may be counted: Biomedical Engineering 379, Chemical Engineering 339T, 379 (Topic: Cell and Tissue Engineering). Prerequisite: Biology 211, 212, and Chemical Engineering 350.

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

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

CHEMICAL ENGINEERING: CHE

Lower-Division Courses

102. Introduction to Chemical Engineering. Enrollment limited 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.

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.

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. Prerequisite: A high school course in chemistry and experience with Internet searches.

317. Introduction to Chemical Engineering Analysis. Principles and applications of material and energy balances in process analysis. Three lecture hours and one or 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.
Upper-Division Courses

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 and 317 with a grade of at least C in each, Mathematics 427K, and Chemistry 353.

322M. Molecular Thermodynamics. Statistical and molecular concepts, especially the role of the microscopic chemical potential. 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.

323. Chemical Engineering for Microelectronics. Definition and description of the terminology and processes of microelectronics. Introduction to semiconductor fundamentals, crystal structure, and facilities and chemical processes for integrated circuit manufacture. Prerequisite: Upper-division standing, Chemistry 318M or 310M, and 318N or 310N, and admission to an appropriate major sequence in engineering or consent of department.

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 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, 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.

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.

333T. Engineering Communication. Advanced technical communication skills, with emphasis on writing strategies for technical documents, oral presentations, and visual aids. Prerequisite: Admission to an appropriate major sequence in engineering.

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. Only one of the following may be counted: Biology 335, Biomedical Engineering 339, Chemical Engineering 339, 379 (Topic: Introduction to Biochemical Engineering). Prerequisite: Upper-division standing; Biology 311C and Chemistry 353; and admission to an appropriate major sequence in engineering or consent of the undergraduate faculty adviser.

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. Chemical Engineering 339P and 379 (Topic: Molecular Driving Force in Biology) may not both be counted. Prerequisite: Chemical Engineering 322, 353, and 235K with a grade of at least C in each, or consent of the department.

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. 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.

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. Only one of the following may be counted: Chemical Engineering 341, 379 (Topic 1: Design for Environment), 384 (Topic: Design for Environment), 395K. Prerequisite: Upper-division standing, and admission to an appropriate major sequence in engineering or consent of the department.

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. 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.

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 and 317 and Mathematics 427K with a grade of at least C in each.

350. Chemical Engineering Materials. Metallic, ceramic, polymeric, and composite materials. Crystal structures, phase diagrams, diffusion, and mechanical properties. Emphasis on structure-property-processing relationships. Prerequisite: Upper-division standing, Chemistry 353, and admission to an appropriate major sequence in engineering or consent of the department.

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 up 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.
253K. Applied Statistics. Statistical methods such as probability and probability distribution, statistical inference and analysis of variance, and design of experiments and statistical quality control. 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 and 317 and Mathematics 427K with a grade of at least C in each.

253M. Measurement, Control, and Data Analysis Laboratory. Measurement of process variables in transport phenomena; computer data acquisition and control; statistical analysis of data; laboratory safety. Written reports. Five laboratory hours a week for one semester. Prerequisite: Chemical Engineering 333T, 348, 353, and 253K with a grade of at least C in each.

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.

355. Introduction to Polymers. Synthesis, structural characterization, physical properties, and applications of polymers. Prerequisite: Upper-division standing, Chemical Engineering 322, and admission to an appropriate major sequence in engineering or consent of the department.

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 process-industry problems. Prerequisite: Upper-division standing, Chemical Engineering 348 and 353, and admission to an appropriate major sequence in engineering or consent of the department.

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. Prerequisite: Upper-division standing, and admission to an appropriate major sequence in engineering or consent of the department.

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 or two recitation hours a week for one semester. Prerequisite: Chemical Engineering 322, 253M, and 354 with a grade of at least C in each.

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 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 353 with a grade of at least C in each.

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.

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.

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.

376K. Process Evaluation and Quality Control. Use of statistical techniques to evaluate, compare, and optimize processes. Design of experiments for improved product quality control. Prerequisite: Upper-division standing, and admission to an appropriate major sequence in engineering or consent of the department.

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.

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.

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

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ARCHITECTURAL ENGINEERING: ARE

Lower-Division Courses

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.

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. Prerequisite: Civil Engineering 311K.

Upper-Division Courses

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.
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.

323K. Project Management and Economics. Solving economic problems related to construction and engineering; construction project management techniques; characteristics of construction organizations, equipment, and methods. Prerequisite: Mathematics 408D.

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 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, 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.

325M. 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 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, Architectural Engineering 225MA and appointment for a full-time cooperative work tour.

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.

345K. Masonry Engineering. Behavior and design of masonry with respect to architectural, economic, and structural criteria. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Civil Engineering 329 and credit or registration for Civil Engineering 331.

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. Prerequisite: Physics 303L and 103N, and credit or registration for Mechanical Engineering 320 or 326.

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. Prerequisite: Architectural Engineering 346N, Mechanical Engineering 320, 326, 339, or consent of instructor.

350. Advanced CAD Procedures. Introduction to advanced CAD procedures and CAD systems and their influence on building design and construction. Nine laboratory hours a week for one semester. Prerequisite: Architectural Engineering 102 or Civil Engineering 301; Civil Engineering 311K; admission to the major sequence in architectural or civil engineering; and Architectural Engineering 217 or consent of instructor.

358. Cost Estimating in Building Construction. Building construction quantity surveying from plans and specifications, unit prices, lump sum estimates, job sites, overhead, general overhead, and bidding procedures. 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.

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.

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, 346N, 362L, and Civil Engineering 331, 335, and 357.

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.

370. Design of Energy Efficient and Healthy Buildings. Design and analysis of building ventilation systems, 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. Prerequisite: Architectural Engineering 346N, Mechanical Engineering 320, 326, or consent of instructor.

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. Prerequisite: Architectural Engineering 346N, Mechanical Engineering 320, or consent of instructor.

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. Prerequisite: Architectural Engineering 346N, Civil Engineering 319E, or consent of instructor.

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 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 2: Indoor Air Quality: Transport and Control. Transport and control of indoor pollutants. Includes particulate removal and pollutant transport into and within indoor environments. Prerequisite: Admission to the major sequence in civil engineering or architectural engineering.
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 pursing 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

Lower-Division Courses

301. Civil Engineering Systems. Introduction to civil engineering as a career; engineering problem solving; microcomputers for text and graphics; introduction to civil engineering measurements; disciplines within civil engineering; engineering ethics. Two lecture hours and three laboratory hours a week for one semester.

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; additional prerequisite for civil engineering majors, Civil Engineering 301.

311S. Elementary Statistics for Civil Engineers. Basic theory of probability and statistics with practical applications to civil engineering problems; emphasis on sampling, statistical inference, and experiment design. Three lecture hours and one laboratory hour a week for one semester. **Prerequisite:** Mathematics 408D.

314K. 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. **Prerequisite:** Chemistry 301 and Engineering Mechanics 319.

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.

Upper-Division Courses

321. Transportation Systems. Planning, economics, location, construction, operation, maintenance, and design of transportation systems; concepts of various modes of transportation. **Prerequisite:** Civil Engineering 311S.

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, 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, 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.

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 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, Civil Engineering 225MA and appointment for a full-time cooperative work tour.

329. Structural Analysis. Classical methods of analysis for determine 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.

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 314K and 329.

333H. Engineering Communication: Honors. Technical communication skills for use in industry and academia: writing and peer-reviewing technical research reports and papers, representing information graphically, delivering oral presentations, working collaboratively, and managing computer-mediated communication. Two lecture hours and one and one-half laboratory hours a week for one semester. Civil Engineering 333H and 333T may not both be counted. **Prerequisite:** Rhetoric and Writing 306, admission to an appropriate major sequence in engineering, and admission to an engineering honors program or consent of instructor.

333T. Engineering Communication. Technical communication skills for engineers, especially researching and writing technical documents for many kinds of readers, representing information graphically, delivering oral presentations, working collaboratively, and managing computer-mediated communication. Two lecture hours and one and one-half laboratory hours a week for one semester. Civil Engineering 333H and 333T may not both be counted. **Prerequisite:** Rhetoric and Writing 306 and admission to an appropriate major sequence in engineering.

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.

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. **Prerequisite:** Chemistry 301 and 302, or consent of instructor.

342. Water and Wastewater Treatment Engineering. Application of chemical, biological, and physical principles to the analysis and design of water and wastewater treatment processes. **Prerequisite:** Civil Engineering 341 and credit or registration for Civil Engineering 319E or consent of instructor.

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.

346K. Hazardous Waste Management. Technical and regulatory aspects of handling and treating hazardous wastes. Contami-

nate fate and transport, site investigation and remediation techniques, risk assessment methodology, and treatment and disposal methods. **Prerequisite:** Civil Engineering 341 or consent of instructor.

195 Courses † Department of Civil, Architectural, and Environmental Engineering
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.

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.

357. Geotechnical Engineering. Engineering properties of soils; permeability and shear strength of soils; settlement of embankments and foundations of structures; laboratory measurements. Six hours a week for one semester, including lecture and laboratory. Prerequisite: Engineering Mechanics 319 and Civil Engineering 319F.

358. Introductory Ocean Engineering. Wave theory and its applications to coastal engineering and offshore structure technology. Includes fundamentals of inviscid, incompressible fluid flow. Prerequisite: Civil Engineering 319F or consent of instructor.

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. Prerequisite: Civil Engineering 357.

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.

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.

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. Prerequisite: Civil Engineering 329.

364. Design of Wastewater and Water Treatment Facilities. Analysis, synthesis, and integrated design of collection systems, pumping stations, and treatment plants for municipal wastewater; design of water treatment plants. Six hours a week for one semester, including lecture and design laboratory. Prerequisite: Civil Engineering 356 and credit or registration for Civil Engineering 342, or consent of instructor.

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 hours a week for one semester, including lecture and field trips. Prerequisite: Civil Engineering 356.

366K. Design of Bituminous Mixtures. Fundamental properties of asphalt and aggregates; design and construction of asphalt mixtures; special mixtures; superfine design method. Prerequisite: Upper-division standing, Civil Engineering 321, and consent of instructor.

367. Highway Engineering. Geometric design of modern highways and streets, including intersections and interchanges; drainage; traffic operations. Three lecture hours and one hour of computer-aided-design laboratory a week for one semester. Prerequisite: Civil Engineering 321 or consent of instructor.

367P. Pavement Design and Performance. Basic principles of design of pavements for highways, airfields, and railroads; pavement construction, maintenance, and rehabilitation. Prerequisite: Civil Engineering 321, 357, and 366K.

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. Prerequisite: Civil Engineering 321 or consent of instructor.

369L. Air Pollution Engineering. Characterization of sources, emissions, transport, transformation, effects, and control of outdoor and indoor air pollutants. Prerequisite: Civil Engineering 341 and Mechanical Engineering 320, or consent of instructor.

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.

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. Prerequisite: Civil Engineering 311S and 356.

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. Prerequisite: Civil Engineering 356 or consent of instructor.

375. Earth Slopes and Retaining Structures. Earth fills, excavations, and dams; soil compaction, ground improvement, and slope stability; seepage and dewatering; study of earth-pressure theories; design of earth-retaining structures. Offered in the spring semester only. Prerequisite: Civil Engineering 357.

376. Airport Design. Factors influencing the location, design, and construction of airports, including lighting, terminal facilities, noise-level control, aircraft control, airspace utilization, and automobile parking. Three lecture hours and one hour of computer laboratory a week for one semester. Prerequisite: Civil Engineering 321 or consent of instructor.

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; 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: Technological Innovation: Bioethical Issues.
Topic 2: Energy Policy and Ethical Conflicts.
Topic 4: The Environment, Resources, and Technological Risks.
Topic 5: Engineering Entrepreneurship.

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.
379K. Introduction to Numerical Methods. Introduction to numerical modeling of physical systems, sources of errors in engineering simulations, solutions of nonlinear equations, solutions of systems of linear equations (direct and iterative methods), numerical solution of initial- and boundary-value problems, eigenvalue problems, and numerical optimization. Instruction complemented with numerical and symbolic computation software. Prerequisite: Civil Engineering 311K and admission to the major sequence in civil or architectural engineering.

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ELECTRICAL ENGINEERING: EE

Lower-Division Courses

302. Introduction to Electrical and Computer Engineering. The scope and nature of professional activities of electrical and computer engineers, including problem-solving techniques, analysis, and design methods; using computers for communication and problem-solving tasks; engineering professional ethics; analysis of analog resistive circuits, including Thevenin/Norton equivalent, mesh analysis, and nodal analysis; representation of signals and systems; information processing; state machines. 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 408K.

302H. Introduction to Electrical and Computer Engineering: Honors. Restricted to students in the Engineering Honors Program. The scope and nature of professional activities of electrical and computer engineers, including problem-solving techniques, analysis, and design methods; using computers for communication and problem-solving tasks; engineering professional ethics; analysis of analog resistive circuits, including Thevenin/Norton equivalent, mesh analysis, and nodal analysis. 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 408K.

306. Introduction to Computing. 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. Electrical Engineering 306 and 379K (Topic: Introduction to Computing) may not both be counted. Prerequisite: Credit with a grade of at least C or registration for Mathematics 408C or 408K.

309K. Topics in Electrical Engineering. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

411. Circuit Theory. Linear circuit elements; nodal and mesh analysis; operational amplifiers; capacitance and inductance; simple transient response; sinusoidal steady state analysis; Bode plots; three-phase circuits; transformers; two-port networks (Z-parameters and Y-parameters); computer-aided analysis and design. Three lecture hours and two recitation hours a week for one semester. Prerequisite: Electrical Engineering 302 or 302H with a grade of at least C; credit with a grade of at least C or registration for Mathematics 427K; and credit with a grade of at least C or registration for Physics 303L and 103N.

312. Introduction to Programming. Programming skills for problem solving; programming in C; elementary data structures; asymptotic analysis. Three lecture hours and one recitation hour a week for one semester. Prerequisite: Electrical Engineering 306 or Biomedical Engineering 303 with a grade of at least C.

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 series; Fourier transform; AM/FM modulation; applications. Prerequisite: Electrical Engineering 411, 331, or Biomedical Engineering 311 with a grade of at least C; and Mathematics 427K with a grade of at least C.

316. Digital Logic Design. Boolean algebra; analysis and synthesis of combinational and sequential switching networks; digital computer design. Prerequisite: Electrical Engineering 306 or Computer Sciences 307 with a grade of at least C; and credit with a grade of at least C or registration for Electrical Engineering 312 or Computer Sciences 310.

319K. Introduction to Microcontrollers. Basic computer structure; instruction set; addressing modes; assembly language programming; subroutines; arithmetic operations; programming in C; C functions; basic data structures; input/output; and survey of several microcontrollers. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: Electrical Engineering 306 or Biomedical Engineering 303 with a grade of at least C, and Electrical Engineering 312 with a grade of at least C.

Upper-Division Courses

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 (or 338) 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.

322C. Data Structures. Programming with abstractions; data structures; algorithm analysis. Prerequisite: Electrical Engineering 312 with a grade of at least C.

325. Electromagnetic Engineering. Introduction to 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. Prerequisite: Physics 303L and 103N and Mathematics 427K with a grade of at least C in each.
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. **Prerequisite:** Electrical Engineering 325 with a grade of at least C.

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. **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.

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.

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. **Prerequisite:** Consent of the undergraduate adviser.

331. Electrical Circuits, Electromagnetics, 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. **Prerequisite:** Mathematics 408D, Physics 303L, and 103N with a grade of at least C in each.

331K. Electric Circuits and Electronics. Not open to electrical engineering majors. Electric and electronic circuits; time-domain and frequency-domain techniques; solid-state devices; analog and digital circuits. **Prerequisite:** Physics 303L, 103N, and Mathematics 427K with a grade of at least C in each.

333T. Engineering Communication. Advanced engineering communication skills, with emphasis on technical documents, oral reports, and graphics; collaborative work involving online communication and research. **Prerequisite:** English 316K with a grade of at least C.

334K. Theory of Engineering Materials. Crystal structure; quantum theory; chemical bonds; electron statistics; electronic, optical, magnetic, and dielectric phenomena in materials, and device applications based on these phenomena. **Prerequisite:** Electrical Engineering 339 with a grade of at least C.

438. Electronic Circuits I. Electronic devices in analog and digital circuits. Device physics and modeling; two-port networks; analysis and design of power supply circuits and amplifiers; frequency response; Bode plots. Laboratory work covers generation and acquisition of test signals; current, voltage, and impedance measurements; transfer function measurement; and spectrum measurements and analysis. Three lecture hours and three laboratory hours a week for one semester. **Prerequisite:** Credit with a grade of at least C or registration for Electrical Engineering 313 or Biomedical Engineering 343.

338K. Electronic Circuits II. Feedback principles; Bode plots; analysis and design of circuits with operational amplifiers and oscillators; filters; power amplifiers. **Prerequisite:** Electrical Engineering 438 with a grade of at least C.

338L. Analog Integrated Circuit Design. Analysis and design of analog integrated circuits; transistor models, integrated circuit technologies; layout techniques; mismatches; simple and advanced current mirrors, single-stage amplifiers; differential-pair amplifiers; frequency response; noise considerations; feedback; nonlinear circuits; cascode amplifiers; telescopic and folded-cascode operational amplifiers; two-stage operational amplifiers using state-of-the-art EDA/CAD tools for design simulation and layout. **Prerequisite:** Electrical Engineering 438 and 339 with a grade of at least C in each.

339. Solid-State Electronic Devices. Quantum theory of energy levels; semiconductor materials and carrier transport; p-n junctions and Schottky barriers; bipolar and field effect transistors; light-emitting diodes, lasers, and photodetectors. **Prerequisite:** Mathematics 427K and Physics 303L and 103N with a grade of at least C in each.

440. Microelectronics Fabrication Techniques. Integrated circuit fabrication; crystal growth and wafer preparation; epitaxial deposition techniques; lithography and etching processes; integrated circuit process integration and process simulation. Three lecture hours and three laboratory hours a week for one semester. **Prerequisite:** Electrical Engineering 438 and 339 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.

341. Electric Drives and Machines. Fundamentals of electromechanical interactions; electromechanical energy conversion; magnetic circuits, transformers, and energy conversion devices; introduction to power electronics. **Prerequisite:** Electrical Engineering 313 and 325 with a grade of at least C in each.

345L. Microprocessor Applications and Organization. Microprocessor organization and interfacing; memory interfacing; hardware-software design of microprocessor systems; applications, including communication systems. Two lecture hours and six laboratory hours a week for one semester. **Prerequisite:** Electrical Engineering 319K, 322C, and 438 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.
345M. 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; applications, including data acquisition and control. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 345L or 345S with a grade of at least C; and credit with a grade of at least C in 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.

345S. 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; interfaces to telecommunications systems. Three lecture hours and three laboratory hours a week for one semester. Prerequisite: Electrical Engineering 319K and 438 with a grade of at least C in each; credit with a grade of at least C in 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.

347. Modern Optics. Modern optical wave phenomena with applications to imaging, holography, fiber optics, lasers, and optical information processing. 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.

348. Laser and Optical Engineering. Principles of operation and applications of lasers, optical modulators, and optical detectors. Prerequisite: Electrical Engineering 339 with a grade of at least C.

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. Prerequisite: Electrical Engineering 313 with a grade of at least C.

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. Prerequisite: Credit with a grade of at least C or registration for Biomedical Engineering 335 or Electrical Engineering 351K.

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. Prerequisite: English 316K with a grade of at least C.

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.

360C. Algorithms. Complexity analysis; advanced combinatorial algorithms; algorithm design principles; intractability. Prerequisite: Electrical Engineering 322C with a grade of at least C; and Mathematics 325K or Philosophy 313K with a grade of at least C.

360F. Software Engineering Processes. Introduction to the discipline of software engineering. Fundamentals of evaluating, testing, and verifying software; formal specification; design techniques; software quality assurance and reliability assessment. Prerequisite: Electrical Engineering 322C with a grade of at least C.

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. Prerequisite: Electrical Engineering 322C with a grade of at least C.

360M. Digital Systems Design Using VHDL. Hardware implementation of arithmetic and other algorithmic processes; hardware description languages (VHDL); organization, design, and simulation of digital systems. Prerequisite: Electrical Engineering 316 and 319K with a grade of at least C in each.

360N. 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; I/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 laboratory/recitation hour a week for one semester. Prerequisite: Electrical Engineering 316 and 319K with a grade of at least C in each.

360P. Concurrent and Distributed Systems. Concurrency, synchronization, resource allocation, deadlock, and scheduling; multithreaded programming; client/server distributed systems programming. Prerequisite: Credit with a grade of at least C or registration for Electrical Engineering 345L.

360R. Computer-Aided Integrated Circuit Design. Theory and practice of integrated circuit design. Classes of chip design, chip partitioning, and architecture; computer-aided design tools for simulation and physical design. Prerequisite: Electrical Engineering 316, 438 (or 338), and 339 with a grade of at least C in each.

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. Prerequisite: Electrical Engineering 438 (or 338) and 339 with a grade of at least C in each.

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. Electrical Engineering 361D and 379K (Topic 22: System Design Metrics) may not both be counted. Prerequisite: Electrical Engineering 364D with a grade of at least C.
361Q. Requirements Engineering. Methods and technology for acquiring, representing, documenting, verifying, validating, and maintaining requirements; text-based, graphic-based, and computational requirements model representations; requirements analysis to synthesize and resolve conflicts among disparate stakeholder viewpoints; requirements traceability and evolution, and change management. 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: Electrical Engineering 322C with a grade of at least C.

361R. Radio Frequency Circuit Design. Scattering matrices and two-port representation, matching networks using analytical methods and graphical methods, and transistor amplifier design. Computer analysis using MATLAB or other programming language. 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 32S and 438 with a grade of at least C in each.

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. Prerequisite: Electrical Engineering 438 and Mathematics 340L with a grade of at least C in each.

362L. Power Electronics. Analysis, design, and operation of power electronic circuits; power conversion from AC to DC, DC to DC, and DC to AC; rectifiers, inverters, and pulse width modulated motor drives. Laboratory work focuses on the use of energy from renewable sources such as photovoltaics and wind. Two lecture hours and one and one-half laboratory hours a week for one semester. Prerequisite: Electrical Engineering 438 or 331 (or 331K) 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.

362Q. Power Quality and Harmonics. Introduction and analysis of power quality and harmonic phenomena in electric power systems: characteristics and definitions, voltage sags, electrical transients, harmonics, mitigation techniques, 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 438 or 331 with a grade of at least C.

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. Prerequisite: Electrical Engineering 325 with a grade of at least C.

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. Prerequisite: Mathematics 427K with a grade of at least C.

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 and 366 with a grade of at least C in each; and Electrical Engineering 321K, 440, 345L, 345S, 362L, 371C, 372L, or 374L with a grade of at least C.

464D. 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. 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; credit with a grade of at least C or registration for Electrical Engineering 321K, 440, 345L, 345S, 362L, 371C, 372L, or 374L; and credit with a grade of at least C or registration for Electrical Engineering 366.

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 and 366 with a grade of at least C in each; and Electrical Engineering 321K, 440, 345L, 345S, 362L, 371C, 372L, or 374L with a grade of at least C.

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 and 366 with a grade of at least C in each; Electrical Engineering 321K, 440, 345L, 345S, 362L, 371C, 372L, or 374L with a grade of at least C; and a University grade point average of at least 3.50.

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 and 366 with a grade of at least C in each; and Electrical Engineering 321K, 440, 345L, 345S, 362L, 371C, 372L, or 374L with a grade of at least C.

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 and 366 with a grade of at least C in each; and Electrical Engineering 321K, 440, 345L, 345S, 362L, 371C, 372L, or 374L with a grade of at least C.
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. Prerequisite: Credit or registration for Electrical Engineering 351K.

366K. Engineering Economics II. Fundamentals of risk management, including portfolio theory, capital asset pricing theory, and effects of financing; hedging risks using forwards, futures, options, and other derivatives; stochastic models of price behavior. Prerequisite: Electrical Engineering 366 with a grade of at least C.

366L. Statistics for Manufacturing. Statistical analysis applied to the development and control of manufacturing operations; quality control, statistical process control, and design of experiments. Prerequisite: Electrical Engineering 351K with a grade of at least C.

367L. Topics in Engineering and Society. Studies in the interrelated problems of society and technology: ethics; legal, social, and economic problems. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

368. Electrical Power Transmission and Distribution. Analysis of power system transmission and distribution system components; electric and magnetic fields surrounding transmission lines; dielectric and insulator breakdown; audible and radio noise; shock hazards; grounding. Prerequisite: Electrical Engineering 313 with a grade of at least C.

369. Power Systems Engineering. Introduction to power systems engineering; complex power; transmission line models; transformers; per-unit system; power flow problem; economic operation of power systems; deregulation; generator modeling; steady-state and transient stability of power systems; power system control; contingencies; faults; introduction to short-circuit studies. Prerequisite: Electrical Engineering 438 (or 338) or 331 (or 331K) with a grade of at least C.

370. Automatic Control II. Introduction to modern control theory, nonlinear and optimal control systems; controllability, observability, stability; state feedback, observers, eigenvalue assignment. Prerequisite: Electrical Engineering 362K with a grade of at least C.

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. Prerequisite: Electrical Engineering 362K with a grade of at least C.

370L. Introduction to Manufacturing Systems Automation. Applications of automation techniques to manufacturing systems; robotics and computer vision. Prerequisite: Electrical Engineering 362K with a grade of at least C.

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. Electrical Engineering 370N and 379K (Topic 16: Introduction to Robotics and Mechatronics) may not both be counted. Prerequisite: Electrical Engineering 362K with a grade of at least C.

371C. 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 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.

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. Prerequisite: Electrical Engineering 351K and Mathematics 340L with a grade of at least C in each.

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. Prerequisite: Credit with a grade of at least C or registration for Electrical Engineering 351K or Biomedical Engineering 335.

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. Prerequisite: Credit with a grade of at least C or registration for Electrical Engineering 351K or Biomedical Engineering 335.

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. Electrical Engineering 372L and 379K (Topic 19: Network Engineering Laboratory) may not both be counted. Prerequisite: Electrical Engineering 372N 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.

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. Electrical Engineering 372N and 379K (Topic 14: Telecommunication Networks) may not both be counted. Prerequisite: Electrical Engineering 351K with a grade of at least C.
DEPARTMENT OF MECHANICAL ENGINEERING

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

MECHANICAL ENGINEERING: M E

Lower-Division Courses

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: hand 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. May not be taken concurrently with Mechanical Engineering 205. Prerequisite: Credit or registration for Mathematics 408K or 408K (or credit for 308K).

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 210H. Prerequisite: Consent of the undergraduate adviser.

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 408K (or credit for 308K).

210. Engineering Design Graphics. Graphics and modeling fundamentals for engineering design: hand sketching, computer modeling of solid geometry, and generation of engineering drawings. Introduction to reverse engineering, computer-aided design, rapid prototyping, and manufacturing. Application of the design process to problem solving. Individual and team design projects. Two lecture hours and three laboratory hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 302, 210, 210H. 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).

210H. Engineering Design Graphics: Honors. Graphics and modeling fundamentals for engineering design: hand sketching, computer modeling of solid geometry, and generation of engineering drawings. Introduction to reverse engineering, computer-aided design, rapid prototyping, and manufacturing. Application of the design process to problem solving. Individual and team design projects. One lecture hour and four laboratory hours a week for one semester. Only one of the following may be counted: Mechanical Engineering 302, 210, 210H. 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), and admission to an engineering honors program.
311. Materials Engineering. Fundamental aspects of the structure, properties, and behavior of engineering materials. **Prerequisite:** Chemistry 301, Engineering Mechanics 319, Mechanical Engineering 302, 205, and 326, and Physics 303K and 103M with a grade of at least C in each; credit or registration for Physics 303L and 103N; and concurrent enrollment in Mechanical Engineering 111L.

111L. Materials Engineering Laboratory. Hands-on experiments in materials science and engineering topics and microstructure-property relationships discussed in Mechanical Engineering 311. One to one and one-half lecture hours and three laboratory hours a week for one semester. **Prerequisite:** Mechanical Engineering 302 and 205 with a grade of at least C in each; and concurrent enrollment in Mechanical Engineering 311.

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 lecture hour and two laboratory hours a week for one semester. **Prerequisite:** Mathematics 427K and Mechanical Engineering 205 with a grade of at least C in each.

**Upper-Division Courses**

320. Applied Thermodynamics. First and second laws of thermodynamics; thermodynamic processes, cycles, and heat transfer. May not be counted toward the Bachelor of Science in Mechanical Engineering degree. **Prerequisite:** Chemistry 301, Mathematics 408D, and Physics 303K.

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 grade of at least C in each.

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. **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 325LY and appointment for a full-time cooperative work tour; for 325LZ, Mechanical Engineering 325LY and appointment for a full-time cooperative work tour.

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 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, Mechanical Engineering 225MA and appointment for a full-time cooperative work tour.

326. Thermodynamics. Properties, heat and work, first and second laws, thermodynamic processes, introduction to ideal power cycles. For some sections, two discussion hours a week are also required; these sections are identified in the **Course Schedule.** Mechanical Engineering 326 and 326H may not both be counted. **Prerequisite:** Chemistry 301, Mathematics 408D, and Physics 303K with a grade of at least C in each.

326H. Thermodynamics: Honors. Properties, heat and work, first and second laws, thermodynamic processes, introduction to ideal power cycles. For some sections, two discussion hours a week are also required; these sections are identified in the **Course Schedule.** Mechanical Engineering 326 and 326H may not both be counted. **Prerequisite:** Chemistry 301, Mathematics 408D, and Physics 303K with a grade of at least C in each, and admission to an engineering honors program.


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. Mechanical Engineering 130L and 242L may not both be counted. **Prerequisite:** Concurrent enrollment in Mechanical Engineering 330.

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.

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 admission to an appropriate major sequence in engineering.

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 with a grade of at least C in each, and admission to an appropriate major sequence in engineering.

336. Materials Processing. Effects of processing on materials properties; materials selection. **Prerequisite:** Mechanical Engineering 311 and 111L 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.

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.
337C. Introduction to Nuclear Power Systems. Radioactivity, nuclear interactions: fission and fusion, fission reactors, nuclear power systems, nuclear power safety. Prerequisite: For engineering majors, Mechanical Engineering 218 and Physics 303L and 103N with a grade of at least C in each, and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

337D. Radiation and Radiation Protection. Atoms and X-rays; nuclei and nuclear radiations; radioactivity; nuclear reactions; interaction of radiations with matter; radiation dosimetry; biological effects of radiation; radiation protection and regulatory standards. Prerequisite: For engineering majors, Mechanical Engineering 218 with a grade of at least C, Physics 303L and 103N with a grade of at least C in each, and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

337E. Radioactive Waste Management. An introduction to radioactive waste management, including waste forms; regulation and siting; public health and environmental issues; remediation and stabilization; low- and high-level waste management; air dispersion; and radioactive groundwater transport. Prerequisite: For engineering majors, Mechanical Engineering 218 with a grade of at least C, 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 and written consent of instructor.

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. Prerequisite: Engineering Mechanics 319 and Mechanical Engineering 311 with a grade of at least C in each, and admission to an appropriate major sequence in engineering.

339. Heat Transfer. Steady and transient heat conduction; forced and natural convection; radiation; introduction to heat exchangers and applications. Prerequisite: Mechanical Engineering 218, 330, and 130L with a grade of at least C in each, concurrent enrollment in Mechanical Engineering 139L, and admission to an appropriate major sequence in engineering.

139L. Experimental Heat Laboratory. 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. Mechanical Engineering 139L and 242L may not both be counted. Prerequisite: Concurrent enrollment in Mechanical Engineering 339 and admission to an appropriate major sequence in engineering.

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). Prerequisite: Mathematics 408D, Mechanical Engineering 205, and Physics 303L and 103N with a grade of at least C in each, concurrent enrollment in Mechanical Engineering 140L, and admission to an appropriate major sequence in engineering.

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, concurrent enrollment in Mechanical Engineering 340, and admission to an appropriate major sequence in engineering.

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.

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. Prerequisite: Mathematics 427K and Mechanical Engineering 205 and 324 with a grade of at least C in each; Mechanical Engineering 340 and 140L or their equivalents with a grade of at least C in each; concurrent enrollment in Mechanical Engineering 144L or 244L; and admission to an appropriate major sequence in engineering.

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.

347. Processing of Materials. Analysis of forces in processing operations; effects of friction and their control; metalworking efficiencies. May be repeated for credit when the topics vary. Prerequisite: For engineering majors, Mechanical Engineering 336, credit or registration for Mechanical Engineering 136L, 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.
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, Electrical Engineering 331 and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

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, Electrical Engineering 331 and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

349. Corrosion Engineering. Corrosion principles; electrochemical, environmental, and metallurgical effects; types of corrosion; corrosion testing and prevention; modern theories: principles and applications. Prerequisite: For engineering majors, Mechanical Engineering 311 or the equivalent with a grade of at least C, Mechanical Engineering 326 (or 326H) 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.

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. Offered on the letter-grade basis only. Mechanical Engineering 350 and 379M (Topic 7: Machine Tool Operations for Engineers) may not both be counted. Prerequisite: Admission to an appropriate major sequence in engineering.

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.

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, and 335 with a grade of at least C in each, and admission to an appropriate major sequence in engineering.

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. Prerequisite: For engineering majors, Mathematics 427K 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.

354M. Biomechanics of Human Movement. Modeling and simulation of human movement; neuromuscular control; computer applications; introduction to experimental techniques. Three lecture hours and one laboratory hour 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.

355K. Engineering Vibrations. Time-domain and frequency-domain analysis of vibrating systems; matrix methods, instrumentation, and vibration control; numerical methods. Prerequisite: Mechanical Engineering 324 with a grade of at least C, Mathematics 427K with a grade of at least C, and admission to an appropriate major sequence in engineering.

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 336 and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

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 solid-state phase transformations. Two or three lecture hours a week for one semester. Prerequisite: For engineering majors, Mechanical Engineering 311 with a grade of at least C, credit or registration for Mechanical Engineering 111L, and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

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. Prerequisite: Mechanical Engineering 330, 130L and 139L (or 242L), and admission to an appropriate major sequence in engineering.

360N. Intermediate Heat Transfer. Multidimensional and transient diffusion; laminar and turbulent convection; radiation exchange; special topics. Prerequisite: Mechanical Engineering 339 and admission to an appropriate major sequence in engineering.

361E. Nuclear Reactor Engineering. Fission and chain reactions; neutron diffusion and moderation; reactor equations; Fermi age theory; multigroup and multiregional analysis. Prerequisite: For engineering majors, Mechanical Engineering 218 and Physics 303L and 103N with a grade of at least C in each, and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.
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 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 and written consent of instructor.

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 311 with a grade of at least C, Mechanical Engineering 326 or 326H 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.

362K. Readings in Engineering. A study of the interrelated problems of society, technology, and energy. Only one of the following may be counted: Mechanical Engineering 325L, 362K, 371K, 377K. Prerequisite: Admission to an appropriate major sequence in engineering.

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 (or 242L), 343, and admission to an appropriate major sequence in engineering.

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.

365K. Finite Element Method. Introduction and application of the finite element method in engineering analysis and design problems; demonstration of techniques using commercial codes. 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.

365L. Industrial Design for Production. Current techniques for making transitions from theoretical concepts to cost effective designs suitable for manufacturing. Prerequisite: Mechanical Engineering 338 and admission to an appropriate major sequence in engineering.

366J. Mechanical Engineering Design Methodology. 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: Mechanical Engineering 302, 330, 130L, 335, 336, 136L, 338, 339, and 139L with a grade of at least C in each; Mechanical Engineering 340 and 140L or their equivalents with a grade of at least C in each; Mechanical Engineering 333H, 333T, or the equivalent with a grade of at least C; and admission to an appropriate major sequence in engineering.

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. Four lecture hours a week for seven weeks, with additional hours to be arranged. Prerequisite: Mechanical Engineering 343, 344, 144L or 244L, 353, and 366J with a grade of at least C in each, and admission to an appropriate major sequence in engineering.

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. 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 nonengineering majors, upper-division standing and written consent of instructor.

366P. 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: Concurrent enrollment in Mechanical Engineering 266K and admission to an appropriate major sequence in engineering.

366Q. Deterministic Methods for Operations Research. Theory and algorithms for deterministic operations research methods. Algorithms for solving linear, integer, and nonlinear optimization models. Mechanical Engineering 366M and 366Q may not both be counted. Prerequisite: For engineering majors, admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

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. Mechanical Engineering 366M and 366R may not both be counted. 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.

367S. Simulation Modeling. Basic concepts of discrete-event simulation. Statistical input and output analysis. Application of simulation software. Modeling of systems under uncertainty. 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 nonengineering majors, upper-division standing and written consent of instructor.

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.

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. Prerequisite: Credit or registration for Mechanical Engineering 330 and 339 and admission to an appropriate major sequence in engineering.
371K. Legal Aspects of Engineering Practice. Legal considerations in the practice of engineering; specifications and contracts for equipment and engineering services. Only one of the following may be counted: Mechanical Engineering 325L, 362K, 371K, 377K. Prerequisite: Upper-division standing and admission to an appropriate major sequence in engineering.

372J. Robotics and Automation. Component technologies for precision machines based on dynamic modeling and motion programming: cams, linkages, planar manipulators. Prerequisite: Credit or registration for Mechanical Engineering 324 and admission to an appropriate major sequence in engineering.

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. Prerequisite: Credit or registration for Mechanical Engineering 324 and admission to an appropriate major sequence in engineering.

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. Prerequisite: Upper-division standing and consent of instructor.

373K. Basic Industrial Engineering. Design and analysis of production systems, including plant layout and location, material flow, and flexible manufacturing. 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 nonengineering majors, upper-division standing and written consent of instructor.

374C. Combustion Engine Processes. Principles of internal combustion engines, fuels, carburetion, combustion, exhaust emissions, knock, fuel injection, and factors affecting performance. Prerequisite: Mechanical Engineering 343 or consent of instructor, and admission to an appropriate major sequence in engineering.

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.

374L. Design of Thermal Systems. Methodology and approach to design of thermal energy systems; component and system modeling: optimization, including economic considerations. Prerequisite: Mechanical Engineering 339 or the equivalent, credit or registration for Mechanical Engineering 343, and admission to an appropriate major sequence in engineering.

374R. Design of Air Conditioning Systems. Load calculations, design of thermal distribution systems, component selection and control. Prerequisite: Credit or registration for Mechanical Engineering 343.

374S. Solar Energy Systems Design. Insolation characteristics and measurement, component design, solar energy system modeling, introduction to photovoltaic systems, cost analysis, and case studies. Prerequisite: Mechanical Engineering 339 or the equivalent and admission to an appropriate major sequence in engineering.

375K. Production Engineering Management. Introduction to production and inventory models; basic factory dynamics; analysis of variability; push-and-pull production control; sequencing and dispatching. 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 nonengineering majors, upper-division standing and written consent of instructor.

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 277K, five to ten laboratory hours and one consultation hour with the faculty supervisor a week for one semester; for 377K, 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.

378C. Electroceramics. Bonding; crystal structures; defects; phase diagrams; glass ceramics; electrical, dielectric, magnetic, and optical ceramics. Prerequisite: For engineering majors, Mechanical Engineering 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.

378K. Mechanical Behavior of Materials. Elastic deformation; viscoelasticity; yielding, plastic flow, plastic instability, strengthening mechanisms; fracture, fatigue, creep; significance of mechanical properties tests. Prerequisite: For engineering majors, Mechanical Engineering 336 and 136L with a grade of at least C in each, and admission to an appropriate major sequence in engineering; for nonengineering majors, upper-division standing and written consent of instructor.

378P. Properties and Applications of Polymers. Introduction to polymers as structural materials: polymerization, polymer structure, physical and mechanical properties, processing and fabrication. Prerequisite: For engineering majors, Mechanical Engineering 311 or the equivalent with a grade of at least C, Mechanical Engineering 326 or 326H 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.

378S. Structural Ceramics. Powder processing, powder characterization, forming techniques, densification, and development of microstructure; emphasis on understanding materials, selection, and microstructure–mechanical property relationships. Prerequisite: For engineering majors, Mechanical Engineering 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.
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.

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.

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. Prerequisite: Mathematics 427K with a grade of at least C.

DEPARTMENT OF PETROLEUM AND GEOSYSTEMS ENGINEERING

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

PETROLEUM AND GEOSYSTEMS ENGINEERING: PGE

Lower-Division Courses

102. Introduction to Petroleum and Geosystems Engineering. Enrollment limited to beginning students in petroleum and geosystems engineering. Familiarizes the new student with the opportunities and responsibilities to be found in a career in petroleum and geosystems engineering. One lecture hour a week for one semester.

203. Problem Solving in Petroleum and Geosystems Engineering. Restricted to petroleum and geosystems engineering students. Combines design, logging, production, reservoir, and economic problem-solving techniques. Two lecture hours a week for one semester. Students will also be required to attend meetings of the Society of Professional Engineers twice a month. Prerequisite: Petroleum and Geosystems Engineering 102.

204. Problem Solving in Petroleum Engineering. Typical petroleum engineering design problems. Emphasis on laboratory experiments and group design activities to enhance problem-solving skills. Two lecture hours a week for one semester. Prerequisite: Petroleum and Geosystems Engineering 102.

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.

210, 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. Two or three lecture hours a week for one semester. Prerequisite: Physics 303K and 103M and credit or registration for Mathematics 427K.

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. Prerequisite: Chemistry 302.

Upper-Division Courses

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.

422K. 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. Prerequisite: Engineering Mechanics 306 and Mathematics 427K.

323. Fluid Flow through Permeable Media. Properties of fluid-saturated rocks; steady-state and transient fluid flow in permeable reservoir rocks as applied to subsurface engineering problems. Petroleum and Geosystems Engineering 323 and 323L may not both be counted. Prerequisite: For petroleum engineering majors and geosystems engineering and hydrogeology majors, Petroleum and Geosystems Engineering 322K and 424, Mathematics 427K, and admission to the major sequence; for others, consent of instructor.

323K. Reservoir Engineering I: Primary Recovery. Classification of subsurface reservoirs by type and recovery mechanism; reserve estimates based on material balance; steady-state and transient fluid flow in permeable reservoir rocks as applied to subsurface engineering problems. Petroleum and Geosystems Engineering 323K and 331 may not both be counted. Prerequisite: Petroleum and Geosystems Engineering 312 and credit or registration for Petroleum and Geosystems Engineering 424.

323L. Reservoir Engineering II: Secondary and Tertiary Recovery. Introduction to reservoir displacement processes; water and gas injection; enhanced recovery. Petroleum and Geosystems Engineering 323 and 323L may not both be counted. Prerequisite: Petroleum and Geosystems Engineering 322K, 323K, 424, Mathematics 427K, and admission to the major sequence.

323M. Reservoir Engineering III: Numerical Simulation. Mathematical equations governing fluid flow in reservoirs; numerical methods to solve the equations; numerical reservoir simulation; treatment of wells; history matching; a simulation project performed using a commercial simulator. Prerequisite: Petroleum and Geosystems Engineering 323L.

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, Petroleum and Geosystems Engineering 333T, credit or registration for Petroleum and Geosystems Engineering 322K, and admission to the major sequence; for others, consent of instructor.
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.

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 225MB, Petroleum and Geosystems Engineering 225MA and appointment for a full-time cooperative work tour.

326. Thermodynamics and Phase Behavior. Application of classical thermodynamics to the behavior of fluids, with emphasis on phase behavior of multicomponent mixtures. Prerequisite: For petroleum engineering majors and geosystems engineering and hydrogeology majors, Petroleum and Geosystems Engineering 312, Mathematics 427K, and admission to the major sequence; for others, consent of instructor.

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 three laboratory hours a week for one semester. Prerequisite: Credit or registration for Engineering Mechanics 319, Petroleum and Geosystems Engineering 322K, and admission to the major sequence.

331. Fundamentals of Reservoir Engineering. Classification of subsurface reservoirs by type and recovery mechanism; reserve estimates based on volumetric, material balance and decline curve techniques; transient fluid flow theory applied to predicting production rates; introduction to displacement processes. Petroleum and Geosystems Engineering 323K and 331 may not both be counted. Prerequisite: For petroleum engineering majors and geosystems engineering and hydrogeology majors, Petroleum and Geosystems Engineering 312 and 323, credit or registration for Petroleum and Geosystems Engineering 424, and admission to the major sequence; for others, consent of instructor.

432. Geometry and Mechanics of Geologic Structures. Description, classification, and mechanical analysis of geologic structures such as faults, folds, and fractures. Deformation mechanisms in rock, in situ stress, seismic interpretation, geologic mapping, and rock fracture. Emphasis on applications to engineering. Three lecture hours and three laboratory hours a week for one semester. Petroleum and Geosystems Engineering 432 and 334 may not both be counted. Prerequisite: Engineering Mechanics 319 and Geological Sciences 416M.

333T. Engineering Communication. Advanced technical communication skills, with emphasis on writing strategies for technical documents, oral presentations, and visual aids. Prerequisite: Rhetoric and Writing 306.


337. Introduction to Geostatistics. 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. Prerequisite: For petroleum engineering majors, Petroleum and Geosystems Engineering 210, Mathematics 408D or the equivalent, and admission to the major sequence; for others, Petroleum and Geosystems Engineering 210, and Mathematics 408D or the equivalent.

361. Advanced Reservoir Engineering. Secondary recovery methods; computer simulation of reservoir performance; applications to field problems. Prerequisite: Petroleum and Geosystems Engineering 326 and 331.

362. Production Technology and Design. Analysis, specification, and characteristics of production systems; inflow performance; wellbore and tubing hydraulics; and artificial lift. Prerequisite: For petroleum engineering majors, credit or registration for Petroleum and Geosystems Engineering 430 and admission to the major sequence; for others, consent of instructor.

363. Petroleum Leasing Regulations and Practices. Domestic and worldwide regulations associated with petroleum leasing, including offshore areas, and environmental provisions concerning petroleum exploration and production. Prerequisite: Credit or registration for Petroleum and Geosystems Engineering 365 or the equivalent, and upper-division standing or consent of instructor.

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. Prerequisite: For petroleum engineering majors, Petroleum and Geosystems Engineering 326, 331, and 362 and admission to the major sequence; for others, upper-division standing and consent of instructor.

365. Resource Economics and Valuation. Derivation of profitability criteria for earth resource investments, project analysis in terms of the interrelation of technical and economic factors, investment analysis in the presence of uncertainty, and project planning. Prerequisite: Admission to an appropriate major sequence in engineering or consent of instructor.

368. Fundamentals of Well Logging. Principles, applications, and interpretation of well logs as used in exploration and evaluation of subsurface formations. Prerequisite: Geological Sciences 416M and Petroleum and Geosystems Engineering 424, and admission to an appropriate major sequence in engineering or consent of instructor.

369. Quantitative Well-Log Analysis. Problem-oriented applications of well-log combinations for petroleum exploration, evaluation, and production planning. Prerequisite: Petroleum and Geosystems Engineering 368, and admission to an appropriate major sequence in engineering or consent of instructor.

370. Fundamentals of Subsurface Environmental Engineering. Development of equations for simultaneous flow of three fluids (air, water, and one other phase), characterization of contaminated sites, physical and chemical processes, overview of remediation technologies. Applications to the unsaturated and saturated zones, and contamination of groundwater by nonaqueous phase liquids. Prerequisite: Petroleum and Geosystems Engineering 323, Civil Engineering 374L, or Geological Sciences 476K, and admission to an appropriate major sequence in engineering.
371. Energy Finance. Fundamentals of finance as applied to the petroleum industry, including petroleum project financing techniques, investigating sources of capital, and methods used to evaluate an oil company’s financial performance. Prerequisite: Credit or registration for Petroleum and Geosystems Engineering 365 or the equivalent, and admission to an appropriate major sequence in engineering or consent of instructor.

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. 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 432.

373K. Geosystems Engineering Design and Analysis I. Analysis and design of subsurface injection and extraction systems, project organization, fundamentals of operations research, oral and written reporting, graphical presentations and use of visual aids, use of computer-aided engineering, and impact of ethical and economic issues on design. Three lecture hours a week for one semester, with one additional hour a week to be arranged. Prerequisite: Petroleum and Geosystems Engineering 323 or the equivalent, Petroleum and Geosystems Engineering 333T and 365, and admission to an appropriate major sequence in engineering or consent of instructor.

373L. Geosystems Engineering Design and Analysis II. 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. Prerequisite: Petroleum engineering majors, Petroleum and Geosystems Engineering 331, 362, 368, and 373K; for others, upper-division standing and consent of instructor.

374. Applied Design. Three lecture hours and one discussion hour a week for one semester. Petroleum and Geosystems Engineering 373L and 374 may not both be counted. Prerequisite: Petroleum and Geosystems Engineering 323K, 323L, 362, and 368, and admission to the major sequence.

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.

377. Deepwater Operations. Overview of various technical, logistical, and managerial elements that are functionally integrated in deepwater operations, with emphasis on applications in the Gulf of Mexico. Prerequisite: Upper-division standing in the College of Engineering.

378. Applied Reservoir Characterization. Reservoir modeling using software tools for statistical analysis of reservoir data; variogram analysis and modeling; spatial interpolation (kriging); tools for data integration in kriging; stochastic simulation of rock-types (lithology), pay thickness/porosity, and permeability; inputting geological models into flow simulation; uncertainty assessment. Prerequisite: Petroleum and Geosystems Engineering 331, 337, and Geological Sciences 416M.

379. Studies in Petroleum and Geosystems Engineering. Special courses or seminars on recent developments in engineering. May be repeated for credit when the topics vary. Prerequisite: Admission to an appropriate major sequence in engineering or consent of instructor.

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.
HISTORY AND 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, 1 University Station D1400, Austin TX 78712.

Within the college are three academic units—the Department of Art and Art History, the School of Music, and the Department of Theatre and Dance. Inquiries about a particular unit should be directed to that unit.

Other components of the College of Fine Arts include the Performing Arts Center and the Blanton Museum of Art. These components provide University students and the Austin community with the opportunity to attend art exhibitions, plays, operas, ballets, recitals, and concerts by internationally renowned artists and companies. The proximity of Austin to Houston, San Antonio, Dallas, and Fort Worth places the major art collections and dramatic and musical events of those cities within a few hours’ drive.

PERFORMING ARTS CENTER

The Performing Arts Center, an outstanding performance facility, houses the Nancy Lee and Perry R. Bass Concert Hall (three thousand seats) and the Ralph and Ruth McCullough Theatre (four hundred seats). Nearby are the Kate Broocks Bates Recital Hall (seven hundred seats) with its three-story Visser-Rowland tracker pipe organ, the B. Iden Payne Theatre (five hundred seats), and the Oscar G. Brockett Theatre (two hundred seats). Support facilities include rehearsal rooms, paint shops, scene shops, metal shop, prop shop, costume shops, and administrative offices.
BLANTON MUSEUM OF ART

A new facility for the Blanton Museum of Art is currently under construction. A new gallery building, which houses the permanent collection, opened in April, 2006. The entire museum complex, including an education, visitor services, and administration building, as well as a public plaza, is expected to be completed in 2007. The Blanton will be the largest university museum in the country and the third largest museum in Texas. Founded in 1963, the Blanton is an important center for scholarship, research, and professional training in the visual arts. Students have opportunities to gain firsthand experience in academic and museum careers through formal internships and work with curators and faculty members on exhibitions, educational programs, and conservation activities.

The museum’s permanent collection includes more than seventeen thousand works of art, including the Suida-Manning Collection of Renaissance and Baroque Art, the Mari and James A. Michener Collection of Twentieth-Century American Art, the C. R. Smith Collection of Art of the American West, and the Contemporary Latin American Art Collection. Holdings of prints and drawings, available for study, consist of more than ten thousand works on paper dating from the fifteenth century to the present. The museum also includes a collection of antiquities from Greece and Rome. The William J. Battle Collection of Plaster Casts features life-size cast replicas of the great masterpieces of ancient Greek and Roman sculpture.

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, computer laboratories and media-enhanced classrooms in each of the three academic units, and extensive wireless Internet coverage throughout the college. Information regarding currently available technology and support can be found on the College of Fine Arts Web site at http://www.finearts.utexas.edu/cfa/it/student_it.cfm.

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. 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 contains materials on art, theatre, dance, and music.

The art collection supports instruction and research for the four divisions of the Department of Art and Art History: art history, design, studio art, and visual art studies. The 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.

The theatre and dance collection supports the Department of Theatre and Dance, and 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 music collection supports instruction and research in the School of Music, which includes performance, composition, music theory, and music studies. Most historical periods and geographical areas are covered in both classical and popular idioms, though the emphasis is on the Western classical tradition. Music is represented in a wide variety of printed and recorded formats.

Fine Arts Library services include reference and research assistance, instruction, circulation and reserves, and media and technology support. The Fine Arts Library is wireless and offers a broad range of media equipment and computing hardware and software to support the study of the fine arts.

STUDY ABROAD

The University offers many opportunities for students to study abroad. Among these is the Learning Tuscany program. This program is taught by University faculty members at the Santa Chiara Study Center in Castiglion Fiorentino, near Florence. For more information, contact the undergraduate advising office in the Department of Art and Art History.

The School of Music offers an opera program in Salzburg, Austria. For more information, contact the undergraduate advising office in the School of Music.

Another international opportunity is the Institute for Digital Performing Arts program, which is taught in Costa Rica during the summer. For more information, contact the undergraduate advising office in the Department of Theatre and Dance.

Maymester Abroad courses in fine arts are offered for three weeks in May and June. More information is available from the Center for Global Educational Opportunities at http://www.utexas.edu/student/abroad/mm.html.
FINANCIAL ASSISTANCE AVAILABLE THROUGH THE COLLEGE OF FINE ARTS

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 AND ACADEMIC ADVISING
OFFICE OF THE DEAN

In the College of Fine Arts, the Office of the Dean 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 to study abroad. The student should contact the Office of the Dean 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.

DEPARTMENTAL 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 at least one full-time staff adviser. Questions about advising policies and procedures should be directed to that office.

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 courses must be approved by the adviser. Subsequent changes or corrections in the schedule must also have the adviser's approval.

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. For more information, see http://www.utexas.edu/cofa/career/index.html. Career advising and planning services are also available from the University's Career Center in Jester Center.

The University makes no promise to secure employment for each graduate.

EDUCATION CAREER SERVICES

Education Career Services provides job placement services in education-related 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 published by Education Career Services at http://www.edb.utexas.edu/career/.

ADMISSION AND REGISTRATION

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

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, consult the appropriate advising office (art and art history, music, theatre and dance). For general information and specific inquiries about degree requirements, consult the Office of the Dean (Student Affairs). 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. An appointment should be arranged in advance.

SPECIAL ADMISSION REQUIREMENTS IN THE COLLEGE OF FINE ARTS

To major in any program 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 advising office in the department.

To major in design, a student must have the approval of the Design Admissions Committee. The required sequence of courses in design begins at the sophomore level. Students seeking to enter the design program should apply for admission to the University using the predesign application code.

SCHOOL OF MUSIC

To major in music, a student must pass an audition conducted by the 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 office of undergraduate studies in the School of Music.

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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 office of undergraduate studies in the department.

STUDENTS TRANSFERRING FROM ANOTHER COLLEGE OR UNIVERSITY

A student who begins study in the fine arts at another college should consult the transfer adviser in the departmental undergraduate advising office (art and art history, music, theatre and dance) before transferring to the University.

Transfer credit evaluation. Most credit accepted from another college or university will be specified by the Office of Admissions in terms of equivalent courses at the University of Texas at Austin. For some transferred courses (especially in the fine arts), credit will be accepted but no specific University equivalency assigned. If, for example, a student has completed twelve semester hours of transferable coursework in studio art at another school, 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 will be evaluated by the Office of the Dean during the degree audit process described on pages 217–218. 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.

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.

STUDENTS TRANSFERRING WITHIN THE UNIVERSITY

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. However, a student seeking admission to any department of the college must also satisfy the special requirements described on page 213.

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 World Wide Web and are accessible through the registrar’s Web site, http://www.utexas.edu/student/registrar/. General Information is also sold at campus-area bookstores.

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 courses 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 section “Courses” in chapters 2 through 15 and often appear in the Course Schedule. A student who registers for or adds a course without having met the prerequisite may be dropped from the course.

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.

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 School of Music full faculty jury examination in the major instrument and be admitted to upper-division standing in that instrument.

3. Before beginning upper-division coursework in the major area, a student majoring in music theory, 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 of D or F 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 must consult the undergraduate studies office of the department.

ACADEMIC POLICIES AND PROCEDURES

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 OF FINE ARTS

Studio art work. Students retain copyright to all two-dimensional, three-dimensional, time-based, and electronic art work 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 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 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. Criteria for University Honors are given on page 15.

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 on page 16.

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 379H 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 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 School of Music and signed by both the student’s music performance instructor and the director of the school.

STUDENT ORGANIZATIONS

University-wide organizations are described in chapter 1. 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.
GRADUATION

SPECIAL REQUIREMENTS OF THE COLLEGE OF FINE ARTS

All students must fulfill the general requirements for graduation given in chapter 1. Students in the College of Fine Arts must also fulfill the following requirements.

RESIDENCE

General requirements on coursework to be taken in residence are given in chapter 1. 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 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.

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 School of Music (excluding ensemble) taken in residence at the University.

Bachelor of Arts in Theatre and Dance. A student pursuing the degree of Bachelor of Arts in Theatre and Dance must have a grade point average of at least 2.50 in all upper-division courses undertaken in the Department of Theatre and Dance.

Teacher certification in art, theatre arts, 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.

SCHOOL OF MUSIC SPECIAL REQUIREMENTS

ENSEMBLE REQUIREMENT

Ensembles that may be used to fulfill the following requirements are designated by the School of Music. For information, the student should contact the undergraduate student 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 this degree must complete in residence at least eight long-session semesters of ensemble approved by the School of Music. Transfer students must complete an approved ensemble each long-session semester in residence until they have completed eight semesters of ensemble or until they graduate, whichever comes first. A transfer student may count toward this requirement two semesters of transferred ensemble approved by the School of Music.

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 School of Music. Transfer students must complete an approved ensemble each long-session 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 School of Music.

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 (described on page 216) or a community performance approved by the music studies faculty and the student's instructor in the principal instrument.

APPLYING FOR A 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 of the student's official standing in a College of Fine Arts degree program. Students who have completed at least sixty semester hours of coursework are required to have a current degree audit application on file. Only students with a current degree audit may apply for graduation.

Degree audit applications are submitted to the Office of the Dean (Student Affairs). To apply for a degree audit, the student must have completed at least one long-session semester in residence at the University and must have completed at least sixty semester hours of coursework.

After the degree audit is completed, a copy is mailed to the student. The student does not need to submit another degree audit application unless he or she changes majors, catalogs, or a degree option that affects the requirements of the program. For example,
a new degree audit application must be submitted by a music major who changes the principal or major instrument.

The degree audit provides an accurate statement of the 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, for registering so as to fulfill all the requirements, and for meeting all deadlines. 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 he or she intends to graduate, the student must submit a graduation application to the Office of the Dean (Student Affairs) by the deadline given in the official academic calendar. An official degree audit must be on file at the time of 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. If planning to receive credit by any of these means, the student must consult the Office of the Dean (Student Affairs) before the graduation semester 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, and music, and students interested in one of these teaching areas ordinarily pursue the degree program in visual art studies, theatre studies, or music studies. For information about current teacher certification standards and the requirements for admission to the professional development sequence, the student should contact the teacher certification officer in the College of Education, George I. Sánchez Building 216, and the appropriate faculty adviser in art and art history, music, or theatre and dance.

DEGREES

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 about 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 about 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 studio art, art history, visual art studies, and design. Studio art instruction is given in drawing, painting, sculpture, photography, print-making (intaglio, lithography, serigraphy), ceramics, metals, video art, transmedia art, digital time-art, and performance art. There is also a full range of instruction in art history and visual art studies; the latter includes an option leading to teacher certification in art. 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 University’s extensive resources for art research include the departmental Visual Resources Collection, the Fine Arts Library, the Blanton Museum of Art, the Perry-Castañeda Library, and specialized collections such as the Harry Ransom Humanities Research 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 Fine Arts
- Studio art
- Design
- Visual art studies
  Students who plan to pursue certification to teach art in Texas public schools should follow the visual art studies program.

Bachelor of Arts in Art
- Studio art
- Art history

SCHOOL OF MUSIC

The instructional programs in the School of Music are intended to meet a broad range of needs. Faculty members recognized for their professional and scholarly excellence teach courses extending from the traditional to the experimental, from the Western tradition to musics of diverse cultures from around the world, from individual instruction to more than twenty vocal and instrumental ensembles.

Facilities include the music building and the Performing Arts Center. Within the center are the Kate Broocks Bates Recital Hall, the Nancy Lee and Perry R. Bass Concert Hall, and the Ralph and Ruth Mccullough Theatre, which are used for performances by students, faculty members, and guest artists. Also available are the academic recital hall and organ recital hall, as well as general and specialized studios such as chamber music rooms; harp studios; organ practice rooms; percussion studios; the choral, orchestra, and band rehearsal rooms; and the digital keyboard laboratory. Also available to music students are libraries including manuscripts, rare editions, and performance collections; a recording studio; a medieval and Renaissance instrument collection; an electronic and computer music center; a music education laboratory; and over one hundred individual practice modules.

Programs of study leading to the following undergraduate degrees are offered in the School of Music.

Bachelor of Music
- Performance
  - Voice, piano, organ, harp, harpsichord, and orchestral instruments
- Jazz performance
  - Double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone
- Music theory
- Composition
- Jazz composition
  - Double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone

Bachelor of Arts in Music

DEPARTMENT OF THEATRE AND DANCE

The Department of Theatre and Dance serves students in all principal areas of theatre, drama, and dance. Students may choose programs of study leading to a variety of academic and professional goals.

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 the Performing Arts Center, the department has the B. Iden Payne Theatre, a flexible-space theatre, a laboratory theatre, an extensive costume collection, four dance studios, a drafting studio, and a creative drama room adjoining the classrooms and rehearsal studios in the F. Loren Winship Drama Building. Of special interest to students pursuing theatre research is the Performing Arts Collection, part of 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
- Theatre studies
  Students who plan to pursue certification to teach theatre arts in Texas public schools should follow the theatre studies program.
- Dance

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. 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 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 course.

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.

BASIC EDUCATION REQUIREMENTS FOR ALL PROGRAMS EXCEPT MUSIC PERFORMANCE

The following basic education requirements are part of all baccalaureate degree programs in the College of Fine Arts except those in music performance. Beyond this core, some degree programs include additional requirements in general education. Consult the degree program of interest for further information.

Writing: Both of the following requirements must be fulfilled.

1. English composition and literature: Six semester hours, consisting of Rhetoric and Writing 306 or the equivalent and English 316K or the equivalent. Courses used to fulfill this requirement may not also be counted toward the writing requirement below.

2. Certified writing courses: In taking courses to fulfill other degree requirements, students must complete two courses certified as having a substantial writing component; at least one of these must be an upper-division course. If the writing requirement is not fulfilled by courses specified for the degree, the two courses certified as having a substantial writing component must be included within the electives or must be taken in addition to the minimum number of semester hours for the degree. Courses with a substantial writing component are identified in the Course Schedule. Students pursuing teacher certification should consult the University’s teacher certification officer for information about the writing requirements for certification in Texas.

Foreign language: Demonstrated proficiency equivalent to that shown by completion of foreign language courses 506 and 507.

1. This requirement may be fulfilled by
   a. Completing two high school units (two years) in a single foreign language.
   b. Earning college-level credit for courses 506 and 507 or their equivalents in a single foreign language. Credit may be earned either by examination or by completing the appropriate courses. Credit for courses 506 and 507 or their equivalents in the foreign language used to fulfill this requirement may not be counted toward a degree in the College of Fine Arts. To achieve proficiency in a foreign language as rapidly as possible, a qualified student may take accelerated courses in some languages. Information about these courses is available from the departments offering them.

2. Some degree programs require proficiency in a specific foreign language. Consult the degree program of interest for pertinent requirements.

Courses used to fulfill the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be used.

Social science: Fifteen semester hours:

1. Six semester hours of American government, including Texas government, consisting of Government 310L and 312L or their equivalents.
2. Six semester hours of American history.
3. Three semester hours in one of the following areas:
   a. Anthropology
   b. Economics
   c. Geography
   d. Linguistics
   e. Psychology
   f. Sociology

Natural sciences and mathematics: Twelve semester hours as indicated below.

1. Six semester hours in one of the following areas:
   a. Astronomy
   b. Biology
   c. Chemistry
   d. Geological sciences
   e. Marine science
   f. Physical science
   g. Physics
2. Three semester hours of mathematics.
3. Three additional semester hours of natural science (chosen from any of the areas of natural science listed above), mathematics, or computer sciences.
**Fine arts:** Six semester hours outside the student’s major department, chosen from Art History 301, Music 302L, and Theatre and Dance 301.

**BASIC EDUCATION REQUIREMENTS FOR PROGRAMS IN MUSIC PERFORMANCE**

The following basic education requirements are part of all baccalaureate degree programs in music performance. Beyond this core, some degree programs include additional requirements in general education. Consult the degree program of interest for further information.

**Writing:** Both of the following requirements must be fulfilled.

1. English composition and literature: Six semester hours, consisting of Rhetoric and Writing 306 or the equivalent and English 316K or the equivalent. Courses used to fulfill this requirement may not also be counted toward the writing requirement below.
2. Certified writing courses: In taking courses to fulfill other degree requirements, students must complete two courses certified as having a substantial writing component; at least one of these must be an upper-division course. If the writing requirement is not fulfilled by courses specified for the degree, the two courses certified as having a substantial writing component must be included within the electives or must be taken in addition to the minimum number of semester hours for the degree. Courses with a substantial writing component are identified in the Course Schedule.

**Foreign language:** Demonstrated proficiency equivalent to that shown by the completion of foreign language courses 506 and 507.

- This requirement may be fulfilled by
  a. Completing two high school units (two years) in a single foreign language.
  b. Earning college-level credit for courses 506 and 507 or their equivalents in a single foreign language. Credit may be earned either by examination or by completing the appropriate courses. Credit for courses 506 and 507 or their equivalents in the foreign language used to fulfill this requirement may not be counted toward a degree in the College of Fine Arts. To achieve proficiency in a foreign language as rapidly as possible, a qualified student may take accelerated courses in some languages. Information about these courses is available from the departments offering them.
- Some degree programs require proficiency in a specific foreign language. Consult the degree program of interest for pertinent requirements. Courses used to fulfill the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be used.

**Social science:** Twelve semester hours:

1. Six semester hours of American government, including Texas government, consisting of Government 310L and 312L or their equivalents.
2. Six semester hours of American history.
3. Each student is encouraged to take additional elective coursework in social sciences such as anthropology, economics, geography, linguistics, psychology, and sociology.

**Natural sciences and mathematics:** Six semester hours:

1. Three semester hours in one of the following areas:
   a. Astronomy
   b. Biology
   c. Chemistry
   d. Geological sciences
   e. Marine science
   f. Physical science
   g. Physics
2. Three semester hours of mathematics.
3. Each student is encouraged to take additional elective coursework in the natural sciences and mathematics.

**Fine arts:** Six semester hours: Art History 301 and Theatre and Dance 301.

**REQUIREMENTS FOR THE DEGREE OF BACHELOR OF FINE ARTS**

**STUDIO ART MAJOR**

1. Basic education requirements: At least thirty-nine semester hours as described on page 220.
2. 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:
      1. Area A: drawing, life drawing
      2. Area B: painting, printmaking
      3. Area C: photography, transmedia
      4. 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.
3. Art history: Twelve semester hours, consisting of Art History 302, 304, and six semester hours of upper-division art history.
4. Electives: Nine semester hours chosen from courses either within or outside the Department of Art and Art History.

Total requirements for the degree: 120 semester hours as outlined above.
DESIGN MAJOR

1. Basic education requirements: At least thirty-nine semester hours as described on page 220.
2. Studio art: Twenty-one semester hours, consisting of Studio Art 303K, 303L, 304K, 304L, and nine additional semester hours of studio art.
3. Design: Forty-five semester hours, consisting of Design 370 with a grade of at least C and approval of the design faculty; Design 371 with a grade of at least C and approval of the design faculty; and thirty-nine additional hours of design, of which at least twenty-four must be upper-division. 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.
4. Art history: Twelve semester hours, consisting of Art History 302, 304, and six semester hours of upper-division art history.
5. Electives: Three semester hours chosen from courses either within or outside the Department of Art and Art History.

Total requirements for the degree: 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 in art or planning to pursue graduate training for visual arts careers in areas such as community art development, museum education, and art therapy.
1. Basic education requirements: At least thirty-nine semester hours as described on page 220.
2. Studio art: Thirty-nine semester hours, consisting of Studio Art 303K, 303L, 304K, 304L, 310K, 311K, 315K or 316K, and eighteen additional semester hours of studio art, of which at least twelve hours must be upper-division.
3. Art history: Twelve semester hours, consisting of Art History 302, 304, and six semester hours of upper-division art history.
5. Minor: Twelve semester hours approved by the visual art studies adviser.
6. Approved electives: Six semester hours of coursework approved by the visual art studies adviser.

Total requirements for the degree: 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 or considering careers in areas such as drama and theatre for youth, theatre arts programming, community and regional theatre, recreational theatre, and drama for special populations such as the elderly or those with physical or mental disabilities.
1. Basic education requirements: At least thirty-nine semester hours as described on page 220.
2. Theatre and dance: Fifty-one semester hours, consisting of
   A. Theatre and dance core: Theatre and Dance 311, 313C, 314C, 314P (two semesters), 317C, 317D, and 351S.
   B. Theatre studies emphasis
      1. Acting and directing: Theatre and Dance 313D and 323C.
      2. Design and technical production: Theatre and Dance 314M and nine semester hours chosen from Theatre and Dance 324 and topics of Theatre and Dance 354T. These nine hours must include one course in each of the following three areas: costume, lighting, and scenic.
      3. Theatre studies: Theatre and Dance 326C, 326D, and 326E.
3. Three semester hours chosen from Theatre and Dance 313E, 323D, 123P, 223P, 323P, 353T, and 356T; Theatre and Dance 351T (Topic: Creative Drama II); and six additional semester hours of coursework in theatre and dance.
4. Approved electives: Twenty-seven semester hours of coursework approved by the theatre studies adviser.

Total requirements for the degree: 129 semester hours as outlined above.

DANCE MAJOR

1. Basic education requirements: At least thirty-nine semester hours as described on page 220.
2. Theatre and dance core: Twenty-one semester hours, consisting of Theatre and Dance 311, 312M, 314P (two semesters), 317M, 317N, and 351S.
3. Dance emphasis: At least sixty-five semester hours, consisting of
   A. Dance technique
      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.
1. Contemporary dance technique: Eighteen semester hours, consisting of two semesters of Theatre and Dance 312C, two semesters of 312D, and two semesters of 322E.

2. Ballet: Eighteen semester hours, consisting of two semesters of Theatre and Dance 312F, two semesters of 312G, and two semesters of 322J.

3. Dance focus: Fourteen semester hours, consisting of (a) six semester hours chosen from Theatre and Dance 332M, 332P, and 332R, and (b) eight semester hours chosen from Theatre and Dance 112T, 212T, 312T, 322N, 332Q, 332S, 152T, 252T, and 352T.

B. Movement and composition: Theatre and Dance 312N.

C. Dance performance and repertory: Eight semester hours, consisting of two semesters of Theatre and Dance 212P and two semesters of 222P.

D. Somatics/anatomy: Four semester hours, consisting of Theatre and Dance 112 and 352.

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.

Total requirements for the degree: At least 125 semester hours as outlined above.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF MUSIC

VOICE PERFORMANCE MAJOR

1. Basic education requirements for music performance majors: At least thirty semester hours as described on page 221.

2. Additional basic education requirement in a foreign language: Ten to fifteen semester hours, including course 506 in French, German, and Italian. The appropriate level of proficiency in one of these languages may also be used to fulfill the basic education requirement for foreign language. In such cases, credit for courses 506 and 507 in that language may not be counted toward the degree.

3. Music

A. Performance: Thirty-two semester hours, consisting of four semesters of Voice 210, two semesters of Voice 462, Music 420R, Music 460R, Music 210J and 210K, Piano 202 and approval of the faculty, and Music 223J. With the recommendation of the faculty, given in advance, the student may substitute Music 460P and two semesters of Voice 260 and approval of the faculty for one semester of Voice 462 and Music 420R.

B. Music literature and music theory: Forty-one semester hours, consisting of Music 605, 205M, 205N, 411, 612, 313M, 313N, 219, 221J, 229, 330L, and six hours chosen from Music 334, 337, 342, 343J, and 379K.

C. Music ensemble: At least eight semester hours of music ensemble courses as explained in “School of Music Special Requirements,” page 217.

4. Electives: Two semester hours chosen from courses either within or outside the School of Music.

Total requirements for the degree: At least 123 to 128 semester hours as outlined above, and ensemble as stated on page 217.

PIANO PERFORMANCE MAJOR

1. Basic education requirements for music performance majors: At least thirty semester hours as described on page 221.

2. Music

A. Performance: With the recommendation of the faculty, given in advance, students may choose either of the following two options.

1. Thirty-eight semester hours, consisting of four semesters of Piano 412, two semesters of Piano 462, Music 420R, Music 460P, Music 460R, and Music 222J or 223J. This option is normally suggested for students who wish to emphasize performance.

2. Thirty-four semester hours, consisting of four semesters of Piano 412, two semesters of Piano 260, Piano 462, Music 460P, Music 460R, and Music 222J or 223J. This option is normally suggested for students who wish to emphasize pedagogy.

B. Music literature and music theory: Forty-two semester hours, consisting of Music 605, 411, 612, 313M, 313N, 221J, 221K, 325M, and 330L; two semesters of Music 259N; and six hours chosen from Music 334, 337, 342, 343J, and 379K.

C. Music ensemble: Eight semester hours of music ensemble courses as explained in “School of Music Special Requirements,” page 217.

3. Electives: To be chosen from courses either within or outside the School of Music.

A. For students who choose option 1 (emphasis on performance) to fulfill the performance requirement: Two semester hours.

B. For students who choose option 2 (emphasis on pedagogy) to fulfill the performance requirement: Six semester hours.

Total requirements for the degree: At least 120 semester hours as outlined above, and ensemble as stated on page 217.
ORGAN OR HARPSICHORD PERFORMANCE MAJOR

1. Basic education requirements for music performance majors: At least thirty semester hours as described on page 221.
2. Music
   A. Performance: Thirty-four semester hours, consisting of four semesters of major instrument course 412, two semesters of major instrument course 462, Music 420R, Music 460R, and Music 222J or 223J.
   C. Music ensemble: Eight semester hours of music ensemble courses as explained in “School of Music Special Requirements,” page 217.
3. Electives: Seven semester hours chosen from courses either within or outside the School of Music.

Total requirements for the degree: 120 semester hours as outlined above, and ensemble as stated on page 217.

HARP PERFORMANCE MAJOR

1. Basic education requirements for music performance majors: At least thirty semester hours as described on page 221.
2. Music
   A. Performance: Thirty-four semester hours, consisting of four semesters of Harp 412, two semesters of Harp 462, Music 420R, Music 460R, and Music 222J. With the recommendation of the faculty, given in advance, the student may substitute Music 460P and two semesters of principal instrument course 260 and approval of the faculty.
   B. Music literature and music theory: Thirty-nine to forty-one semester hours, consisting of Music 605, 411, 612, 313M, 313N, 221J, 221K, and 330L; six semester hours chosen from Music 334, 337, 342, 343J, and 379K; and the courses in one of the following options:
      1. Composition: Two semesters of Music 214C.
      2. Counterpoint: Music 325L and 325M.
   C. Music ensemble: Eight semester hours of music ensemble courses as explained in “School of Music Special Requirements,” page 217.
3. Electives: To be chosen from courses either within or outside the School of Music.

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 (baritone), trombone, tuba, percussion, and guitar.

1. Basic education requirements for music performance majors: At least thirty semester hours as described on page 221.
2. Music
   A. Performance
      1. Thirty-six semester hours, consisting of four semesters of major instrument course 412, two semesters of major instrument course 462, Music 420R, Music 460R, Music 222J, and Music 210K and approval of the faculty. With the recommendation of the full faculty, given in advance, a violin, viola, or violoncello major may substitute Music 460P and two semesters of principal instrument course 260 and approval of the faculty.
      2. For violin majors, proficiency in viola equivalent to Viola 201 and approval of the faculty.
      3. For euphonium majors, proficiency in trombone equivalent to Trombone 201 and approval of the faculty.
   B. Music literature and music theory: Forty-three or forty-four semester hours, consisting of
      2. Two semesters of either Music 259N or 259P.
      3. Either two additional semesters of Music 259N or 259P or one semester of Music 334, 342, or 379K.
      4. Music 334, 337, 342, 343J, or 379K.
   C. Music ensemble: Eight semester hours of music ensemble courses as explained in “School of Music Special Requirements,” page 217.
3. Electives: Two or three semester hours chosen from courses either within or outside the School of Music.

Total requirements for the degree: At least 120 semester hours as outlined above, and ensemble as stated on page 217.
JAZZ PERFORMANCE MAJOR

This program is offered in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone.

1. Basic education requirements for music performance majors: At least thirty semester hours as described on page 221.
2. Music
   A. Performance
      1. Piano majors: Thirty-six semester hours, consisting of three semesters of major instrument course 412, two semesters of major instrument course 412J and approval of the faculty, two semesters of major instrument course 462J, Music 420J, and Music 460J.
      2. Majors in other instruments: Thirty-four semester hours, consisting of two semesters of major instrument course 412, two semesters of major instrument course 412J and approval of the faculty, two semesters of major instrument course 462J, Music 420J and 460J, and Music 210J and approval of the faculty.
   B. Music literature and music theory: Forty-three or forty-five semester hours, consisting of Music 605, 411, 612, 313N, 221J, 226J, 226K, 228G, 228J, 228L, 328M, 329E, 330L, and 343J; majors in instruments other than piano must also complete Music 228K.
   C. Music ensemble: Eight semester hours of music ensemble courses as explained in “School of Music Special Requirements,” page 217.
3. Electives: Four semester hours chosen from courses either within or outside the School of Music.

Total requirements for the degree: At least 121 semester hours as outlined above, and ensemble as stated on page 217.

COMPOSITION MAJOR

1. Basic education requirements: At least thirty-nine semester hours as described on pages 220–221.
2. Music
   A. 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.
   B. Music literature, music theory, and composition: At least fifty-seven semester hours, consisting of
      1. Music literature: Music 313N; 330L; and 334, 337, 342, 343J, or 379K.
   C. Composition: Two semesters of Music 214C, two semesters of 224G, at least two semesters of 224J and approval of the music theory and composition faculty, and 329E. 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.
3. Recital: 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.

MUSIC THEORY MAJOR

1. Basic education requirements: At least thirty-nine semester hours as described on pages 220–221.
2. Music
   A. 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.
D. Music ensemble: Eight semester hours of music ensemble courses as explained in “School of Music Special Requirements,” page 217.

3. Electives: Two semester hours chosen from courses either within or outside the School of Music.

Total requirements for the degree: At least 120 semester hours as outlined above, and ensemble as stated on page 217.

**JAZZ COMPOSITION MAJOR**

This program is offered in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, trumpet, and vibraphone.

1. Basic education requirements: At least thirty-nine semester hours as described on pages 220–221.

2. Music

   A. Performance

      1. Piano principals: Eighteen semester hours, consisting of three semesters of major instrument course 210, two semesters of major instrument course 212J and approval of the faculty, one semester of major instrument course 462J, and Music 420J.

      2. Principals in other instruments: Eighteen semester hours, consisting of two semesters of major instrument course 210, two semesters of major instrument course 212J and approval of the faculty, one semester of major instrument course 462J, Music 420J, and Music 210J 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.

   B. Music literature, music theory, and composition: Fifty-one or fifty-three semester hours consisting of Music 605, 411, 612, 313N, 226J, 226K, 228G, 228J, 228L, 328M, three semesters of 228P, 329E, 330L, and 343J; principals in instruments other than piano must also complete Music 228K.

   C. Music ensemble: Eight semester hours of music ensemble courses as explained in “School of Music Special Requirements,” page 217.

3. Electives: Six or eight semester hours chosen from courses either within or outside the School of Music.

Total requirements for the degree: 124 semester hours as outlined above, and ensemble as stated on page 217.

**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.

1. Basic education requirements: At least thirty-nine semester hours as described on pages 220–221.

2. Music

   A. 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 210K, or equivalent proficiency, and approval of the faculty. Music 210K or equivalent proficiency is required of all music studies majors, regardless of principal instrument.

   B. Music theory and literature: Twenty-nine or thirty semester hours, consisting of Music 605, 411, 612, 313M, 313N, and 330L; two semester hours chosen from Music 226G, 226J, and 226N; and Music 221J, 334, 337, 342, 343J, or 379K. The choice of upper-division music literature course must be approved by the student’s adviser.

   C. Conducting: Four semester hours, consisting of either Music 222J and 222K or Music 223J and 223K.

   D. Choral or instrumental music techniques, literature, and performance practices: Seventeen semester hours in one of the following areas of emphasis.

      1. Choral music emphasis:


         b. Music 354D or three semester hours approved by the music studies adviser.

         c. Two semester hours chosen from Music 255D (strings), 255E (brasses), and 255F (woodwinds).

         d. One semester hour chosen from Music 115D (violin), 115E (viola), 115F (cello), 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.

      2. Instrumental music emphasis: Music 354C or 354F; Music 155C, 255D, 255E, 255F, and 356J; and, with the approval of the music studies adviser, four semester hours chosen from Music 115D, 115E, 115F, and 255M.

      E. Music ensemble: Eight semester hours of music ensemble courses as explained in “School of Music Special Requirements,” page 217.
3. Approved electives: Eight to eleven semester hours of coursework approved by the music studies adviser.

Total requirements for the degree: 120 semester hours as outlined above, and ensemble as stated on page 217. The student must also make a recital appearance as described on page 217.

**REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS IN ART**

**STUDIO ART MAJOR**

1. Basic education requirements: At least thirty-nine semester hours as described on pages 220–221.
2. Additional basic education requirements: Twenty-one semester hours, consisting of
   A. Foreign language: Six semester hours beyond course 507, 508K, or the equivalent in one foreign language.
   B. Social science: Six semester hours chosen from the social sciences listed in the basic education requirements, government, and history.
   C. Humanities: 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 American 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.
   D. Natural sciences and mathematics: Six semester hours chosen from the natural sciences listed in the basic education requirements, mathematics, and computer sciences.
3. Studio art: Thirty semester hours, consisting of Studio Art 303K, 303L, 304K, 304L, and eighteen additional semester hours of studio art, of which at least twelve hours must be upper-division.
4. Art history: Twelve semester hours, consisting of Art History 302, 304, and six hours of upper-division coursework in art history.
5. Electives: Eighteen semester hours chosen from courses either within or outside the Department of Art and Art History.

Total requirements for the degree: 120 semester hours as outlined above.

**ART HISTORY MAJOR**

1. Basic education requirements: At least thirty-nine semester hours as described on pages 220–221.
2. Additional basic education requirements: Eighteen semester hours, consisting of
   A. Foreign language: Nine semester hours beyond course 507, 508K, or the equivalent in one foreign language.
   B. Social science: Six semester hours chosen from the social sciences listed in the basic education requirements, government, and history.
   C. Fine arts and humanities: Three semester hours in one of the following areas:
      1. Architecture
      2. Classics, including classical civilization, Greek, Latin (but excluding any courses in Greek or Latin that are used to fulfill the language requirement)
      3. Music
      4. Philosophy
      5. Radio-television-film
      6. Theatre and dance
      7. Programs of special concentration, such as women’s and gender studies and Latin American studies
3. Studio art: Six semester hours, consisting of Studio Art 304K and 304L.
4. Art history: Thirty-three semester hours, consisting of
   A. Art History 302 and 304.
   B. Fifteen semester hours of upper-division art history distributed among at least four of the following five areas:
      1. Ancient
      2. Medieval
      3. Renaissance and baroque
      4. Modern
      5. Pre-Columbian and native American, Asian, Islamic, Oceanic, African
   C. Art History 375.
   D. Nine additional semester hours of art history.
5. Electives: Twenty-four semester hours chosen from courses either within or outside the Department of Art and Art History.

Total requirements for the degree: 120 semester hours as outlined above.
REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS IN THEATRE AND DANCE

1. Basic education requirements: At least thirty-nine semester hours as described on pages 220–221.
2. Additional basic education requirements:
   Twelve semester hours, consisting of
   A. Foreign language: Six semester hours beyond course 507, 508K, or the equivalent in one foreign language.
   B. Humanities: 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 American 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.
   C. Natural sciences and mathematics: Three semester hours in one of the natural sciences listed in the basic education requirements, mathematics, or computer sciences.
3. Theatre and dance core: Thirty 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, 314C, and 323C; two semesters of 314P; either 317C and 317D or 317M and 317N; two semesters of 324P; and 351S.
   Students considering graduate study should consult their advisers about the most appropriate choice of courses.
4. Additional courses in theatre and dance: Eighteen semester hours of coursework in the Department of Theatre and Dance, of which at least twelve must be in upper-division courses.
5. 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.

Total requirements for the degree: 120 semester hours as outlined above.

REQUIREMENTS FOR THE DEGREE OF BACHELOR OF ARTS IN MUSIC

COURSE REQUIREMENTS

1. Basic education requirements: At least thirty-nine semester hours as described on pages 220–221.
2. Additional basic education requirements: Eighteen semester hours, consisting of
   A. Foreign language: Six semester hours beyond course 507, 508K, or the equivalent in one foreign language.
   B. Social science: Three semester hours chosen from the social sciences listed in the basic education requirements, government, or history.
   C. Natural sciences and mathematics: Three semester hours chosen from the natural sciences listed in the basic education requirements, mathematics, or computer sciences.
   D. Humanities: Three semester hours chosen from the following areas: architecture, classics (including classical civilization, Greek, Latin), comparative literature, humanities, philosophy, and interdisciplinary fields outside the School of Music such as American studies, African and African American studies, Asian studies, Latin American studies, or Mexican American studies. The student is encouraged to choose coursework of a multicultural nature. Courses outside the School of Music that are crosslisted with music courses may not be used to fulfill this requirement.
   E. Fine arts: Three semester hours of upper-division coursework in fine arts chosen from courses outside the School of Music.
3. Minor: Twelve semester hours of coursework outside the School of Music. 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.

4. Music
   A. Performance: At least four semester hours, consisting of two semesters of principal instrument course 210 and approval of the faculty. Students whose principal instrument is not piano must also complete Music 201N to the satisfaction of the faculty.
   B. Music: Thirty-six semester hours, consisting of Music 605, 612, 313M, 313N, 330L, either 334, 342, or 379K, and twelve additional semester hours, of which at least eight must be upper-division, in a concentration of music courses approved by the coordinator of the Bachelor of Arts in Music program.
   C. Music ensemble: Four semester hours of music ensemble courses as explained in “School of Music Special Requirements,” page 217.

5. Electives: Five to seven semester hours of electives. At least three hours must be in upper-division coursework outside the School of Music; courses that are crosslisted with music courses may not be counted toward this requirement.

Total course requirements for the degree: 120 semester hours as outlined above, and ensemble as stated on page 217.

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 201N, 605A, 605B, 612A, 612B, 313M, and 313N. (Music 201N is required only for students whose principal instrument is not piano.)
4. Approval of the coordinator of the Bachelor of Arts in Music program.

GRADE POINT AVERAGE REQUIREMENTS

To graduate, the student must have a grade point average of at least 2.50 in all upper-division courses in the School of Music (excluding ensemble) taken in residence at the University.
COURSES

The faculty has approval to offer the following courses in the academic years 2006–2007 and 2007–2008; 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.

FINE ARTS

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

FINE ARTS: F A

Lower-Division Courses

001. First-Year Interest Group Seminar. Restricted to students in the First-Year Interest Group Program. Basic issues in various fine arts disciplines. One lecture hour a week for one semester.

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.

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.

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 non-profit 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.

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.

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.

119Q, 219Q, 319Q. 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 119Q, two lecture hours a week for eight weeks; for 219Q, two lecture hours a week for one semester; for 319Q, 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: Upper-division standing. Additional prerequisites may vary with the topic and are given in the Course Schedule.

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.

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.

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 328C, three lecture hours or two lecture hours and one hour of supervised research a week for one semester. May not be counted toward a degree in the College of Fine Arts. Prerequisite: Upper-division standing. Additional prerequisites may vary with the topic and are given in the Course Schedule.

129Q, 229Q, 329Q. 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 Center for Global Educational Opportunities. 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.

140, 240, 340. Fine Arts Internship. Restricted to fine arts students. At least ten internship hours a week, and, for each semester hour of credit earned, at least one lecture hour a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, a University grade point average of at least 2.50, and consent of instructor.
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.

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.

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

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ART HISTORY: ARH

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 on pages 658–662.

Lower-Division Courses

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.

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.

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. Prerequisite: For studio art majors, credit or registration for Art History 301; for others, none.

304. Issues in Visual Culture. Aspects of visual culture during the period when art history became an academic discipline in the West (nineteenth and twentieth centuries). The ways in which art has been studied as well as produced. The cultural significance of visual traditions. Three lecture hours or two lecture hours and one discussion hour a week for one semester. Prerequisite: A major in the Department of Art and Art History.

119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, 919Q. 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 Center for Global Educational Opportunities. 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

325. Survey of Ancient Near Eastern Art. Same as Middle Eastern Studies 320 (Topic 4: Survey of Ancient Near Eastern Art). The art of Mesopotamia, Anatolia, Syria, and Persia to the Islamic period. Prerequisite: For art history majors, Art History 302; for 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.

327j. Greek Architecture. Architecture of mainland Greece, Asia Minor, and Magna Graecia from the Dark Ages to the end of the Hellenistic period, ca. 1000 to 30 BC. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

327l. Ancient Greek Art. The art of the ancient Greek world from the Bronze Age through the Hellenistic period. Discussion of the significance of the art in its original context. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

327m. 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 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

327n. Roman Imperial Art. 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. Prerequisite: For art history majors, Art History 302; for 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.

327p. Roman Architecture. Republican and imperial Roman architecture. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

327r. Art in the Everyday Life of Ancient Romans. Art and architecture from the archaeological sites of Pompeii, Herculaneum, and Ostia as indices of Roman culture, 100 BC to AD 250. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

329j. Byzantine Art. Same as Religious Studies 357 (Topic 2: Byzantine Art). Examination of early Christian and medieval art and architecture in the eastern Roman empire, including related traditions (Coptic, Armenian, Georgian, Crusader, Norman). Art History 329j and Religious Studies 355E (Topic: Byzantine Art) may not both be counted. Prerequisite: For art history majors, Art History 302; for 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.

329k. Early Medieval Art. Architecture, sculpture, painting, and metalwork in western Europe from the third to the eleventh century. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.
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 Center for Global Educational Opportunities. 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.

**329R. Romanesque Art and Architecture.** Form and function of religious art in twelfth-century Europe. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**330G. Art at Court: The Gothic Period.** Changing manifestations of Gothic art and architecture at selected court centers, 1140 to 1400. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**331K. Early Italian Renaissance Art.** Florentine and central Italian painting, sculpture, and architecture of the fifteenth century. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**331L. High Renaissance Art.** Major works of art and architecture in Florence, Rome, and Venice in the early sixteenth century. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**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. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**332K. Northern Renaissance Art, 1350–500.** Northern European art from the International Style to van Eyck and Hieronymus Bosch. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**332L. Northern Renaissance Art, 1500–1600.** Art and cultural development in the sixteenth century; artists include Dürer, Grünewald, Holbein, and Brueghel. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**333K. Italian Baroque Art.** The art of Italy in the seventeenth and eighteenth centuries; includes the sixteenth-century sources from which Roman baroque developed. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**333L. The Age of Rembrandt and Rubens: Northern Baroque Art.** Northern European art in the seventeenth century, stressing the Netherlands and Flanders. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**334. Eighteenth-Century European Art.** European painting, sculpture, and architecture as social and political events from the age of absolutism to the French Revolution. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**335N. European Art, 1789–1848.** European painting and sculpture as social and political events from the French Revolution to the revolutionary crises of midcentury. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**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. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**337K. Twentieth-Century European Art to 1940.** Major movements in the development of modern European painting and sculpture. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**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. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**338M. Art and Culture: 1968 and After.** Artistic and critical activity in the United States and Europe from 1968 to the present. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**339. American Art: Colonial Era to the Civil War.** Painting, sculpture, architecture, and decorative arts from 1665 to 1860. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**339K. American Art: Civil War to the Armory Show.** Painting, sculpture, architecture, and decorative arts from 1860 to 1920. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**339L. Twentieth-Century American Art to the 1950s.** Art in the United States from the Armory Show through abstract expressionism. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**339M. American Art since 1960.** Survey of major movements from 1958 to 1985, from pop art to graffiti art and new expressionism. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

**341K. Modern Art of Mexico.** Same as Latin American Studies 327 (Topic 2: Modern Art of Mexico). A topic of the sixteenth and seventeenth centuries, particularly muralism and its sources, surrealism, and later movements. Art History 341K and Latin American Studies 327 (Topic: Modern Art of Mexico) may not both be counted. Prerequisite: For art history majors, Art History 302; for 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.
341L. Modern Latin American Art. Same as Latin American Studies 327 (Topic 1: Modern Latin American Art). Development and sources of twentieth-century art in the Caribbean and Central and South America. Art History 341L and Latin American Studies 322 (Topic: Modern Latin American Art) may not both be counted. Prerequisite: For art history majors, Art History 302; for 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.

346. Traditional Arts of Africa and Oceania. Art in Australia, Melanesia, Polynesia, and sub-Saharan Africa from earliest times to the present. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

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. Art History 347K and Latin American Studies 322 (Topic: Mesoamerican Art) may not both be counted. Prerequisite: For art history majors, Art History 302; for 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.

347L. Mesoamerican Art. Same as Latin American Studies 327 (Topic 3: Mesoamerican Art). Mesoamerican art and architectural styles, with emphasis on the function of art in culture. Art History 347L and Latin American Studies 322 (Topic: Mesoamerican Art) may not both be counted. Prerequisite: For art history majors, Art History 302; for 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.

347M. Maya Art and Architecture. Same as Latin American Studies 327 (Topic 5: Form and Meaning in Classic Maya Art). The development and function of art and architectural form in the classic Maya culture. Art History 347M and Latin American Studies 322 (Topic: Form and Meaning in Classic Maya Art) may not both be counted. Prerequisite: For art history majors, Art History 302; for 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.

359. Topics in Feminism and Gender. An introduction to feminist and gender theories in relation to issues concerning visual representation. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

360L. Topics in the History of Photography. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

361. Topics in Latino and Chicano Art. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

361L. Topics in Ancient Near Eastern Art. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

362. Topics in Greek and Roman Art. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

362R. Topics in the Art of Late Antiquity. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

363. Topics in Medieval Art. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

364. Topics in Renaissance Art. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

365. Topics in Baroque Art. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

366. Topics in Nineteenth-Century Art. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

366N. Topics in Twentieth-Century Art. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

366P. Topics in Modernism. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

367. Topics in the Art of North America. May be repeated for credit when the topics vary. Prerequisite: For art history majors, Art History 302; for 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 1: Art, Photography, and Culture of the American West to 1880. Same as American Studies 331 and History 366B. The image and history of the West as seen through the eyes of early explorers, artists, and scientists. Art History 367 (Topic 1) and Museum Course 322 (Topic: Art, Photography, and Culture of the American West to 1880) may not both be counted. Partially fulfills legislative requirement for American history.

Topic 2: Art, Photography, and Culture of the American West since 1880. Same as American Studies 332 and History 366S. Art History 367 (Topic 2) and Museum Course 322 (Topic: Art, Photography, Film, and Culture of the American West) may not both be counted. Partially fulfills legislative requirement for American history.

370. Topics in Pre-Columbian Art. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

371. Topics in the Art of Asia. May be repeated for credit when the topics vary. Prerequisite: For art history and visual art studies majors, Art History 302 and 304; for others, at least one of the following is advisable but not required: Art History 301, 302, 303.

372. Topics in the History of Art. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Art History 302 and 303, and a major in art history; or consent of instructor.


374. Special Topics in the History of Art. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, Art History 302 and 303, and a major in art history; or consent of instructor.

375. Art Historical Methods. Art historical investigation; practical research techniques. Prerequisite: For art history majors, upper-division standing in art history; for others, consent of instructor.

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.

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

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 303K (or 301K), 303L (or 301L), 304K (or 302K), and 304L (or 302L) with a grade of at least C in each, and written consent of the design faculty.

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 (or 301K), 303L (or 301L), 304K (or 302K), and 304L (or 302L) with a grade of at least C in each, and written consent of the design faculty.

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 311J with a grade of at least C in each.

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 311J with a grade of at least C in each.

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

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.

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.

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 311K, 312, and 313 with a grade of at least C in each, and written consent of the design faculty.

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.

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.

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.

350. Special Design Topics. Study of professional-level contemporary topics. Eight laboratory hours a week for one semester. Offered in the fall semester only. May be repeated for credit when the topics vary. Prerequisite: Design 340, 341, and 342 with a grade of at least C in each, and written consent of the design faculty.

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.

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.
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.

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**

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 on pages 658–662.

**Lower-Division Courses**

303K (TCCN: ARTS 1316). **Drawing Foundations.** Restricted to art and art history majors. Drawing concepts and skills in various media. Eight laboratory hours a week for one semester. May be taken for credit only once. Studio Art 301K and 303K may not both be counted.

303L. **Digital Foundations.** Restricted to art and art history 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. Studio Art 301L and 303L may not both be counted.

304K (TCCN: ARTS 1311). **Two-Dimensional Foundations.** Restricted to art and art history 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. Studio Art 302K and 304K may not both be counted.

304L (TCCN: ARTS 1312). **Three-Dimensional Foundations.** Restricted to art and art history 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. Studio Art 302L and 304L may not both be counted.

310K (TCCN: ARTS 2346). **Beginning Ceramics.** Restricted to art and art history majors. Exploration of various techniques, subjects, and expressive possibilities in the medium of clay. 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.

311K (TCCN: ARTS 2316). **Painting I.** Restricted to art and art history 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 304L with a grade of at least C in each.

313K (TCCN: ARTS 2326). **Beginning Sculpture.** Restricted to art and art history 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.

313M. **Topics in Three-Dimensional Art.** Restricted to art and art history 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.

314K (TCCN: ARTS 2341). **Beginning Metals and Jewelry.** Restricted to art and art history majors. Introduction to the medium of metals, with emphasis on basic fabricating and forming techniques in jewelry, metalwork, and small sculpture. 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.

315K. **Beginning Drawing.** Restricted to art and art history 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.

316K (TCCN: ARTS 2323). **Beginning Life Drawing.** Restricted to art and art history 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.

316T. **Introduction to Transmedia.** Restricted to art and art history 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.

316V. **Transmedia: Video Art I.** Restricted to art and art history majors. Introduction to the basics of video art production, narrative, and nonnarrative 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 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.

317C. **Transmedia: Performance Art I.** Restricted to art and art history 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 316V may not both be counted. **Prerequisite:** Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each.

317K (TCCN: ARTS 2356). **Beginning Photography.** Restricted to art and art history 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.

318C. **Transmedia: Digital Time-Art I.** Restricted to art and art history 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 316V may not both be counted. **Prerequisite:** Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each.
319G. Beginning Printmaking: Serigraphy. Restricted to art and art history 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.

319K. Beginning Printmaking: Intaglio. Restricted to art and art history 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 303K, 303L, 304K, and 304L with a grade of at least C in each.

319M. Beginning Printmaking: Lithography. Restricted to art and art history 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 304L with a grade of at least C in each.

119Q, 219Q, 319Q, 419Q, 519Q, 619Q, 719Q, 819Q, 919Q. **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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad advisor 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.

319T. Topics in Studio Art: Laboratory. Restricted to art and art history 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**

320K. Art Studio for Nonart Majors. Eight laboratory hours a week for one semester. May be repeated for credit when the topics vary. May not be counted toward a degree in art and art history. **Prerequisite:** Upper-division standing.

320L. Art Studio for Nonart Majors. Continuation of Studio Art 320K. Eight laboratory hours a week for one semester. May be repeated for credit when the topics vary. May not be counted toward a degree in art and art history. **Prerequisite:** Upper-division standing and Studio Art 320K with a grade of at least C.

321K. Painting II. Restricted to art and art history 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.

321M. Painting II: Figure Painting. Restricted to art and art history 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.

322K. Intermediate Drawing. Restricted to art and art history 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.

323K. Intermediate Sculpture. Restricted to art and art history majors. Exploration of the concepts and processes involved in the production of object-oriented sculpture, with emphasis on indirect methods of mold-making and casting. Encourages individual direction. 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.

323M. Advanced Topics in Three-Dimensional Art. Restricted to art and art history 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.

323P. Issues in Sculpture. Restricted to art and art history 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 313K with a grade of at least C.

324K. Intermediate Metals. Restricted to art and art history majors. Problems designed to encourage individual development in work with metals, incorporating metalsmithing and fabrication. 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.

324G. Intermediate Printmaking: Serigraphy. Restricted to art and art history majors. Practice in the theories and techniques of multicolor serigraphy and photoengraving. 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.

325K. Intermediate Printmaking: Intaglio. Restricted to art and art history 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.

325M. Intermediate Printmaking: Lithography. Restricted to art and art history 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.

327D. Sculptural Ceramics. Restricted to art and art history majors. Problems designed to encourage individual development in work with clay, exploring various handbuilding techniques and kiln firings. 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 310K with a grade of at least C.

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337E. Contemporary Vessels. Restricted to art and art history majors. The study of pottery, including conceptual and functional approaches. 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 310K with a grade of at least C.

329Q, 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 Center for Global Educational Opportunities. 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.

334K. Digital Photography. Restricted to art and art history 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. 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 317K with a grade of at least C.

335K. Intermediate Photography. Restricted to art and art history majors. Practice in still photography, including materials and processes. Eight laboratory hours a week for one semester. May be repeated for credit, but not with the same instructor in the same semester. Prerequisite: Studio Art 317K with a grade of at least C.

336K. Color Photography. Restricted to art and art history 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.

336V. Transmedia: Video Art II. Restricted to art and art history 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 structural 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.

337C. Transmedia: Performance Art II. Restricted to art and art history 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.

338C. Transmedia: Digital Time-Art II. Restricted to art and art history 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.

339K. Watercolor Painting. Restricted to art and art history majors. Problems and instruction in the use of watercolor. 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, 315K, 316K.

341K. Painting III. Restricted to art and art history majors. Continuation of Studio Art 321K. Eight 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 321K or 321M with a grade of at least C.

341M. Painting III: Figure Painting. Restricted to art and art history 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 321M with a grade of at least C.

346K. Intermediate Life Drawing. Restricted to art and art history 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.

354C. Computer Art Media. Restricted to art and art history 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 or instructors vary. Prerequisite: Upper-division standing and Studio Art 303K, 303L, 304K, and 304L with a grade of at least C in each.

Topic 1: Digital Photography. Introduction to digital image-making in the context of making art.

355. Studio Projects. Restricted to art and art history 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.

356K. Advanced Color Photography. Restricted to art and art history 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.

356V. Transmedia: Video Art III. Restricted to art and art history 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.
357C. Transmedia: Performance Art III. Restricted to art and art history 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.

358C. Transmedia: Digital Time-Art III. Restricted to art and art history 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 338C with a grade of at least C.

359K. Advanced Digital Photography. Restricted to art and art history 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 334K with a grade of at least C.

361J. Painting IV: Figure Painting. Restricted to art and art history 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 341M with a grade of at least C.

361K. Painting IV. Restricted to art and art history 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.

363K. Advanced Sculpture. Restricted to art and art history 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.

363S. Advanced Installation Sculpture. Restricted to art and art history 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 with a grade of at least C.

364M. Advanced Metals. Restricted to art and art history majors. Emphasis on the development of a personal vision and an individual approach to the use of metal. 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 324M with a grade of at least C.

365G. Advanced Printmaking: Serigraphy. Restricted to art and art history 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.

365K. Advanced Printmaking: Intaglio. Restricted to art and art history 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.

365M. Advanced Printmaking: Lithography. Restricted to art and art history 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.

366K. Advanced Life Drawing. Restricted to art and art history 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 346K with a grade of at least C.

368N. Advanced Drawing. Restricted to art and art history majors. Continuation of Studio Art 322N. 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 322N with a grade of at least C.

372K. Advanced Photography. Restricted to art and art history 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 335K with a grade of at least C.

376. Independent Study: Studio Art. Restricted to art and art history 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.
377D. Advanced Sculptural Ceramics. Restricted to art and art history majors. Continuation of Studio Art 327D. Emphasis on the development of a personal vision and an individual approach to the use of clay. 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 327D with a grade of at least C.

377E. Advanced Contemporary Vessels. Restricted to art and art history majors. Continuation of Studio Art 327E. Additional focus on personal and technical development. 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 327E with a grade of at least C.

379K. Advanced Watercolor Painting. Restricted to art and art history majors. Problems and instruction in the use of watercolor, gouache, and tempera. 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 339K with a grade of at least C.

179S, 379S. Advanced Topics in Studio Art: Lecture. Restricted to art and art history majors. Intensive advanced study of various disciplines of studio art. 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: For 179S, upper-division standing; Studio Art 303K, 303L, 304K, and 304L 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.

279T, 379T. Advanced Topics in Studio Art: Laboratory. Restricted to art and art history 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, 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: Beyond Traditional Media.

VISUAL ART STUDIES: VAS

Upper-Division Courses

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.

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.

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.

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.

330. Introduction to Visual Art Studies. Restricted to students seeking teacher certification in art. An introduction to visual art studies: philosophy, current trends, instructional methods, evaluation, and public relations. Lectures, reading, and discussion. Prerequisite: Upper-division standing, thirty semester hours of coursework in studio art, or consent of instructor.

241C. Developmental Strategies in Art for Children. Theory and application of studio skills for children; the relationship of studio skills to essential elements of art. Two lecture hours a week for one semester. Prerequisite: Upper-division standing, Studio Art 303K (or 302K), 303L (or 302L), 304K (or 302K), and 304L (or 302L) with a grade of at least C in each, consent of the visual art studies advisor, and concurrent enrollment in Visual Art Studies 141D.

141D. Developmental Strategies in Art for Children: Laboratory. Four laboratory hours a week for one semester. Prerequisite: Upper-division standing and concurrent enrollment in Visual Art Studies 241C.

251C. Developmental Strategies in Art for Adolescents. Theory and application of studio skills for adolescents; the relationship of studio skills to essential art elements. Two lecture hours a week for one semester. Prerequisite: Upper-division standing and concurrent enrollment in Visual Art Studies 151D.

151D. Developmental Strategies in Art Materials and Techniques for Adolescents: Laboratory. Four laboratory hours a week for one semester. Prerequisite: Upper-division standing and concurrent enrollment in Visual Art Studies 251C.

261C. Elements of Art Presentation. Speech and research techniques for effective presentation of art in a variety of settings. Two lecture hours a week for one semester. Prerequisite: Upper-division standing and concurrent enrollment in Visual Art Studies 161D.

161D. Elements of Art Presentation: Laboratory. Four laboratory hours a week for one semester. Prerequisite: Upper-division standing and concurrent enrollment in Visual Art Studies 261C.

370C. Visual Art Careers. Lectures, discussions, and writing assignments. Theory and practice of art careers beyond the college campus. May be repeated for credit when the topics vary.

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.

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.

Topic 1: The Human Figure in Art: Laboratory.
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.

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.

**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.

**FIELDS 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 these courses are given in the following section.

**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 of D or F 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.

101G. **Beginning Music Performance.**

201J. **Beginning Class Piano for Nonmusic Majors.**

201K. **Second-Semester Class Piano for Nonmusic Majors.**

201M. **Beginning Music Performance: Class Piano.**

201N. **Beginning Music Performance: Second-Semester Class Piano.**

201S. **Beginning Music Performance: Class Harp.**

201T. **Beginning Music Performance: Second-Semester Class Harp.**

210J. **Beginning Instruction in Music Performance: Third-Semester Class Piano.**

210K. **Beginning Instruction in Music Performance: Fourth-Semester Class Piano.**

313. **Fundamentals of Music.**

115T. **Lower-Division Reed Making.**

219. **Diction.**

420J. **Junior Jazz Recital.**

420R. **Junior Recital.**

222J. **Instrumental Conducting.**

222K. **Instrumental Conducting.**

223J. **Choral Conducting.**

223K. **Choral Conducting.**

229. **Diction.**

159J. **Harp Repertoire.**

259L. **Vocal Repertoire Coaching.**

259N. **Chamber Music: Strings and Piano.**

259P. **Chamber Music: Winds and Percussion.**

259T. **Topics in Instrumental Technology.**

460J. **Senior Jazz Recital.**

260M. **Pedagogy.**

460P. **Pedagogy.**

460R. **Senior Recital.**

262. **Intermediate Instrumental Conducting.**

263K. **Intermediate Choral Conducting.**

176C, 276C, 376C. **Special Topics in Music Performance.**

178C, 278C, 378C. **Independent Study: Music Performance.**

**Music Literature**

302L. **An Introduction to Western Music.**

302P. **Introductory Topics in Western Music.**

303M. **Introduction to Traditional Musics in World Cultures.**

303N. **Introduction to Popular Musics in World Cultures.**

303P. **Topics in Music of World Cultures.**

307. **Topics in Popular Music.**

313M. **History of Music I.**

313N. **History of Music II.**

330L. **History of Music III.**

334. **The Music of the Americas.**

337. **Music for Radio and Television.**

338. **Masterpieces of Music.**

342. **Area Studies in Ethnomusicology.**

343J. **History of Jazz.**

376G. **Special Topics in Music Literature.**

178G, 278G, 378G. **Independent Study: Music Literature.**

379K. **Advanced Topics in Music Literature.**

**Music Studies**

115D. **String Instrument Fundamentals.**

115E. **Brass Instrument Fundamentals.**

115F. **Woodwind Instrument Fundamentals.**

115G. **Guitar Fundamentals.**

354. **Musical Development of Children.**
Music Theory

605. Musicianship.
606. The Elements of Music.
411. Ear Training and Sight-Singing.
612. Structure of Tonal Music.
214C. Beginning Composition.
218J. Beginning Jazz Improvisation.
221J. Musical Analysis.
221K. Musical Analysis.
224G. Intermediate Composition.
224J. Advanced Composition.
325L. Counterpoint.
325M. Counterpoint.
226G. Orchestration and Arranging.
226J. Orchestration and Instrumentation.
226K. Orchestration and Instrumentation.
226N. Choral Arranging.
228G. Jazz Theory I.
228J. Intermediate Jazz Improvisation.
228K. Beginning Jazz Piano Techniques.
228L. Jazz Theory II.
328M. Studio Arranging.
228P. Jazz Composition.
329E. Introduction to Electronic Media.
329F. Projects in Electronic Media.
329G. Intermediate Electronic Composition.
329J. Introduction to Computer Music.
364. Advanced Ear Training.
368L. Review of Music Theory.
369P. Senior Paper in Music Theory.
376J. Special Topics in Music Theory.

Lower-Division Courses

101G (TCCN: See Appendix A). 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.

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.

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: Music 201J completed the previous semester with a grade of at least C, or consent by audition; and consent of instructor.

201M. Beginning Music Performance: Class Piano. Open only to music majors. Three laboratory hours a week for one semester. May be repeated for credit. Credit granted only when taken as a secondary instrument. 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.

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. May be repeated for credit. Credit granted only when taken as a secondary instrument. Prerequisite: Music 201M completed the previous semester with a grade of at least C, or consent by audition.

201S. Beginning Music Performance: First-Semester Class Piano. Open only to music majors. Continuation of Music 201J. Three laboratory hours a week for one semester. May be repeated for credit. Credit granted only when taken as a secondary instrument. Prerequisite: Music 201J completed the previous semester with a grade of at least C, or consent by audition.

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. May be repeated for credit. For music majors, credit granted only when taken as a secondary instrument. Prerequisite: Ability to read music and consent of instructor. No previous experience on the instrument required.

201V. 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. May be repeated for credit. For music majors, credit granted only when taken as a secondary instrument. Prerequisite: Music 201S completed the previous semester with a grade of at least C, or consent by audition.

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.
302P. Introductory Topics in Western Music. May not be counted by music majors. May be repeated for credit when the topics vary.

303M. Introduction to Traditional Musics in World Cultures. Same as Asian Studies 303M. Open to all University students. Art, sacred, and folk traditions of music in the cultures of Asia, Africa, the Pacific, Europe, and the Americas. Three lecture hours a week for one semester, with one laboratory hour a week as required. African and African American Studies 317 (Topic 3: Introduction to Music in World Cultures) and Music 303M may not both be counted.

303N. Introduction to Popular Musics in World Cultures. Same as Asian Studies 303N. Open to all University students. Popular traditions of music in the cultures of Asia, Africa, the Pacific, Europe, and the Americas. Three lecture hours a week for one semester, with one laboratory hour a week as required.

303P. Topics in Music of World Cultures. May not be counted by music majors. May be repeated for credit when the topics vary.

605 (TCCN: MUSI 1311 and 1312 combined). 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 School of Music and registration in class piano as assigned by the School of Music or consent of instructor; for 605B, Music 605A and either registration in class piano as assigned by the School of Music or consent of instructor.

205M. Acting for Voice Performance Majors I. Fundamental techniques of acting for the lyric stage, theoretical and direct application of dramatic monologue, art song, and operatic literature. Includes ensemble participation in Butler Opera Center production. Two lecture hours a week for one semester, with additional hours to be arranged. Music 205M and Theatre and Dance 203V may not both be counted. Prerequisite: A major in voice performance in the School of Music.

205N. Acting for Voice Performance Majors II. Continuation of fundamental techniques of acting for the lyric stage, focusing on direct application of operatic solo literature, ensemble, and art song for performance. Includes ensemble participation in a Butler Opera Center production. Two lecture hours a week for one semester, with additional hours to be arranged. Music 205N and Theatre and Dance 203N may not both be counted. Prerequisite: Music 205M.

606. The Elements of Music. A course in the fundamentals of music for nonmusic majors. Study of notation, and of the elements of rhythm, melody, and harmony; development of elementary aural skills; writing of simple compositions. Three lecture hours a week for two semesters. Prerequisite: For 606B, Music 606A.


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. May be repeated for credit. Credit granted only when taken as a secondary instrument. Prerequisite: Music 201N completed the previous semester with a grade of at least C, or consent by audition.

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. May be repeated for credit. Credit granted only when taken as a secondary instrument. Prerequisite: Music 210J completed the previous semester with a grade of at least C, or consent by audition.

411 (TCCN: MUSI 2216 and 2217 combined). 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 and concurrent enrollment in Music 612B.

612 (TCCN: MUSI 2311 and 2312 combined). 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 and either registration in class piano as assigned by the School of Music or consent of instructor; for 612B, Music 612A and either registration in class piano as assigned by the School of Music or consent of instructor.

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.

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.

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.

214C (TCCN: MUSI 1286, 1287, 2286). 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.

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.

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.
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.

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.

115T. **Lower-Division Reed Making.** Individual instruction. May be repeated for credit. **Prerequisite:** Consent of instructor.

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. **Prerequisite:** Consent of instructor.

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. **Prerequisite:** Music 316M or consent of instructor.

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.

219 (TCCN: MUSI 1161 and 2161 combined). **Diction.** French and English pronunciation for singers. Two lecture hours a week for one semester.

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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the School of Music. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

**Upper-Division Courses**

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 412J in the major jazz instrument for two semesters, or the equivalent, and approval of the jazz faculty.

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.

221J. **Musical Analysis.** Detailed study of selected compositions from the tonal and post-tonal periods; analytical and compositional projects. Two lecture hours a week for one semester. **Prerequisite:** Music 411 and 612.

221K. **Musical Analysis.** Continuation of Music 221J. Two lecture hours a week for one semester. **Prerequisite:** Music 221J.

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.

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.

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.

224G. **Intermediate Composition.** Continuation of Music 224G for composition majors only. 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.

224J. **Advanced Composition.** Continuation of Music 224J 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.

325L. **Counterpoint.** Development of contrapuntal skill in sixteenth-century style and in related late-twentieth-century styles; the teaching of counterpoint, including Fuxian species. **Prerequisite:** Music 411 and 612.

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.

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.

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.

226K. **Orchestration and Instrumentation.** Continuation of Music 226J. Two lecture hours a week for one semester. **Prerequisite:** Music 226J.

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.
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 201N and 605, or consent of instructor.

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.

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.

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.

328M. Studio Arranging. Techniques of composing and arranging for standard jazz and popular music instrumental combinations in varied styles. With consent of instructor, may be repeated for credit. Prerequisite: Music 612 and 228G, or consent of instructor.

228P. Jazz Composition. Individual instruction in the creative process of composition, involving the melodic, harmonic, and rhythmic components of various jazz styles. May be repeated for credit. Prerequisite: Music 328M or consent of instructor.

329. Diction. Italian and German pronunciation for singers. Two lecture hours a week for one semester. Prerequisite: Upper-division standing.

329E. Introduction to Electronic Media. Introduction to the fundamentals of recording, tape editing, and electronic music synthesis. One and one-half lecture hours and eight laboratory hours a week for one semester. Prerequisite: Consent of instructor.

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.

329G. Intermediate Electronic Composition. Continuation of Music 329E for music theory or composition 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.

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.

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.

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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the School of Music. University credit is awarded for work in an exchange program; it may be counted as coursework taken in residence. Transfer credit is awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

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.

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), Latin American Studies 322 (Topic: Music of Mexico and the Caribbean) and Music 334 (Topic 1) may not both be counted.

Topic 2: Music of Latin America. Same as Latin American Studies 326 (Topic 2: Music of Latin America). Latin American Studies 322 (Topic: Music of Latin America) and Music 334 (Topic 2) may not both be counted.

Topic 3: Music of Brazil and Argentina. Same as Latin American Studies 326 (Topic 3: Music of Brazil and Argentina), Latin American Studies 322 (Topic: Music of Brazil and Argentina) and Music 334 (Topic 3) may not both be counted.

Topic 4: Music of the Andean Countries. Same as Latin American Studies 326 (Topic 4: Music of the Andean Countries). Latin American Studies 322 (Topic: Music of the Andean Countries) and Music 334 (Topic 4) may not both be counted.

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. Prerequisite: Music 316N or consent of instructor.

335N. Advanced Digital Audio Workstations. Includes advanced editing, MIDI control surfaces, use of Beat Detective application, surround and synchronization, advanced mixing, plug-ins, third-party digital audio workstation add-ons, soft synthesizers and samplers, and digital mastering techniques and practices. Prerequisite: Music 335M or consent of instructor.

337. Music for Radio and Television. Survey of music history and trends; application to broadcasting; problems of music programming; copyright and clearance. Prerequisite: Upper-division standing and consent of instructor.

338. Masterpieces of Music. Study of the works of specific composers or of specific genres in the Western musical tradition. May be repeated for credit when the topics vary. May not be counted by music majors. Prerequisite: Music 302L or consent of instructor.

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. Music 339M and 376C (Topic: Business of Music) may not both be counted. Prerequisite: Upper-division standing in music.

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. Prerequisite: Upper-division standing in music and Music 339M.
342. **Area Studies in Ethnomusicology.** Studies of the musical traditions of selected cultures or geographical areas. May be repeated for credit when the topics vary. **Prerequisite:** Varies with the topic and is given in the **Course Schedule.** 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 American Studies 374 (Topic 10: **Black Perspectives in Jazz**). **Prerequisite:** Upper-division standing.

Topic 6: **Musics of East and Southeast Asia.** Same as Asian Studies 361 (Topic 15: **Musics of East and Southeast Asia**). **Prerequisite:** Upper-division standing.

343L. **History of Jazz.** Survey of the history of jazz from its origins to the present. **Prerequisite:** Upper-division standing in music or consent of instructor.

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. **Prerequisite:** Upper-division standing in music.

347N. **Topics in the Business of Music and the Arts.** May be repeated for credit when the topics vary. **Prerequisite:** Upper-division standing in music and Music 347M.

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. **Prerequisite:** Upper-division standing or consent of instructor.

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.

354D. **Children's Music Literature and Performance II.** Continuation of Music 354C. **Prerequisite:** Music 354C or consent of instructor.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

460L. **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.

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 be repeated for credit. May not be substituted for Music 460PA or 460PB. **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.

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.

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.

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.
**Topic 2:** Orchestra.

263K. **Intermediate Choral Conducting.** Problems and interpretation of larger choral 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 a week for one semester. May be repeated for credit. **Prerequisite:** Music 223K or consent of instructor.

364. **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. **Prerequisite:** Upper-division standing in music and Music 411 and 612.

368L. **Review of Music Theory.** An intensive review of the skills and concepts required for the study of music theory at the graduate level. May not be counted toward a graduate degree. **Prerequisite:** Upper-division or graduate standing in music.

369P. **Senior Paper in Music Theory.** Writing of a major paper on a topic in music theory approved by the instructor. The equivalent of three lecture hours a week for one semester. **Prerequisite:** Music 221K with a grade of at least B, at least seven semester hours of upper-division coursework in music theory, and consent of instructor.

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.

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.

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.

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.

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.

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.

178J, 278J. **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.

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.

379K. **Advanced Topics in Music Literature.** May be repeated for credit when the topics vary. Two or more topics may be taken concurrently. **Prerequisite:** Music 612 and 313N, or upper-division standing and consent of instructor.

**INSTRUMENTS**

The abbreviations used for instrument courses are included in the table in Appendix B.

**Lower-Division Courses**

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. May be repeated for credit.
462J. 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. 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.

ENSEMBLE: ENS

Lower-Division Courses

103L. Opera Laboratory. Performance and instruction in operatic theatre. 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.

103P. Opera Performance. 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. Open to any University student who can qualify by audition.

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.

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.

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.

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.

207L. 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.

462C. 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.

Upper-Division Courses

202. Lower-Division Piano: Secondary. Individual instruction beyond Music 210K. May be repeated for credit when the topics vary. Prerequisite: Consent by audition.

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. May be repeated for credit. Prerequisite: For Organ 210, Piano 201 or the equivalent.

412. 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, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello. May be repeated for credit.

212J, 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. May be repeated for credit.

462. 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, oboe, organ, percussion, piano, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. May be repeated for credit. Prerequisite: Course 210 in the secondary instrument for four semesters, or the equivalent, and approval of the area faculty.

462. Upper-Division Music Performance: Major. 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, recorder, saxophone, trombone, trumpet, tuba, viola, violin, violoncello, and voice. May be repeated for credit. Prerequisite: Course 201 in the secondary instrument for four semesters, or the equivalent, and approval of the music faculty.

462J. 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. 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.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

THEATRE AND DANCE: T D

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 on pages 658–662.

Lower-Division Courses

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.

102T, 202T, 302T. Topics in Dance Technique for Nondance Majors. Fundamental study of principles and vocabulary of dance. May be repeated for credit. May not be counted toward the major in the Department of Theatre and Dance.

303. Fundamentals of Acting. Not open to theatre and dance majors. Basic principles of acting and practical work in scenes from plays. Theatre and Dance 303 and 313C may not both be counted.


303V. Acting for Voice Performance Majors I. Fundamental inquiry into the acting process. Prerequisite: A major in voice performance in the School of Music.

303W. Acting for Voice Performance Majors II. Techniques for playing and shaping action within scene structures. Prerequisite: Theatre and Dance 303V.

306. Introduction to Improvisational Drama. General introduction to improvisational activities with application to the theatre.

311. Languages of the Stage. Introduction to the ways that performance communicates meaning, as a foundation for further study in theatre and dance. Prerequisite: A major in the Department of Theatre and Dance or consent of instructor.

111T, 211T, 311T. Introductory Topics in Theatre and Dance. Restricted to theatre and dance majors. 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 class hour a week for one semester. May be repeated for credit when the topics vary.

112. Freshman Movement and Physical Conditioning. Principles and techniques of physical conditioning. Three 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.

312C (TCCN: DANC 1345, 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.

312D (TCCN: DANC 2345, 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.

312F (TCCN: DANC 1341, 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.

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.

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.

112P, 212P, 312P (TCCN: See Appendix A). 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.

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.
313C (TCCN: DRAM 1351). Acting I. Fundamental inquiry into the acting process; improvisational approaches to the playing of dramatic action. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: A major in the Department of Theatre and Dance.

313D (TCCN: DRAM 1352). Acting II. Fundamental techniques of character analysis and portrayal. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: A major in the Department of Theatre and Dance.

313E (TCCN: DRAM 2351). Acting III. Investigation into the collaborative process of the actor and the director, with emphasis on structure, action, theme, and plot. Three lecture hours a week for one semester, with laboratory hours as required. Prerequisite: A major in the Department of Theatre and Dance, Theatre and Dance 313D, and consent of instructor.

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.

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 or consent of instructor.

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 or consent of instructor.

314P (TCCN: DRAM 1320, 1321, 1323). 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 or consent of instructor.

315. Playwriting I. The study and practice of writing plays. Prerequisite: Consent of instructor.

317C (TCCN: DRAM 2361). Theatre History through the Eighteenth Century.


317M. Dance History I. An exploration of world dance as an expression of cultural identity and change. Prerequisite: Theatre and Dance 311.

317N. Dance History II. Continuation of Theatre and Dance 317M. Prerequisite: Theatre and Dance 317M or consent of instructor.

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 Center for Global Educational Opportunities. 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

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 when the topics vary. Prerequisite: Consent of instructor.

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.

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.

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.

122P, 222P, 322P. Projects in Dance Performance and Repertory. Preparation and performance laboratory related to production. A 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.

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, or consent of instructor.

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 or consent of instructor.

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.

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.

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.

124P, 224P, 324P. Advanced Production Laboratory. One, two, or three hours a week for one semester, with additional laboratory hours to be arranged. May be repeated for credit. Prerequisite: Two semesters of Theatre and Dance 314P, and a major in the Department of Theatre and Dance or consent of instructor.

325. Playwriting II. Emphasis on the form and writing of the full-length play or equivalent. Prerequisite: Upper-division standing, Theatre and Dance 315, and consent of instructor.
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.

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.

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.

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.

326E. 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 laboratory hours as required. Prerequisite: Upper-division standing, Theatre and Dance 323C, and consent of instructor.

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.

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.

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 Center for Global Educational Opportunities. 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.

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. Theatre and Dance 332M and 332M may not both be counted. Prerequisite: Upper-division standing, Theatre and Dance 312N, and consent of instructor.

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. Theatre and Dance 332N and 332N may not both be counted. Prerequisite: Theatre and Dance 332M.

332P. Advanced Projects in Dance Performance and Repertory I. At least six 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.

332Q. Advanced Projects in Dance Performance and Repertory II. At least six laboratory hours a week for one semester, with additional laboratory hours as required. May be repeated for credit. Prerequisite: Upper-division standing, Theatre and Dance 332P, a major in the Department of Theatre and Dance, and consent of the dance faculty.

332R. Dance Pedagogy Theory. Principles, techniques, and materials used in the teaching of dance. Three lecture hours and one and one-half laboratory hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, a major in the Department of Theatre and Dance, and consent of the dance faculty.

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.

351S. Seminar in Theatre and Dance. Prerequisite: Completion of at least ninety semester hours of coursework, a major in the Department of Theatre and Dance, and consent of instructor.

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.

352. Experiential Anatomy. Principles and techniques of physical conditioning with practical applications to injury prevention for dance and theatre practitioners. Six 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 332P, a major in the Department of Theatre and Dance, and consent of the dance faculty.

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.

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.

353T. Topics in Acting and Directing. Topics in acting (including voice/speech and movement) and directing. 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, a major in the Department of Theatre and Dance, and consent of the acting/directing faculty.

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.
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.*
Topic 3: *Mask Making.*
Topic 4: *Millinery.*
Topic 5: *Scenery Technology I.*
Topic 6: *Costume Rendering.*
Topic 7: *Drawing for Theatre Designers.*
Topic 8: *Painting.*
Topic 9: *Robotic Lighting.*

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.

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 and consent of instructor.

Topic 1: *Puppetry.*

357T. **Topics in History, Criticism, and Performance Studies.** 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*).
GENERAL INFORMATION

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.

The Jackson School offers the Bachelor of Arts in Geological Sciences, the Bachelor of Science in Geological Sciences, and, in partnership with the College 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, 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.

Students seeking the Bachelor of Arts in Geological Sciences (BAGeoSci) 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 requirements of this degree are given on pages 256–258. Another option for outstanding students interested in geology is the Bachelor of Arts, Plan II, 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. The BA, Plan II, is described on pages 309–311.

A plan of study for the Bachelor of Science in Geological Sciences (BSGeoSci) includes courses required by the University, required and elective courses in

1. Final approval of the Bachelor of Arts in Geological Sciences is pending.
geological sciences (preceded by their prerequisite courses), and a cluster of courses in other fields that serves as a minor. 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. The requirements of the BSGeoSci are given on pages 258–260.

The curriculum leading to the Bachelor of Science in Geosystems Engineering and Hydrogeology (BSGEOH) is designed to teach students the geological and engineering principles needed to solve subsurface resource development and environmental problems. This degree is described on pages 261–262.

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.

JACKSON SCHOOL ACADEMIC 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 eminent scientists. If qualified, the student may also earn special departmental honors for exceptional research and may receive recognition through participation in the annual Undergraduate Poster Session sponsored by the College of Natural Sciences or the Bridging Disciplines Program of Connexus. Additional information about undergraduate research is available from the Undergraduate Advising Office.

UTEACH-NATURAL SCIENCES

The Jackson School participates in UTeach-Natural Sciences, an innovative teacher preparation program offered by the Colleges of Natural Sciences and Education that enables students to prepare within four years for certification to teach mathematics, science, or computer science in middle grades or high school. (Students who are interested in teaching early childhood through grade four should contact the College of Education for information about preparation and certification.) The UTeach-Natural Sciences program invites students to explore their interest in teaching as early as the freshman year under the mentorship of some of Texas’ most respected secondary school mathematics and science teachers. Early involvement in the UTeach program is a quick and efficient way for students to learn whether they are suited for the teaching profession. However, students may apply at any time during their undergraduate careers. Applicants must meet minimum grade point average requirements.

UTeach-Natural Sciences prepares the student for single-field certification in mathematics or computer sciences, or for composite certification in which biology, chemistry, geological sciences, or physics is the primary teaching field. A description of the UTeach-Natural Sciences curriculum is given on pages 446–447; more information is available at the UTeach-Natural Sciences Office. In the Jackson School, the BSGeoSci, option IV (teaching), prepares students to seek teacher certification.

CONCENTRATIONS

Within the requirements for the degree, students pursuing the Bachelor of Arts in Geological Sciences may also complete a concentration in cultural studies or science, technology, and society. These concentrations, administered by the College of Liberal Arts, are described on pages 297–298. All Jackson School students may pursue a concentration in actuarial studies, administered by the Department of Mathematics and described on page 517.

FINANCIAL ASSISTANCE

Through the Geology Foundation, the Jackson School 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 performance and standing. Grants may be awarded on the basis of demonstrated financial need, without regard to grade point average. Information is available from the Undergraduate Advising Office. The Geology Foundation also offers a student loan program, and students may seek additional assistance through the University’s Office of Student Financial Services.

CAREER SERVICES

The Jackson School offers career planning and job placement assistance for students and alumni. The Career Services staff offers interview tips and can help with career planning, résumé writing, job search techniques, and business and professional etiquette.

Career Services also helps 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 recruiters who offer on-campus interviews for three or four weeks twice
a year. During the interview periods, companies sponsor information sessions on campus. The Career Services office also offers résumé referral for students and employers. The College of Natural Sciences Career Expo, which brings students and employers together every September, 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. Career Services and the Undergraduate Advising Office can help students choose majors or careers, find internships, and plan for employment or graduate study. However, the University makes no guarantee to secure employment for each graduate.

ADMISSION AND REGISTRATION

ADMISSION

Admission and readmission of all students to the University is the responsibility of the director of admissions. Information about admission to the University is given in General Information. Students admitted to the University with deficiencies in high school units must remove the deficiencies as prescribed in General Information.

ACADEMIC ADVISING

The Undergraduate Advising Office and faculty members advise students in the Jackson School, including those not seeking a degree in geological sciences and those who have not yet selected a major. Academic advising begins after the twelfth class day in the fall and spring semesters and after the fourth class day in the summer session. Students are encouraged to meet with an adviser as early as possible, because procrastination may prevent their timely registration.

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, published before registration for 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 available on the World Wide Web and are accessible through the registrar’s Web site, http://www.utexas.edu/student/registrar/. General Information is also sold at campus-area bookstores.

ACADEMIC POLICIES AND PROCEDURES

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 Advising Office. The symbol Q or W counts as an enrollment unless it has been approved by the Undergraduate Advising Office for nonacademic reasons.

HONORS

University-wide honors are described on page 15 and in General Information. Students who meet the following requirements may also graduate with departmental honors.

DEPARTMENTAL HONORS PROGRAM

The Jackson School offers a departmental honors program to its majors. 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) completion of Geological Sciences 171H, 172H, and 173H with a grade of at least B in each; (3) completion of Geological Sciences 379H, Honors Tutorial Course, with a grade of at least B; and (4) completion at the University of at least sixty semester hours of coursework counted toward the degree. The statement “Special Honors in Geological Sciences” appears on the transcript of each student certified as having completed the honors program. Students who wish to participate in the program should apply to the departmental honors adviser when they have completed sixty semester hours of coursework, including at least twelve semester hours of upper-division coursework in geological sciences.

GRADUATION

SPECIAL REQUIREMENTS OF THE JACKSON SCHOOL

All students must fulfill the general requirements for graduation given in chapter 1 of this catalog. 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.

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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 BSGeoSci require at least eighteen hours of upper-division coursework in geological sciences to be completed in residence; option IV requires at least twelve hours.

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.

CORRESPONDENCE AND EXTENSION COURSES

Resident students must have the approval of the undergraduate adviser before they take courses simultaneously by correspondence or extension at the University or at another school or in residence at another school. Credit that is not approved in advance will not be counted toward the student’s degree. No more than 30 percent of the semester hours required for any degree offered in the Jackson School may be earned by correspondence.

APPLYING FOR A DEGREE

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. 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 a catalog under which he or she is entitled to graduate. (Rules on graduation under a particular catalog are given on pages 19–20.) If in doubt about any requirement, the student should seek an official ruling in the Undergraduate Advising Office before registering.

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 in the Undergraduate Advising Office. This should be done during the first week of classes, if possible, and certainly no later than the deadline published in the academic calendar. No degree will be conferred unless the graduation application form has been filed on time.
The coursework counted toward the degree may include no more than thirty-six hours in any one subject 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.

Three categories of work must be completed: prescribed work, major and minor requirements, and electives. In addition, the student must fulfill the University requirements for graduation given in chapter 1 and the requirements of the Jackson School given on pages 255–256.

PRESCRIBED WORK

The prescribed work is divided into four areas: A, language and literature; B, social sciences; C, natural sciences; and D, general culture. Together these courses make up about half of the degree program.

A course taken to meet the requirements of one area may not also be used to fulfill the requirements of another area. The only exception to this rule is that a course taken to fulfill the Area A foreign language requirement or the Area B, C, or D requirement may also be counted toward the writing requirement in Area A if the course is certified as having a substantial writing component.

Area A, Language and Literature

English composition and literature: Rhetoric and Writing 306 and English 316K.

Writing: In addition to Rhetoric and Writing 306 and English 316K, each student must complete two courses certified as having a substantial writing component. One of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of semester hours required for the degree. Courses used to fulfill the writing requirement may be used simultaneously to fulfill other area requirements or major and minor requirements. Courses with a substantial writing component are identified in the Course Schedule.

Foreign language: Students must complete four semesters 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. Students may accelerate their progress at any point in the sequence by means of credit by examination.

To achieve proficiency in a foreign language as rapidly as possible, qualified students are urged to take advantage of intensive foreign language courses. Information is available in the appropriate language department. Courses used to fulfill the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be counted.

Area B, Social Sciences

Eighteen semester hours are required, distributed among at least four of the fields of study listed below.

1. Six semester hours in each of the following fields of study:
   a. American government, including Texas government
   b. American history
2. Three semester hours each from any two of the following fields of study:
   a. Anthropology
   b. Economics
   c. Geography
   d. Linguistics
   e. Psychology
   f. Sociology

Area C, Natural Sciences

Each student must have credit for three semester hours in a course offered by the University of Texas at Austin Department of Mathematics, excluding Mathematics 301, 316K, and 316L. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward the Area C requirement or toward the total number of hours required for the degree. 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 without degree credit to remove their deficiency.

Fifteen additional semester hours are required, with no more than nine in any one department, from the fields of study listed below. No more than nine hours of mathematics and computer sciences combined may be included in these fifteen hours. Nine of these fifteen hours must be taken in courses in the College of Natural Sciences, items 1 through 9 below, with at least six hours taken in one subject from items 1 through 7; these nine hours may include no more than three hours of mathematics or computer sciences. The remaining six hours may be chosen from courses in the natural sciences listed below or from approved alternative courses in subjects 10 through 15; a list of approved courses is available in the Undergraduate Advising Office. Of these six hours, a maximum of three hours in courses in either the history of science or the philosophy of science may be used.

1. Astronomy
2. Biology
3. Chemistry
4. Marine science
5. Nutrition
6. Physical science
7. Physics
8. Mathematics
9. Computer sciences
10. Experimental psychology
11. Physical anthropology
12. Physical geography
13. Philosophy (courses in logic)
14. History of science and philosophy of science
15. Other science courses approved by the dean

Students, counselors, and advisers are urged to make careful selection of Area C courses in order to develop a meaningful pattern and a coherent sequence.

**Area D, General Culture**

Six semester hours from the areas listed below. Three of these six hours must be chosen from subarea 1, 2, 3, or 4 (excluding courses in logic).

A student who uses Greek or Latin to meet the Area A foreign language requirement may use additional coursework in the same language to meet the Area D requirement, but only courses beyond the fourth semester proficiency level may be used.

1. Architecture
2. Classics, including classical civilization, Greek, Latin
3. Fine arts, including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies
4. Philosophy
5. Approved interdisciplinary courses including, but not restricted to, those in programs of special concentration cutting across specific departments, schools, or colleges. Lists of approved courses are available in the Undergraduate Advising Office.

**THE MAJOR AND MINOR**

With the exception of courses that fulfill the Area A writing 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 or 312K, 404C or 405, 416K, 416M, 420K, 422K, 428, 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 sciences, chemistry, education, engineering, geography, mathematics, and physics. Other disciplines may be chosen with written approval of the undergraduate adviser.

**ELECTIVES**

In addition to the prescribed work and the major and minor, the student must take enough elective coursework to complete the 120 semester hours required for the degree. These 120 hours may include no more than twelve semester hours of Bible and no more than nine hours of air force science, military science, or naval science.

**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 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 semester of 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.

**BACHELOR OF SCIENCE IN GEOLOGICAL SCIENCES**

The Bachelor of Science in Geological Sciences 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.

Students seeking the Bachelor of Science in Geological Sciences degree must choose one of four options—I, general geology; II, geophysics; III, hydrogeology/environmental geology; or IV, teaching.

**PRESCRIBED WORK COMMON TO ALL OPTIONS**

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the num-
ber of semester hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. Courses 506 and 507 (or the equivalent) in a single foreign language, and a three-semester-hour course in the same language for which 507 or the equivalent is a prerequisite; or as much of this coursework as required by the student’s score on the appropriate language placement test. Students in the teaching option (option IV) are exempt from this requirement.

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.

3. Six semester hours of American government, including Texas government.

4. Six semester hours of American history.

5. Three semester hours of coursework in economics, upper-division coursework in anthropology, or upper-division coursework in geography.

6. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.

7. Thirty-six semester hours of upper-division 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 IV, at least twelve hours must be in geological sciences. For all students, at least twelve of the thirty-six hours must be outside geological sciences.

ADDITIONAL PRESCRIBED WORK FOR EACH OPTION

OPTION I: GENERAL GEOLOGY

8. Mathematics 408C and 408D, or 408K, 408L, and 408M. 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. 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 without degree credit to remove their deficiency.


10. Computer Sciences 303E.

11. Chemistry 301 and 302.

12. Geological Sciences 325K may also be counted toward the total number of semester hours required for the degree. 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 without degree credit to remove their deficiency.

13. Nine semester hours chosen from a list of approved courses in aerospace engineering, architectural engineering, astronomy, biology, chemical engineering, chemistry, civil engineering, computer sciences, engineering mechanics, geography, marine science, mathematics, mechanical engineering, petroleum and geosystems engineering, and physics. Geological Sciences 325K may also be counted toward requirement 13.

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 undergraduate adviser.

14. Enough additional coursework to make a total of 126 semester hours.

OPTION II: GEOPHYSICS

8. Mathematics 408C and 408D, or 408K, 408L, and 408M; 427K; and 427L. 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. 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 without degree credit to remove their deficiency.


10. Computer Sciences 303E.

11. Chemistry 301 and 302.


13. Nine semester hours chosen from a list of approved courses in aerospace engineering, astronomy, chemistry, civil engineering, computer sciences, electrical engineering, geophysics, mathematics, mechanical engineering, petroleum and geosystems engineering, and physics.

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 undergraduate adviser.

14. Enough additional coursework to make a total of 126 semester hours.
OPTION III: HYDROGEOLOGY/ENVIRONMENTAL GEOLOGY

8. Mathematics 408C and 408D, or 408K, 408L, and 408M; and 427K. 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. 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 without degree credit to remove their deficiency.

9. Physics 301, 101L, 316, and 116L; or Physics 303K, 103M, 303L, and 103N.

10. Chemistry 301, 302, and 204.

11. Biology 311C.

12. Geological Sciences 401 or 303 or 312K, 416K, 416M, 428, 346C, 476K, and 476M. Also required is one of the following: Geological Sciences 660A and 660B, or 376L and 660B, or 679J. The student must also complete six additional semester hours of upper-division coursework in geological sciences.

13. Nine 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.

   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 undergraduate adviser.

14. Enough additional coursework to make a total of 126 semester hours.

OPTION IV: 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; however, completion of the course requirements does not guarantee the student’s certification. 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.

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. For information about the portfolio review and additional certification requirements, consult the UTeach-Natural Sciences academic adviser.

8. In place of requirement 2 above, either two years of high school coursework in a single foreign language or course 506 (or the equivalent) in a foreign language.

9. To fulfill requirement 5 above, students in the teaching option may complete three semester hours of lower-division or upper-division coursework in anthropology, economics, geography, linguistics, psychology, or sociology.

10. Mathematics 408C. 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. 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 without degree credit to remove their deficiency.

11. To fulfill requirement 6 above, students must complete History 329U or Philosophy 329U.

12. Geological Sciences 401 or 303 or 312K, 404C or 405, 416K, 416M, 420K or 320L, 335, and enough additional upper-division coursework in geological sciences to make a total of at least twenty-eight semester hours.

13. To meet the requirements of composite certification, the student must complete
   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.


16. 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.

17. Students seeking middle grades certification must complete the following courses, 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 371 (Topic 10: Secondary School Reading in the Content Subjects).

18. Enough additional coursework to make a total of 128 semester hours.
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 under a partnership between the College 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, 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, probability and statistics, 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**

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. Courses that fulfill the social science and fine arts/humanities requirements are listed on page 143. Students must fulfill the foreign language requirement given on page 143. They must also remove any admission deficiencies in mathematics as described in General Information. A suggested arrangement of courses by semester is given on page 175.

<table>
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<tr>
<th>COURSES</th>
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<td><strong>Basic Sequence Courses</strong></td>
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<td><strong>Major Sequence Courses</strong></td>
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<tr>
<td>Civil Engineering 357, Geological Sciences 428, 468K, 476K, 376L, 376S, Petroleum and Geosystems Engineering 323K, 323L, 323M, 424, 326, 365, 368, 373L</td>
<td>46</td>
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<td><strong>Other Required Courses</strong></td>
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<td>American government, including Texas government</td>
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<tr>
<td>American history</td>
<td>6</td>
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<tr>
<td>Approved fine arts or humanities elective</td>
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<tr>
<td>Approved social science elective</td>
<td>3</td>
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<tr>
<td><strong>MINIMUM REQUIRED</strong></td>
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The faculty has approval to offer the following courses in the academic years 2006–2007 and 2007–2008; 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.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

### GEOLOGICAL SCIENCES: GEO

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 on pages 658–662.

#### Lower-Division Courses

- **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.

- **302C. Climate: Past, Present, and Future.** Designed for non-science 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.

- **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 geological sciences.

- **302E. Earth, Wind, and Fire.** Designed for non-science 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 geological sciences.

- **302K. Selected Topics in Geological Sciences.** Designed for non-science 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 be repeated for credit when the topics vary. May not be counted toward a degree in geological sciences.

#### Upper-Division Courses

- **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. Normally offered in the spring semester only. May not be counted toward a degree in geological sciences.

- **302M. The Age of Mammals.** Introductory-level course on paleontology and natural history for non-science majors. Basic geologic 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 geological sciences.

- **302P. Living with a Planet.** Designed for non-science majors. Environmental change on local and global scales, as a result of natural and anthropogenic causes. The history of the earth and its environment, water cycle, sediment cycle, atmosphere, and climate. Geological records of environmental change from billion-year to El Niño time scales. The human dimension of global change, including air and water pollution, desertification, deforestation, use of resources, global climate, loss of habitat, and the role of science in addressing these issues. 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.

- **404C. Plate Tectonics and Earth History.** Application of plate tectonics to the origin and history of the 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, 303, or 312K with a grade of at least C.

- **405 (TCCN: GEOL 1404). Life through Time.** 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 404C and 405 may not both be counted. **Prerequisite:** Geological Sciences 401, 303, or 312K with a grade of at least C.
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 geological sciences, geosystems engineering and hydrogeology, or petroleum engineering.

307 (TCCN: GEOL 1345). Introduction to Oceanography. Same as Marine Science 307. Introduction to the sciences of oceanography: geological, physical, and biological. Two lecture hours and two laboratory hours a week for one semester. May not be counted toward the Bachelor of Arts degree with a major in geological sciences, the Bachelor of Science in Geological Sciences (Option I), the Bachelor of Science in Geological Sciences (Option II), or the Bachelor of Science in Geological Sciences (Option III).

110C, 210C, 310C. Conference Course. Supervised study of selected topics in geological sciences, by individual arrangement with the department and the instructor. May be repeated for credit when the topics vary. 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. Prerequisite: Written consent of instructor.

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. Offered on the pass/fail basis only. May not be substituted for any required geological sciences course. Prerequisite: Written consent of instructor.

312K. Geology of Engineering. Geologic processes, conditions, materials, and history, and their importance in engineering problems. 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.

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. May be repeated for credit. Offered on the pass/fail basis only. Geological Sciences 310C (Topic: Geophysics Colloquium) and 114G may not both be counted.

416K. Earth Materials. 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, 303, or 312K 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.

416M. Sedimentary Rocks. 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. Prerequisite: Geological Sciences 401, 303, or 312K with a grade of at least C.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

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.

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. Normally offered in the spring semester only. Geological Sciences 420K and 320L may not both be counted. Prerequisite: For students seeking the Bachelor of Science in Geological Sciences, Geological Sciences 416K and 416M with a grade of at least C in each, and credit with a grade of at least C or registration for Geological Sciences 426P; for others, Geological Sciences 416K and 416M with a grade of at least C in each.

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. Offered on the pass/fail basis only. Geological Sciences 420K and 320L may not both be counted. May not be counted toward the Bachelor of Arts degree with a major in geological sciences, the Bachelor of Science in Geological Sciences (Option I), the Bachelor of Science in Geological Sciences (Option II), or the Bachelor of Science in Geological Sciences (Option III). Prerequisite: Geological Sciences 401, 303, or 312K, or consent of instructor.

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: Geological Sciences 404C or 405, 416M, and six semester hours of coursework in biology, with a grade of at least C in each course.

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.
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 three laboratory hours a week for one semester. Normally offered in the fall semester only, in alternate years. Only one of the following may be counted: Geological Sciences 322V, 371C (Topic: Morphology of the Vertebrate Skeleton), 389B, 391 (Topic: Morphology of the Vertebrate Skeleton). Prerequisite: Biology 214, Geological Sciences 404C, Geological Sciences 405, or the equivalent, or consent of instructor.

325K. Computational Methods in Geological Sciences. Programming in appropriate computer languages, with applications to problems in geological sciences. Two lecture hours and two laboratory hours a week for one semester. Normally offered in the fall semester only. Prerequisite: Mathematics 408D or a college-level course in an appropriate computer programming language, or consent of instructor.

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 303K and 103M.

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. Offered in the fall semester only. 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.

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 420K with a grade of at least C, Physics 301 and 101L or 303K and 103M 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 students pursuing the Bachelor of Arts with a major in geological sciences, Geological Sciences 420K with a grade of at least C and three semester hours of coursework in mathematics other than Mathematics 301, 316K, or 316L; for others, consent of instructor.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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.

330K. Petroleum Geology: Basin and Trend Analysis. Attributes of the subsurface environment; fundamentals of petroleum generation, migration, entrapment, and productivity; and interpretation methods used in petroleum exploration. Two lecture hours and two laboratory hours a week for one semester. Normally offered in the spring semester only. Prerequisite: Geological Sciences 416M with a grade of at least C, and Physics 303L or 316.

331K. Petrology and Plate Tectonics. Sedimentation, metamorphism, igneous activity, and deformation patterns at rift zones, subduction zones, and transform margins. Offered irregularly, as shown in the Course Schedule. Prerequisite: Geological Sciences 428 with a grade of at least C.

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 one laboratory hour 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 Bachelor of Science in Geological Sciences (Option I), the Bachelor of Science in Geological Sciences (Option II), or the Bachelor of Science in Geological Sciences (Option III). Prerequisite: Upper-division standing; Geological Sciences 401, 303, or 312K; and Geological Sciences 404C or 405.

341. Mineral Resources, Society, and the Environment. Nature and origin of mineral resources; their discovery, extraction, and use; 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.

344K. Marine Mining and Minerals. Same as Marine Science 344K. Overview of seafloor mineral deposits, their exploration and mining. Offered irregularly, as shown in the Course Schedule. May not be counted toward the Bachelor of Science in Geological Sciences degree. Prerequisite: Geological Sciences 401, 303, or 312K; 416K; and 416M.
346C. Environmental 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. Normally offered in the spring semester only. **Prerequisite:** Chemistry 302 and Mathematics 408C with a grade of at least C in each.

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. **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.

348K. Training Cruise(s): Marine Geophysical Research. Same as Marine Science 348 (Topic 2: Marine Geophysical Research). Multiday cruise to collect seismic, magnetic, gravitational, bathymetric, or other geophysical data. Postcruise data processing and/or analysis and a report are required. May be repeated for credit when the topics vary. **Prerequisite:** Consent of instructor and one of the following: Marine Science 307, 367K, Geological Sciences 401, 303, 312K. Geological Sciences 416M, 420K or 320L, and 465K are recommended.

354. Global Geophysics. Earth structure implied by gravity, seismicity, heat flow, and the magnetic field; crustal movements and their effect on the configuration of oceans and continents. Normally offered in the spring semester only. **Prerequisite:** Mathematics 408D with a grade of at least C; either Physics 303L and 103N or 316 and 116L with a grade of at least C in each; and Physics 315 and 115L with a grade of at least C in each, or consent of instructor.

358K. Volcanology. Ash deposits, lava flows, eruption processes; prediction and mitigation of volcanic hazards. Three lecture hours and two laboratory hours a week for one semester. Offered irregularly, as shown in the Course Schedule. **Prerequisite:** Geological Sciences 426P or upper-division standing in geological sciences.

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 420K and 428 with a grade of at least C in each.

465K. Exploration Geophysics. Quantitative study of geophysical exploration methods, including seismology, gravity, magnetism. Three lecture hours and two laboratory hours a week for one semester. Normally offered in the fall semester only. **Prerequisite:** The following courses, with a grade of at least C in each: Mathematics 427K, 427L, Physics 315, 115L. (Students may register for Mathematics 427L concurrently.)

365N. Geophysical Data Processing. Introduction to digital filtering and processing of geophysical data. Normally offered in the fall semester only. **Prerequisite:** Geological Sciences 325K or the equivalent.

468K. Geophysics for Geological Sciences Majors. Wave motion principles and application to seismic exploration; magnetic, gravitational, and other geophysical methods. 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.

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.

171C, 271C, 371C. Conference Course. Supervised study of selected topics in geological sciences, by individual arrangement with the department and instructor. May be repeated for credit when the topics vary. May not be substituted for any required geological sciences course. **Prerequisite:** Written consent of instructor.

171H. Research Methods. 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:** Sixty semester hours of college coursework, including at least twelve semester 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.

172H. Research Methods. 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.

173H. Research Methods. 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 172H, and admission to the Geological Sciences Honors Program or consent of instructor.

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 103N or 316 and 116L.
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.

376L. **Field Methods in Groundwater Hydrology.** Introduction to field methods, including geophysics, pump tests, stream gauging, well-logging, water sampling, and mapping. An intensive three-week 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 476K with a grade of at least C, or consent of instructor.

476M. **Chemical Hydrogeology.** An introduction to aqueous geochemistry and contaminant hydrogeochemistry; topics include basic thermodynamics, kinetics, rock-water interactions, and solute transport. Three lecture hours and one and one-half laboratory hours a week for one semester. Normally offered in the spring semester only. **Prerequisite:** Geological Sciences 476K with a grade of at least C.

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. Normally offered in the fall semester only. **Prerequisite:** Geological Sciences 346C or Mathematics 408D with a grade of at least C.

377P. **Physical Climatology.** Investigates the nature of earth’s climate and examines the physical processes that maintain the climate system. **Prerequisite:** Upper-division standing; and Mathematics 408D, Physics 303K, Geography 301K, and Computer Sciences 303E, or their equivalents.

679G. **Special Studies in Geophysics.** Special research projects, fieldwork, 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 grade point average in science of at least 3.00 and consent of instructor.

379H. **Honors Tutorial Course.** Special studies project resulting in research report or honors thesis with oral defense of project. Conference course. May be counted as three of the six geological sciences senior elective hours. **Prerequisite:** Consent of the student’s research supervisor and the departmental honors adviser.

679I. **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.

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.

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.
The School of Information offers the Master of Science in Information Studies and the Doctor of Philosophy. 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 undergraduate courses listed below in the academic years 2006–2007 and 2007–2008. For undergraduates who are interested in a thorough introduction to information studies, the faculty has designed a curriculum that consists of 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 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.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

### INFORMATION STUDIES: INF

#### Lower-Division Courses

**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. Information Studies 301C and Library and Information Science 301C may not both be counted.

**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.
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.

304D. Introduction to Information Studies. Overview of the information field as it relates to the technology-based 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. Only one of the following may be counted: Information Studies 304D, 304W, 318D. Prerequisite: Lower-division standing.

304W. Introduction to Information Studies. Overview of the information field as it relates to the technology-based 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. May be repeated for credit when the topics vary. Information Studies 304E and 315W may not both be counted unless the topics vary.

315W. Information and Culture. Examines information as a cultural phenomenon. Topics may include e-commerce, 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. May be repeated for credit when the topics vary. Information Studies 315E and 315W may not both be counted unless the topics vary.

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. Only one of the following may be counted unless the topics vary: Information Studies 118C, 218C, 318C, Library and Information Science 118C, 218C, 318C.

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.

322T. Children's Literature. Evaluation, selection, and proper and creative use of books and other media with children. Only one of the following may be counted: Information Studies 322T, 322W, Library and Information Science 322T. Prerequisite: Upper-division standing.

322W. Children's Literature. Evaluation, selection, and proper and creative use of books and other media with children. Web-based instruction; no class meetings. Only one of the following may be counted: Information Studies 322T, 322W, Library and Information Science 322T. Prerequisite: Upper-division standing.

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. May be repeated for credit when the topics vary. Information Studies 327E and 327W may not both be counted unless the topics vary. Prerequisite: Upper-division standing.

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. May be repeated for credit when the topics vary. Information Studies 327E and 327W may not both be counted unless the topics vary. Prerequisite: Upper-division standing.
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 328C, 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: Upper-division standing. Additional prerequisites may vary with the topic and are given in the Course Schedule.

331C. Beyond Google. A general introduction to information searching and evaluating information in digital, print, visual, and aural formats. Information Studies 331C and 331W may not both be counted. Prerequisite: Upper-division standing.

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.

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. Information Studies 343C and 343W may not both be counted. Prerequisite: Upper-division standing.

343W. Information Organization and Access. A general introduction to information searching and evaluating information in digital, print, visual, and aural formats. Web-based instruction; no class meetings. Information Studies 343C and 343W may not both be counted. Prerequisite: Upper-division standing.

350E. Information Technology. Design and use of digital technologies, including interface design, trends in information technology development, usability, information retrieval, immersive media, and information architecture. May be repeated for credit when the topics vary. Information Studies 350E and 350W may not both be counted unless the topics vary. Prerequisite: Upper-division standing.

350W. Information Technology. Design and use of digital technologies, including interface design, trends in information technology development, usability, information retrieval, immersive media, and information architecture. Web-based instruction; no class meetings. May be repeated for credit when the topics vary. Information Studies 350E and 350W may not both be counted unless the topics vary. Prerequisite: Upper-division standing.
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 of study are provided for as effectively as possible.

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 concentration, 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.

The assumption is sometimes made by both teachers and students that independent and creative study is exclusively for the gifted. In fact, the primary condition 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—not only in special honors courses and seminars and in conference, studio, or laboratory work, but also in their regular courses. 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.
SCHOLARSHIPS AWARDED THROUGH THE COLLEGE OF LIBERAL ARTS

Special scholarships established by individuals and foundations are open to undergraduates in the College of Liberal Arts. Some of these scholarships are described below. Financial assistance is also available in many College of Liberal Arts departments for specific undergraduate majors.

Students with financial need should apply to the Office of Student Financial Services. The Center for Global Educational Opportunities also administers a number of awards designed to help qualified students participate in international programs.

For more information on College of Liberal Arts scholarships, go to http://www.utexas.edu/cola/scholarships/merit/. Web sites with information on some specific scholarships are also listed below.

COLLEGE OF LIBERAL ARTS

Scholarship: Rapoport Service Scholarship
Donor: The Bernard and Audre Rapoport Foundation
Amount: $7,500 to $10,000
Eligibility: Freshman students with a financial aid application on file in the Office of Student Financial Services. The scholarship program was endowed to encourage a spirit of civic engagement and responsibility in students majoring in the College of Liberal Arts. During the summer, students devote two hundred hours to community service; during the academic year they take a course designed to provide an intellectual foundation for their experience and also participate in group activities. More information is available at http://www.utexas.edu/cola/scholarships/rapoport_service_program/.
Apply to: Scholarships Coordinator, College of Liberal Arts, by March 1

Scholarship: Robert D. King Dean's Distinguished Graduates Endowed Presidential Scholarship in the Liberal Arts
Donors: Michelle K. Brock; friends and colleagues
Amount: $2,500
Eligibility: Upper-division students who have completed at least forty-five semester hours of coursework on the letter-grade basis in residence at the University, including at least one semester of coursework in the College of Liberal Arts. Students must have a University grade point average of at least 3.70 and must provide evidence of achievement in leadership and service to the college and the community.
Apply to: Scholarships Coordinator, College of Liberal Arts, by March 1

Scholarship: Douglas Samuel and Amali Runyon Perkins Endowed Presidential Scholarship
Donors: Mr. and Mrs. Richard D. Perkins
Amount: $2,500
Eligibility: Undergraduate students who have completed at least forty-five semester hours of coursework on the letter-grade basis in residence at the University, including at least one semester of coursework in the College of Liberal Arts. Students must have a University grade point average of at least 3.70 and must provide evidence of achievement in leadership and service to the college and the community. Preference is given to students who have shown academic achievement, character, interest, and potential for success.
Apply to: Scholarships Coordinator, College of Liberal Arts, by March 1

Scholarship: Betty Johnson Halsell Endowed Presidential Scholarship in Liberal Arts
Donor: Harriet Halsell
Amount: $2,500
Eligibility: Undergraduate students who have completed at least forty-five semester hours of coursework on the letter-grade basis in residence at the University, including at least one semester of coursework in the College of Liberal Arts. Students must have a University grade point average of at least 3.70 and must provide evidence of achievement in leadership and service to the college and the community. Preference is given to students who demonstrate financial need.
Apply to: Scholarships Coordinator, College of Liberal Arts, by March 1

Scholarship: Elva J. Johnston Endowed Presidential Scholarship in the College of Liberal Arts
Donor: Elva J. Johnston Foundation
Amount: $2,500
Eligibility: Undergraduate students who have completed at least forty-five semester hours of coursework on the letter-grade basis in residence at the University, including at least one semester of coursework in the College of Liberal Arts. Students must have a University grade point average of at least 3.70 and must provide evidence of achievement in leadership and service to the college and the community. Preference is given to students from the Houston metropolitan area.
Apply to: Scholarships Coordinator, College of Liberal Arts, by March 1

Scholarship: Frances Rather Seybold and Frances Randolph Rather Seybold Endowed Presidential Scholarship
Donor: William D. Seybold, MD
Amount: $2,500
Eligibility: Undergraduate students who have completed at least forty-five semester hours of coursework on the letter-grade basis in residence at the University, including at least one semester of coursework in the College of Liberal Arts. Students must have a University grade point average of at least 3.70 and must provide evidence of achievement in leadership and service to the college and the community. Preference is given to students who have shown academic achievement, character, interest, and potential for success.
Apply to: Scholarships Coordinator, College of Liberal Arts, by March 1
of coursework in the College of Liberal Arts. Students must have a University grade point average of at least 3.70 and must provide evidence of achievement in leadership and service to the college and the community. Students are selected on the basis of scholarship, financial need, leadership, and good citizenship.

Apply to: Scholarships Coordinator, College of Liberal Arts, by March 1

**Scholarship:** Paul and Tish Szurek Endowed Presidential Scholarship

Donors: Mr. and Mrs. Paul E. Szurek

Amount: $2,500

Eligibility: Undergraduate students who have completed at least forty-five semester hours of coursework on the letter-grade basis in residence at the University, including at least one semester of coursework in the College of Liberal Arts. Students must have a University grade point average of at least 3.70 and must provide evidence of achievement in leadership and service to the college and the community. Preference is given to students from El Paso County pursuing a major in government or economics who demonstrate financial need.

Apply to: Scholarships Coordinator, College of Liberal Arts, by March 1

**Scholarship:** Frances Brannen Vick Endowed Presidential Scholarship

Donor: Dr. Frances B. Vick

Amount: $2,500

Eligibility: Upper-division students who have completed at least sixty semester hours of coursework, including at least thirty hours in residence at the University, with a grade point average of at least 3.70

Apply to: Chair, Department of American Studies, on or before March 1

**Scholarship:** M. B. and Edna Zale Endowed Presidential Scholarship

Donor: M. B. and Edna Zale Foundation

Amount: $2,500

Eligibility: Undergraduate students who have completed at least forty-five semester hours of coursework on the letter-grade basis in residence at the University, including at least one semester of coursework in the College of Liberal Arts. Students must have a University grade point average of at least 3.70 and must provide evidence of achievement in leadership and service to the college and the community. Students must be pursuing two majors.

Apply to: Scholarships Coordinator, College of Liberal Arts, by March 1

**DEPARTMENT OF AMERICAN STUDIES**

**Scholarship:** Dr. Bailey R. Collins/Ellene Collins Ward/Mary Sue Collins Hibbs Scholarship

Donor: Mary Sue Hibbs Estate

Amount: Up to $2,000; may be divided between two students

Eligibility: Undergraduate American studies major who has completed at least sixty semester hours of coursework, including at least thirty hours in residence at the University, with a grade point average of at least 3.70

Apply to: Chair, Department of American Studies, on or before March 1

**DEPARTMENT OF ANTHROPOLOGY**

**Scholarship:** Dr. Bailey R. Collins/Ellene Collins Ward/Mary Sue Collins Hibbs Scholarship

Donor: Mary Sue Hibbs Estate

Amount: Up to $2,000; may be divided between two students

Eligibility: Undergraduate anthropology major who has completed at least sixty semester hours of coursework, including at least thirty hours in residence at the University, with a grade point average of at least 3.70

Apply to: Chair, Department of Anthropology, on or before March 1

**DEPARTMENT OF ASIAN STUDIES**

**Scholarship:** Asian Studies Scholarship for Study Abroad

Source: International Office, The University of Texas at Austin

Amount: To be determined by the Department of Asian Studies

Eligibility: Undergraduate or graduate students with demonstrated commitment to Asian area studies and at least one year of Asian language study who wish to study in Asia

Apply to: Department of Asian Studies, by early March

**Scholarship:** China Studies Scholarship for Study Abroad

Source: China Endowment in the Department of Asian Studies

Amount: To be determined by the Department of Asian Studies

Eligibility: Undergraduate or graduate students with at least one year of coursework in Chinese language, demonstrated financial need, and compelling reasons for the proposed study abroad plan

Apply to: Department of Asian Studies, by early March
Scholarship: Mahatma Gandhi Memorial Scholarship
Source: India Community Center of Austin
Amount: $500
Eligibility: Undergraduate students with at least nine semester hours of coursework directly related to India and/or at least two semesters of coursework in an Indian language
Apply to: South Asia Institute, by early March

Scholarship: Mitsubishi Study Abroad Scholarship
Source: Mitsubishi Heavy Industries Forklift America Endowment
Amount: $500 or more
Eligibility: Undergraduate and graduate students who intend to enroll in a study abroad program in Japan, a Japanese language program, or a program related to Japan
Apply to: Department of Asian Studies, by early March

Scholarship: POSCO Korean Study Abroad Scholarship
Source: Korean Foundation/POSCO Korean Studies Endowment
Amount: $500 or more
Eligibility: Undergraduate and graduate students who intend to enroll in a study abroad program in Korea, a Korean language program, or a program related to Korea, with an emphasis on research
Apply to: Department of Asian Studies, by early March

DEPARTMENT OF CLASSICS

Scholarship: William James Battle Scholarship in Classical Languages
Donor: Commander Robert Eikel Jr., United States Navy, 1945
Amount: Up to $500, usually divided between two students
Eligibility: Any undergraduate classics major who shows sufficient knowledge of Greek or Latin to justify the expectation that he or she will help to further the study of the classics
Apply to: Chair, Department of Classics, by April 1

Scholarship: Velma and E. O. Box Jr. Scholarship in Classics
Donors: Velma and E. O. Box Jr.
Amount: Up to $800, usually divided among students
Eligibility: Undergraduate and graduate students in the Department of Classics. Selected on the basis of merit and need by the Undergraduate Studies Committee of the Department of Classics.
Apply to: Chair, Department of Classics, by April 1

DEPARTMENT OF ENGLISH

The selection method for the following scholarships is determined by the scholarship coordinator. Additional information is available at the Undergraduate Advising Center, Department of English.

Scholarship: Janet Guthrie Andrews Endowed Presidential Scholarship in English
Donor: Bolivar C. Andrews, 1991
Amount: $2,500
Eligibility: Qualified students in the Department of English, with preference to students of English literature

Scholarship: The Betty Yarnell Brown Endowed Presidential Scholarship in English
Donor: Barbara Brown Munford, 1991
Amount: $2,500
Eligibility: Deserving undergraduate in the Department of English; preference may be given to a young woman who demonstrates intellectual promise and an interest in teaching English at the secondary school level

Scholarship: Adele Steiner Burleson Scholarship
Donor: Adele Steiner Burleson, by bequest, 1959
Amount: From $1,000 to $2,000
Eligibility: Undergraduate English majors

Scholarship: Cora Crawford Scholarship
Donor: Cora Crawford, by bequest, 1926
Amount: From $1,000 to $2,000
Eligibility: Undergraduate English majors

Scholarship: Sarah Dodson Endowed Scholarship in English
Donors: Relatives of Sarah Dodson, 1987
Amount: $1,000
Eligibility: Deserving undergraduate in the Department of English

Scholarship: The James A. Michener Undergraduate Scholarships in Writing
Donor: James A. Michener, 1994
Amount: From $500 to $2,000
Eligibility: Undergraduate students who have demonstrated exceptional ability in Department of English creative writing courses

Scholarship: The Susan Scanlon Scholarship
Donor: Susan T. Scanlon, 1993
Amount: Up to $1,000
Eligibility: Worthy and promising undergraduate student in creative writing

Scholarship: Joanne Marye Thaman Endowed Presidential Scholarship for the Department of English
Donors: Mr. and Mrs. Arthur J. Thaman and the Exxon Education Foundation, 1992
Amount: $2,500
Eligibility: Qualified students in the Department of English, with preference given to students demonstrating financial need

Scholarship: Lois Ware Scholarship
Donors: Eunice and Naomi Ware, 1974
Amount: From $500 to $1,000
Eligibility: Undergraduate English majors

Scholarship: The Witt Family Scholarship
Donors: Willis and Lois Witt, 1978
Amount: Up to $500
Eligibility: Undergraduate English majors

COMPETITIVE AWARDS IN ENGLISH

The Department of English administers several writing competitions each year, in poetry, short fiction, nonfiction, and criticism. Some contests are held in the fall semester, others in the spring semester; some are open to all University students but others are limited to students enrolled in English classes. Awards are also given for master’s theses, doctoral dissertations, and honors theses. Information about these competitions is available in the Department of English from the Main Office, the Undergraduate Advising Center, and the Graduate Office.

DEPARTMENT OF FRENCH AND ITALIAN

Scholarship: French and Italian Studies Scholarship
Donor: Family and friends of Aaron Schaffer, 1957; of Giovanni Podio, 1985; and of Jason Sokolosky, 1990
Amount: Varies
Eligibility: Graduate and undergraduate students of French and Italian language and literature who propose to continue their study of either language at the University or abroad
Apply to: Chair, Department of French and Italian, by March 15

Scholarship: Christopher B. Schulze Scholarship
Donor: Christopher Schulze, 1991
Amount: Varies
Eligibility: Students at the junior or senior level who are majoring in French and have a University grade point average of 3.00 or better
Apply to: Chair, Department of French and Italian, by March 15. The department chair makes a recommendation to The Texas Exes, which administers the fund.

Scholarship: Sellstrom Scholarship for Excellence in French and Italian
Donors: A. Donald Sellstrom and Eleanor Sellstrom, 1991
Amount: Varies
Eligibility: Undergraduate French majors studying at the University or in a French-speaking country who have a University grade point average of 3.00 and who can demonstrate compelling need for financial aid
Apply to: Chair, Department of French and Italian, by March 15

Scholarship: Summer Study in Quebec Province, Canada
Donor: Société de Professeurs Français et Francophones en Amérique
Amount: Varies
Eligibility: Advanced undergraduate students and graduate students
Apply to: Chair, Department of French and Italian, by November 25

DEPARTMENT OF GEOGRAPHY AND THE ENVIRONMENT

Scholarship: Holz–English Honors Thesis Fellowship
Donor: Funds from the Erich W. Zimmermann Professorship in Geography
Amount: Up to $500
Eligibility: Available on a competitive basis to undergraduate students majoring in geography who wish to write an honors thesis. One or more grants are made each year.
Apply to: Department of Geography and the Environment

DEPARTMENT OF GERMANIC STUDIES

Scholarship: J. Lassen Boysen Scholarship
Donor: Helen M. I. Boysen
Amount: Approximately $500
Eligibility: German majors at the junior level with a University grade point average of at least 3.50
Apply to: Department of Germanic Studies, by March 15

Scholarship: Linneas of Texas Swedish Centennial Endowed Scholarship
Donor: Linneas of Texas
Amount: Inquire at the Office of Student Financial Services
Eligibility: Preference will be given to Scandinavian majors; additional criteria available at the Office of Student Financial Services
Apply to: Office of Student Financial Services
Scholarship: W. F. and Marian Michael Play Scholarship
Donor: Contributions in connection with annual German play
Amount: Approximately $500
Eligibility: German majors with a University grade point average of at least 3.00, fewer than ninety semester hours of credit, and interest in departmental activities and service
Apply to: Department of Germanic Studies, by March 15

Scholarship: Ralph R. Read Endowed Scholarship for Undergraduate Students
Donor: Ralph Read
Amount: Up to $1,000
Eligibility: Undergraduate in the College of Liberal Arts with fewer than ninety semester hours of credit and a University grade point average of at least 3.25 who has completed at least thirty semester hours in residence. Special consideration is given to students in the Department of Germanic Studies.
Apply to: Office of Student Financial Services

DEPARTMENT OF GOVERNMENT

Scholarship: Victor M. Aguilar Memorial Endowed Scholarship
Donors: Venilde Aguilar and Eloy Aguilar
Amount: Varies
Eligibility: Government majors from south Texas who are in good standing and have demonstrated financial need. Preference is given to graduates of McAllen Memorial High School.
Apply to: Chair, Department of Government, by March 15

Scholarship: Jacqueline Eckert Timm Endowed Scholarship in Government
Donor: Jacqueline Eckert Timm
Amount: Varies
Eligibility: Outstanding upper-division students majoring in government
Apply to: Chair, Department of Government, by March 15

Scholarship: Joe R. Long Endowed Scholarship
Donor: Joe R. Long
Amount: $2,500; multiple awards each year
Eligibility: Undergraduate students in the Department of Government who have demonstrated financial need. Preference is given to students with an interest in pursuing some aspect of democratic studies.
Apply to: Chair, Department of Government, by March 15

Scholarship: Edward Taborsky Scholarship
Donor: Nolie Richard Keenan Jr. Estate
Amount: $3,000
Eligibility: Government major with financial need, a University grade point average of at least 2.50, and a grade point average of at least 3.00 in government courses
Apply to: Chair, Department of Government, by March 15

DEPARTMENT OF HISTORY

Scholarship eligibility, procedures, and deadlines are determined annually by the department chair and the faculty Undergraduate Scholarship Committee. Undergraduate history majors interested in scholarship opportunities should contact the History Advising Office for more information.

Scholarship: Ann Schumacher Adkins Scholarship in German-Texas History
Donor: Ward N. Adkins
Amount: Varies
Eligibility: Texas residents who are studying or planning to study the lives and work of German Texas immigrants and their descendants. Preference is given to those who plan to study immigrants to the Gulf Coast and central Texas. Scholarship merit is a major consideration in making the award. May be awarded to a graduate or undergraduate student.

Scholarship: Matilda Weeden Barker Scholarship in History
Donor: Abigail Curlee Holbrook Estate
Amount: $800

Scholarship: Anne Perkins Garrison Scholarship in History
Donor: Abigail Curlee Holbrook Estate
Amount: $800

Scholarship: Gardner F. Marston Endowed History Scholarship Fund
Donor: Gardner F. Marston
Amount: $500
Eligibility: May be awarded to a graduate or an undergraduate student

Scholarship: Martin Parmer Scholarship in Texas History
Donors: Mr. Ross W. Vick Jr. and Mrs. Frances B. Vick
Amount: $1,000
Eligibility: Students studying Texas history

Scholarship: Thad W. Riker Scholarship
Donor: Nolie Richard Keenan Jr. Estate
Amount: From $3,000 to $4,000
Eligibility: Students in the Normandy Scholar Program. Students may also receive funding from an endowment established by Mr. Frank Denius and from the Derek Schaver Scholarship in Liberal Arts.

Scholarship: Grace Rebecca Rubert Scholarship
Donor: Grace Rebecca Rubert Estate
Amount: $800
Eligibility: Preference is given to deserving students majoring in American and Texas history.

DEPARTMENTAL NOMINATIONS FOR SCHOLARSHIPS

The Department of History nominates history majors for several scholarships each year. Specific procedures and deadlines are determined by the de-
partment chair and the faculty Undergraduate Scholarship Committee. These scholarships include:

**Scholarship:** Dr. Bailey R. Collins/Ellene Collins Ward/Mary Sue Collins Hibbs Scholarship  
**Donor:** Mary Sue Hibbs Estate  
**Amount:** Up to $4,000; may be divided between two or more students.  
Nominations are made by the department to the College of Liberal Arts each spring. Awards are made the following fall.

**Scholarship:** Raymond Starr Scholarship for History (Texas Exes)  
**Donor:** Raymond Starr  
**Amount:** $800  
Nominations are made by the department to the Texas Exes each spring. Awards are made the following fall.

**AWARDS AND PRIZES**

Each May, the director of the History Honors Program chooses two senior history honors students to receive the following awards:

- The Lewis L. Gould Best Thesis Prize for Excellence in the Study of American History (US)
- The John Ferguson-Claudio G. Segré Best Thesis Prize for Excellence in the Study of History (non-US)

The Department of History often receives donations from individuals who wish to reward outstanding effort by undergraduates studying history. Recent awards have included the Louis Tuffly Ellis Award for Excellence in the Study of Texas History, a South Asian History Award, and a $5,000 gift from Mr. Trevor Rosson that helped history honors students fund their historical research and writing. The procedures for applying are determined by the department chair and the faculty Undergraduate Scholarship Committee.

**HUMANITIES PROGRAM**

**Scholarship:** Karyn Diana Cameron Endowed Presidential Scholarship  
**Donors:** Dr. and Mrs. Guy N. Cameron  
**Amount:** $2,000  
**Eligibility:** Undergraduates accepted into the Humanities Program

**Scholarship:** Mr. and Mrs. Marvin K. Collie Endowed Presidential Scholarship  
**Donors:** Mr. and Mrs. Marvin K. Collie  
**Amount:** $2,000  
**Eligibility:** Undergraduates accepted into the Humanities Program

**Scholarship:** James and Dorothy Doyle Scholarship in Western Civilization  
**Donors:** Mr. and Mrs. James T. Doyle  
**Amount:** Varies  
**Eligibility:** Undergraduates accepted into the Humanities Program, with academic emphasis in Western civilization

**JUNIOR FELLOWS PROGRAM**

Various scholarships are available for students participating in Junior Fellows, a program administered by the College of Liberal Arts but open to all qualified students on campus. The scholarships vary in amount, depending on the amount of financial assistance needed by the student for his or her research project. Applications should be submitted to the director of the Junior Fellows Program in November. For further information, contact the Liberal Arts Honors Programs Office.

**TERESA LOZANO LONG INSTITUTE OF LATIN AMERICAN STUDIES**

**Scholarship:** Republic of Mexico Solidaridad Endowed Presidential Scholarship  
**Donor:** Discretionary gifts dedicated by the president of the University in honor of President Carlos Salinas de Gortari of Mexico  
**Amount:** $2,000  
**Eligibility:** Citizen of Mexico for study at the University. The student may be pursuing any academic major at the undergraduate or graduate level.  
Apply to: Mexican Center, Teresa Lozano Long Institute of Latin American Studies

**DEPARTMENT OF MIDDLE EASTERN STUDIES**

**Scholarship:** Dan C. Danciger Scholarships in Hebrew Studies  
**Donor:** Dan Danciger Foundation, by endowment  
**Amount:** Varies  
**Eligibility:** Undergraduate and graduate students who show high quality of work, overall and in Hebrew courses, and who need financial assistance. Students must be enrolled in a Hebrew language or literature course.  
Apply to: Department of Middle Eastern Studies, by October 15

**Scholarship:** Dr. Bailey R. Collins/Ellene Collins Ward/Mary Sue Collins Hibbs Scholarship  
**Donor:** Mary Sue Hibbs Estate  
**Amount:** Up to $2,000; may be divided between two students  
**Eligibility:** An undergraduate Arabic language and literature, Hebrew language and literature, Islamic studies, Jewish studies, Middle Eastern studies, Persian language and literature, or Turkish language and literature major who has completed at least sixty semester hours of undergraduate coursework, including at least thirty hours in residence at the University, with a grade point average of at least 3.70  
Awarded by faculty nomination.
DEPARTMENT OF PHILOSOPHY

Scholarship: Dr. Bailey R. Collins/Ellene Collins Ward/Mary Sue Collins Hibbs Scholarship
Donor: Mary Sue Hibbs Estate
Amount: Up to $2,000; may be divided between two students
Eligibility: Undergraduate philosophy major who has completed at least sixty semester hours of coursework, including at least thirty hours in residence at the University, with a grade point average of at least 3.70
Apply to: Undergraduate adviser, Department of Philosophy, on or before March 1

PLAN II HONORS PROGRAM

Plan II awards the following scholarships to Plan II majors primarily on the basis of need. Scholarships range from $500 to $5,000. The application process will be announced early in the spring semester for scholarships that will be awarded the following school year.

While the majority of Plan II scholarships are designated for continuing students, a few scholarships may be awarded each year on the basis of merit and need to incoming freshmen who have submitted the Application for Freshman Scholarships to the Office of Student Financial Services. This application is available from the Office of Admissions and the Office of Student Financial Services and at http://financial.utexas.edu/sources/scholarships/applying.html.

In addition to the competitive scholarships listed below, Plan II awards modest grants for research support for the senior thesis and for study abroad. Students should request a grant application form in the Plan II office. The deadline to apply for a senior thesis research grant is November 1; for the travel abroad grant, the application deadline is March 1.

Unless otherwise indicated, all Plan II students are eligible for the following awards. Applications must be submitted to the director of the Plan II Honors Program by March 1.

Scholarship: Plan II Alumni Endowed Presidential Scholarship
Donors: President’s Associates; alumni and friends of Plan II
Amount: $2,500
Eligibility: Plan II student with evidence of financial need

Scholarship: Leslie Dyess Blanton Scholarship
Donors: Mr. and Mrs. Jack S. Blanton Jr.
Amount: Up to $5,000
Eligibility: Plan II student with evidence of financial need

Scholarship: Bettie P. Cook Endowed Scholarship in Plan II
Donors: Family and friends of Bettie Cook
Amount: Up to $1,000

Scholarship: Christoph Friederich Doscher Endowed Scholarship
Donor: J. Henry Doscher Jr.
Amount: $1,000
Eligibility: Plan II student with evidence of financial need

Scholarship: Louise and Ira Iscoe Endowed Presidential Scholarship
Donors: Professor and Mrs. Ira Iscoe
Amount: $2,500
Eligibility: Preference given to Plan II students with a concentration in psychology

Scholarship: Joe P. Liberty Endowed Scholarship in Plan II
Donor: Rauscher Pierce Refsnes, Inc.
Amount: Up to $1,000

Scholarship: Merrill Family Scholarship
Donors: Dr. and Mrs. Arthur J. Merrill Jr.
Amount: $3,000
Eligibility: Plan II student with evidence of financial need

Scholarship: William Negley Endowed Presidential Scholarship in Plan II
Donor: Adele Sidney Burleson Smith
Amount: $2,500

Scholarship: Richard L. Nelson Memorial Endowed Presidential Scholarship
Donors: Family and friends of Richard L. Nelson
Amount: Up to $2,500
Eligibility: Plan II student planning to study abroad

Scholarship: Chad Oliver Memorial Scholarship in Plan II
Donors: Family, friends, and colleagues
Amount: Up to $2,000

Scholarship: Willis Pratt Endowed Scholarship in Plan II
Donors: President’s Associates
Amount: Up to $500

Scholarship: Macey Hodges Reasoner Endowment
Donors: Lee and Joseph D. Jamail
Amount: Up to $5,000
Eligibility: Plan II student with evidence of financial need

Scholarship: Robertson Family Scholarship in Plan II
Donors: Mr. and Mrs. Corbin J. Robertson Jr.
Amount: $2,500 a year for four years
Eligibility: Incoming Plan II freshman from The Kinkaid School
Apply to: Applicant selected by the director of the Plan II Honors Program in early April

Scholarship: Stephen Sanders Scholarship
Donors: Mr. and Mrs. B. A. Sanders
Amount: Up to $2,000
Scholarship: Charles Paul Shearn Endowed Scholarship  
Donor: Henry J. Doscher Jr.  
Amount: $2,000  
Eligibility: Plan II student with evidence of financial need

Scholarship: Gregory George Shia Memorial Endowed Presidential Scholarship in Plan II  
Donors: Monica S. Amparo, Adrienne S. Draper, Sylvia S. Jabour, and Dr. and Mrs. George J. Shia  
Amount: $4,000  
Eligibility: Preference given to a Plan II student with financial need graduating from a high school underrepresented at the University

Scholarship: Mrs. Adele Sidney Burleson Smith Endowed Presidential Scholarship in Plan II  
Donor: Adele Sidney Burleson Smith  
Amount: $2,500

Scholarship: Robert C. Solomon Endowed Scholarship in Plan II Honors for Excellence in the Creative Arts and Philosophy  
Donor: Robert C. Solomon  
Amount: $2,500  
Eligibility: Preference given to a Plan II student with interest and talent in the arts

Scholarship: Irwin Spear Memorial Scholarship in Plan II  
Donors: Mrs. Helen C. Spear, family, friends, and colleagues  
Amount: $1,000  
Eligibility: Plan II student with evidence of financial need

Scholarship: Nenetta Carter Tatum Endowed Presidential Scholarship in Plan II  
Donor: Nenetta C. Tatum  
Amount: $2,500

Scholarship: Lois B. Trice Endowed Scholarship in Plan II  
Donors: President’s Associates, Lois Baird Trice Estate  
Amount: Up to $5,000

Scholarship: Kirstin Torgerson Endowed Presidential Scholarship in Plan II  
Donors: Mr. and Mrs. James R. Street  
Amount: $2,500

Scholarship: Tucker Family Endowed Presidential Scholarship  
Donors: Mr. and Mrs. Eliot P. Tucker  
Amount: $2,500  
Eligibility: Plan II student with evidence of financial need

Scholarship: Robert O. Walters Scholarship  
Donors: Diana J. Walters and Robert C. Walters  
Amount: $500  
Eligibility: Preference is given to a Plan II student who is on a University intercollegiate athletic team but has not received a full athletic scholarship, or to a Plan II student who embraces athletic involvement and achievement.

Scholarship: Jerome and Sylvia Wilkenfeld Endowed Plan II Scholarship  
Donors: Mr. and Mrs. Jerome Wilkenfeld  
Amount: $1,000  
Eligibility: A Plan II student also majoring in Spanish, with preference given to a student whose first language is not Spanish

Scholarship: Roger and Ann Worthington Essay Prize Scholarship  
Donors: Mr. and Mrs. Roger G. Worthington  
Amount: $5,000 first prize  
Eligibility: Awarded for the best essay by a Plan II student in an essay competition; the topic is determined each year by Mr. Worthington.

Scholarship: Renee Wolfe Zelman and Norman Zelman Endowed Scholarship Fund  
Donor: Renee W. Zelman  
Amount: Up to $2,500  
Eligibility: Plan II student with evidence of financial need

DEPARTMENT OF PSYCHOLOGY

Scholarship: Dr. Bailey R. Collins/Ellene Collins Ward/Mary Sue Collins Hibbs Scholarship  
Donor: Mary Sue Hibbs Estate  
Amount: Up to $2,000; may be divided between two students  
Eligibility: Undergraduate psychology major who has completed at least sixty semester hours of coursework, including at least thirty hours in residence at the University, with a grade point average of at least 3.70  
Apply to: Chair, Department of Psychology, on or before March 1

ROTC

DEPARTMENT OF AIR FORCE SCIENCE

In addition to the following scholarship for high school seniors and graduates, a number of awards are available to University Air Force ROTC students. For more information, contact the unit admissions officer at (877) 532-2370.

Scholarship: Air Force ROTC College Scholarship for High School Seniors and Graduates  
Donor: United States Air Force  
Amount: Full tuition, laboratory fees, incidental fees, textbook allowance, and a monthly stipend of $250, which increases annually to a maximum of $400 for the senior year. Scholarship length ranges from three to four years. Recipients must continue to meet established academic standards to retain scholarships.  
Eligibility: High school senior or graduate with no full-time college credit, SAT Reasoning Test score of at least 1100 or ACT score of at least 24, a high school grade point average of at least 2.50, graduation in top 40 percent of high school class, and planned college graduation before age twenty-seven
Eligibility: Any student interested in obtaining an Army ROTC Scholarship

Apply to: Department of Military Science, by February 1

Scholarship: Army ROTC Two-Year Scholarship (Active Duty or Reserve Forces Duty)
Donor: United States Army
Amount: Pays for tuition and mandatory fees; for each year of the scholarship, provides an allowance for textbooks and supplies and a stipend of $3,500 to $4,000
Eligibility: Any student interested in obtaining an Army ROTC commission who (1) is a United States citizen; (2) is under twenty-five years of age on June 30 of the year the scholarship terminates (an extension of up to four years is granted for previous active duty service; the length of the extension may not exceed the length of service); (3) has two full years of college left to obtain an undergraduate degree; and (4) has a grade point average of at least 2.50
Apply to: Department of Military Science, by February 1

Scholarship: Army ROTC Three-Year Scholarship (Active Duty or Reserve Forces Duty)
Donor: United States Army
Amount: Pays for tuition and mandatory fees; for each year of the scholarship, provides an allowance for textbooks and supplies and a stipend of $3,000 to $4,000
Eligibility: Any student interested in obtaining an Army ROTC commission who (1) is a United States citizen; (2) is under twenty-five years of age on June 30 of the year the scholarship terminates (an extension of up to four years is granted for previous active duty service; the length of the extension may not exceed the length of service); (3) has three full years of college left to obtain an undergraduate degree; and (4) has a grade point average of at least 2.50
Apply to: Department of Military Science, by February 1

Scholarship: Army ROTC Four-Year Scholarship
Donor: United States Army
Amount: Pays for tuition and mandatory fees; for each year of the scholarship, provides an allowance for textbooks and supplies and a stipend of $2,500 to $4,000
Eligibility: Any student interested in obtaining an Army ROTC commission who (1) is a United States citizen; (2) will be at least seventeen years of age on October 1 of the first year of the scholarship; (3) has an SAT Reasoning Test score of at least 850 or an ACT score of at least 19; (4) has four full years of college left to obtain an undergraduate degree; and (5) plans to attend a four-year, degree-granting institution that hosts an Army ROTC unit
Apply to: Department of Military Science, by February 1

Scholarship: Naval ROTC Two-Year Scholarship
Donor: United States Navy
Amount: Pays for tuition, fees, and books and provides a stipend of $250 to $450 a month
Eligibility: Students enrolled in Naval ROTC
Apply to: Department of Naval Science

Scholarship: Naval ROTC Three-Year Scholarship
Donor: United States Navy
Amount: Pays for tuition, fees, and books and provides a stipend of $3,000 to $4,000
Eligibility: Scholarship awarded to an incoming freshman with a four-year Naval ROTC scholarship. Recipient must score at least 1300 on the SAT Reasoning Test or at least 31 on the ACT and will continue to receive scholarship support as long as his or her cumulative grade point average remains above 3.25.
Apply to: Department of Naval Science

Scholarship: Naval ROTC Four-Year Scholarship
Donor: United States Navy
Amount: $1,000
Eligibility: Second-class and third-class midshipman in a technical major
Apply to: Department of Naval Science

Scholarship: Chief of Naval Education and Training Appointment
Donor: College of Engineering, The University of Texas at Austin
Amount: $500 a semester
Eligibility: Competitive scholarship awarded to an incoming freshman with a four-year Naval ROTC scholarship. Recipient must score at least 1300 on the SAT Reasoning Test or at least 31 on the ACT and will continue to receive scholarship support as long as his or her cumulative grade point average remains above 3.25.
Apply to: Department of Naval Science

Scholarship: Daedalian Foundation NROTC Scholarship Awards
Donor: The Daedalian Foundation
Amount: $1,000
Eligibility: Graduating midshipman in the top 25 percent of his or her graduating class with an interest in the naval aviation community
Apply to: Department of Naval Science

Scholarship: Military Affairs Council Scholarship
Donor: The Military Affairs Council
Amount: $250
Eligibility: Second-class midshipman with leadership potential
Apply to: Department of Naval Science

Scholarship: Naval ROTC Two-Year Scholarship
Donor: United States Navy
Amount: Pays for tuition, fees, and books and provides a stipend of $250 to $450 a month
Apply to: Applications are available from the Department of Military Science. Complete applications should be mailed to Army ROTC Scholarships, Fort Monroe VA 23651-5238. Applications must be postmarked by July 15 for the early selection board and by December 1 for the regular selection board.
Eligibility: Juniors who are United States citizens, have a grade point average of at least 2.50, and will be less than twenty-five years of age at graduation
Apply to: Department of Naval Science
Scholarship: Naval ROTC Four-Year Scholarship
Donor: United States Navy
Amount: Pays for tuition, fees, and books and provides a stipend of $250 to $450 a month
Eligibility: Lower-division students who are United States citizens and will be less than twenty-five years of age at graduation
Apply to: Department of Naval Science
Scholarship: The United Services Automobile Association Scholarship Award
Donor: United Services Automobile Association
Amount: $500
Eligibility: Students in the Naval ROTC advanced course who are ranked in the top 10 percent of their class and have a grade point average of at least 3.00
Apply to: Department of Naval Science
DEPARTMENT OF SLAVIC AND EURASIAN STUDIES
Scholarship: Dr. Bailey R. Collins/Ellene Collins Ward/Mary Sue Collins Hibbs Scholarship
Donor: Mary Sue Hibbs Estate
Amount: Up to $2,000; may be divided between two students
Eligibility: Undergraduate student majoring in Czech language and culture or Russian language and culture who has completed at least sixty semester hours of coursework, including at least thirty hours in residence at the University, with a grade point average of at least 3.70
Apply to: Department of Slavic and Eurasian Studies, on or before March 1
DEPARTMENT OF SOCIOLOGY
Scholarship: Dr. Bailey R. Collins/Ellene Collins Ward/Mary Sue Collins Hibbs Scholarship
Donor: Mary Sue Hibbs Estate
Amount: Up to $2,000; may be divided between two students
Eligibility: Undergraduate sociology major who has completed at least sixty semester hours of coursework, including at least thirty hours in residence at the University, with at least 3.70
Apply to: Chair, Department of Sociology, on or before March 1
DEPARTMENT OF SPANISH AND PORTUGUESE
Scholarship: Dr. Bailey R. Collins/Ellene Collins Ward/Mary Sue Collins Hibbs Scholarship
Donor: Mary Sue Hibbs Estate
Amount: Up to $2,000; may be divided between two students
Eligibility: Undergraduate Spanish major who has completed at least sixty semester hours of undergraduate work, including at least thirty hours in residence at the University, with a grade point average of at least 3.70. A short essay may be required to assess the student’s creativity and writing ability.
Apply to: Chair, Department of Spanish and Portuguese, on or before March 1
Scholarship: Carrie Lee Kennedy Fellowship
Donor: Ruth Lee Kennedy, by bequest, 1991
Amount: Varies
Eligibility: Graduate or undergraduate student(s) of outstanding ability who are studying the Golden Age of Spanish literature
Apply to: Chair, Department of Spanish and Portuguese
Scholarship: Stacie Maureen Sowell Endowed Presidential Scholarship
Donors: Parents, Vernon and Kathleen Sowell
Amount: $2,000
Eligibility: Undergraduate Spanish major with financial need who has completed at least sixty semester hours of coursework in residence at the University with a grade point average of at least 3.50
Apply to: Chair, Department of Spanish and Portuguese, on or before April 1
CENTER FOR WOMEN’S AND GENDER STUDIES
Scholarship: Cynthia Walker Peña Scholarship in Women’s and Gender Studies
Donors: Friends of the Women’s and Gender Studies Program
Amount: $500
Eligibility: Students with at least six semester hours of coursework completed or in progress in women’s and gender studies
Apply to: Center for Women’s and Gender Studies, by March 18
UTEACH-LIBERAL ARTS
UTEach-Liberal Arts is the teacher certification pathway for liberal arts students pursuing degrees in economics, English, French, history, geography, German, government, Latin, and Spanish. Students may seek certification to teach middle or high school grades. An all-level option is available for languages other than English only. The specific certification areas are
1. History, grades eight through twelve
2. Language arts and reading, grades four through eight or eight through twelve
3. Languages other than English, all levels
4. Social studies, grades four through eight or eight through twelve
The program—a collaboration among the College of Liberal Arts, the College of Education, and area school districts—seeks to attract interested students to explore teaching early in their undergraduate careers. The goal of the program is to allow students who enter as sophomores to complete both the bachelor’s degree and the professional development coursework required for teacher certification in four years.
Key features of the program are field experience, mentorship and seminar instruction, cohort support, discipline-specific pedagogical preparation, literacy training, and innovative use of technology. UTeach-Liberal Arts students experience the public school classroom and teach progressively longer lessons with the guidance of mentor teachers. By working with some of the most respected teachers in Texas, students quickly learn whether they are suited for the teaching profession.

More information about UTeach-Liberal Arts is available at http://www.utexas.edu/cola/uteach/.

**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, credit-based internship 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 24/7 access to career management tools and resources with an online recruiting system, LiberalArts@Work. LACS maintains a resource room with books, videotapes, company literature, and job postings and offers a three-semester-hour course on the value of liberal arts in management.

Hundreds of companies are assisted by LACS each year through computer-based résumé searches, information sessions, and on-campus interviewing. Résumé books for a variety of career fields are available to employers at no charge. An online newsletter, The Catalyst, keeps students informed about local, state, and national internship and part-time and full-time professional opportunities, and also provides helpful career search information.

As a complement to the assistance available from LACS, the University’s Career Exploration Center provides career services to all students. The center offers 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. Sanchez 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 all students to the University is the responsibility of the director of admissions. Information about admission to the University is given in *General Information*.

**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 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 World Wide Web and are accessible through the registrar’s Web site, http://www.utexas.edu/student/Registrar/. *General Information* is also sold at campus-area bookstores.

**ACADEMIC ADVISING**

The Undergraduate Dean’s Office of the College of Liberal Arts provides administrative support and student services for the college. Student services include maintenance of student academic records, academic counseling on a walk-in basis for students in the college, development of official degree audits for students, and graduation certification.

In addition to the academic counseling available to students in the college, advisers in the Undergraduate Dean’s Office are available to assist students with questions about scholastic progress, degree requirements, rules and regulations, and campus services such as career or personal counseling.

Advisers are available in each department to help students choose appropriate coursework to fulfill their degree requirements and to support their career goals.

Every student in the college may receive an advising audit in his or her major department each semester during registration. The advising audit is produced for advising purposes only and is not an official degree audit.
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 on pages 14–16 and in General Information. 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 (94–96 grade points)
- Cum Laude Ampla et Magna (91–93 grade points)
- Magna cum Laude (88–90 grade points)
- Ampla cum Laude (85–87 grade points)
- Cum Laude (82–84 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 of Liberal Arts: 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 students the opportunity to enroll in special one-hour classes, have access to supplemental academic advising, and take honors sections of the basic education requirement courses. It serves as preparation for departmental honors programs and 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 SAT or ACT score, high school record, and an 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 the Bachelor of Arts, Plan I or the Bachelor of Science in Psychology; (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 grades of A in two of the courses and a grade of at least B in the third; and (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 LAH 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; and (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 American Studies Honors Program

Ethnic studies majors who plan to seek special honors in African and African American studies should apply to the undergraduate 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 are (1) African and African American Studies 679H, Honors Tutorial Course, with a grade of at least B in each half; (2) satisfactory performance on an oral presentation of the honors thesis; (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 concentration in African and African American studies and for honors; and (4) 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 679H, *Honors Tutorial Course*, with a grade of at least B in each half; (2) satisfactory performance on a comprehensive 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; and (4) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

**Ancient History and Classical Civilization Honors Program**

Majors who plan to seek special honors in ancient history and classical civilization 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, which are in addition to the requirements of the major, are (1) Ancient History and Classical Civilization 679H, *Honors Tutorial Course*, with a grade of A in each half; the student’s thesis topic must be approved by the director of ancient history and classical civilization; (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; and (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 679H, *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; and (4) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

**Arabic Language and Literature Honors Program**

Majors who plan to seek special honors in Arabic language and literature 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) Arabic 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; and (3) 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; and (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 undergraduate adviser for admission to the honors program after completing six semester hours in the Department of Asian Studies but before their senior year. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors are (1) Asian Studies 378, *Senior Seminar in Asian Studies*, with a grade of at least B; (2) Asian Studies 379H, *Honors Tutorial Course*, with a grade of A; (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 ma-
jor and for honors; and (4) 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 undergraduate adviser for admission to the honors program after completing six semester hours in the Department of Asian Studies but before their senior year. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors are (1) Asian Studies 378, Senior Seminar in Asian Studies, with a grade of at least B; (2) Asian Studies 379H, Honors Tutorial Course, with a grade of A; (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; and (4) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

**Classical Archaeology Honors Program**

Majors who plan to seek special honors in classical archaeology 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, which are in addition to the requirements of the major, are (1) Classical Civilization 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; and (3) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

**Classics 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 Greek majors), Latin (for Latin majors), or Greek, Latin, and classical civilization combined (for classics majors) 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 679H, or Classical Civilization 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; and (3) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

**Czech Language and Culture Honors Program**

Majors who plan to seek special honors in Czech language and culture 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 Czech of at least 3.50 are required for admission. The requirements for graduation with special honors are (1) Czech 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; and (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 by the beginning of the first semester of their sophomore year, so that they will be eligible to take an honors section of Economics 420K. 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-one semester hours in economics; (2) Economics 378H and 379H with a grade of at least B in each; (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; and (4) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

**English Honors Program**

The English Honors Program consists of special honors courses and individual study courses that are available to students accepted into the program. To be eligible for admission, the student must have completed Rhetoric and Writing 306 and English 316K, or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; he or she must also have a University grade point average of at least 3.00 and a grade point average in English and rhetoric and writing of at least 3.50. Applicants are considered each fall and spring for the following long-session semester. Application forms and information about the program are available in the English Undergraduate Advising Office, Parlin Hall 114.
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 senior seminar; (2) completion of three or more 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 before the semester in which the student takes English 679HA; (3) three courses in literature or language before 1900, two of which must be in literature or language before 1800; these courses may be counted toward the requirements of the major; (4) English 679H, Honors Tutorial Course, with a grade of A in each half, resulting in the presentation and defense of a thesis judged Acceptable for Honors; (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 major and for honors; and (6) completion in residence at the University of at least sixty semester hours 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 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 379H, 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; and (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 679H, Honors Tutorial Course, with a grade of A in each half; (2) a comprehensive honors examination with a grade of A; (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; and (4) 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 679HA and 679HB, Honors Tutorial Course, with a grade of A in each; (2) a comprehensive honors examination with a grade of A; (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; and (4) 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 semester hours of government, including Government 679HA and 679HB, 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; and (5) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

Hebrew Honors Program

Majors who plan to seek special honors in Hebrew 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, which are in addition to the requirements for the major, are (1) Hebrew 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; and (3) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

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 Un-
dergraduate Advising Office, Garrison Hall 118. 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 679H, 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; and (5) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

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 679H, Honors Tutorial Course, with a grade of A in both 679HA and 679HB; (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 679H 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; and (5) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

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. The requirements for graduation with special honors, which are in addition to the requirements for the major, are (1) Islamic 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; and (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 379H, 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; and (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; and (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; in this course, the student writes a thesis that must be approved for honors 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; and (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 are (1) Linguistics 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; and (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; (2) a grade of A in Mexican American Studies 361 or 362; (3) Mexican American Studies 679H, Honors Tutorial Course, 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; and (6) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

**Middle Eastern Studies Honors Program**

Upper-division 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 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; and (3) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

**Persian Language and Literature Honors Program**

Majors who plan to seek special honors in Persian language and literature 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) Persian 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; and (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. A University grade point average of at least 3.00 is required for admission, as well as completion of either Philosophy 329K or 329L with a grade of at least B.

The requirements for graduation with special honors are (1) Philosophy 371H or 375M, 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; and (5) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

Philosophy 371H or 375M may be counted toward the requirements of the major; Philosophy 679H 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, 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 660H with a grade of A in each half, or a departmental equivalent with a grade of A; (2) satisfactory performance on an oral honors examination centered on the thesis completed in Tutorial Course 660H; (3) a University grade point average 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.

**Portuguese Honors Program**

The Portuguese Honors Program offers selected Portuguese majors more advanced and independent study than is possible under the regular degree plan. Students interested in this program should contact the department honors adviser prior to their senior year. A University grade point average of at least 3.00 and a grade point average in Portuguese of at least
3.50 are required for admission. The requirements for graduation with special honors are (1) either Portuguese 378H and 379H with a grade of A in each, or two sections of Portuguese 379H with a grade of A in each; (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; and (3) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

Portuguese 378H, Honors Seminar, is offered as an organized course, while 379H, Honors Thesis, is offered by individual instruction. Students who choose to take two semesters of Portuguese 379H conduct individual research on a literary, linguistic, or cultural topic in the first semester and complete an honors thesis in the second semester. The student's research and writing are supervised by a department faculty member. Students who choose to take Portuguese 378H and 379H study a literary, linguistic, or cultural topic in the first semester; in the second semester, they complete an honors report under faculty supervision.

Portuguese 378H may be counted toward the requirements of the major; Portuguese 379H is taken in addition to the major requirements.

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; and (4) consent of the honors adviser. The requirements for graduation with special honors are (1) thirty-one semester hours of psychology, including Psychology 458, 158H, 359H, and 379H; the student must earn grades of at least B in Psychology 359H, Honors Research I, and 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; and (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 679HB, Honors Tutorial Course, with a grade of A; in this course, the student completes a senior thesis, which must be approved by the director 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; and (5) 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 679H, 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 of at least 3.50 in the coursework required for the major and for honors; and (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 is taken in addition to the usual requirements of the major.

Russian Language and Culture Honors Program

Majors who plan to seek special honors in Russian language and culture should apply to the honors adviser for admission to the honors program at least 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 of at least 3.50 in the coursework required for the major. The requirements for graduation with special honors are (1) Russian 679H, Honors Tutorial Course, with a grade of at least B in each half; in this course, the student must complete a paper judged Acceptable for Honors; (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; and (3) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

Scandinavian Studies Honors Program

Majors who plan to seek special honors in Scandinavian 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) Scandinavian 679HA and 679HB, Honors Tutorial Course, with a grade of A in each; (2) a comprehensive honors examination with a grade of A; (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; and (4) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

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. 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 317L or an approved equivalent, before applying for admission to the honors program; they should be enrolled in Sociology 317M and 379M 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 679H, Honors Tutorial Course, with a grade of 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; and (4) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

Spanish Honors Program

The Spanish Honors Program offers selected Spanish majors more advanced and independent study than is possible under the regular degree plan. Students interested in this program should contact the department honors adviser prior to their senior year. A University grade point average of at least 3.00 and a grade point average in Spanish of at least 3.50 are required for admission. The requirements for graduation with special honors are (1) either Spanish 378H and 379H with a grade of A in each, or two sections of Spanish 379H with a grade of A in each; (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; and (3) completion in residence at the University of at least sixty semester hours of coursework counted toward the degree.

Spanish 378H, Honors Seminar, is offered as an organized course, while 379H, Honors Thesis, is offered by individual instruction. Students who choose to take two semesters of Spanish 379H conduct individual research on a literary, linguistic, or cultural topic in the first semester and complete an honors thesis in the second semester. The student's research and writing are supervised by a department faculty member. Students who choose to take Spanish 378H and 379H study a literary, linguistic, or cultural topic in the first semester; in the second semester, they complete an honors report under faculty supervision.

Spanish 378H may be counted toward the requirements of the major; Spanish 379H is taken in addition to the major requirements.

Turkish Language and Literature Honors Program

Majors who plan to seek special honors in Turkish language and literature 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) Turkish 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; and (3) 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, which are in addition to the requirements for the major, are (1) grades of A in Urban Studies 360 and 370; (2) Urban Studies 679H, Honors Tutorial Course, with a grade of A in each half; (3) satisfactory defense of the honors thesis completed in Urban Studies 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; and (5) 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.
GRADUATION

SPECIAL REQUIREMENTS OF THE COLLEGE OF LIBERAL ARTS

All students must fulfill the general requirements for graduation given in chapter 1. 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, 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. For additional requirements of the College of Liberal Arts, see the major requirements of the Bachelor of Arts, Plan I, pages 299–309, and the requirements of the Bachelor of Science in Psychology, pages 312–313.

3. Students may not complete degree requirements at another institution of higher education during the semester in which the degree is to be conferred.

RECEIVING A DEGREE AUDIT AND APPLYING FOR GRADUATION

An official degree audit lists all the requirements of the student’s major, according to a catalog under which the student is eligible to graduate. The audit also includes any requirements that are specific to the student’s individual program. It is the official statement by the Office of the Dean, Student Division, of the student’s progress toward a degree. Students are required to have an official degree check appointment with a Dean’s Office, Student Division adviser one semester before the semester in which the degree is to be conferred. It is strongly recommended that students schedule regular degree check appointments with the Student Division advisers once they have completed ninety semester hours of coursework.

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 Student Division before registering if in doubt about any requirement.

A student may schedule an official degree check once he or she has completed ninety hours of coursework and has officially declared a major and minor or concentration in the Student Division. A student in the College of Liberal Arts is required to declare a major by the time he or she has completed sixty semester hours of coursework. The student may submit an Official Declaration of Major and Minor either in the Student Division, Dorothy Gebauer Building 2.200, or online at http://www.utexas.edu/cola/majors/declare_a_major/.

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 in the Student Division or online at http://www.utexas.edu/cola/graduation/application1/. This should be done at the beginning of the last semester; 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.
DEGREES

The College of Liberal Arts offers three degree programs: the Bachelor of Arts, Plan I; the Bachelor of Arts, Plan II; and the Bachelor of Science in Psychology.

The requirements of the Bachelor of Arts, Plan I, begin on page 295. For this degree students may major in any of the departments of the College of Liberal Arts or the College of Natural Sciences; these majors are listed on pages 5–8.

The Bachelor of Arts, Plan II, a broad liberal arts honors program for outstanding students, is described on pages 309–311.

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 on pages 312–313.

A student may not earn more than one Bachelor of Arts 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.

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 twelve-hour 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.

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. For information about each program, consult the chair of the department concerned.

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 substantial writing component 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 Office of the Dean, Student Division.

INTERNSHIP COURSES

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 of credit earned in internship courses may be counted toward a degree in the College of Liberal Arts.

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 General Information. 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 General Information.
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, or the Bachelor of Science in Psychology; no more than nineteen semester hours taken on the pass/fail basis may be counted toward the Bachelor of Arts, Plan II. In general, only electives may be taken on the pass/fail basis. Complete rules on registration on the pass/fail basis are given in General Information.

COURSES IN A SINGLE FIELD

No more than thirty-six hours may be counted in any one subject, including the major, unless major requirements state otherwise. No more than thirty-six hours may be counted in any one college or school other than the College of Liberal Arts or the College of Natural Sciences.

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.

SUMMARY OF THE BACHELOR OF ARTS DEGREE, PLAN I

The following is a brief overview of the Bachelor of Arts, Plan I; for detailed regulations see “Degree Requirements, Specific,” beginning below.

A total of 120 semester hours is required for the degree. Of the 120 hours, thirty-six must be in upper-division courses. At least sixty hours, including eighteen hours of upper-division coursework, and at least twenty-four of the last thirty hours must be taken 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. A maximum of sixteen semester hours of classroom and/or correspondence coursework may be taken on the pass/fail basis.

Three categories of work must be completed: prescribed work, major and minor requirements, and electives to provide a total of 120 semester hours.

PRESCRIBED WORK

For all majors for the Bachelor of Arts, Plan I, there are four specific area requirements that make up about half of the degree program:

Area A, Language and Literature: Three semester hours of rhetoric and writing and three of English are required. In addition, each student must complete two courses certified as having a substantial writing component. One of these courses must be upper-division.

The foreign language requirement is the attainment of a certain proficiency as well as the completion of a specified number of courses; the actual number of hours varies with the language selected and with previous knowledge of the language.

Area B, Social Sciences: Eighteen semester hours must be completed, including courses in four subjects. Of these eighteen hours, six hours must be in American history and six hours must be in American government, including Texas government.

Area C, Natural Sciences: Eighteen semester hours are required, including three hours of mathematics. No more than nine of the eighteen hours may be in any one subject. Lists of courses that may be used to fulfill this requirement are available in the Student Division.

Area D, General Culture: Six semester hours are required. Lists of courses that may be used to fulfill this requirement are available in the Student Division.

Courses in the major and minor may be used to fulfill area requirements unless expressly prohibited. A course taken to meet the requirements of one area may not also be used to fulfill the requirements of another area. The only exception to this rule is that a course taken to fulfill another area requirement may also fulfill the requirement for courses having a substantial writing component, if the course is so certified. No courses used to fulfill area requirements may be taken on the pass/fail basis.

MAJOR

Each candidate must select a major. The number of semester hours required in the major varies with the field selected. Some majors require specific courses in other subjects as well. At least eighteen hours of coursework in the major, including six hours of upper-division coursework, must be completed in residence at the University.

MINOR

To complete the Bachelor of Arts, Plan I, students in most majors must also choose a minor. General requirements are given in “Majors and Minors,” page 298. Specific requirements for a minor are listed with each set of major requirements.

ELECTIVES

The remaining coursework needed for the required total of 120 semester hours consists of electives. A maximum of sixteen hours of elective coursework may be taken on the pass/fail basis.

DEGREE REQUIREMENTS, SPECIFIC

Specific requirements for the Bachelor of Arts, Plan I, are divided into four areas: A, B, C, and D. Interdepartmental courses and credit by examination may be used to meet these requirements. Courses in the major and minor may be used to fulfill area requirements unless expressly prohibited. A course taken to meet the requirements of one area may not also be used to fulfill the requirements of another area; the only exception to this rule is that a course taken to fulfill another area requirement may also be used to fulfill the requirement for courses having
a substantial writing component, if the course is so certified. No courses used to fulfill area requirements may be taken on the pass/fail basis.

In addition to the following requirements, the student must fulfill the University requirements for graduation given in chapter 1 and the requirements of the College of Liberal Arts given on page 293.

**PRESCRIBED WORK**

**Area A, Language and Literature**

*English composition and literature:* Rhetoric and Writing 306 and English 316K.

*Writing:* In addition to Rhetoric and Writing 306 and English 316K, each student must complete two courses certified as having a substantial writing component. One of these courses must be upper-division; both must be taken for a letter grade. Courses used to fulfill the writing requirement may be used simultaneously to fulfill other area requirements or major requirements, unless otherwise specified. Courses with a substantial writing component are identified in the Course Schedule.

*Foreign language:* Students must complete four semesters 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 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 may accelerate their progress at any point in the sequence by means of credit by examination.

To achieve proficiency in a foreign language as rapidly as possible, qualified students are urged to take advantage of the intensive foreign language study program. Information about this program is available from the appropriate language department. Courses used to fulfill the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be counted.

**Area B, Social Sciences**

Eighteen semester hours, distributed among at least four of the following fields of study. Courses in social sciences not listed may be used if approved by the dean. None of the courses used to fulfill Area B requirements may be taken on the pass/fail basis. Courses in anthropology, geography, linguistics, and psychology used to fulfill Area B requirements may not also be used to fulfill Area C requirements.

1. Six hours in each of the following fields of study:
   a. American government, including Texas government
   b. American history
2. Three hours each from any two of the following fields of study:
   a. Anthropology
   b. Economics
   c. Geography
   d. Linguistics
   e. Psychology
   f. Sociology

**Area C, Natural Sciences**

Each student must have credit for three semester hours in a course offered by the University of Texas at Austin Department of Mathematics, excluding Mathematics 301, 316K, and 316L. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward the Area C requirement or toward the total number of hours required for the degree. 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.

Fifteen additional semester hours, with no more than nine in any one department, from the fields of study listed below. No more than nine hours of mathematics and computer sciences combined may be included in these fifteen hours. Nine of these fifteen hours must be taken in courses in the College of Natural Sciences and the Jackson School of Geosciences, items 1 through 10 below, with at least six hours taken in one subject from items 1 through 8; these nine hours may include no more than three hours of mathematics or computer sciences. The remaining six hours may be chosen from courses in the natural sciences listed below or from the list of approved alternative courses in subjects 11 through 16 that is available in the Student Division and at http://www.utexas.edu/cola/degree_plans/area_requirements/. Of these six hours, a maximum of three semester hours in courses in either the history of science or the philosophy of science may be used.

A course listed in two or more departments may be used as a course in only one department in fulfilling requirements under Area C. Courses in anthropology, geography, linguistics, and psychology used to fulfill Area C requirements may not also be used to fulfill Area B requirements. Courses in philosophy used to fulfill Area C requirements may not also be used to fulfill Area D requirements.

1. Astronomy
2. Biology
3. Chemistry
4. Geological sciences
5. Marine science
6. Nutrition
7. Physical science
8. Physics
9. Mathematics
10. Computer sciences
11. Experimental psychology
12. Physical anthropology
13. Physical geography
14. Philosophy (courses in logic)
15. History of science and philosophy of science
16. Other science courses approved by the dean

Students should confer with their departmental advisers or with counselors in the Student Division to determine which courses are included in items 11 through 16.

Students, counselors, and advisers are urged to make careful selection of Area C courses in order to develop a meaningful pattern and a coherent sequence.

Area D, General Culture

Six semester hours from the fields of study listed below. Three of these six hours must be chosen from subarea 1, 2, 3, or 4 (excluding courses in logic).

A student who uses Greek or Latin to meet the foreign language requirement may use additional coursework in the same language to meet the Area D requirement, but only courses beyond the fourth semester proficiency level may be used.

1. Architecture
2. Classics, including classical civilization, Greek, Latin
3. Fine arts, including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies
4. Philosophy
5. Other courses that emphasize the topics listed above, if approved by the Office of the Dean. A list of approved alternatives is available in the Student Division.

SPECIAL REQUIREMENTS

Elective Requirements and Limitations

In addition to the area requirements given above and the major requirements given on pages 299–309, the student must take enough elective coursework to complete the 120 semester hours required for the degree. These 120 hours may include no more than twelve hours of Bible; nine hours of designated coursework in air force science, military science, or naval science; sixteen hours taken on the pass/fail basis; thirty-six hours in any one subject 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.

Minimum Scholastic Requirements

The student must earn a 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 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 program in the section “Majors and Minors” beginning on page 298, since some majors include higher minimum scholastic requirements.

For more information about grades and the grade point average, see General Information.

CONCENTRATIONS

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, if applicable. Students in other degree programs and colleges should check with their dean’s offices about course applicability and restrictions.

Cultural Studies

The concentration in cultural studies allows students to pursue a program of interdisciplinary specialization in addition to the major. Students who wish to enter the cultural studies concentration should consult the undergraduate adviser in the Américo Paredes Center for Cultural Studies.

The concentration in cultural studies 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, English 325K, Anthropology 325L or English 325L, Mexican American Studies 307, Communication 309, Radio-Television-Film 314, Music 342, Theatre and Dance 357T.
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 new 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, collaborative work and work-life, 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 and 331; nine hours of related coursework; and a capstone seminar, Science, Technology, and Society 360. A list of related courses that will fulfill this requirement 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 a concentration in western civilization and American institutions.

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.

MAJORS AND MINORS

Major requirements. The Bachelor of Arts, Plan I, requires the completion of all requirements for one major. Requirements for majors offered by the College of Liberal Arts are given on pages 299–309; those for majors offered by the College of Natural Sciences are given in chapter 11.

The major subject is not shown on the diploma. It is not possible for a student to receive a second Bachelor of Arts degree from the University.

Advising of majors. A student who has chosen a major is advised during registration periods in the department of the major. Students who have not chosen a major are advised through the program for undeclared majors in the Student Division, College of Liberal Arts, Dorothy Gebauer Building 2.200. For matters concerning degree requirements, specific academic problems, petitions, and academic advice in general, the student should go to the Student Division.

Hour requirements for the major. Unless the requirements of the major state otherwise, a major consists of at least twenty-one but no more than forty-two semester hours, with at least twelve hours in upper-division courses. Of these twelve hours, six must be taken in residence. These restrictions exist in the context of the general residence requirement for the major of eighteen semester hours.

Unless otherwise indicated, a course taken to meet the requirements under “Prescribed Work,” pages 296–297, may also be counted toward fulfillment of the major requirements.

A student who earns credit by examination with a grade of C or better will be given the appropriate grade and degree credit, including hours required in the major.

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 on pages 299–309. 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 or program 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.

Unless otherwise indicated, a course taken to meet the requirements under “Prescribed Work,” pages 296–297, may also be counted toward fulfillment of the minor requirements.
Texas Interdisciplinary Plan (Texas IP) Curriculum

The Texas Interdisciplinary Plan (Texas IP) curriculum allows students to pursue an integrated course of study with a focus on the development and application of critical thinking skills. The eighteen-semester-hour program of study is designed to complement the student's major with an interdisciplinary sequence of courses that may encompass the humanities, the social sciences, the natural sciences, and the arts. Students have the opportunity to present an original work in a capstone seminar. Those who plan to pursue the Texas IP curriculum should apply to the program adviser for admission no later than the end of their sophomore year. For more information, see http://www.utexas.edu/tip/TexasIP/.

Students who complete the requirements for the Texas IP curriculum receive a certificate. The requirements are:

1. **Critical Thinking Seminar:** Liberal Arts 302, Philosophy 311, Natural Sciences 302, or Natural Sciences 311. Selected courses may be substituted on a petition basis.
2. **Critical Writing Seminar:** Rhetoric and Writing 309K or 309S. Selected courses in the Division of Rhetoric and Writing may be substituted on a petition basis.
3. Three additional courses, including at least three semester hours of upper-division coursework, from an interdisciplinary strand prescribed by the Texas Interdisciplinary Plan; or, with approval of the Texas IP Faculty Advisory Panel, a three-course interdisciplinary strand designed by the student.
4. **Senior Capstone Seminar:** Liberal Arts 371 or Natural Sciences 371.

In the College of Liberal Arts, the Texas IP curriculum may be used to fulfill the minor requirements in the Bachelor of Arts, Plan I, if all eighteen semester hours are completed. Latin American studies majors and Spanish majors pursuing the Hispanic linguistics concentration are excluded from using the Texas IP curriculum for the minor. Final approval of the Texas IP minor coursework rests with the College of Liberal Arts associate dean for academic and student affairs or the associate dean’s authorized representative.

In the College of Natural Sciences, the Texas IP curriculum may be used to complement any major. Some courses that are required by the Texas IP curriculum will also fulfill degree requirements established by the student’s major department and described in chapter 11; however, some of the eighteen hours in the curriculum may be in addition to the number of hours required for the degree.

American Studies

**Major:** The American studies major requires twenty-four semester hours of American studies coursework:
(1) American Studies 310; (2) American Studies 355 and 356; (3) nine hours chosen from topics of American Studies 370; and (4) six additional 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 hours must be taken in residence.

Ancient History and Classical Civilization

**Major:** Thirty-three semester hours of coursework in history, classical civilization, and Greek or Latin, consisting of

1. Six semester hours of premodern history, chosen from topics of Ancient History and Classical Civilization 310 and 330.
2. Nine semester hours of upper-division Greek history and/or Roman history, chosen from topics of Ancient History and Classical Civilization 325.
3. Nine semester hours of classical civilization, Greek, Latin, and/or topics of Ancient History and Classical Civilization 319 and 325. Coursework used to fulfill the Area A foreign language requirement may not also be counted toward this requirement.
4. Six semester hours of upper-division coursework in Greek and/or Latin.
5. Ancient History and Classical Civilization 378.

Anthropology

**Major:** Thirty semester hours of anthropology, including at least eighteen hours of upper-division coursework, consisting of

1. Anthropology 301, 304, and either 302, 305, or 307.
2. At least three hours of upper-division coursework in each of the following areas. A list of the courses in each area is available from the anthropology adviser.
   a. Theory: Anthropology 330C or an approved alternate course.
   b. Methods: Anthropology 453, 462M, 662, or an approved alternate course.
   c. Culture/geographic area.
3. Twelve additional hours, including at least nine hours of upper-division coursework.

**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 hours must be taken in residence.
Arabic Language and Literature

**Major:** Twenty-four semester hours of upper-division coursework in Arabic language, literature, and culture, consisting of

1. Twelve hours in specified language courses: Arabic 320K, 320L, 330K, and 330L.
2. Six hours of literature chosen from Arabic 322, 360K, and 360L.
3. Six additional hours of upper-division coursework in Arabic.

**Minor for Arabic language and literature 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 Area A 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 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, 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**
   b. Three hours chosen from Chinese 320L, 330, and 340.
   c. Six additional hours of upper-division coursework in Chinese.
   d. Asian Studies 378.
   e. Nine additional hours in Asian studies courses related to China; at least six hours must be in upper-division coursework.

2. **Japanese**
   b. Twelve additional hours of upper-division coursework in Japanese.
   c. Asian Studies 378.
   d. Six additional hours in Asian studies courses related to Japan; at least three hours must be in upper-division coursework.

3. **Hindi/Urdu**
   a. Twelve hours of upper-division coursework in Hindi and/or Urdu.
   c. Nine additional hours in Asian studies courses related to South Asia; at least six hours must be in upper-division coursework. Three hours of upper-division coursework in Hindi, Urdu, or Sanskrit may be counted toward this requirement.

4. **Malayalam**
   a. Twelve hours of upper-division coursework in Malayalam.
   c. Nine additional hours in Asian studies courses related to South Asia; at least six hours must be in upper-division coursework. Three hours of upper-division coursework in Malayalam, Sanskrit, or Tamil may be counted toward this requirement.

5. **Sanskrit**
   a. Twelve hours of upper-division coursework in Sanskrit.
   c. Nine additional hours in Asian studies courses related to South Asia; six hours must be in upper-division coursework. Three hours of upper-division coursework in Sanskrit, Hindi, or Urdu may be counted toward this requirement.

6. **Tamil**
   a. Twelve hours of upper-division coursework in Tamil.
   c. Nine additional hours in Asian studies courses related to South Asia; six hours must be in upper-division coursework. Three 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 upper-division 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 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. 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. At least three hours of East Asian history.
   b. A three-hour Asian studies course related to South Asia.
   c. Asian Studies 378.
   d. Fifteen additional hours in Asian studies courses related to East Asia. It is recommended that students take these courses in more than one East Asian cultural area. Six hours of upper-division coursework in Chinese, Japanese, or Korean language may be counted toward this requirement.
   e. In addition, students must complete two years of Chinese, Japanese, or Korean to fulfill the Area A foreign language require-
ment. Courses counted toward the foreign language requirement may not also be counted toward the major.

2. South Asia
   a. At least three hours of South Asian history.
   b. A three-hour Asian studies course related to East Asia.
   c. Asian Studies 378.
   d. Fifteen additional hours in Asian studies courses related to South Asia. Six hours of upper-division coursework in Hindi, Malayalam, Sanskrit, Tamil, or Urdu language may be counted toward this requirement.
   e. In addition, students must complete two years of Hindi, Malayalam, Sanskrit, Tamil, or Urdu to fulfill the Area A foreign language requirement. Courses counted toward the foreign language requirement may not also be counted toward the major.

Minor for Asian studies majors: Either (1) twelve semester hours, including at least six hours of upper-division 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 hours must be taken in residence.

Classical Archaeology

Students majoring in classical archaeology must use Greek or Latin to fulfill the Area A foreign language requirement. Coursework counted toward the foreign language requirement may not also be counted toward the major.

Major: Thirty-six semester hours of coursework, at least eighteen of which must be upper-division, consisting of

2. Classical Civilization 307K, Topics in Archaeology, or 340, Advanced Topics in Archaeology.
3. Three hours of approved upper-division coursework in archaeological techniques and analysis. A list of approved courses is available in the Department of Classics.
4. Three hours of upper-division foreign study approved by the classical archaeology faculty adviser, to be provided by Classical Civilization 362 or another approved course.
5. Three hours of upper-division coursework in Greek history or Roman history, chosen from topics of Ancient History and Classical Civilization 325, topics of Ancient History and Classical Civilization 378, and approved topics of Classical Civilization 335.
6. Three hours of upper-division coursework in ancient art history, chosen from Art History 325, 327J, 327L, 327M, 327N, 327P, 327R, and other approved courses in ancient art history.
7. Six hours of upper-division coursework in either Greek or Latin.
8. Three additional hours of coursework in either classical civilization or ancient history and classical civilization.
9. Anthropology 304, Middle Eastern Studies 320, or three additional hours of coursework in classical civilization or ancient history and classical civilization.
10. Six additional hours of coursework in the areas listed in requirements 1 through 9.

Classics

Major: Twenty-one semester hours of coursework in Latin, Greek, and classical civilization, including at least six hours in upper-division Latin, at least six hours in upper-division Greek, and at least six hours in classical civilization courses of any level. All students must complete Greek 362, Greek 365, or Latin 365. With the approval of the Department of Classics, specific courses outside the department may be counted as courses in classical civilization.

Minor for classics majors: Twelve semester hours, including at least six hours of upper-division coursework, in any one field of study in the University other than Latin, Greek, and classical civilization. Six of the required twelve hours must be taken in residence.

Czech Language and Culture

Major: Twenty-four semester hours in Czech language and culture, including the following eighteen hours of upper-division coursework.

1. Czech 325 and 326.
2. Czech 330 and three additional hours of Czech literature chosen from

Coursework used to fulfill the Area A foreign language requirement may not also be counted toward the major.

Minor for Czech language and culture majors: Either (1) twelve semester hours, including at least six hours of upper-division 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 hours must be taken in residence.
Economics

All economics majors must earn grades of at least C in either Mathematics 408C and 408D or Mathematics 408K, 408L, and 408M. Mathematics 403K and 403L (and transfer equivalents) may not be substituted for the required math courses.

Major: Twenty-five semester hours of economics, consisting of Economics 304K, 304L, 420K, 320L, 329, and nine additional hours of upper-division coursework. At least six of the additional 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, and 329 must be completed in residence. Economics majors must take Economics 420K at least two semesters prior to completion of the degree. Students may not enroll in Economics 420K more than twice.

All economics majors must earn grades of at least C in Economics 304K, 304L, 420K, 320L, and 329. Furthermore, all economics majors must earn a grade point average of at least 2.00 in all economics courses (excluding Economics 420K, 320L, and 329) taken at the University and counted toward fulfillment of the major requirement. 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 hours must be taken in residence.

English

Major: Thirty-three semester hours of English and rhetoric and writing, including twenty-four hours in three-semester-hour upper-division courses. The upper-division coursework must consist of two electives and one course in each of the following six areas: a single- or dual-author course; a literary period or survey course; a course on a literary genre or theme; a course in either language or writing; a comparative or interdisciplinary course; and a senior seminar. A list of the courses in each area is available from the undergraduate adviser. 

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 hours must be taken in residence.

Ethnic Studies

The ethnic studies program is administered through the Center for African and African American Studies, 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 three areas of concentration and meet the requirements of that concentration as outlined below.

African and African American Studies

2. Twenty-four semester hours, including at least twelve hours of upper-division coursework. Students must complete two courses in each of the following areas. A list of the courses in each area is available from the undergraduate adviser.
   a. Africa
   b. The African diaspora
   c. African and African American expressive culture
   d. Blacks in the United States

Asian American Studies

1. Asian American Studies 301.
2. Twenty-one semester hours, including at least eighteen hours of upper-division coursework, chosen from a list of courses approved by the Advisory Committee of the Center for Asian American Studies. This coursework must include at least one three-hour course in each of the following groups:
   a. Culture, literature, and media studies
   b. Economics, history, and government
   c. Anthropology, geography, and sociology
3. The minor: 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 hours must be taken in residence.
Mexican American Studies
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 Mexican American Studies 350.
3. Twelve additional semester hours of coursework in Mexican American studies.

Minor for Mexican American studies majors: Twelve semester hours of coursework in Mexican American studies. Six of the required twelve hours must be upper-division coursework.

European Studies
3. Final approval of the major in European studies is pending.

Students majoring in European studies must use one of the following modern European languages to fulfill the Area A foreign language requirement: Czech, Danish, Dutch, French, German, Greek, Italian, Norwegian, Polish, Portuguese, Serbian/Croatian, Spanish, or Swedish. In addition, majors must complete either (1) six hours of upper-division coursework in the same language used for the Area A requirement, or (2) six hours of coursework, consisting of at least two courses, in a second modern European language. Courses used to fulfill these two requirements will not be counted toward the major.

Major: Twenty-four semester hours of coursework in European studies, at least eighteen of which must be upper-division, including
1. European Studies 305, Introduction to European Studies.
2. European Studies 350, Governments and Politics of Western Europe.
3. European Studies 375, Capstone Research in European Studies, in which the student prepares a thesis.

European studies majors are required to participate in an approved study abroad program or in an approved internship in Europe. A list of approved programs is 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: Twenty-four semester hours of upper-division French, including French 320E, 322E, 326K, and 326L; French 340C, 340P, or 340T; and six hours of French courses numbered 350 or above.

Minor for French majors: Either (1) twelve semester hours, including at least six hours of upper-division 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 hours must be taken in residence.

Geography

Major: Thirty semester hours of geography, at least eighteen of which must be upper-division, including a twenty-one-hour core requirement consisting of two courses in physical geography, two in human geography, two in methods/techniques, and Geography 374. In addition to the core requirement, the student must complete at least nine semester hours in one of the following tracks: (1) geographic information science, (2) cultural geography, (3) environmental resource management, (4) general geography (designed for students who do not wish to specialize at the undergraduate level), (5) the city, (6) earth science, (7) global, international, and regional studies, and (8) landscape ecology and biogeography. Courses used to fulfill the core requirement may not be counted toward the completion of a track. Lists of courses that fulfill the core 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 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 330C, 331L, and 336W; (3) nine semester hours in literature and culture, chosen from German 340C, 343C, 345L, and 346L; (4) six semester hours of topic seminars, chosen from German 363K, 369, and 373; and (5) three additional semester hours in German, chosen from German 340C, 343C, 345L, 346L, 348D, 356W, 363K, 366K, 369, and 373. Eighteen of the twenty-four 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 upper-division 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 hours must be taken in residence.
Government

**Major:** Twenty-seven 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. No more than six hours of internship coursework may be counted toward the major, including transfer credit earned in internship courses at another institution.

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.

Greek

**Major:** Twelve semester hours of upper-division coursework in Greek, including Greek 362 or 365, and nine semester hours of coursework in Latin, classical civilization, or a combination of the two.

**Minor for Greek 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.

Hebrew Language and Literature

**Major:** Eighteen semester hours of upper-division coursework in Hebrew, including Hebrew 321, Hebrew Grammar, 322, Introduction to Hebrew Literature, and 325, Advanced Conversation and Composition. No more than six hours in Hebrew 374, Hebrew Literature in Translation, may be counted toward the major.

**Minor for Hebrew language and literature 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 Area A 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 hours must be taken in residence.

History

**Major:** Thirty semester hours of history, including at least fifteen hours of upper-division coursework. At least six hours of coursework must be in United States history, at least six must be in European history, and at least six must be 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 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 hours must be taken in residence. If the minor is in a foreign language other than that used to fulfill the Area A foreign language requirement, the twelve 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 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 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. Students in the Humanities Honors Program must use Humanities 679HA and 679HB to fulfill this requirement.

2. **Track Two**
   a. Twelve 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 679HB to fulfill this requirement.
Islamic Studies

Major: Twenty-four semester hours in Islamic studies, including twenty-one hours of upper-division coursework. The coursework consists of:

1. Islamic Studies 310, Introduction to Islam, or Islamic Studies 311 (Topic 2: Judaism, Christianity, and Islam: An Introduction).
2. Nine hours in Islamic Studies 340, Topics in Islam.
3. Twelve additional hours of upper-division coursework in Islamic studies.

A maximum of six semester hours in upper-division conference courses may be counted toward the major.

Students must complete the equivalent of at least two years in Arabic, Persian, Turkish, or Urdu. Credit used to fulfill this requirement may also be used to fulfill the foreign language requirement for the Bachelor of Arts, Plan I.

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 Area A 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 hours must be taken in residence.

Italian

Major: Twenty-four semester hours of upper-division coursework in Italian, including Italian 326K, 326L, 328, and 329. Italian Civilization 360 may be counted toward this requirement.

Minor for Italian majors: Either (1) twelve semester hours, including at least six hours of upper-division 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 hours must be taken in residence.

Jewish Studies

Major: Twenty-four semester hours of coursework in Jewish studies, consisting of Jewish Studies 301 and twenty-one hours of upper-division coursework. Students must complete at least three hours in each of the following areas:

1. Humanities and arts: Jewish Studies 363 or a comparable course identified by the faculty adviser.
2. History: Jewish Studies 364 or a comparable course identified by the faculty adviser.
3. Social science: Jewish Studies 365 or a comparable course identified by the faculty adviser.

Students are encouraged 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 Area A 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 hours must be taken in residence.

Latin

Major: Fifteen semester hours of upper-division coursework in Latin, including Latin 324 and at least three hours of Latin 365, and six semester hours of coursework in Greek, classical civilization, or a combination of the two.

Minor for Latin 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.

Latin American Studies

All Latin American studies majors must take the following five core courses:

1. Latin American Studies 301.
2. Geography 319 or any other geography course cross-listed with Latin American studies, or Economics 355.
3. Government 328L.
4. History 346K or another upper-division history course on colonial Latin America (before 1810).
5. History 346L or another upper-division history course on either modern Latin America (since 1810) or an individual Latin American nation since independence.

A list of courses that will fulfill requirements 4 and 5 is available in the Latin American studies advising office. Spanish 322K or Portuguese 341 may be substituted for either History 346K or 346L, but not for both.

In addition, all Latin American studies majors must take twenty-one semester hours in a single discipline chosen from the following: anthropology, art history, business, economics, geography, government, history, sociology, Portuguese, or Spanish. A concentration in another area may be organized with the approval of the Undergraduate Program Committee of the Teresa Lozano Long Institute of Latin American Studies. The twenty-one hours must include at least twelve hours of Latin American content coursework and at least twelve hours of upper-division coursework.

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 for the Bachelor of Arts, Plan I.
Linguistics

Major: Linguistics 306, 344K, 345, 372K, 372L, and six 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 hours must be taken in residence. If the minor is in a foreign language other than that used to fulfill the Area A foreign language requirement, the twelve hours may be lower-division but must include at least six hours beyond course 507 or the equivalent.

Middle Eastern Studies

Major: Twenty-four semester hours of coursework in Middle Eastern studies, consisting of Middle Eastern Studies 301K and 301L and eighteen hours of upper-division coursework. Up to six hours of upper-division coursework in a Middle Eastern language may be counted toward the major. A maximum of six semester hours in upper-division conference courses may be counted toward the major.

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 Area A 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 hours must be taken in residence.

Persian Language and Literature

Major: Eighteen semester hours of upper-division coursework in Persian, including nine hours in Persian 329, Topics in Persian Language and Literature. At least one year of Arabic is also required.

Minor for Persian language and literature 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 Area A 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 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 329K or 329L. This course 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.

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 hours must be taken in residence.

Portuguese

Major: Twenty-four semester hours of upper-division coursework in Portuguese, three hours of which must have Luso-Brazilian content.

Minor for Portuguese majors: Either (1) twelve semester hours, including at least six hours of upper-division 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 hours must be taken in residence.

Psychology

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. Also included in these twenty-eight semester hours must be at least one three-semester-hour course in each of four areas:

I. Clinical/social psychology
II. Cognition/language
III. Developmental/evolutionary psychology
IV. Neuroscience/perception

A list of the courses in each area is available in the Department of Psychology Undergraduate Office.

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 nine hours of upper-division coursework, in any one other field of study in
the University. Six of the twelve hours must be taken in residence. No more than three of the twelve hours may also be counted toward any area requirement for the degree.

Religious Studies

Major: Thirty semester hours of religious studies coursework, of which at least eighteen hours must be upper-division. Unless otherwise indicated, a single course may not be counted toward more than one of the following requirements. The thirty hours of coursework must include

1. Religious Studies 305 or 310; and either 302, 304, 318, or 319. These courses may also be counted toward requirement 2.
2. At least three semester hours in each of the following areas. A list of courses in each area is 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; comparative study of religion
3. Primary area: Nine additional hours of upper-division coursework in one of the areas listed in requirement 2 above. The student should choose the primary area in consultation with the religious studies adviser.

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 hours must be taken in residence.

Rhetoric and Writing

Major: Twenty-seven semester hours of coursework in rhetoric and writing, including at least eighteen hours of upper-division work, consisting of

3. Each of the following courses (any topic):
4. Twelve 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 hours must be taken in residence.
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 hours must be taken in residence. If the minor is in a foreign language other than that used to fulfill the Area A foreign language requirement, the twelve hours may be lower-division but must include at least six hours beyond course 507 or the equivalent.

Scandinavian Studies

Major: Twenty-one semester hours of Scandinavian, including (1) Scandinavian 301; (2) no more than nine semester hours of coursework in language and literature chosen from Scandinavian 323, 358, 369, and 373; (3) no more than nine semester hours of coursework in culture chosen from topics of Scandinavian 327; and (4) no more than six semester hours of coursework in society chosen from topics of Scandinavian 335. In addition, the student must use either Danish, Norwegian, or Swedish to fulfill the Area A foreign language requirement.

Minor for Scandinavian studies majors: Either (1) twelve semester hours, including at least six hours of upper-division 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 hours must be taken in residence.

Sociology

Major: At least twenty-seven-semester hours of sociology, including Sociology 302, 317L, 317M, and 379M. At least fifteen 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 317M more than twice.

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 hours must be taken in residence.

Spanish

Major: Each student must complete one of the following concentrations.

1. Hispanic Studies: Twenty-seven semester hours of upper-division coursework in Spanish, consisting of (a) Spanish 327G, 327W, and six additional hours in grammar, composition, and language chosen from Spanish 345L, 346, 367K, and 368L; (b) nine hours in literature, including Spanish 351 or a course numbered above 351; and (c) Spanish 322K or 328, and three additional hours in civilization chosen from Spanish 322K, 328, and 350.

2. Literature: Twenty-seven semester hours of upper-division coursework in Spanish, consisting of (a) Spanish 327G, 327W, and three additional hours in grammar, composition, and language chosen from Spanish 346 and 367K; (b) twelve hours in literature, consisting of either Spanish 325K or 325L; either 326K or 326L; 351; and either 365K or 375; (c) an additional three-semester-hour literature course numbered above 351; and (d) Spanish 322K or 328.

3. Hispanic Linguistics: Twenty-seven semester hours of upper-division coursework in Spanish, consisting of (a) Spanish 327G, 327W, 345L, 346, 364L, 367K, and 368L; (b) three hours in literature; and (c) Spanish 322K or 328. Students who choose this concentration must minor in linguistics; their coursework in the minor must include Linguistics 306.

4. Language Teaching: Twenty-seven semester hours of upper-division coursework in Spanish, consisting of (a) Spanish 327G, 327W, either 345L or 368L, 346, 364L, and 367K (Topic 1: Advanced Oral Expression for Teachers); (b) six hours in literature, including Spanish 351 or a course numbered above 351; and (c) Spanish 322K or 328.

5. Spanish and Portuguese: Thirty semester hours of upper-division coursework in Spanish and Portuguese, consisting of (a) Spanish 327G, 327W, either 345L or 368L, 346, 364L, and 367K (Topic 1: Advanced Oral Expression for Teachers); (b) six hours in literature, including Spanish 351 or a course numbered above 351; and (c) Spanish 322K or 328.

Minor for Spanish majors: Either (1) twelve semester hours, including at least six hours of upper-division 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 hours must be taken in residence. Students in the Hispanic linguistics concentration must minor in linguistics; their coursework in the minor must include Linguistics 306.

Turkish Language and Literature

Major: Eighteen semester hours of upper-division coursework in Turkish, including Turkish 320K and 320L.
Minor for Turkish language and literature 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 Area A 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 hours must be taken in residence.

Urban Studies
The urban studies program is administered by the Department of Geography and the Environment.
Major: Twenty-four semester hours of coursework, consisting of Urban Studies 301, 315, and 360; Urban Studies 370 or an approved equivalent course; and twelve additional hours of upper-division coursework in urban studies.
In addition, all urban studies majors must complete Mathematics 408C or 408K and Mathematics 316 with a grade of at least C in each. Mathematics 403K and 403L may not be counted toward this requirement.
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 hours must be taken in residence.

Women's and Gender Studies

Major: Thirty semester hours of coursework, consisting of twenty-seven hours in women's and gender studies and a three-hour research methods course. The research methods course must be chosen from a list approved by the Center for Women's and Gender Studies. Of the twenty-seven hours in women's and gender studies, eighteen must be in upper-division coursework. It is recommended that six hours be taken in women's and gender studies courses from outside liberal arts. The twenty-seven hours must include:
1. Women's and Gender Studies 301, Introductory Topics in 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. Three hours in feminist theory, chosen from a list of courses approved by the Center for Women's and Gender Studies.
4. Women's and Gender Studies 379L, Internship in Women's and Gender Studies, or 360, Research and Thesis in Women's and Gender Studies.
5. 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 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. Transfer students may apply for admission, but an overall grade point average of at least 3.80 is required, and it is the policy of Plan II not to consider applicants who will have earned more than thirty semester hours of college credit at the time of proposed entry into the program.
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 undergraduate colleges outside of the College of Liberal Arts.
Qualified students who are accepted into both the Plan II Honors Program and the College 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 College of Engineering. Further information is available from the director of Plan II and from the Office of Student Affairs in the College of Engineering.
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 requirements for graduation given in chapter 1 and the requirements of the College of Liberal Arts given on page 293.

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. Under special circumstances and at the discretion of the director, a student may be allowed to continue in the Plan II program while under academic review. 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 minimum scholastic requirements for the Bachelor of Arts, Plan I, given on page 297 and the scholastic standards for continuance in the University given in 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 subject 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. For more information on testing policies and credit by examination, contact a Plan II academic adviser.

Tutorial Course 301 and two semesters of Tutorial Course 357 are required. Either Tutorial Course 359T, Essay Course, or 660H, Thesis Course, is also required; Tutorial Course 660H is required of all students seeking special honors in Plan II. 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.

AREA A, LANGUAGE AND LITERATURE

English: English 603 or Tutorial Course 603.

Writing: In addition to English 603 or Tutorial Course 603, each student must complete two courses certified as having a substantial writing component. One of these courses must be upper-division. Courses used to fulfill the writing requirement may be used simultaneously to fulfill other area requirements or major requirements, unless otherwise specified. Courses with a substantial writing component are identified in the Course Schedule.

Foreign language: Students must complete four semesters 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 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 may accelerate their progress at any point in the sequence by means of credit by examination.

To achieve proficiency in a foreign language as rapidly as possible, qualified students are encouraged to take advantage of the intensive foreign language study program. Information about this program is available from the appropriate language department. Courses used to fulfill the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be counted.

AREA B, SOCIAL SCIENCES

1. Six semester hours in American government, including Texas government, and six semester hours in American history.

2. Six semester hours of non–United States history (or civilization courses) in the same geographic area, including a course in older or ancient history and a course in more modern history, approved by a Plan II academic adviser.

3. Social Science 301.

AREA C, NATURAL SCIENCES

Each student must complete eighteen semester hours of coursework in Area C, consisting of the following:

1. A three-hour mathematics course designated for Plan II students, currently a section of Mathematics 310. Students with credit for Mathematics 408C and 408D; Mathematics 408K, 408L, and 408M; or Mathematics 427L are exempt from taking Mathematics 310. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward the Area C requirement or toward the total number of hours required for the degree. 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. No more than twelve semester hours of mathematics and computer sciences combined may be counted toward the Area C requirement.

2. A three-hour course in logic or modes of reasoning designated for Plan II students, currently a section of Philosophy 313Q or Tutorial Course 310.

3. A three-hour course in physics, chemistry, or geological sciences designated for Plan II students, currently a section of Physics 341 entitled Selected Topics: Modern Physics. Other topics of Physics 341 may not be substituted.
This requirement may also be met with six hours of upper-division coursework in chemistry, excluding Chemistry 368, 369K, 371K, 375K, and 475K, or six hours of upper-division coursework in physics, excluding Physics 370C and non-Plan II sections of Physics 341.

4. A three-hour course in biology designated for Plan II students, currently Biology 301E. This requirement may also be satisfied by credit for Biology 311C and 311D.

5. Six hours in one subject chosen from the following fields. Courses counted toward requirements 3 and 4 above may also be counted toward this requirement.
   a. Astronomy
   b. Biology
   c. Chemistry
   d. Geological sciences
   e. Marine science
   f. Nutrition
   g. Physical science
   h. Physics

6. Any remaining courses required to fulfill the eighteen-hour Area C requirement may be chosen from the fields listed in item 5 above or from the following fields:
   a. Mathematics
   b. Computer sciences
   c. Experimental psychology
   d. Physical anthropology
   e. Physical geography
   f. Philosophy (courses in logic)
   g. History of science and philosophy of science
   h. Other science courses approved by the dean

A list of approved courses in these fields is available in the Student Division and at http://www.utexas.edu/cola/degree_plans/area_requirements/. Only three hours in the history or philosophy of science may be counted.

**AREA D, GENERAL CULTURE**

1. Six semester hours of philosophy, currently Philosophy 610QA and 610QB.
2. Two approved three-semester-hour courses in one of the following: art history, music history, or history of theatre and dance; or two upper-division courses in one of the following areas: classical civilization, humanities, literature, or philosophy.

**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.
Nine semester hours of Area C coursework: Biology 301E, Mathematics 310, and Philosophy 313Q or Tutorial Course 310.
Six semester hours of non–United States history.
Foreign language courses.
Tutorial Course 301.
A three-semester-hour elective.

**Second Year**

Philosophy 610Q.
Three semester hours of Area C coursework.
Government 310L and 312L.
Foreign language courses.
Social Science 301.
A three-semester-hour elective.

**Third and Fourth Years**

Six 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.
Six semester hours of Area C coursework: Physics 341 and three additional hours.
Elective courses sufficient to make a total of at least 120 semester hours. Usually only upper-division courses are approved for third- and fourth-year students.
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 mathematics-based 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, emphasis in the Bachelor of Science in Psychology degree is more 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.

In addition to the following requirements, students must meet the University requirements for graduation given in chapter 1 and the college requirements in the sections “Special Requirements of the College of Liberal Arts,” page 293, and “Applicability of Certain Courses,” pages 294–295.

A total of 120 semester hours is required for the degree. Of the 120 hours, thirty-six must be in upper-division courses. At least sixty hours, including eighteen hours of upper-division coursework, must be taken in residence at the University; at least twenty-four of the last thirty hours must be taken 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. No courses used to fulfill area, major, or minor requirements may be taken on the pass/fail basis. No more than thirty-six hours may be counted in any one subject (including psychology) or in courses offered in any one college or school other than the College of Liberal Arts or the College of Natural Sciences.

Four categories of work must be completed: 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. Courses counted toward the prescribed work may also be counted toward the major.
2. Up to three hours of coursework counted toward the prescribed work may also be counted toward the minor.
3. Courses counted toward the substantial writing component requirement may also be counted toward other requirements.

PRESCRIBED WORK

AREA A, LANGUAGE AND LITERATURE

1. English composition and literature: Rhetoric and Writing 306 and English 316K.
2. Writing: In addition to Rhetoric and Writing 306 and English 316K, each student must complete two courses certified as having a substantial writing component. One of these courses must be upper-division; both must be taken for a letter grade. Courses used to fulfill the writing requirement may be used simultaneously to fulfill other area requirements or major requirements, unless otherwise specified. Courses with a substantial writing component are identified in the Course Schedule.
3. Foreign language/culture: Students must complete one of the following options:
   a. Second-semester-level proficiency in a foreign language.
   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-hour foreign culture courses chosen from a list available in the Student Division and the Department of Psychology.

AREA B, SOCIAL SCIENCES

Eighteen semester hours, distributed among at least four of the following fields of study.

1. Six hours in each of the following fields of study:
   a. American government, including Texas government
   b. American history
2. Three hours each from any two of the following fields of study. With the approval of the dean, courses in other social sciences may be counted toward this requirement.
   a. Anthropology
   b. Economics
   c. Geography
   d. Linguistics
   e. Psychology
   f. Sociology

AREA C, NATURAL SCIENCES

At least twenty-five semester hours in natural sciences, consisting of

1. Mathematics 408C or 408K or a higher-level calculus course.
2. Mathematics 316 or a higher-level mathematics course in probability.
3. Sixteen to eighteen hours, consisting of two of the following sequences:
   a. Biology 311C, 311D, and 325
   b. Chemistry 301, 302, and 204
c. Computer Sciences 303E, 313E, and one of the following: Computer Sciences 323E, 324E, 326E, 327E, 329E

d. Physics 317K, 117M, 317L, and 117N; or 301, 101L, 316, and 116L; or 303K, 103M, 303L, and 103N; or 302K, 102M, 302L, and 102N

4. One of the following:
   a. Three additional hours in mathematics. Mathematics 301, 302, 303D, 303F, 316K, and 316L may not be used to fulfill this requirement.
   b. Three hours in biology, chemistry, computer sciences, or physics. Only the courses listed in requirement 3 above may be used to fulfill this requirement. No course may be counted both toward requirement 3 and toward requirement 4.

**AREA D, GENERAL CULTURE**

Six semester hours from the fields of study listed below. Three of these six hours must be chosen from subarea 1, 2, 3, or 4 (excluding courses in logic).

A student who uses Greek or Latin to meet the foreign language requirement may use additional coursework in the same language to meet the Area D requirement, but only courses beyond the second-semester proficiency level may be used.

1. Architecture
2. Classics, including classical civilization, Greek, Latin
3. Fine arts, including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies
4. Philosophy
5. Other courses that emphasize the topics listed above, if approved by the Office of the Dean. A list of approved alternatives is available each semester in the Student Division and at http://www.utexas.edu/cola/degree_plans/area_requirements/.

**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 one three-semester-hour course in each of the areas:

I. Clinical/social psychology
II. Cognition/language
III. Developmental/evolutionary psychology
IV. Neuroscience/perception

A list of the courses in each area is available in the Department of Psychology Undergraduate Office and at http://www.psy.utexas.edu/.

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 nine hours of upper-division coursework, in any one other field of study in the University. Six of the twelve hours must be taken in residence. No more than three of the twelve hours may also be counted toward any area requirement for the degree.

Additional restrictions may be imposed by the academic department(s) in which the student completes the minor; before planning to use a course to fulfill the minor requirement, the student should also consult the department or program that offers the course.

**ELECTIVES**

The remaining coursework needed for the required total of 120 semester hours consists of electives. A maximum of sixteen hours of elective coursework may be taken on a pass/fail basis.

**MINIMUM SCHOLASTIC REQUIREMENTS**

The student must earn a grade point average of at least 2.00 in courses taken at the University (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 of at least 2.00 in courses taken at the University and counted toward the major requirement.

For more information about grades and the grade point average, see *General Information.*

**HONORS**

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,” which begins on page 285.
COURSES

The faculty has approval to offer the following courses in the academic years 2006–2007 and 2007–2008; 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.

LIBERAL ARTS

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

LIBERAL ARTS: L A

Lower-Division Courses

001. First-Year Interest Group Seminar. Restricted to students in the First-Year Interest Group Program. Basic issues in various liberal arts disciplines. One lecture hour a week for one semester.

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.

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. May be repeated for credit when the topics vary.

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.

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.

110, 210, 310. 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. 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 director of Liberal Arts Career Services.

Upper-Division Courses

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.

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. 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.

371. Texas Interdisciplinary Plan Seminar. Restricted to students in the Texas Interdisciplinary Plan. An analysis of interdisciplinary themes within the arts and sciences through reading, research, discussion, and writing. Three lecture hours a week for one semester, with additional hours to be arranged. Liberal Arts 371 and Natural Sciences 371 may not both be counted. May not be repeated for credit. Prerequisite: Upper-division standing and consent of the Texas Interdisciplinary Plan adviser.

LIBERAL ARTS HONORS

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

LIBERAL ARTS HONORS: LAH

Lower-Division Courses

102H. 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 and one-half class hours a week for one semester. Offered on the pass/fail basis only.

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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Humanities 305 and Liberal Arts Honors 305 may not both be counted unless the topics vary.

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: Twenty-four semester hours of coursework and consent of the liberal arts honors adviser.
Upper-Division Courses

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. May be repeated for credit when the topics vary. Offered on the letter-grade basis only.

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. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

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 two centuries. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

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. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

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. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

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. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

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. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

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: Upper-division standing and a grade point average of at least 3.50.

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. Offered on the letter-grade basis only. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

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 letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

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. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

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. Offered on the letter-grade basis only. Prerequisite: Upper-division standing and a grade point average of at least 3.50.

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.

**AFRICAN AND AFRICAN AMERICAN STUDIES**

See Ethnic Studies Program, page 347.

**AIR FORCE SCIENCE**

See ROTC Courses, page 420.

**AMERICAN SIGN LANGUAGE**

See Department of Linguistics, page 392.

**DEPARTMENT OF AMERICAN STUDIES**

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

**AMERICAN STUDIES: AMS**

**Lower-Division Courses**


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. May be repeated for credit when the topics vary.
315. Topics in American Life. Interdisciplinary exploration of American cultural and intellectual life. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

321. Studies in American Societies. A study of America through its geography, language, government, or culture. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.


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: Anthropology 302, 305, 307, or Linguistics 306; or consent of instructor.

Topic 3: American Indian Cultures North of Mexico. Same as Anthropology 336L. Prerequisite: Upper-division standing, and Anthropology 302 or consent of instructor.

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), 365G (Topic: America and the Holocaust), Jewish Studies 361 (Topic: America and the Holocaust), Liberal Arts Honors 350 (Topic: America and the Holocaust). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

321C. The Brazilian Left, 1900 to the Present. Same as Latin American Studies 322 (Topic 5: The Brazilian Left, 1900 to the Present). American Studies 321C and Latin American Studies 322 (Topic: Brazilian Left, 1900 to 1992) may not both be counted. Prerequisite: Upper-division standing.

321D. Recent Brazil, 1919 to the Present. Same as Latin American Studies 322 (Topic 6: Recent Brazil, 1919 to the Present). Prerequisite: Upper-division standing and consent of instructor.

322. Studies in American Writing. A study of a country through its literature, popular fiction, journalism, and folklore. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Psychological Themes in Modern American Drama. Same as English 376L (Topic 3: Psychological Themes in Modern American Drama). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.


323. Women’s and Gender Studies: Humanities. Same as English 370W (Topic 1: Women’s and Gender Studies: Humanities) and Women’s and Gender Studies 321 (Topic 1: Women’s and Gender Studies: Humanities). An analysis of the role and image of the woman in America. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

325. Studies in American Art. An analysis of the social and aesthetic context of the arts in America. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: American Art: Colonial Era to the Civil War.

Topic 2: American Painting to 1860. Same as Art History 374 (Topic 1: American Painting to 1860). Prerequisite: Upper-division standing, Art History 302 and 303, and a major in art history; or consent of instructor.

Topic 3: American Painting, 1860–1913. Same as Art History 374 (Topic 2: American Painting, 1860–1913). Prerequisite: Upper-division standing, Art History 302 and 303, and a major in art history; or consent of instructor.

327. Studies in Religion and Philosophy. Late nineteenth century to the present, with emphasis on Peirce, James, and Dewey. 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: Major Works on Religion and Interpretation. Same as Philosophy 356 (Topic 1: Major Works on Religion and Interpretation) and Religious Studies 356. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. American Studies 327 (Topic 1) and History 366N (Topic 2: Major Works on Religion and Interpretation) may not both be counted.

Topic 2: American Philosophy: Puritans through Transcendentalists. Same as Philosophy 351. Three lecture hours a week for one semester. Only one of the following may be counted: American Studies 327 (Topic 2), Religious Studies 346 (Topic 1: American Philosophy: Puritans through Transcendentalists), 361 (Topic 1: American Philosophy: Puritans through Transcendentalists). Prerequisite: Three semester hours of coursework in philosophy.

Topic 3: American Philosophy: The Pragmatist Movement. Same as Philosophy 352. Late nineteenth century to the present, with emphasis on Peirce, James, and Dewey. Three lecture hours a week for one semester. Prerequisite: Three semester hours of coursework in philosophy.

328. American Culture and Social Life since 1945. Same as History 356N. Study of postwar American culture and society, using novels, plays, movies, music, television, journalism, political thought, and social criticism; special attention to the 1950s. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

330. Modernism in American Design and Architecture. Same as Art History 367 (Topic 3: Modernism in American Design and Architecture). A historical survey of artifacts, buildings, and urban environments, focusing on responses to machine-age civilization. Prerequisite: For art history majors, Art History 302; for 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.

331. Art, Photography, and Culture of the American West to 1880. Same as Art History 367 (Topic 2: Art, Photography, and Culture of the American West to 1880) and History 366R. The image and history of the West as seen through the eyes of early explorers, artists, and scientists. American Studies 331 and Museum Course 322 (Topic: Art, Photography, and Culture of the American West to 1880) may not both be counted. Partially fulfills legislative requirement for American history. Prerequisite: For art history majors, Art History 302; for 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.

332. Art, Photography, and Culture of the American West since 1880. Same as Art History 367 (Topic 2: Art, Photography, and Culture of the American West since 1880) and History 366S. American Studies 332 and Museum Course 322 (Topic: Art, Photography, Film, and Culture of the American West) may not both be counted. Partially fulfills legislative requirement for American history. Prerequisite: For art history majors, Art History 302; for 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.

355. Main Currents of American Culture to 1865. Same as History 355N. An interdisciplinary course concerned with the definition of American culture in historical perspective. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

356. Main Currents of American Culture since 1865. Same as History 356K. An interdisciplinary course concerned with the definition of American culture in historical perspective. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

357. The United States, 1920–1941. Same as History 357M. A history of political, economic, diplomatic, military, social, and cultural developments in the United States between the two world wars. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

370. Seminar in American Culture. Interdisciplinary seminar on themes in American life. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: American Cultural History of Alcohol and Drugs. Same as History 350L (Topic 2: American Cultural History of Alcohol and Drugs). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

371. Topics in American Cultural History of Alcohol and Drugs. Same as History 367 (Topic 1: 357M). Partially fulfills legislative requirement for American history.

372. Conference Course. Supervised individual study of selected subjects in American studies. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

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.

ANCIENT HISTORY AND CLASSICAL CIVILIZATION

See Department of Classics, page 331.

DEPARTMENT OF ANTHROPOLOGY

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ANTHROPOLOGY: ANT

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 on pages 658–662.

Lower-Division Courses

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. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I.

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.

317 Courses  •  Department of Anthropology
304 (TCCN: ANTH 2302). Introduction to Archaeological Studies I: Prehistoric Archaeology. Same as Archaeology 301. 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.

305. Expressive Culture. Tradition as it is maintained, contested, and re-created in various forms of cultural expression, including verbal art, material culture, and ritual enactments. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

307. Culture and Communication. 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.

309L. The American Public Sphere. Introduction to culture and politics in the American public sphere: the importance of public identities and the distinction Americans make between public and private domains; the study of culture as mediated by television, radio, music, film, and other expressive forms; the construction of a national culture and of minority cultures and subcultures through distinctive expressive forms and public spaces. Three lecture hours or two lecture hours and one discussion hour a week for one semester.

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.

316L. Gender in the African American Community. Same as African and African American Studies 316L. Critical overview of the history and contemporary status of gender relations in the black community: family and gender relations during slavery and in the Reconstruction-era South, gender and the great migration, gender and the civil rights movement, black feminism, and the “crisis” of the black male.

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.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

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. 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 Maya Hieroglyphic Writing. Same as Latin American Studies 324L. (Topic 1: Introduction to Maya Hieroglyphic Writing). An introductory survey that includes glyph recognition and interpretation according to the latest developments in decipherment. Prerequisite: Anthropology 302 or consent of instructor.

Topic 3: Ethnomusicology of Speaking. Prerequisite: Anthropology 302.

Topic 4: Mexican American Languages and Cultures. Prerequisite: Anthropology 302.

Topic 5: Speech Play and Verbal Art. Prerequisite: Anthropology 302.

Topic 8: German and English: Historical Perspectives. Same as Classical Civilization 348 (Topic 8: German and English: Historical Perspectives), Germanic Civilization 327E (Topic 9: German and English: Historical Perspectives), and Linguistics 373 (Topic 8: German and English: Historical Perspectives). Only one of the following may be counted: Anthropology 320L (Topic 8), 320L (Topic 9: The German Language: Historical Perspectives), Classical Civilization 348 (Topic 9: The German Language: Historical Perspectives), German 369 (Topic 4: The German Language: Historical Perspectives), Linguistics 373 (Topic 9: The German Language: Historical Perspectives). Prerequisite: For English majors, completion of at least thirty semester hours of coursework, including English 316K or the equivalent; for others, upper-division standing.

Topic 9: The German Language: Historical Perspectives. Same as Classical Civilization 348 (Topic 9: The German Language: Historical Perspectives), German 369 (Topic 4: The German Language: Historical Perspectives), Linguistics 373 (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), Germanic Civilization 327E (Topic 9: German and English: Historical Perspectives), Linguistics 373 (Topic 8: German and English: Historical Perspectives). 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: Language, Culture, and Society in Latin America. Prerequisite: Anthropology 302, 305, 307, or Linguistics 306; or consent of instructor.

322K. Southwestern Archaeology. Prehistory of New Mexico, Arizona, Utah, and neighboring areas, from the earliest human occupation to the Spanish conquest. Prerequisite: Upper-division standing or consent of instructor.

322M. Topics in Cultures of the World. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.


Topic 9: The Spanish Background of Hispanic America. Same as Geography 347K and Latin American Studies 330 (Topic 1: The Spanish Background of Hispanic America). Prehistoric and Roman origins of Mediterranean land use and settlement; late medieval economy and institutions; conquest and the transformation of Spanish culture in the New World, with emphasis on colonial Mexico. Prerequisite: Upper-division standing.

323G. Primate Ecology. Introduction to the biology and ecology of living primates. Prerequisite: Anthropology 301 or consent of instructor.

323K. Primate Behavior. Same as Women’s and Gender Studies 323 (Topic 1: Primate Behavior). The behavior of nonhuman primates, and its relevance to the understanding of human biology and culture. Two lecture hours and two laboratory hours a week for one semester. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Anthropology 301 or consent of instructor.

324L. Topics in Anthropology. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Primitive Technology. 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 10: Colonialism and Nationalism. Same as Asian Studies 361 (Topic 10: Colonialism and Nationalism). Prerequisite: Upper-division standing.

Topic 11: Folklore, Gender, and the Middle East. Same as Middle Eastern Studies 322K (Topic 8: Folklore, Gender, and the Middle East) and Women’s and Gender Studies 340 (Topic 6: Folklore, Gender, and the Middle East). Prerequisite: Upper-division standing.

Topic 12: Maya Research, 1900 to the Present. Same as Latin American Studies 324L (Topic 7: Maya Research, 1900 to the Present). 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: Cultural Ecology. Same as Geography 331K. Long-term patterns and processes of conversion of planet Earth to the human home, including the emergence of humans, the achievement of control over the food supply, the emergence of civilizations, and globalization. Anthropology 324L (Topic 17) and Urban Studies 354 (Topic 1: Cultural Ecology) may not both be counted. Prerequisite: Upper-division standing.

Topic 18: The Male in African American Culture and Society. Same as African and African American Studies 323. African and African American Studies 374 (Topic: The Male in African American Culture and Society) and Anthropology 324L (Topic 18) may not both be counted. Prerequisite: Upper-division standing.

Topic 21: Reading Ethnography. Exploration of classic and contemporary issues in the writing and reading of ethnography.

Topic 22: Human Biology and Gender Roles. Discussion and evaluation of the biological and social explanations for various aspects of human behavior. Prerequisite: Upper-division standing.


Topic 29: Sacred and Ceremonial Textiles. Same as Islamic Studies 372 (Topic 11: Sacred and Ceremonial Textiles) and Middle Eastern Studies 322K (Topic 24: Sacred and Ceremonial Textiles). 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), Middle Eastern Languages and Cultures 372 (Topic 25: Sacred and Ceremonial Textiles), Religious Studies 364 (Topic 7: Sacred and Ceremonial Textiles). Prerequisite: Upper-division standing or consent of instructor.

Topic 30: Shamanism in Central Asia. Same as Middle Eastern Studies 326 (Topic 1: Shamanism in Central Asia); Religious Studies 342 (Topic 1: Shamanism in Central Asia); and Russian, East European, and Eurasian Studies 345 (Topic 3: Shamanism in Central Asia). Only one of the following may be counted: Anthropology 324L (Topic 30), Middle Eastern Languages and Cultures 340 (Topic 4: Shamanism in Central Asia), Religious Studies 361 (Topic: Shamanism in Central Asia). Prerequisite: Upper-division standing or consent of instructor.

325L. Cultural Studies, Public Culture, and Folklore: Selected Topics. Consideration of folklore in different culture areas of the Western Hemisphere. May be repeated for credit when the topics vary. Three hours in either Anthropology 325K or 325L may be counted toward a major in English. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 10: Middle Eastern Magic, Religion, and Folklore. Same as English 325L (Topic 10: Middle Eastern Magic, Religion, and Folklore) and Middle Eastern Studies 322K (Topic 19: Middle Eastern Magic, Religion, and Folklore). Anthropology 325L (Topic 10) and Middle Eastern Languages and Cultures 372 (Topic 16: Middle Eastern Magic, Religion, and Folklore) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

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. Prerequisite: Anthropology 302, 305, 307, or Linguistics 306; or consent of instructor.

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). Prerequisite: Anthropology 302, 305, 307, or Linguistics 306; or consent of instructor.

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. Prerequisite: Upper-division standing.

327C. Topics in American Cultures. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

Topic 1: Race and Ethnicity in the United States.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Department of Anthropology. Upper credit is awarded for work 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.

330C. Theories of Culture and Society. Examination of the theoretical approaches that have established the intellectual foundations of contemporary sociocultural anthropology. Prerequisite: Upper-division standing.

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. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Anthropology 301 or consent of instructor.

334L. North American Archaeology. Regional cultural development of Native American societies from the earliest human occupations to the historic period. Prerequisite: Upper-division standing or consent of instructor.

336L. American Indian Cultures North of Mexico. Same as American Studies 321 (Topic 3: American Indian Cultures North of Mexico). American Studies 322 (Topic: American Indian Cultures North of Mexico) and Anthropology 336L may not both be counted. Prerequisite: Upper-division standing, and Anthropology 302 or consent of instructor.

340C. Ethnographic Research Methods. Restricted to anthropology majors. Introduction to methods used in conducting ethnographic research; emphasis on research design, analysis, writing, and ethical considerations. Prerequisite: Anthropology 302, 305, or 307.


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.

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: Upper-division standing; and Anthropology 348K (Topic 6: Primate Social Behavior), 348K (Topic 7: Comparative Primate Ecology), Biology 359K, or consent of instructor.

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. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Anthropology 301 or consent of instructor.

348K. Current Topics in Paleoanthropology. Continuation of Anthropology 348. An in-depth exposure to current topics, controversies, literature, and fossil cast material of human and primate evolution. May be repeated for credit when the topics vary. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Anthropology 301 or consent of instructor.

Topic 1: Human Evolution.

Topic 3: Paleomagnetism.

Topic 4: Primate Evolution. Examination of the fossil record for nonhuman primate evolution, including basic concepts of the anatomy, ecology, and systematics of living primates.

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. Prerequisite: Anthropology 462M or the equivalent, one geographic area course in archaeology, a major in anthropology or archaeology, or consent of instructor.

362K. Archaeology of Texas and Vicinity. Cultural history of Texas and neighboring areas, from early prehistoric times to Anglo-American settlements. Prerequisite: Anthropology 453 with a grade of at least C, and a major in anthropology or classical archaeology; or consent of instructor.

462M. Archaeological Techniques. Problems in planning, organizing, and carrying out archaeological surveys and excavations. One three-hour lecture a week for one semester, and four required Saturday field trips. Prerequisite: Anthropology 453 with a grade of at least C, and a major in anthropology or classical archaeology; or consent of instructor.

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. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Anthropology 301, six semester hours of any upper-division coursework in natural or social science, or consent of instructor.

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. Prerequisite: Anthropology 302 or Linguistics 306.

376P. 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.

379. Problems in Anthropology. Supervised individual research on selected problems in anthropology. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in anthropology and consent of instructor.

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.

ARCHAEOLOGY: ARY

Lower-Division Courses

301. Introduction to Archaeological Studies I: Prehistoric Archaeology. Same as Anthropology 304. Anthropological study of prehistory, from human beginnings to the appearance of written records. Three lecture hours a week or two lecture hours and one discussion hour a week for one semester.

302. Introduction to Archaeological Studies II: Classical Archaeology. Same as Classical Civilization 302K. Introduction to the archaeological study of the Mediterranean world from the beginnings of writing and complex urban civilizations to the fall of Rome. Three class hours a week for one semester.
119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Archaeology. This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the archaeological studies 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

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Archaeology. This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the archaeological studies 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.

679H. Honors Tutorial Course. For honors candidates in archaeological 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 Archaeological Studies Honors Program; for 679HB, Archaeology 679HA.

ARABIC

See Department of Middle Eastern Studies, page 394.

ASIAN AMERICAN STUDIES

See Ethnic Studies Program, page 351.

DEPARTMENT OF ASIAN STUDIES

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ASIAN STUDIES: ANS

Lower-Division Courses

301M. Introduction to Asia. Discussion of various problems involving language, history, and culture in Asia. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule.

Topic 1: Introduction to the Visual Arts. Function and meaning of the visual elements in Western and Asian art. Primary focus is on the art of Western countries, with a secondary focus on the art of Asia.

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 7: World Philosophy. Basic issues of philosophy in Western and non-Western traditions, such as the nature of philosophy, its relation to religion and science, the self, knowledge, and virtue. Asian Studies 301M (Topic 7) and Philosophy 302 may not both be counted.


Topic 10: Introduction to Korean Culture and History. Introduction to Korea’s history, culture, and civilization from antiquity to the present.

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. Only one of the following may be counted: Asian Studies 301R, History 306N (Topic 1: History of the Religions of Asia), Religious Studies 311 (Topic 1: History of the Religions of Asia).

302C. Introduction to China. Introduction to Chinese civilization, past and present, including religion, literature, arts, philosophy, and history.

302J. Introduction to Japan. Introduction to Japanese civilization, past and present, including religion, literature, arts, philosophy, and history.

302K. Introduction to India. Introduction to Indian civilization, past and present, including religion, literature, arts, philosophy, and history.

303M. Introduction to Traditional Musics in World Cultures. Same as Music 303M. Art, sacred, and folk traditions of music in the cultures of Asia, Africa, the Pacific, Europe, and the Americas. Three lecture hours a week for one semester, with one laboratory hour a week as required. African and African American Studies 317 (Topic 3: Introduction to Traditional Musics in World Cultures) and Asian Studies 303M may not both be counted.

303N. Introduction to Popular Musics in World Cultures. Same as Music 303N. Popular traditions of music in the cultures of Asia, Africa, the Pacific, Europe, and the Americas. Three lecture hours a week for one semester, with one laboratory hour a week as required.

304. Ethics: Asian Perspectives. Introduction to the varieties of moral values that have guided behavior and thought in traditional and contemporary East and South Asian societies. Focus on a comparison of values among Asian societies and between particular Asian societies and the West.

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.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

320. Topics in Great Literatures of Asia  Conducted in English. Introduction to various Asian literatures, emphasizing philosophical, religious, and social concepts. May be repeated for credit when the topics vary. Only one of the following may be counted unless the topics vary: Asian Studies 320, 361, Chinese 361, English 322, 324. Prerequisite: Varies with the topic and is given in the Course Schedule.

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. Prerequisite: Six semester hours of lower-division coursework in government.

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. Prerequisite: Six semester hours of lower-division coursework in government.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

331. Geography of Asia. Same as Geography 331. Natural regions and cultural landscapes of Asia, excluding the former Soviet Union. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

340. Studies in Asian Religions. Topics in the religions and mythologies of the peoples of Asia. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.


Topic 5: History of Indian Buddhism. Same as Religious Studies 322. The institutional, social, economic, and doctrinal history of Buddhism in India. Only one of the following may be counted: Asian Studies 340 (Topic 5), History 366N (Topic 9: History of Indian Buddhism), Religious Studies 361 (Topic 34: History of Indian Buddhism). Prerequisite: Upper-division standing or consent of instructor.

Top 6: Religion and Rebellion in Modern East Asia. Nineteenth- and twentieth-century religious movements in East Asia, including both specific movements, such as the Taiping Rebellion, The Boxers, Japanese new religions, Tibetan Buddhism under Communist China, and Aum Shinrikyo, and general trends, such as modern Millenarianism, Shamanism, and ascetic practice. Only one of the following may be counted: Asian Studies 340 (Topic 6), 361 (Topic: Religion/Rebellion in Modern East Asia), History 364G (Topic: Religion/Rebellion in Modern East Asia), Religious Studies 352 (Topic: Religion/Rebellion in Modern East Asia).


340M. Modern China. Same as History 340M. History of China from the intrusion of the West circa 1500 to the Communist revolution. Prerequisite: Upper-division standing.

340N. Communist China. Same as History 340N. The history of China from the Communist takeover in 1949 to the present. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.


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). Prerequisite: Upper-division standing.

341M. Imperial Japan. Same as History 341M. Japan from the Meiji transformation through war, defeat, and occupation. Prerequisite: Upper-division standing.

341N. Postwar Japan. Same as History 342C. Japan since the war and occupation. Prerequisite: Upper-division standing.

342C. Sustainable Development. Prospects for expanding goods and services available to the rural poor in developing countries. Asian Studies 342C and Geography 342C may not both be counted. Prerequisite: Upper-division standing.

342D. Political Economy of Japan. Same as History 342D. Historical development of the Japanese economy since early modern times. Only one of the following may be counted: Asian Studies 342D, 361 (Topic: Political Economy of Japan), History 350L (Topic: Political Economy of Japan). Prerequisite: Upper-division standing.

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. Asian Studies 346C and History 366N (Topic: Ancient India) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.
<table>
<thead>
<tr>
<th>Topic 10: Colonialism and Nationalism. Asian Studies 361 (Topic 10) is same as Anthropology 324L (Topic 10: Colonialism and Nationalism). Prerequisite: Upper-division standing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>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.</td>
</tr>
<tr>
<td>Topic 21: Development Economics. Introduction to theories of economic development; discussion of leading issues. Asian Studies 361 (Topic 21) and Economics 333K 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.</td>
</tr>
<tr>
<td>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.</td>
</tr>
</tbody>
</table>

### 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. Prerequisite: Upper-division standing or consent of instructor.

### 346M. Muslim India before 1750

Same as History 346M and Religious Studies 341 (Topic 6: Muslim India before 1750). History, art and architecture, and religions of India during the period of Muslim rule from the tenth to the eighteenth century. Prerequisite: Upper-division standing.

### 346N. History and Culture of India since 1750

Same as History 346N. The period of British rule, the nationalist movement, and independence, with emphasis on the impact of the West on Indian society. Prerequisite: Upper-division standing.

### 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. Prerequisite: Six semester hours of lower-division coursework in government.

### 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. Prerequisite: Upper-division standing.

### 358. Cities in Developing Countries

Same as Geography 358. 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. Prerequisite: Upper-division standing.

### 361, 461. Topics in Asian Studies

Selected topics in south and east Asian anthropology, economics, history, geography, government, art, music, and philosophy. Three or four lecture hours a week for one semester. May be repeated for credit when the topics vary. Only one of the following may be counted unless the topics vary: Asian Studies 320, 361, Chinese 361, English 322, 324. Prerequisite: Varies with the topic and is given in the Course Schedule.

**Topic 2:** Myths and Symbols of India. An examination of the relationships between India’s ancient myths and its rich artistic traditions. 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:** 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: Upper-division standing.

**Topic 9:** Modern Japanese Literature in Translation. Only one of the following may be counted: Asian Studies 361 (Topic 9), 386 (Topic 2: Modern Japanese Literature), Japanese 361 (Topic 2: Modern Japanese Literature in Translation), 384 (Topic 3: Modern Japanese Literature). Prerequisite: Upper-division standing or consent of instructor.
Topic 24: The Two Koreas and the United States. The political, social, and cultural relationship between North and South Korea, and between the Koreas and the United States, since 1945. 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), 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.

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. May be repeated for credit. Prerequisite: Upper-division standing, six semester hours of coursework in Asian studies, and consent of instructor.

372. Topics in Asian Cultures. 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. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

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. Asian Studies 372 (Topic 2) and Religious Studies 361 (Topic 6: Indian Philosophies) may not both be counted.

Topic 5: Women and Family in Asia. Same as Women's and Gender Studies 340 (Topic 2: Women and Family in Asia). Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

Topic 6: Chinese Film and Literature. Three lecture hours a week for one semester. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 7: Chinese Thought and Culture. Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

Topic 12: Perspectives on Japanese Culture. Same as Anthropology 322M (Topic 1: Perspectives on Japanese Culture). Three lecture hours a week for one semester. Prerequisite: Upper-division standing.

Topic 13: 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); Linguistics 322; Russian, East European, and Eurasian Studies 325 (Topic 1: Gypsy Language and Culture).

Topic 14: Veiling in the Muslim World. Same as Islamic Studies 372 (Topic 2: Veiling in the Muslim World), Middle Eastern Studies 322K (Topic 17: 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), Middle Eastern Languages and Cultures 372 (Topic 13: Veiling in the Muslim World), Religious Studies 363 (Topic 2: Veiling in the Muslim World), Women's Studies 340 (Topic 11: Veiling in the Muslim World). Prerequisite: Upper-division standing or consent of instructor.

Topic 15: Early Art of India. Same as Religious Studies 341 (Topic 10: Early Art of India). Artistic achievements of South Asia up to 1000 CE, with a focus on the function and meaning of works of art within the context of Indian culture. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 372 (Topic: Early Art of India), Asian Studies 372 (Topic 15), Religious Studies 351 (Topic 1: Early Art of India), 361 (Topic 35: Early Art of India). 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 16: Zen Buddhism and Japanese Culture. Same as Anthropology 322M (Topic 11: Zen Buddhism and Japanese Culture). Three lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

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. Only one of the following may be counted: Asian Studies 372 (Topic 17), Japanese 361 (Topic 7: Women in Modern Japanese Fiction), Women's Studies 340 (Topic 12: Women in Modern Japanese Fiction). Prerequisite: Upper-division standing or consent of instructor.

Topic 18: Formaion of Indian Art. Same as Religious Studies 341 (Topic 7: Formation of Indian Art). The major artistic achievements of South Asia up to 500 CE within the context of Indian culture. Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 18), Religious Studies 351 (Topic 2: Formation of Indian Art), 361 (Topic 7: Early Indian Art and Aesthetic Theory), 361 (Topic 36: Formation of Indian Art). 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 19: Diversity of Indian Traditions. Same as Religious Studies 341 (Topic 2: Diversity of Indian Traditions). Art and architecture in South Asia from 1200 to 1900 CE within the context of Indian culture. Three lecture hours a week for one semester. Only one of the following may be counted: Art History 372 (Topic: Diversity of Indian Traditions), Asian Studies 372 (Topic 19), Religious Studies 361 (Topic 37: Diversity of Indian Traditions). 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 20: Oriental Carpets: Art as Culture. Same as Middle Eastern Studies 322K (Topic 12: Oriental Carpets: Art as Culture). Three lecture hours a week for one semester. Only one of the following may be counted: Asian Studies 372 (Topic 20), Middle Eastern Languages and Cultures 372 (Topic 10: Oriental Carpets: Art as Culture), Middle Eastern Studies 324K (Topic: Oriental Carpets: Art as Culture).
Related Course


BENGALI: BEN

Lower-Division Courses

506. First-Year Bengali I. Not open to native speakers of Bengali. Five class hours a week for one semester.

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 or the equivalent.

312K. Second-Year Bengali I. Not open to native speakers of Bengali. Three class hours a week for one semester. Prerequisite: Bengali 507 or the equivalent.

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 312K or the equivalent.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

320K. Advanced Bengali I. Not open to native speakers of Bengali. Three class hours a week for one semester. Prerequisite: Bengali 312L or the equivalent.

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 or the equivalent.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

360. Conference Course in Bengali Language and Literature. Supervised individual study of selected problems in Bengali language and literature. May be repeated for credit.

CHINESE: CHI

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 on pages 658–662.

Lower-Division Courses

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.

506 (TCCN: CHIN 1511). First-Year Chinese I. Not open to students who understand or speak Mandarin Chinese. Modern Standard Chinese (Mandarin). The equivalent of five class hours a week for one semester. Chinese 506 and 507 may not both be counted.

507 (TCCN: CHIN 1512). First-Year Chinese II. Not open to native speakers of Chinese. Continuation of Chinese 506. The equivalent of five class hours a week for one semester. Chinese 504 and 507 may not both be counted.

612. Accelerated Second-Year Chinese. Continuation of Chinese 604. Six class hours a week for one semester. Chinese 612 and 412K may not both be counted; Chinese 612 and 412L may not both be counted. Prerequisite: Chinese 604 with a grade of at least C, credit by examination for Chinese 507, or consent of instructor.

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 412K may not both be counted. Prerequisite: Chinese 507 with a grade of at least C.

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 412K with a grade of at least C.
119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunity. 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

320K. Readings in Modern Chinese I. Readings in expository prose: selections from journals, newspapers, and other sources. Prerequisite: Chinese 612 or 412L completed in residence, or consent of instructor.

320L. Readings in Modern Chinese II. Readings in modern fiction, poetry, and drama. Prerequisite: Chinese 320K or consent of instructor.

322. Introduction to Classical Chinese. Beginning study of wen yon, the particles, and syntax of the Chinese classics. Prerequisite: Chinese 412L or consent of instructor.

325K. Advanced Conversation I. Not open to native speakers of Chinese. Drill in conversation on general topics. Prerequisite: Chinese 412L completed in residence, or consent of instructor.

325L. Advanced Conversation II. Not open to native speakers of Chinese. Practice in speaking Modern Standard Chinese. Prerequisite: Chinese 325K or consent of instructor.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

330. Topics in Advanced Chinese. Fourth-year Chinese readings on special topics. May be repeated for credit when the topics vary. Prerequisite: Chinese 320K and 320L, or consent of instructor.

340. Topics in Chinese Literature. Study of Chinese literary texts in the original. May be repeated for credit when the topics vary. Prerequisite: Chinese 320L or consent of instructor.

360. Conference Course in Chinese Language and Literature. Supervised individual study of selected problems in Chinese language or literature. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

HINDI: HIN

Lower-Division Courses

604. Accelerated First-Year Hindi. Not open to native speakers of Hindi. Modern Hindi of India. Eight class 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 607 may not both be counted.

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 506 and 507 may not both be counted; Hindi 506 and Urdu 506 may not both be counted.

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 or the equivalent.

612. Accelerated Second-Year Hindi. Continuation of Hindi 604. Eight class hours a week for one semester. Hindi 612 and 312K may not both be counted; Hindi 612 and 312L may not both be counted. Prerequisite: Hindi 604.

312K. Second-Year Hindi I. Not open to native speakers of Hindi. Modern Hindi of India. Hindi 612 and 312K may not both be counted. Prerequisite: Hindi 507 or the equivalent.

312L. Second-Year Hindi II. Not open to native speakers of Hindi. Continuation of Hindi 312K. Hindi 612 and 312L may not both be counted. Prerequisite: Hindi 312K or the equivalent.

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 or consent of instructor.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

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 or consent of instructor.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor. 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.
JAPANESE: JPN

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 on pages 658–662.

Lower-Division Courses

506 (TCCN: JAPN 1511). First-Year Japanese I. Not open to native speakers of Japanese. Six class hours a week for one semester.

507 (TCCN: JAPN 1512). First-Year Japanese II. Not open to native speakers of Japanese. Six class hours a week for one semester. Prerequisite: Japanese 506 or the equivalent with a grade of at least C.

320K. Readings in Modern Japanese I. Not open to native speakers of Japanese. Readings in expository prose at the intermediate level. Prerequisite: Japanese 412L or the equivalent with a grade of at least C.

320L. Readings in Modern Japanese II. Not open to native speakers of Japanese. Prerequisite: Japanese 320K or the equivalent with a grade of at least C.

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. Japanese 322 and 384 (Topic 1: Classical Japanese) may not both be counted. Prerequisite: Japanese 320L or the equivalent with a grade of at least C.

360. Conference Course in Hindi Language and Literature. Supervised individual study of selected problems in Hindi language and literature. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

KOREAN: KOR

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 on pages 658–662.

Lower-Division Courses

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.

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; Korean 604 and 507 may not both be counted.

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 or the equivalent.

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 412K may not both be counted; Korean 612 and 412L may not both be counted. Prerequisite: Korean 604.
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 or the equivalent with a grade of at least C.

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 412K or the equivalent with a grade of at least C.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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.

360. Conference Course in Malayalam Language and Literature. Supervised individual study of selected problems in Malayalam language or literature. May be repeated for credit. Prerequisite: Malayalam 312L and consent of instructor.

SANSKRIT: SAN

Lower-Division Courses

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.

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 or consent of instructor.

312K. Second-Year Sanskrit I. Introduction to classical Sanskrit prose literature; readings from the Epics and Kathasaritsagara. Prerequisite: Sanskrit 507 or consent of instructor.

312L. Second-Year Sanskrit II. Introduction to classical Sanskrit poetry and philosophical literature; readings from the Upanishads and Kalidasa's Meghaduta. Prerequisite: Sanskrit 312K or consent of instructor.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.
360. Conference Course in Sanskrit Language and Literature. Supervised individual study of selected problems in Sanskrit language or literature. May be repeated for credit. Prerequisite: Sanskrit 312L and consent of instructor.

TAMIL: TAM

Lower-Division Courses

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.

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.

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 or the equivalent.

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.

312K. Second-Year Tamil I. Not open to native speakers of Tamil. Tamil 612 and 312K may not both be counted. Prerequisite: Tamil 507 or the equivalent.

312L. Second-Year Tamil II. Not open to native speakers of Tamil. Tamil 612 and 312L may not both be counted. Prerequisite: Tamil 312K or the equivalent.

Upper-Division Courses

320K. Advanced Tamil I. Not open to native speakers of Tamil. Prerequisite: Tamil 312L or the equivalent, or consent of instructor.

320L. Advanced Tamil II. Not open to native speakers of Tamil. Prerequisite: Tamil 320K or the equivalent, or consent of instructor.

330. Topics in Tamil Language and Literature. Study of specific subjects related to South Asian culture as reflected in Tamil literary productions and other modes of expression. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule. Some topics require consent of instructor; these are identified in the Course Schedule.

330. Conference Course in Tamil Language and Literature. Supervised individual study of selected problems in Tamil language and literature. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

URDU: URD

Lower-Division Courses

604. Accelerated First-Year Urdu. Not open to native speakers of Urdu. Eight class 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.

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.

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 or the equivalent.

312K. Second-Year Urdu I. Not open to native speakers of Urdu. Introduction to the Urdu script, followed by Urdu reading, composition, and conversation. Prerequisite: Hindi 507, Urdu 604, or the equivalent.

312L. Second-Year Urdu II. Not open to native speakers of Urdu. Continuation of Urdu 312K. Prerequisite: Urdu 507 or consent of instructor.

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 or consent of instructor.

118L. Practice in Spoken Urdu II. Not open to native speakers of Urdu. Two lecture hours a week for one semester. Prerequisite: Urdu 118K or consent of instructor.

Upper-Division Courses

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. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule. Some topics require consent of instructor; these are identified in the Course Schedule.

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). Prerequisite: Urdu 312L or the equivalent.

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. Prerequisite: Urdu 312L or the equivalent.

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 Iqbal) may not both be counted. Prerequisite: Urdu 312L or the equivalent.

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. Prerequisite: Urdu 312L or the equivalent.

330. Conference Course in Urdu Language and Literature. Supervised individual study of selected problems in Urdu language and literature. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

VIETNAMESE: VTN

Lower-Division Courses

604. Accelerated First-Year Vietnamese. Designed for students who understand or speak but do not read or write Vietnamese. Six class hours a week for one semester. Vietnamese 604 and 506 may not both be counted; Vietnamese 604 and 507 may not both be counted. Prerequisite: Results on the placement exam indicate the student is ineligible to receive credit for Vietnamese 507. If the student is eligible to receive credit by examination for Vietnamese 506, credit must not appear on the student’s record.

506 (TCCN: VIET 1511). First-Year Vietnamese I. Not open to native speakers of Vietnamese. Five class hours a week for one semester. Vietnamese 604 and 506 may not both be counted.
507 (TCCN: VIET 1512). First-Year Vietnamese II. Not open to native speakers of Vietnamese. Five class hours a week for one semester. Vietnamese 604 and 507 may not both be counted. Prerequisite: Vietnamese 506 or the equivalent with a grade of at least C.

612. Accelerated Second-Year Vietnamese. Continuation of Vietnamese 604. Six class hours a week for one semester. Vietnamese 612 and 412K may not both be counted; Vietnamese 612 and 412L may not both be counted. Prerequisite: Vietnamese 604 with a grade of at least C, credit by examination for Vietnamese 507, or consent of instructor.

412K. Second-Year Vietnamese I. Not open to native speakers of Vietnamese. Four class hours a week for one semester. Vietnamese 612 and 412K may not both be counted. Prerequisite: Vietnamese 507 or the equivalent with a grade of at least C.

412L. Second-Year Vietnamese II. Not open to native speakers of Vietnamese. Four class hours a week for one semester. Vietnamese 612 and 412L may not both be counted. Prerequisite: Vietnamese 412K or the equivalent with a grade of at least C.

Upper-Division Courses

320K. Readings in Modern Vietnamese I. Readings in expository prose: selections from journals, newspapers, and other sources. Prerequisite: Vietnamese 612 or 412L completed in residence, or consent of instructor.

320L. Readings in Modern Vietnamese II. Readings in modern fiction, poetry, and drama. Prerequisite: Vietnamese 320K completed in residence with a grade of at least C, or consent of instructor.

360. Conference Course in Vietnamese Language and Literature. Supervised individual study in Vietnamese language and literature. May be repeated for credit. Prerequisite: Written consent of instructor.

CHINESE

See Department of Asian Studies, page 326.

CLASSICAL CIVILIZATION

See Department of Classics, page 332.

DEPARTMENT OF CLASSICS

Unless otherwise stated below, each course meets for three class hours a week for one semester.

ANCIENT HISTORY AND CLASSICAL CIVILIZATION: AHC

Lower-Division Courses

310. Introductory Surveys in Premodern History. Introductory survey of premodern history with emphasis on regions outside of the ancient Mediterranean world. May be repeated for credit when the topics vary.

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.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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. Prerequisite: Upper-division standing or consent of instructor.

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: Varies with the topic and is given in the Course Schedule.

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 3: Rome and Jerusalem. Same as History 321G, Jewish Studies 365 (Topic 7: Rome and Jerusalem), Middle Eastern Studies 320 (Topic 2: 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), Jewish Studies 361 (Topic 2: Rome and Jerusalem), Middle Eastern Languages and Cultures 341 (Topic 7: Rome and Jerusalem), Religious Studies 361 (Topic 24: 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: Upper-division standing.

Topic 5: History of Greece to 146 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.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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. Prerequisite: Upper-division standing or consent of instructor.

330. Topics in Premodern History. Topics in premodern history with emphasis on regions outside of the ancient Mediterranean world. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing or consent of instructor.
378. **Undergraduate Seminar in Ancient History.** Lectures, discussion, reading, and research on selected topics in the field of ancient history. May be repeated for credit when the topics vary. **Prerequisite:** Upper-division standing; and a major in ancient history and classical civilization, classical civilization, Greek, or Latin, or consent of instructor. Additional prerequisites vary with the topic and are given in the Course Schedule.

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**

No knowledge of Greek or Latin is required for courses in classical civilization. These courses may not be counted toward fulfillment of any foreign language requirement.

**Lower-Division Courses**

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.

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.

302K. **Introduction to Archaeological Studies II: Classical Archaeology.** Same as Archaeology 302. Introduction to the archaeological study of the Mediterranean world from the beginnings of writing and complex urban civilizations to the fall of Rome. No knowledge of Greek or Latin is required. Three class hours a week for one semester.

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.

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. May be repeated for credit when the topics vary. Classical Civilization 304C and 348 may not both be counted unless 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 BC) to the New Kingdom (1069 BC). Classical Civilization 304C (Topic 3) and 348 (Topic 11: *Ancient Egypt*) may not both be counted.

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. May be repeated for credit when the topics vary. Classical Civilization 305 and 335 may not both be counted unless the topics vary. Topic 1: *Introduction to Caesar and Augustus.* Topic 2: *Introduction to Roman Private Life.*

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.

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. Classical Civilization 306M and 336M may not both be counted.

307K. **Topics in Archaeology.** Survey of archaeological discoveries about ancient Greece 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. May be repeated for credit when the topics vary. Classical Civilization 307K and 340 may not both be counted. Topic 1: *Greek Archaeology Survey.* A survey of the artifacts, monuments, and sites of classical Greece; their value for documenting ancient Greek religious, social, and cultural history.


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.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. **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 Center for Global Educational Opportunities. 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**

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. May be counted as an upper-division elective in English. **Prerequisite:** Upper-division standing. Topic 3: *Wit and Humor in Antiquity.*

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. **Prerequisite:** Upper-division standing. Topic 3: *Parageography.* The parageographical ploys of Ovid in his *Metamorphoses*; the deliberate fragmentation of an idea by Dante in his *Purgatorio*; the highly idiosyncratic Europe of Ariosto’s *Orlando Furioso.* No knowledge of Greek or Latin is required. **Prerequisite:** Upper-division standing and Classical Civilization 327, or consent of instructor.
129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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.

335. Advanced Topics in Roman Civilization. No knowledge of Latin is required. Three class hours a week for one semester. May be repeated for credit when the topics vary. Classical Civilization 305 and 335 may not both be counted unless the topics vary. Prerequisite: Upper-division standing.

Topic 1: Caesar and Augustus.

Topic 2: Roman Private Life.

336. 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. Prerequisite: Upper-division standing or consent of instructor.

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. Classical Civilization 306M and 336M may not both be counted. Prerequisite: Upper-division standing.

340. Advanced Topics in Archaeology. Survey or detailed consideration of a single topic such as architecture, sculpture, or topography of sites. No knowledge of Greek is required. May be repeated for credit when the topics vary. Classical Civilization 307K and 340 may not both be counted unless the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Greek Archaeology Survey. A survey of the artifacts, monuments, and sites of classical Greece; their value for documenting ancient Greek religious, social, and cultural history. Prerequisite: Upper-division standing.

Topic 2: Roman Imperial Art. Same as Art History 327N. Public art of the Roman Empire from Augustus to late antiquity, ca. 31 BC to AD 350. Prerequisite: For art history majors, Art History 302; for 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: 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.

342. Ancient Greece. An introductory survey of the highlights of Greek civilization. Three class hours a week for one semester. Classical Civilization 301 and 342 may not both be counted. Prerequisite: Upper-division standing.

347. The Cultural History of 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. Prerequisite: Upper-division standing.

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. May be repeated for credit when the topics vary. Classical Civilization 304C and 348 may not both be counted unless the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Greek Private Life. Prerequisite: Upper-division standing or consent of instructor.

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. Prerequisite: Six semester hours of coursework in philosophy.

Topic 5: Homosexuality in Antiquity. Prerequisite: Upper-division standing or consent of instructor.

Topic 6: Paganism to Christianity. Prerequisite: Upper-division standing or consent of instructor.


Topic 8: German and English: Historical Perspectives. Same as Anthropology 320L (Topic 8: German and English: Historical Perspectives), Germanic Civilization 327E (Topic 9: German and English: Historical Perspectives), and Linguistics 373 (Topic 8: German and English: Historical Perspectives). Only one of the following may be counted: Anthropology 320L (Topic 9: The German Language: Historical Perspectives), Classical Civilization 348 (Topic 8), 348 (Topic 9: The German Language: Historical Perspectives), German 369 (Topic 4: The German Language: Historical Perspectives), Linguistics 373 (Topic 9: The German Language: Historical Perspectives). Prerequisite: For English majors, completion of at least thirty semester hours of coursework, including English 316K or the equivalent; for others, upper-division standing.

Topic 9: The German Language: Historical Perspectives. Same as Anthropology 320L (Topic 9: The German Language: Historical Perspectives), German 369 (Topic 4: The German Language: Historical Perspectives), and Linguistics 373 (Topic 9: The German Language: Historical Perspectives). Only one of the following may be counted: Anthropology 320L (Topic 8: German and English: Historical Perspectives), Classical Civilization 348 (Topic 8: German and English: Historical Perspectives), 348 (Topic 9: German and English: Historical Perspectives), Germanic Civilization 327E (Topic 9: German and English: Historical Perspectives), Linguistics 373 (Topic 8: German and English: Historical Perspectives). Prerequisite: Six semester hours of upper-division coursework in German, or fourteen hours of coursework in German and six hours of coursework in linguistics.
Upper-Division Courses

502. First-Year Modern Greek I: Grammar and Reading. Five class hours a week for one semester.

503. First-Year Modern Greek II: Grammar and Reading. Five class hours a week for one semester. Prerequisite: Greek 502 or consent of instructor.

804. Intensive First-Year 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 804; 506 and 507; 606Q. The student must complete both courses 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.

506 (TCCN: GREE 1511). First-Year Greek I. Five class hours a week for one semester. Only one of the following may be counted: Greek 804; 506 and 507; 606Q.

606Q. Accelerated First-Year Greek. Comparable to Greek 506 and 507 together. Designed primarily for students of high academic ability and motivation. Six class hours a week for one semester. Only one of the following may be counted: Greek 804; 506 and 507; 606Q. Prerequisite: Knowledge of another foreign or classical language is desirable.

507 (TCCN: GREE 1512). First-Year Greek II. Completion of grammar, and some reading from Plato and other writers. Five class hours a week for one semester. Only one of the following may be counted: Greek 804; 506 and 507; 606Q. Prerequisite: Greek 506 with a grade of at least C.

309K. Conference Course. Supervised individual instruction in second-year ancient or modern Greek reading. May be repeated for credit. Prerequisite: Consent of instructor.

310. Second-Year Modern Greek I. Culture, language, and literature of present-day Greece. Three class hours a week for one semester. Prerequisite: Greek 503 or consent of instructor.

310K. Second-Year Modern Greek II. Continuation of Greek 310. Three class hours a week for one semester. Prerequisite: Greek 310 or consent of instructor.

311 (TCCN: GREE 2311). Second-Year Greek I: Prose and Poetry. Selections from standard writers such as Plato, Euripides, and Xenophon. Three class hours a week for one semester. Prerequisite: Greek 606Q or 507 with a grade of at least C, 804 and 412 with a grade of at least C in each, or consent of the undergraduate adviser.

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 506 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.

312K. Second-Year Greek II: Selected Writers. Continuation of Greek 311. Selections from standard, classical, non-biblical writers. Three class hours a week for one semester. Prerequisite: Greek 311 with a grade of at least C, or consent of the undergraduate adviser.
312L. Second-Year Greek II: Selections from 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. Prerequisite: Greek 311 with a grade of at least C, or consent of the undergraduate adviser.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

324. Greek Literature: Junior Reading. Readings from major writers such as Homer, Euripides, and Lysias. Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Greek 312K (or 319) with a grade of at least C, or Greek 804 and 412 with a grade of A in each; and consent of instructor or the undergraduate adviser.
Topic 1: Euripides.
Topic 2: Herodotus.
Topic 3: Homer's Iliad.
Topic 4: Plato.

326. Advanced Greek Grammar and Composition. Three class hours a week for one semester. Prerequisite: Credit or registration for Greek 324 or consent of the undergraduate adviser.

328. Biblical Greek: Junior Reading. Acts of the Apostles, Pauline Epistles, the Gospels of John and Luke, the Septuagint, related writings and critical exegesis. Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Greek 312K or 312L (or 319); and consent of instructor.
Topic 1: Pauline Epistles.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

362. Advanced Biblical Greek. Readings from the Septuagint, Christian fathers, and Greek papyri; comparison with New Testament Greek and Homeric and Attic Greek. Textual criticism. Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Greek 324 or 328.
Topic 1: Pauline Epistles.

365. Advanced Greek Reading. Readings from major writers such as Thucydides, Demosthenes, Aeschylus, Pindar, and the Lyric Poets. Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Greek 324 or consent of the undergraduate adviser.

Topic 1: Aeschylus.
Topic 2: Sophocles.
Topic 3: Thucydides.
Topic 4: Aristophanes.

370. Advanced Conference Course. Supervised reading. May be repeated for credit. Prerequisite: Greek 310K or 324, and consent of instructor.

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

Generally, students beginning Latin should follow the regular sequence: Latin 506, 507, 311, and 312K or 312M or 316. However, advanced and graduate students and students with a strong linguistic background should follow the accelerated sequence: Latin 506Q or 508, followed by 511K if they earn a grade of A in 506Q or 508. Students with high school or transfer credit usually begin University coursework at a higher level. For instance, students with two high school units in Latin ordinarily take Latin 508 or 311; those with three units begin with Latin 311; those with four units begin with Latin 312K, 312M, or 316.

To ensure proper placement, students should consult the undergraduate adviser for the Department of Classics before registering. A great deal of flexibility is sometimes allowed on course sequence. Placement of students with no Latin coursework at the University is made on the basis of an examination and/or an interview. Generally the following policies apply:

1. If the student has no previous training in Latin, the following options are available:
   a. Latin 506, First-Year Latin I.
   b. Latin 506Q, Accelerated First-Year Latin, which covers the same coursework as Latin 506 and 507 in one semester.

2. Students who have had two years of Latin in high school, or one or two semesters of Latin at another university, should take Latin 508, a review course covering the fundamentals of grammar and syntax in one semester.

3. Students who have recently had more than two years of Latin in high school, or more than two semesters of Latin at another university, should take Latin 311.

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 on pages 658–662.

Lower-Division Courses

506 (TCCN: LATI 1511). First-Year Latin I. Fundamentals of grammar and reading. Five class hours a week for one semester. Latin 506 and 506Q may not both be counted.

506Q. Accelerated First-Year Latin. A rapid survey of basic Latin for students of high linguistic aptitude. Five class hours a week for one semester. Latin 506 and 506Q may not both be counted; Latin 506Q and 507 may not both be counted; Latin 506Q and 508 may not both be counted.

507 (TCCN: LATI 1512). First-Year Latin II. Five class hours a week for one semester. Latin 506Q and 507 may not both be counted; Latin 507 and 508 may not both be counted. Prerequisite: Latin 506 with a grade of at least C.
508. Essentials of Latin Grammar. Intended as a review course of the fundamentals for students with two or more high school units in Latin. Five class hours a week for one semester. Latin 506Q and 508 may not both be counted; Latin 507 and 508 may not both be counted.

309K. Conference Course. Supervised individual instruction in second-year Latin reading. May be repeated for credit. Prerequisite: Consent of instructor.

311 (TCCN: LATI 2311). Second-Year Latin I: Selected Roman Writers. Introduction to reading Latin verse and prose writers in their cultural context. Includes grammar review. Three class hours a week for one semester. Latin 311 and 511K may not both be counted. Prerequisite: Latin 506Q, 507, or 508 with a grade of at least C.

511K. Accelerated Second-Year Latin. Designed primarily for students of high academic ability and motivation. Covers the same material as Latin 311 and 312K. Five class hours a week for one semester. Latin 311 and 511K may not both be counted; Latin 511K and 312K may not both be counted. Prerequisite: Latin 506Q, 507, or 508 with a grade of at least C.

312K. Second-Year Latin II: Vergil's Aeneid. Readings in Vergil's Aeneid with attention to its cultural context. Three class hours a week for one semester. Latin 511K and 312K may not both be counted. Prerequisite: Latin 311 with a grade of at least C, or consent of the undergraduate adviser.

312M. Second-Year Latin II: Prose. Selected readings from Cicero, Sallust, and/or other Latin prose writers. Three class hours a week for one semester. Prerequisite: Latin 311 with a grade of at least C, or consent of the undergraduate adviser.

511. Upper-Division Courses

323. Latin Poetry and Prose: Junior Reading. Cicero's philosophical works, and other selected works such as Catullus and Livy. Three class hours a week for one semester. May be repeated for credit when the topics vary. Prerequisite: Latin 312K, 312M, or 316 with a grade of at least C; and consent of the undergraduate adviser.

Topic 1: Caesar.
Topic 2: Catullus.
Topic 3: Cicero.
Topic 4: Livy.

324. Advanced Latin Grammar and Composition. Three class 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 312K with a grade of at least C and consent of instructor.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

365. Advanced Latin Reading. Major classical writers such as Lucretius, Tacitus, Horace, Livy, Ovid, Juvenal. Three class 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, or consent of the undergraduate adviser.

Topic 1: Horace.
Topic 2: Lucretius.
Topic 3: Ovid's Metamorphoses.
Topic 4: Tacitus.
Topic 5: Vergil's Aeneid, Books VII–XII.
Topic 6: Catullus. Latin 365 (Topic 6) and 365 (Topic: The World of Catullus) may not both be counted.
Topic 7: Vergil's Eclogues.

366. Advanced Lyric Poetry: Classical and Medieval. Rapid reading of substantial portions of major Latin writers, including medieval writers. Three class hours a week for one semester. Latin 316 and 366 may not both be counted. Prerequisite: Latin 323 or the equivalent.

370. Advanced Conference Course. Supervised reading. May be repeated for credit. Prerequisite: Consent of instructor.

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.

COGNITIVE SCIENCE

COGNITIVE SCIENCE: CGS

Upper-Division Course

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. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

COMPARATIVE LITERATURE

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

COMPARATIVE LITERATURE: C L

Lower-Division Courses

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.

315. Masterworks of World Literature. Introduction to masterpieces of the world's literary traditions, emphasizing historical, generic, and thematic connections. Some sections require an additional discussion hour a week. Only one of the following may be counted: Comparative Literature 315, English 603B, 316K, Tutorial Course 603B. Prerequisite: Completion of at least twenty-seven semester hours of coursework, including Rhetoric and Writing 306 or the equivalent, and a passing score on the reading section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

Upper-Division Courses

320. Conference Course in Comparative Literature. Independent study of literary projects under supervision of professors in comparative literature. Prerequisite: Six semester hours of upper-division coursework in literature, of which three hours must be in a classical or foreign language.

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. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Literature and Music. Same as English 320M (Topic 1: Literature and Music). Comparative Literature 323 (Topic 2) and English 320M (Topic: Literature and Music: Shakespeare to Stravinsky) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.


Topic 4: Self-Revelation in Women's Writing. Same as African and African American Studies 374 (Topic 26: Self-Revelation in Women's Writing), English 376L (Topic 9: Self-Revelation in Women's Writing), Middle Eastern Studies 322K (Topic 26: Self-Revelation in Women's Writing), and Women's and Gender Studies 340 (Topic 14: Self-Revelation in Women's Writing). Comparative Literature 323 (Topic 4) and Middle Eastern Languages and Cultures 374 (Topic 3: Self-Revelation in Women's Writing) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 5: The Enlightenment. Same as English 379N (Topic 6: The Enlightenment). Only one of the following may be counted: Comparative Literature 323 (Topic 5), French Civilization 349 (Topic: The Enlightenment), Philosophy 354 (Topic: The Enlightenment). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

324. The History of Fantastic Literature. Open to all University students. The history of fantastic and fantasy literature.

CONNEXUS

CONNEXUS: CXS

Lower-Division Courses

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.

118, 218, 318. Connexus Forum Seminar Series. Restricted to freshmen and sophomores. Discussion of various contemporary issues, with an emphasis on multidisciplinary perspectives and critical discourse. For 118, two lecture hours a week for eight weeks; for 218, two lecture hours a week for one semester; for 318, three lecture hours a week for one semester. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Connexus 118, 218, 318 and Freshman Seminar 118, 218, 318 may not both be counted unless the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Upper-Division Course

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 328C, 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: Upper-division standing. Additional prerequisites may vary with the topic and are given in the Course Schedule.
AMÉRICO PAREDES CENTER FOR CULTURAL STUDIES

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

CULTURAL STUDIES: CLS

Lower-Division Course

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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. Prerequisite: Upper-division standing and a concentration in cultural studies. Related Courses

For a description of each of the following courses, see the chapter for the college that offers the course.

College of Fine Arts

Music 303M. Introduction to Traditional Musics in World Cultures.

College of Liberal Arts

Anthropology 302. Cultural Anthropology.
Anthropology 305. Expressive Culture.
Anthropology 320L. Topics in Language, Culture, and Communication.
Anthropology 324L. Topics in Anthropology.
Anthropology 325L. Cultural Studies, Public Culture, and Folklore: Selected Topics.
Classical Civilization 303. Introduction to Classical Mythology.
English 325K. Introduction to Folklore and Folklife.
English 326K. The Literature of the Middle Ages in Translation.
English 342. Life and Literature of the Southwest.
Mexican American Studies 307. Introduction to Cultural Studies.

CZECH

See Department of Slavic and Eurasian Studies, page 427.

DANISH

See Department of Germanic Studies, page 365.

DUTCH

See Department of Germanic Studies, page 365.

DEPARTMENT OF ECONOMICS

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ECONOMICS: ECO

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 on pages 658–662.

Lower-Division Courses

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.
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. Prerequisite: Economics 304K with a grade of at least C.

305. Introductory Topics in Economics. May be repeated for credit when the topics vary.
119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

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 304K and 304L with a grade of at least C in each, or Mathematics 408C and 408D, or Mathematics 408K, 408L, and 408M, with a grade of at least C in each.
320L. Macroeconomic Theory. Theory of the determination of national income, employment, and the price level, with policy implications. Required of students majoring in economics. Prerequisite: Economics 420K with a grade of at least C.
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. Prerequisite: Economics 420K with a grade of at least C.
322. **Money and Banking.** The role of money and depository institutions in the economy; introduction to financial and monetary theory and policy. Only one of the following may be counted: Economics 322, Finance 354, 354H. **Prerequisite:** Economics 420K and 320L with a grade of at least C in each.

323T. **Studies in Economic History.** Study of economic development, emphasizing more recent periods; causal factors, emerging problems, and major policy issues. May be repeated for credit when the topics vary. **Prerequisite:** Economics 304K 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. Economics 323T (Topic 2) and History 366N (Topic 13: *World Economic History*) may not both be counted.

324. **Introduction to Labor Economics.** Study of labor in industrial societies, with emphasis on principles, institutions, and policies for understanding labor and personnel problems. **Prerequisite:** Economics 420K with a grade of at least C.

327. **Comparative Economic Systems.** Theories of and practices in the principal types of economic systems. **Prerequisite:** Economics 304K and 304L with a grade of at least C in each.

328. **Industrial Organization.** The organization of industries and markets: competition, monopoly, and oligopoly; antitrust policy and its alternatives. **Prerequisite:** Economics 420K with a grade of at least C.

329. **Economic Statistics.** Methods of statistical analysis and interpretation of quantitative data in the field of economics. Required of economics majors. **Prerequisite:** Economics 304K and 304L with a grade of at least C in each, and Mathematics 408C and 408D, or Mathematics 408K, 408L, and 408M, with a grade of at least C in each.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. **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 Center for Global Educational Opportunities. 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.

333K. **Development Economics.** Introduction to theories of economic development; discussion of leading issues. Asian Studies 361 (Topic 21: *Development Economics*) and Economics 333K may not both be counted. **Prerequisite:** Economics 420K with a grade of at least C.

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. **Prerequisite:** Economics 420K with a grade of at least C.

334L. **Regional Economics.** Same as Urban Studies 351 (Topic 3: *Regional Economics*). Spatial aspects of economics, including concepts, theories, and policy applications. **Prerequisite:** Economics 420K with a grade of at least C.

339K. **International Trade and Investment.** International trade theory, balance of payments, commodity trade, international finance and foreign exchange rates, foreign investments. Economics 339K and International Business 350 may not both be counted. **Prerequisite:** Economics 420K with a grade of at least C.

339L. **International Finance.** How foreign exchange rates are determined, why national interest rates differ, why risk is inherent when trading in international finance markets, and the role of international organizations such as the International Monetary Fund in crisis management. **Prerequisite:** Economics 420K and 320L with a grade of at least C in each; Economics 339K is recommended.

341K. **Introduction to Econometrics.** Introduces the student to standard regression procedures of parameter estimation and hypothesis testing in economics. **Prerequisite:** Economics 420K and 329 with a grade of at least C in each; Mathematics 408D is recommended.

346K. **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: *Russian Economic Development since 1917*) may not both be counted. **Prerequisite:** Economics 304K and 304L with a grade of at least C in each.

350K. **Selected Topics in Economics.** Topics may include problems in economic theory, applications, and economic policy. May be repeated for credit when the topics vary. **Prerequisite:** Economics 420K with a grade of at least C. Additional prerequisites 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. **Prerequisite:** Economics 329 with a grade of at least C, and Mathematics 408D, 340L, or 341. Economics 341K or Mathematics 362K is recommended.

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. **Prerequisite:** Economics 329 with a grade of at least C, and Mathematics 408D, 340L, or 341.

Topic 7: *Applied Economic Analysis.* Major issues in applied economics, including relevant theoretical and empirical models. **Prerequisite:** Economics 329 with a grade of at least C, and Mathematics 408D, 340L, or 341. Economics 341K or Mathematics 362K is recommended.

351K. **Current Issues in Business Economics.** Newly emerging problems in business and the approaches used for structuring, analyzing, and treating them. **Prerequisite:** Economics 420K with a grade of at least C.

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. **Prerequisite:** Economics 420K, 320L, and 329 with a grade of at least C in each.
351M. Managerial Economics. The use of economic analysis optimizing techniques as tools for improving managerial decision making in business. Prerequisite: Economics 420K, and Economics 329 or Mathematics 362K, with a grade of at least C in each.

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. Prerequisite: Economics 420K and 329 with a grade of at least C in each.


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. Economics 357K and Russian, East European, and Eurasian Studies 335 (Topic 1: Marxist Economics) may not both be counted. Prerequisite: Upper-division standing.

357L. Political Economy of International Crisis. 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: Political Economy of International Crisis) may not both be counted. Prerequisite: Economics 304K and 304L with a grade of at least C in each.

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. Prerequisite: Economics 420K and 329 with a grade of at least C in each.

361. Studies in Public Economics. Studies in the principal problem areas of governmental revenues and expenditures. May be repeated for credit when the topics vary. Prerequisite: Economics 420K with a grade of at least C.

361N. Informational Society. The social impact of the current technological changes in electronics, communications, and automation; focus on efficient institutions given the technological possibilities. Prerequisite: Economics 304K and 304L with a grade of at least C in each.

362M. Mathematics for Economists. Application of mathematics in economic analysis. Prerequisite: Economics 420K and Mathematics 408D with a grade of at least C in each.

363C. Computational Economics. Prerequisite: Economics 420K or 320L with a grade of at least C.

367R. Monetary Economics. Major issues in the monetary field. Prerequisite: Economics 420K and 320L with a grade of at least C in each; Economics 322 is recommended.


369F. Financial Economics. Economic analysis of the operation of financial markets, including arbitrage theory, asset pricing, and corporate finance. Prerequisite: Economics 420K, 320L, and 329 with a grade of at least C in each; Economics 322 is recommended.

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. May be repeated for credit when the topics vary. Prerequisite: Economics 420K with a grade of at least C.

376M. Studies in Labor Economics. May be repeated for credit when the topics vary. Prerequisite: Economics 420K with a grade of at least C.

377R. 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 420K, 320L, and 329 with a grade of at least C in each. Economics 341K or 350K (Topic 4: Advanced Econometrics) is recommended.

378H. Honors Tutorial Course I. Supervised individual reading, research, and writing of a substantial paper on a special topic in the field of economics. Prerequisite: Upper-division standing, admission to the Economics Honors Program, and consent of the honors adviser.

379C. Individual Conference Course. Supervised individual study of selected problems in economics. May be repeated for credit. May not be counted toward the twenty-four semester hours in economics required for the major in economics. Prerequisite: Upper-division standing and consent of instructor. Students should ordinarily have completed six semester hours of upper-division coursework in economics and coursework with supervising instructor.

379D. Internship in Economics. Students conduct research while working in an appropriate government agency or private business. Five to ten hours a week for one semester. Offered on the pass/fail basis only. May be repeated once for credit when the internships vary. Prerequisite: Upper-division standing.

379H. Honors Tutorial Course II. Supervised individual reading, research, and writing of a substantial paper on a special topic in the field of economics. Prerequisite: Economics 378H.
DEPARTMENT OF ENGLISH

REGISTRATION IN ENGLISH

No student may take more than six semester hours of coursework in English in a semester or a summer term without the consent of an undergraduate adviser in the Department of English. Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ENGLISH: E

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 on pages 658–662.

Lower-Division Courses

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, 316K, Tutorial Course 603B. Prerequisite: For 603A, admission to the Plan II Honors Program; for 603B, English 603A.

314J. Literature across the Curriculum. Literature for non-English majors, with readings selected to highlight the connections between literary study and other fields of inquiry. May be repeated for credit when the topics vary. May not be substituted for English 316K. Not recommended for prospective English majors. Prerequisite: Rhetoric and Writing 306 or the equivalent.

314L. Introduction to Literary Studies. Readings selected to prepare students for upper-division English courses; intensive practice in writing; introduction to online research. May be taken twice for credit when the topics vary. May not be substituted for English 316K, but recommended for prospective English majors. Prerequisite: Rhetoric and Writing 306.

Topic 4: Literary Contexts and Contexts.
Topic 5: Reading Poetry.

314V (TCCN: ENGL 2351). Introduction to Literature and Culture. Readings in minority and ethnic American literatures in their cultural contexts. May be taken twice for credit when the topics vary. May not be substituted for English 316K. Prerequisite: Rhetoric and Writing 306 or (English 306).


Topic 2: Asian American Literature and Culture. English 314L (Topic: Asian American Literature and Culture) and 314V (Topic 2) may not both be counted.

Topic 3 (TCCN: ENGL 2351): Mexican American Literature and Culture. Same as Mexican American Studies 314. Introductory course concerned with representative contemporary Chicano writers and genres, such as poetry, prose fiction, and theatre.

316K (TCCN: See Appendix A). Masterworks of Literature. Three versions: World, British, American. Introduction to masterpieces of the literary tradition, emphasizing historical, generic, thematic connections. Large sections require an additional discussion hour a week. Only one of the following may be counted: Comparative Literature 315, English 603B, 316F, 316K, Tutorial Course 603B. Only one version of 316K may be taken for credit. Prerequisite: Completion of at least twenty-seven semester hours of coursework, including Rhetoric and Writing 306 or the equivalent, and a passing score on the reading section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

318L (TCCN: ENGL 2307, 2308). Introduction to Creative Writing. A first course in writing fiction, poetry, or creative nonfiction. Some reading, but mostly learning through practice and critique. Large sections require an additional discussion hour a week. May be repeated once for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 or the equivalent.

Topic 1: Fiction.
Topic 2: Poetry.

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. Prerequisite: Completion of at least twenty-seven semester hours of coursework, including Rhetoric and Writing 306 and English 316K or their equivalents.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser. This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser. May be repeated for credit when the topics vary.

Upper-Division Courses

320L. Major Writers of the Restoration and Eighteenth Century. A study of the principal writers: Dryden, Pope, Swift, Johnson, Boswell, Burns, and others. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

320M. Literature and the Other Arts. The relationship of literature, the visual arts, and music in English and American literature from the Renaissance to the present. May be repeated for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 1: Literature and Music. Same as Comparative Literature 323 (Topic 2: Literature and Music).

Topic 2: Nineteenth-Century Literature, Art, and Architecture.

321. Shakespeare: Selected Plays. A representative selection of Shakespeare's best comedies, tragedies, and history plays. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.
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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

322. Literature in Translation. Romance, Germanic, Slavic, and other world literatures in English translation. May be repeated for credit when the topics vary. Only one of the following may be counted unless the topics vary: Asian Studies 320, 361, Chinese 361, English 322, 324. May be counted only once for a major in English. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: Introduction to Germanic Religion and Myth. Same as European Studies 361 (Topic 6: Introduction to Germanic Religion and Myth), Germanic Civilization 340E (Topic 1: Introduction to Germanic Religion and Myth), and Religious Studies 365 (Topic 2: Introduction to Germanic Religion and Myth). English 322 (Topic 2) and Religious Studies 361 (Topic 8: Introduction to Germanic Religion and Myth) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 12: German Cinema since 1933. Same as European Studies 361 (Topic 17: German Cinema since 1933) and Germanic Civilization 361E (Topic 2: German Cinema since 1933). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 13: Genres, Structure, and Trends in German Cinema. Same as European Studies 361 (Topic 2: Genres, Structure, and Trends in German Cinema) and Germanic Civilization 361E (Topic 3: Genres, Structure, and Trends in German Cinema). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 15: Wagner's Ring of the Nibelung. Same as Germanic Civilization 362E (Topic 2: Wagner's Ring of the Nibelung). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 17: Social Dramas of Henrik Ibsen. Same as Scandinavian 323 (Topic 2: Social Dramas of Henrik Ibsen) and Women's and Gender Studies 345 (Topic 14: Social Dramas of Henrik Ibsen). Men and women in their public and private lives. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 18: Films of Ingmar Bergman. Same as Scandinavian 327 (Topic 9: Films of Ingmar Bergman). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 19: Hans Christian Andersen. Same as Germanic Civilization 323E (Topic 4: Hans Christian Andersen) and Scandinavian 373 (Topic 4: Hans Christian Andersen). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 20: The Development of the French Film. Same as French Civilization 339. Films in French, with subtitles in English; lectures in English. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 21: Italian Cinema. Same as Italian Civilization 349 (Topic 1: Italian Cinema). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 22: Dante. Same as Italian Civilization 349 (Topic 2: Dante). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 28: Saga, Novel, and Tale. Same as Scandinavian 323 (Topic 4: Saga, Novel, and Tale). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 30: The German Folktales and Fantasy Tale. Same as European Studies 361 (Topic 16: The German Folktales and Fantasy Tale) and Germanic Civilization 362E (Topic 3: The German Folktales and Fantasy Tale). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 34: Yiddish Drama and Film in Translation. Same as Germanic Civilization 327E (Topic 8: Yiddish Drama and Film in Translation); Jewish Studies 361 (Topic 5: Yiddish Drama and Film in Translation); Russian, East European, and Eurasian Studies 325 (Topic 8: Yiddish Drama and Film in Translation); and Slavic 324 (Topic 2: Yiddish Drama and Film in Translation). Jewish life in Poland and Russia before the Holocaust, and the transition to American Jewish life, as revealed in plays and films produced in Eastern Europe and in the United States. No knowledge of Yiddish is required. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 35: The Detective/Crime Story in German, English, and American Tradition. Same as Germanic Civilization 323E (Topic 5: The Detective/Crime Story in German, English, and American Tradition). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.
Topic 37: *The Russian Novel*. Same as Russian 356 (Topic 1: *The Russian Novel*) and Russian, East European, and Eurasian Studies 325 (Topic 9: *The Russian Novel*). English 322 (Topic 37) and European Studies 361 (Topic: *The Russian Novel*) may not both be counted. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 38: *Italian Women Writers*. Same as Italian Civilization 349 (Topic 5: *Italian Women Writers*) and Women’s and Gender Studies 340 (Topic 17: *Italian Women Writers*). **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

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. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

324. **Topics in Language and Literature.** Designed for non-English majors. May be repeated for credit when the topics vary. Only one of the following may be counted unless the topics vary: Asian Studies 320, 361, Chinese 361, English 322, 324. May not be counted toward a major in English. **Prerequisite:** Completion of at least thirty semester hours of coursework, including Rhetoric and Writing 306 and English 316K or their equivalents.

Topic 1: *Shakespeare in Our Time*.
Topic 2: *Gothic Imagination*.
Topic 3: *Modern British Fiction*.
Topic 4: *Texas and England*.

325. **Creative Writing.** Detailed study of the techniques of fiction or poetry; reading and analysis of contemporary models; practice writing in the above forms. May be repeated for credit when the topics vary. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, consent of instructor.

Topic 1: *Creative Writing: Fiction*.
Topic 2: *Creative Writing: Poetry*.

325K. **Introduction to Folklore and Folklife.** Survey of the major forms of folklore; methods of collection and study. Anthropology 325K and English 325K may not both be counted. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

325L. **Folklore Areas: Selected Topics.** Consideration of folklore in different culture areas of the Western Hemisphere. May be repeated for credit when the topics vary. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

Topic 3: *Anglo-American Folk Song*. Anthropology 325L (Topic 3: *Anglo-American Folk Song*) and English 325L (Topic 3) may not both be counted. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 4: *Folklore of the British Isles*. Anthropology 325L (Topic 4: *Folklore of the British Isles*) and English 325L (Topic 4) may not both be counted. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 5: *The Folk Tale*. Anthropology 325L (Topic 5: *The Folk Tale*) and English 325L (Topic 5) may not both be counted. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 10: Middle Eastern Magic, Religion, and Folklore. Same as Anthropology 325L (Topic 10: *Middle Eastern Magic, Religion, and Folklore*) and Middle Eastern Studies 322K (Topic 19: *Middle Eastern Magic, Religion, and Folklore*). English 325L (Topic 10) and Middle Eastern Languages and Cultures 372 (Topic 16: *Middle Eastern Magic, Religion, and Folklore*) may not both be counted. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

326K. **The Literature of the Middle Ages in Translation.** Romances, chronicles, legends, tales, and plays by English, Celtic, and Continental writers. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

326L. **Survey of Middle English Language and Literature.** Language and literature from 1100 to 1500. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

327. **The English Novel in the Eighteenth Century.** Representative novels and novelists from 1700 to 1832, including typical works of Defoe, Richardson, Fielding, Sterne, Austen, and Scott. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

328. **The English Novel in the Nineteenth Century.** Representative works by such writers as Dickens, Thackeray, the Brontës, George Eliot, Meredith, and Hardy. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

329K. **The Early Romantic Period, 1780–1815.** The prose and poetry of the major early poets Blake, Wordsworth, and Coleridge, with consideration of Burns, Lamb, Hazlitt, and others. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

329L. **The Later Romantic Period, 1815–1832.** The prose and poetry of Byron, Shelley, and Keats and of such other figures as Landor and DeQuincy. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.
337. American Literature: From the Beginnings to 1865. A survey of major writers, poetry, and prose. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

338. American Literature: From 1865 to the Present. A survey of major writers, poetry, and prose. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

340. The American Novel before 1920. Representative works by such writers as Brown, Melville, Fern, Hawthorne, Twain, Crane, James, Wharton, and Dreiser. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

341. Short Story Workshop. Practice in writing the short story, with study of contemporary models. Prerequisite: Rhetoric and Writing 306 and English 316K, three additional semester hours of lower-division coursework in either English or rhetoric and writing, and English 325.

341L. Poetry Workshop. Practice in writing poetry, with study of contemporary models. Prerequisite: Rhetoric and Writing 306 and English 316K, three additional semester hours of lower-division coursework in either English or rhetoric and writing, and English 325.

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. May be repeated for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

343L. Backgrounds of Modern Literature. Strands of ideas that form the network of modernist writing: figures like Freud, Frazer, Nietzsche, Marx, and Whitehead as they affect literature. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

344L. Twentieth-Century 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. May be repeated for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

348. The Twentieth-Century 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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

355K. Advanced Creative Writing. A third-semester seminar-style workshop in poetry and/or fiction for experienced creative writers. Prerequisite: Rhetoric and Writing 306 and English 316K; three additional semester hours of lower-division coursework in either English or rhetoric and writing; English 325; and English 341 or 341L.

356. The European Novel. Selected masterpieces of Continental fiction in English translation: representative novelist of the nineteenth and twentieth centuries. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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 English and American literature. English 358K and Religious Studies 361 (Topic 20: The Bible in English and American Literature) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

360K. English Grammar. The study of traditional and transformational grammar. Attention to social differences in language relevant to the teaching of English. English 360K and Linguistics 316K may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

360L. English as a World Literature. English literature from around the world, including Canada, Australasia, Africa, and India. May be repeated for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.
361K. English Drama to 1642. A survey of early English drama, usually including works by Marlowe, Kyd, Shakespeare, Jonson, Webster, and Middleton. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

362L. The British Novel in the Twentieth Century. Representative novels, including those of Joyce, Lawrence, and Woolf. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

363. The Poetry of Milton. All the poetry of Milton, with particular attention to Comus, Samson Agonistes, and Paradise Lost. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

363K. Classic to Romantic. The theory and practice of Classicism in literature and other arts; the rise of the Romantics in the eighteenth century. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. English 364P and 395N (Topic: 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: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Only one of the following may be counted: English 364S, 370W (Topic 4: Language and Gender), Linguistics 373 (Topic: Language and the Sexes), Women's Studies 345 (Topic 17: Language and Gender), 345 (Topic: Language and the Sexes). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. 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: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

366K. Shakespeare: Selected Tragedies. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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: Rhetoric and Writing 306 and English 316K or their equivalents; three additional semester hours of lower-division coursework in either English or rhetoric and writing; fulfillment of the requirements for at least two of the six areas of the English major; and approval of written application by the supervising instructor and the undergraduate adviser.

367E. English Internship. Research and staff experience working in an appropriate agency or private business. Eight to ten hours of fieldwork a week for one semester. Offered on the pass/fail basis only. May not be counted toward the thirty-three hours of English and rhetoric and writing required for the English major. May not be repeated for credit. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents; three additional semester hours of lower-division coursework in either English or rhetoric and writing; completion of all requirements for at least two of the six areas of the English major; a University grade point average of at least 2.75; a grade point average in English of at least 3.00; and approval of written application by the faculty adviser.

367K. Conference Course in Creative Writing. For advanced students already proficient in writing who wish to work under supervision on specific and fairly extensive projects. Three conference hours a week for one semester. May be repeated once for credit. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents; three additional semester hours of lower-division coursework in either English or rhetoric and writing; English 325; and approval of written application by the supervising instructor and the undergraduate adviser.

369. Twentieth-Century Drama. Ibsen and other major dramatists; tradition and innovation in the substance and form of selected modern plays. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

370W. Literature, Culture, and Gender. Gender as a category of literary and cultural analysis. Texts may include literature, film, popular culture, and other forms. May be repeated for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 1: Women's and Gender Studies: Humanities. Same as American Studies 323 and Women's and Gender Studies 321 (Topic 1: Women's and Gender Studies: Humanities).

Topic 2: Contemporary Women Authors. Same as African and African American Studies 374 (Topic 13: Contemporary Women Authors) and Women's and Gender Studies 345 (Topic 15: Contemporary Women Authors).

Topic 5: Postcolonial Women Writers. Same as Women's and Gender Studies 345 (Topic 18: Postcolonial Women Writers).

Topic 6: Women Mystery Writers. Same as Women's and Gender Studies 345 (Topic 22: Women Mystery Writers).
371K. Twentieth-Century Poetry. Poets studied include Eliot, Auden, Stevens, Thomas, Bishop, Rich, and Merwin. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

372L. The American Renaissance. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

372M. American Realism. Selected writers of the post–Civil War realistic movement: Howells, Twain, James, Jewett, Freeman, Crane, and others. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

374G. Beowulf. A word-by-word, line-by-line translation, with special attention to language and context. English 374G and 379N (Topic: Beowulf) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, English 364P, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

374K. Elizabethan Poetry and Prose. Renaissance thought and culture as revealed in the lyric and narrative poetry and in the prose masterpieces. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

376L. Studies in Literary Themes and Traditions. The role of philosophical, religious, psychological, or folkloristic themes and traditions in a series of literary works. May be repeated for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

376M. Studies in African and African American Literature. May be repeated for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

376R. African American Literature through the Harlem Renaissance. Same as African and African American Studies 374 (Topic 2: 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. English 376R and 376M (Topic 1: African American Literature through the Harlem Renaissance) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.
377K. The American Novel after 1920. Representative works by such writers as Faulkner, Hemingway, Fitzgerald, Larsen, Hurston, Morrison, Bellow, Erdrich, and Tan. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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, Rhetoric and Writing 306 and English 316K or their equivalents, three additional semester hours of lower-division coursework in either English or rhetoric and writing, and consent of instructor; for 678SB, English 678SA.

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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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.

379K. American Literature and Thought: 1840–1920. Such topics as transcendentalism, manifest destiny, Utopian thought, and the impact of the theory of organic evolution. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

379L. Contemporary Drama. Major playwrights since 1950, such as Williams, Shepard, Beckett, Stoppard, Churchill, Fugard, and Pinter. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

379M. Studies in Literary Forms and Genres. Study of a literary type, such as tragedy, comedy, epic, lyric, satire, autobiography, novel, critical essay. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Shakespeare in Performance. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 4: Shakespeare through Performance. Offered in the spring semester only. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, three additional semester hours of lower-division coursework in either English or rhetoric and writing, and consent of instructor.

379N. Studies in English, American, and World Literature. Literary works and their cultural context; topics defined in terms of national literatures and/or periods of literary history (for example, colonial American writing, literature of the Renaissance). May be repeated for credit when the topics vary. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.


Topic 4: Introduction to World Literature. Same as Middle Eastern Studies 320 (Topic 17: Introduction to World Literature). A multicultural look at major literary forms and concepts through the reading and analysis of classics of drama, lyric and narrative verse, shorter prose fiction, the essay, literary biography, the novel, and autobiography. English 379N (Topic 4) and Middle Eastern Languages and Cultures 320 (Topic 1: Introduction to World Literature) may not both be counted.


379S. Senior Seminar. Intensive study of selected topics in English. May not be repeated for credit. Prerequisite: Completion of at least ninety semester hours of coursework, including Rhetoric and Writing 306 and English 316K or their equivalents, three additional semester hours of lower-division coursework in either English or rhetoric and writing, and twelve semester hours of upper-division coursework in English.

ETHNIC STUDIES PROGRAM

CENTER FOR AFRICAN AND AFRICAN AMERICAN STUDIES

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

AFRICAN AND AFRICAN AMERICAN STUDIES: AFR

Lower-Division Courses

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.

310L. Introduction to Traditional Africa. Same as History 311K. Introductory, interdisciplinary course on the peoples and cultures of Africa.

316L. Gender in the African American Community. Same as Anthropology 316L. Critical overview of the history and contemporary status of gender relations in the black community: family and gender relations during slavery and in the Reconstruction-era South, gender and the great migration, gender and the civil rights movement, black feminism, and the “crisis” of the black male.

317. Special Topics in African and African American Issues. Three lecture hours a week for one semester, with one laboratory hour a week if required by the topic. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

- Topic 2: Music of African Americans. Same as Music 307 (Topic 1: Music of African Americans). Three lecture hours a week for one semester, with one laboratory hour a week as required.

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. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

317D. Special 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. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

- African and African American Studies 317 (Topic: Introduction to African American History) and 317D (Topic 1) may not both be counted. Partially fulfills legislative requirement for American history. Prerequisite: Completion of at least thirty semester hours of coursework.

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. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

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. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in African and African 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Center for African and African 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

320. Problems in African and African American Studies. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

- Topic 2: Race and Class in the History of Brazil. Same as History 328P and Latin American Studies 366 (Topic 1: Race and Class in the History of Brazil). The interrelationship of economic class and racial or ethnic factors from the beginning of the slave trade to the present. Prerequisite: Upper-division standing.


321J. Upper-Division Courses

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. Only one of the following may be counted: African and African American Studies 321L, Sociology 321K (Topic: Sociology of Education), Women's Studies 345 (Topic 23: Sociology of Education). Prerequisite: Upper-division standing.

321M. Race and Popular American Culture. Same as Radio-Television-Film 359 (Topic 2: Race and Popular American Culture) and Sociology 321M. The intersection of African American racial politics and the changing popular media industry, especially film, music, and television. African and African American Studies 321M and Sociology 321K (Topic: Race and Popular American Culture) may not both be counted. 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.

335. 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. African and African American Studies 345 and History 366N (Topic: History of East Africa) may not both be counted. Prerequisite: Upper-division standing.

335C. 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. African and African American Studies 345C and History 366N (Topic: History of West Africa) may not both be counted. Prerequisite: Upper-division standing.


335E. Sociology of Entrepreneurship. Same as Management 337 (Topic 16: Sociology of Entrepreneurship) and Sociology 358C. Examines the creation of entrepreneurial activities in the United States, including those of all racial and ethnic groups. African and African American Studies 358C and Sociology 321K (Topic: Sociology of Entrepreneurship) may not both be counted. Prerequisite: For management majors, one of the following courses with a grade of at least C, or two of the following courses with a grade of at least C in each: Management 335, 335H, 336, 336H, Operations Management 335, 335H; for others, sixty semester hours of college coursework.

349. History of Africa since 1800. Same as History 359N. Development of sub-Saharan Africa from the end of the slave trade to independence. Prerequisite: Upper-division standing.


337. Independent Research. Supervised individual research on a problem in African and African American studies. May be repeated for credit. Prerequisite: Upper-division standing, African and African American Studies 301, and written consent of the supervising faculty member; consent forms are available in the center office.

338. Special Topics. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.


Topic 2: 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. African and African American Studies 374 (Topic 2) and English 376M (Topic 1: African American Literature through the Harlem Renaissance) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 3: 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. African and African American Studies 374 (Topic 3) and English 376M (Topic 2: African American Literature, 1940 to Present) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.
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. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the **Course Schedule.** Prerequisite: Varies with the topic and is given in the **Course Schedule.**

- **Topic 1:** *Race and Beauty in American Culture.* Same as History 350L (Topic 52: *Race and Beauty in American Culture*). Partially fulfills legislative requirement for American history. **Prerequisite:** Upper-division standing.
- **Topic 2:** *History of Black Entrepreneurship in the United States.* Same as History 350L (Topic 53: *History of Black Entrepreneurship in the United States*). Partially fulfills legislative requirement for American History. **Prerequisite:** Upper-division standing.

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. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the **Course Schedule.** Prerequisite: Varies with the topic and is given in the **Course Schedule.**

- **Topic 1:** *America, France, and the Problem of Race.* Same as American Studies 370 (Topic 16: *America, France, and the Problem of Race*). How France and the United States address the contradictions between freedom and slavery, as well as each country's contributions to the development of ideologies of race.

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 American Studies 301, and consent of instructor.

376. **Senior Seminar.** Restricted to African and African American studies majors. A capstone course focusing on black intellectual traditions. **Prerequisite:** African and African American Studies 301, completion of seventy-five semester hours of coursework, and consent of instructor.

679H. **Honors Tutorial Course.** For honors candidates in African and African American studies. Individual reading of selected works for one semester, followed in the second semester by the writing of an honors thesis. **Prerequisite:** For 679HA, admission to the African and African American Studies Honors Program no later than two semesters before expected graduation; for 679HB, African and African American Studies 679HA. A University grade point average of at least 3.00 and a grade point average in African and African American studies of at least 3.50 are required for admission to the African and African American Studies Honors Program.

**YORUBA: YOR**

**Lower-Division Courses**

506. **First-Year Yoruba I.** Not open to native speakers of Yoruba. Standard Yoruba of southwest Nigeria. Five lecture hours a week for one semester.
307. First-Year Yoruba II. Not open to native speakers of Yoruba. Five lecture hours a week for one semester. Prerequisite: Yoruba 506 or the equivalent.

312K. Second-Year Yoruba I. Oral expression, reading, and comprehension. Prerequisite: Yoruba 507 with a grade of at least C.

312L. Second-Year Yoruba II. Oral expression, reading, and comprehension. Prerequisite: Yoruba 312K with a grade of at least C.

CENTER FOR ASIAN AMERICAN STUDIES

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ASIAN AMERICAN STUDIES: AAS

Lower-Division Courses

301. Introduction to Asian American Studies. Only one of the following may be counted: Asian American Studies 301, 310 (Topic: Introduction to Asian American Studies), Sociology 308 (Topic: Introduction to Asian American Studies).

310. Introductory Topics in Asian American Studies. An introduction to Asian American studies through a variety of disciplines. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

311. Introduction to Asian American Communities. An introduction to contemporary Asian American communities through a variety of disciplines. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

312. Introduction to Asian American History. Same as History 317L (Topic: Introduction to Asian American History). Asian American Studies 310 (Topic: Introduction to Asian American History) and 312 may not both be counted. Partially fulfills legislative requirement for American history. Prerequisite: Completion of at least thirty semester hours of coursework.

314. Asian American Literature and Culture. Prerequisite: Rhetoric and Writing 306.

Upper-Division Courses

320. Topics in Asian American Culture, Literature, and Media Studies. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

325. Topics in Asian American Economics, History, and Government. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.


330. Topics in Asian American Anthropology, Geography, and Sociology. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

335. General Topics in Asian American Studies. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

379. Conference Course in Asian American Studies. Supervised individual study of selected problems in Asian American studies. May be repeated for credit. Prerequisite: Upper-division standing and consent of the director of the Center for Asian American Studies.

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. 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

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

MEXICAN AMERICAN STUDIES: MAS

Lower-Division Courses

307. Introduction to 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.

308. Introduction to 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.


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. Mexican American Studies 312 and 313 may not both be counted. Prerequisite: Three semester hours of lower-division coursework in government.

313. Latino Politics. Analysis of issues involving political institutions and policies, with emphasis on Latino politics. Mexican American Studies 312 and 313 may not both be counted. Prerequisite: Three semester hours of lower-division coursework in government.

314. Mexican American Literature and Culture. Same as English 314V (Topic: Mexican American Literature and Culture). Introductory course concerned with representative contemporary Chicano writers and genres, such as poetry, prose fiction, and theatre. May not be substituted for English 316K. Prerequisite: Rhetoric and Writing 306.


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.
319. Special Topics. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule.

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).

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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.

Upper-Division Courses

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 semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Upper-division standing.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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. Only one of the following may be counted: International Business 372 (Topic 8: Business Spanish), Mexican American Studies 350, Spanish 327. Prerequisite: Spanish 612, 312L, or the equivalent.

361. 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. Mexican American Studies 361 and 374 (Topic 27: Seminar in Cultural Studies) may not both be counted. Prerequisite: Upper-division standing and Mexican American Studies 307.


371. Readings in Mexican American Studies. Supervised readings with parallel work in relevant non-Chicano materials; preparation for Mexican American Studies 372. Independent instruction. Prerequisite: Mexican American Studies 310, 318, and 374; or consent of the director.

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.

373. Independent Research. May be repeated for credit. Prerequisite: Mexican American Studies 310, 318, and 374; or consent of the director.

374. Special Topics. Additional hours are required for some topics; these topics are identified in the Course Schedule. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. 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, travel, and memoirs, to acquaint students with the literature reflecting the social inheritance of Texas and the neighboring territory. Prerequisite: Rhetoric and Writing 306 and English 316F or their equivalents, and three additional semester hours of lower-division coursework in either 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. Mexican American Studies 374 (Topic 3) and Sociology 348K may not both be counted. Prerequisite: Upper-division 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. Journalism 327 and Mexican American Studies 374 (Topic 6) may not both be counted. Prerequisite: Consent of instructor and a passing score on the College of Communication Grammar, Spelling and Punctuation Test.

Topic 11: 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. Mexican American Studies 374 (Topic 9) and Radio-Television-Film 359 (Topic 1: Hispanic Images and Counterimages) may not both be counted. 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.

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: 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 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 lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.

Topic 13: Spanish-Language Literature of the Southwest. Same as Latin American Studies 370S (Topic 6: Spanish-Language Literature of the Southwest) and Spanish 341K. The study of culturally valuable Chicano literary texts; related readings in Mexican and other Hispanic works. Taught in Spanish. Prerequisite: Spanish 612 or 312L.


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: International Communication: Third World Issues) and Radio-Television-Film 342 (Topic 3: Third World Issues). Prerequisite: For radio-television-film 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 lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.


Topic 22: Mass Media and Minorities. Same as Latin American Studies 322 (Topic 10: Mass Media and Minorities). Survey of minority communication problems: alienation, fragmentation, media access; criticism and feedback for minority groups based on racial/ethnic background, age, sex, disability, social or economic class, and sexual orientation. Journalism 340C (Topic 1: Mass Media and Minorities) and Mexican American Studies 374 (Topic 22) may not both be counted. 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 28: Politics and Culture of Contemporary Mexico. Same as Government 337M (Topic 5: Politics and Culture of Contemporary Mexico), Latin American Studies 325 (Topic 3: Politics and Culture of Contemporary Mexico), and Sociology 338M. Introduction to the contemporary Mexican political system and the ways in which political change and democratization are recasting the political and civic culture of contemporary Mexico. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

Topic 29: Mexican and Mexican American Ballads. Same as Latin American Studies 370S (Topic 20: Mexican and Mexican American Ballads) and Spanish 350 (Topic 11: Mexican and Mexican American Ballads). Examines the corrido genre in the nineteenth and twentieth centuries, with special focus on its pivotal role in the Mexican Revolution and in the collision between cultures in the border zone. Prerequisite: Spanish 322K.

Topic 30: Spanish for Health Care Professionals. Same as Spanish 367K (Topic 7: Spanish for Health Care Professionals). Designed to build fluency in both spoken and written Spanish that will enable the health care professional to communicate effectively with monolingual patients, to attend conferences or classes in Spanish, and to explain medical literature to patients. Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).

Topic 31: Rhetoric and Composition for Native Speakers. Same as Spanish 367K (Topic 8: Rhetoric and Composition for Native Speakers). Writing and oral expression for use in academic and professional settings. Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).
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.

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 679HB, Mexican American Studies 679HA.

Related Courses

Many of the following courses may be repeated for credit when the topics vary. Only topics in Mexican American studies may be counted as related courses in the Mexican American studies program.

For a description of each of the following courses, see the chapter for the college that offers the course.

College of Communication
Radio-Television-Film 359. Studies in Media and Culture.

College of Liberal Arts
Anthropology 324L. Topics in Anthropology.
Anthropology 325L. Cultural Studies, Public Culture, and Folklore: Selected Topics.
English 314L. Introduction to Literary Studies.
English 325L. Folklore Areas: Selected Topics.
English 342. Life and Literature of the Southwest.
English 376L. Studies in Literary Themes and Traditions.
Government 312L. Issues and Policies in American Government (if approved by the director of the Center for Mexican American Studies).
Government 337M. Topics in Latin American Government and Politics.
Government 370K. Racial and Ethnic Politics.
Psychology 341K. Selected Topics in Psychology.
Rhetoric and Writing 306. Rhetoric and Writing (if approved by the director of the Center for Mexican American Studies).
Sociology 344. Racial and Ethnic Relations.

CENTER FOR EUROPEAN STUDIES

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

EUROPEAN STUDIES: EUS

Lower-Division Courses

301. European Civilization. An interdisciplinary survey of the civilizations of the peoples of Europe, with attention to the anthropology, sociology, government, history, art, literature, music, folklore, economics, and geography of the region. May be repeated for credit when the topics vary.

305. Introduction to European Studies. The myths, ideas, and sociopolitical realities that underpin the intellectual and cultural construction of Europe. Core course. European Studies 301 (Topic: Introduction to European Studies) and 305 may not both be counted.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the European studies 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

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the European studies 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.

340M. Continuity and Change in Modern France. Same as French Civilization 340M. Analysis of important cultural trends and structures of twentieth-century France. Reading and lectures in English. Only one of the following may be counted: European Studies 340M, 361 (Topic: Continuity and Change in Modern France), French 340T. Prerequisite: Upper-division standing.

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. European Studies 350 and 361 (Topic 11: Governments and Politics of Western Europe) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

356. Germany and Europe since 1945. Restricted to students participating in the summer program in Würzburg, Germany. The equivalent of three lecture hours a week for one semester. European Studies 356 and 361 (Topic: Germany and Europe since 1945) may not both be counted. Prerequisite: Upper-division standing and consent of instructor.

361. Topics in Early and Modern Europe. An analysis of various aspects of European culture, economics, politics, and international relations. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.
Topic 1: Literature in the New German Cinema. Same as Germanic Civilization 361E (Topic 4: Literature in the New German Cinema). English 322 (Topic 3: Literature in the New German Cinema) and European Studies 361 (Topic 1) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 2: Genres, Structure, and Trends in German Cinema. Same as English 322 (Topic 13: Genres, Structure, and Trends in German Cinema) and Germanic Civilization 361E (Topic 3: Genres, Structure, and Trends in German Cinema). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 3: Contemporary Russian Culture. Same as Russian 330 (Topic 1: Contemporary Russian Culture). Prerequisite: Upper-division standing or consent of instructor.


Topic 5: Freud's Vienna. Same as Germanic Civilization 327E (Topic 2: Freud's Vienna). English 322 (Topic 1: Freud's Vienna) and European Studies 361 (Topic 5) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 6: Introduction to Germanic Religion and Myth. Same as English 322 (Topic 2: Introduction to Germanic Religion and Myth), Germanic Civilization 340E (Topic 1: Introduction to Germanic Religion and Myth), and Religious Studies 365 (Topic 2: Introduction to Germanic Religion and Myth). European Studies 361 (Topic 6) and Religious Studies 361 (Topic 8: Introduction to Germanic Religion and Myth) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 7: Italian Civilization. Same as Italian Civilization 360. Survey of the social, political, and cultural history of Italy. With consent of the undergraduate adviser in the Department of French and Italian, may be counted toward a major in Italian. Prerequisite: Upper-division standing.

Topic 8: Literature and Nationalism in the Balkans. Same as Slavic 320. Examination of the literary and political movements among the Balkan nationalities in the twentieth and early twentieth centuries. European Studies 361 (Topic 8) and Russian, East European, and Eurasian Studies 325 (Topic: Literature and Nationalism in the Balkans) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

Topic 10: The British Political System. Same as Government 323. The British Constitution; Parliament, cabinet, and administration; parties, politics, and elections; contemporary policies and problems. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 12: Politics in Southern Europe. Same as Government 328M. Comparative analysis of development politics in capitalist and socialist systems in southwestern and southeastern Europe. European Studies 361 (Topic 12) and Russian, East European, and Eurasian Studies 335 (Topic 8: Politics in Southern Europe) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 13: Politics in Southeast Europe. Same as Government 328N. European Studies 361 (Topic 13) and Russian, East European, and Eurasian Studies 335 (Topic 4: Politics in Southeast Europe) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.


Topic 15: German Women Filmmakers. Same as Germanic Civilization 361E (Topic 5: German Women Filmmakers) and Women's and Gender Studies 340 (Topic 5: German Women Filmmakers). English 322 (Topic 14: German Women Filmmakers) and European Studies 361 (Topic 15) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 16: The German Folktale and Fantasy Tale. Same as English 322 (Topic 30: The German Folktale and Fantasy Tale) and Germanic Civilization 362E (Topic 3: The German Folktale and Fantasy Tale). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 17: German Cinema since 1933. Same as English 322 (Topic 12: German Cinema since 1933) and Germanic Civilization 361E (Topic 2: German Cinema since 1933). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 18: Medieval Life and Thought. Same as Germanic Civilization 327E (Topic 4: Medieval Life and Thought). Prerequisite: Upper-division standing or consent of instructor.

Topic 19: Popular Culture in Preindustrial Europe. Same as History 350L (Topic 29: Popular Culture in Preindustrial Europe). The customs, practices, and mental landscape of common people in Europe between 1500 and 1800. Prerequisite: Upper-division standing.

Topic 20: Eighteenth-Century Europe. Same as History 323C. Major transformations in Europe's social, political, and cultural order between the late seventeenth and late eighteenth centuries. European Studies 361 (Topic 20) and History 366N (Topic: The Old Regime and the Enlightenment) may not both be counted. Prerequisite: History 309L is recommended but not required.


362. Independent Research in European Studies. Tutorially directed research on a modern European topic. Conference course. May be repeated for credit. Required for the concentration in European studies. Prerequisite: Upper-division standing, admission to the European studies program, and consent of instructor.
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

LANGUAGE OF INSTRUCTION

In all French civilization and Italian civilization courses, both lectures and readings are in English. In French 301 and 310L, lectures are in English and readings are in French. All other courses are conducted primarily in the foreign language.

COURSE LEVELS AND PLACEMENT

The lower-division sequences in French and Italian involve four levels of coursework, with options available as indicated.

FRENCH

Level 1: French 506.
Level 2: French 507, for students who took 506 at the University recently; or 508K, for students with high school, transfer, or placement credit for 506 and those who took French 506 at the University more than a year ago.
Levels 1 and 2, combined: French 604.
Level 3: French 312K.
Level 4: French 310L or 312L or 312N.
Levels 3 and 4, combined: French 612.

ITALIAN

Level 1: Italian 506.
Level 2: Italian 507.
Levels 1 and 2, combined: Italian 604.
Level 3: Italian 312K.
Level 4: Italian 312L.
Levels 3 and 4, combined: Italian 612.

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 are required to take the placement test administered by the Division of Instructional Innovation and Assessment for placement in French or the departmentally administered classification test for placement in Italian.

ADVISING

Students are urged to consult departmental advisers about any problem either with placement or with credit by examination. Students with credit for the fourth level of lower-division coursework who wish to continue their study of French or Italian may consult departmental advisers about appropriate upper-division courses.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

FRENCH: FR

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 on pages 658–662.

Lower-Division Courses

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. Offered on the credit/no credit basis only. 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. Prerequisite: Graduate standing.

604. Accelerated First-Year French. Designed for students of high motivation. A six-hour course comparable to French 506 and 507. Six class hours a week for one semester. French 604 and 506 may not both be counted; only one of the following may be counted: French 604, 507, 508K.

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 class hours a week for one semester. French 604 and 506 may not both be counted.

507 (TCCN: FREN 1512). First-Year French II. Five class hours a week for one semester. Only one of the following may be counted: French 604, 507, 508K. Prerequisite: French 506 completed at the University with a grade of at least C.

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 class hours a week for one semester. Only one of the following may be counted: French 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.

310L. Second-Year French: Reading Skill. Alternative to French 312L for students who prefer to concentrate on improving reading knowledge rather than working on all four skills equally. Only one of the following may be counted: French 610, 310L, 612, 312L, 312M, 312N. Prerequisite: French 312K (or 310K) with a grade of at least C.

612. Accelerated Second-Year French: Four Skills. Designed for students of high motivation. A six-hour course comparable to French 312K and 312L. Six class hours a week for one semester. May not be counted by students with credit for French 610, 310K, 312K, 312L, 312M, 312N. Prerequisite: French 604, 507, or 508K with a grade of at least B.

312K (TCCN: FREN 2311). Second-Year French I: Four Skills. Listening, speaking, reading, and writing at the second-year level. Only one of the following may be counted: French 610, 310K, 612, 312K. Prerequisite: French 604, 507, or 508K with a grade of at least C.

312L (TCCN: FREN 2312). Second-Year French II: Four Skills (Literature and Culture). Listening, speaking, reading, and writing at the advanced, second-year level. Only one of the following may be counted: French 610, 310L, 612, 312L, 312M, 312N. Prerequisite: French 312K with a grade of at least C.
120N. Second-Year French II: Oral Expression. Intensive practice in oral expression; some reading and writing, as relevant to development of oral skills. Only one of the following may be counted: French 610, 310L, 612, 312L, 312M, 312N. Prerequisite: French 312K with a grade of at least C.

118K. Practice in Spoken French I. Recommended for all French majors. Designed to be taken concurrently with French 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: French 312K with a grade of at least C.

118L. Practice in Spoken French II. Recommended for all French majors. Designed to be taken concurrently with French 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: French 312K with a grade of at least C.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

320E. Advanced French I: Written Emphasis. A four-skills course with emphasis on grammar and writing skills. Prerequisite: French 612, 312L (or 312M), or 312N with a grade of at least C.

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 (or 312M), or 312N with a grade of at least C.

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.

322E. Advanced French II: Oral Emphasis. Development of speaking and listening skills, with emphasis on grammatical accuracy and fluency. Prerequisite: French 320E.

324L. Practical Phonetics. A thorough review of French phonetics, with emphasis on improving production and understanding of spoken French. Prerequisite: French 612, 312L (or 312M), or 312N with a grade of at least C.

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. Prerequisite: French 320E.

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. Prerequisite: French 320E.

329S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

330K. Studies in French Language and Cultures. Topics with a focus on language or culture. May be repeated for credit when the topics vary. Prerequisite: French 320E. Topic 1: Scientific French.

340C. The Arts in France. A survey of the major artistic styles, modes, and currents in painting, architecture, sculpture, the decorative arts, music, costume, and film, from the medieval period through the contemporary periods. Prerequisite: French 320E.

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. Prerequisite: French 320E.

340T. France and the Francophone World Today. An introduction to life in France and francophone regions through the study of contemporary society and culture. Only one of the following may be counted: European Studies 340M, 361 (Topic: Continuity and Change in Modern France), French 340T, French Civilization 340M. Prerequisite: French 320E.

342C. French for Business. Development of the ability to function in French in business-related situations, both orally and in writing. Prerequisite: French 320E.

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.

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. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in French.

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. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in French.

357. Topics in French Literature of the Nineteenth and Twentieth Centuries. 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. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in French.

358. Seminar in French and Francophone Studies. Topics in literature or culture, with a focus on study in depth or on synthesis. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in French.
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. May be repeated for credit when the topics vary. **Prerequisite:** Six semester hours of upper-division coursework in French.

364L. **Applied Linguistics.** Practical application of linguistic principles to the teaching of French. **Prerequisite:** Six semester hours of upper-division coursework in French.

165K, 265K, 365K. **Conference Course.** Supervised individual study of selected problems in French language and literature. **Prerequisite:** French 612, 312L (or 312M), 312N, or the equivalent, or consent of instructor.

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. **Prerequisite:** French 320E and 322E.

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. **Prerequisite:** French 320E and 322E.

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. **Prerequisite:** Admission to the French Honors Program.

**FRENCH CIVILIZATION: F C**

**Lower-Division Course**

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. **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 Center for Global Educational Opportunities. 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**

320. **The French Heritage.** Introduction to French civilization: architecture, painting, music, and social and political history. Given in English; requires no knowledge of French. 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.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. **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 Center for Global Educational Opportunities. 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.

339. **The Development of the French Film.** Same as English 322 (Topic 20: The Development of the French Film). Films in French, with subtitles in English; lectures in English. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

340M. **Continuity and Change in Modern France.** Same as European Studies 340M. Analysis of important cultural trends and structures of twentieth-century France. Readings and lectures in English. Only one of the following may be counted: European Studies 361 (Topic: Continuity and Change in Modern France), French 340T, French Civilization 340M. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. **Prerequisite:** Upper-division standing.

345. **Studies in the Cultures of French-Speaking Peoples.** Lectures and readings in English. May be repeated for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. **Prerequisite:** Upper-division standing.

349. **French Literature in Translation.** May be repeated for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

**ITALIAN: ITL**

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 on pages 658–662.

**Lower-Division Courses**

604. **Accelerated First-Year Italian.** Stresses basic skills; comparable to Italian 506 and 507 combined. Six class hours a week for one semester. Italian 604 and 506 may not both be counted; Italian 604 and 507 may not both be counted.

305. **Introduction to Italian Language and Culture.** An introductory course in Italian language and culture taught in Castiglione-Fiorentino, Italy. 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.

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 class hours a week for one semester. Italian 604 and 506 may not both be counted.

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 class hours a week for one semester. Italian 604 and 507 may not both be counted. **Prerequisite:** Italian 506 with a grade of at least C.
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 class hours a week for one semester. Italian 612 and 312K may not both be counted; Italian 612 and 312L may not both be counted. Prerequisite: Italian 604 or 507 with a grade of at least B.

312K (TCCN: ITAL 2311). Second-Year Italian I. Listening, speaking, reading, and writing at the second-year level. Italian 612 and 312K may not both be counted. Prerequisite: Italian 604 or 507 with a grade of at least C.

312L (TCCN: ITAL 2312). Second-Year Italian II. Listening, speaking, reading, and writing at the advanced second-year level. Italian 612 and 312L may not both be counted. Prerequisite: Italian 312K with a grade of at least C.

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 312K with a grade of at least C.

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 312K with a grade of at least C.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

321. Introduction to Italian Literature. Reading and analysis of literature, literary criticism, textual analysis. Prerequisite: Italian 312L or the equivalent.

322L. Tradition and Change in Contemporary Italy. An analysis of Italy's trends and of conflicting values in its political, economic, and social development. Prerequisite: Three semester hours of upper-division coursework in Italian.

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. Italian 312 and 326K may not both be counted. Prerequisite: Credit or registration for Italian 328.

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. Italian 321 and 326L may not both be counted. Prerequisite: Credit or registration for Italian 328.

328. Composition and Conversation. Focuses on idioms, grammar, syntax, and style. Prerequisite: Italian 612 or 312L with a grade of at least C.

329. Advanced Composition and Conversation. Advanced work in writing and speech, based on current events and contemporary readings. Prerequisite: Italian 328.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

330K. Studies in Italian Language. Study in specific areas of Italian language. Topics may include history of the Italian language, applied Italian linguistics. May be repeated for credit when the topics vary. Prerequisite: Italian 328.

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: Italian 312L with a grade of at least C.

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. Prerequisite: Upper-division standing and consent of the undergraduate adviser or the chair. Italian majors may take conference courses only in exceptional cases.

375. Studies in Italian Literature. Intensive examination of a period or a major writer. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in Italian.

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. Prerequisite: Admission to the Italian Honors Program.

ITALIAN CIVILIZATION: ITC

Lower-Division Course

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.
349. **Italian Literature in Translation.** May be repeated for credit when the topics vary. May not be counted toward a major or minor in Italian. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

**Topic 1:** *Italian Cinema.* Same as English 322 (Topic 22: *Italian Cinema*).

**Topic 2:** *Dante.* Same as English 322 (Topic 23: *Dante*).

**Topic 3:** *Great Italian Novels and Plays.* English 322 (Topic 24: *Great Italian Novels and Plays*) and Italian Civilization 349 (Topic 3) may not both be counted.

**Topic 5:** *Italian Women Writers.* Same as English 322 (Topic 38: *Italian Women Writers*) and Women’s and Gender Studies 340 (Topic 17: *Italian Women Writers*).

360. **Italian Civilization.** Same as European Studies 361 (Topic 7: *Italian Civilization*). Survey of the social, political, and cultural history of Italy. Taught in English. May be counted toward a major in Italian. **Prerequisite:** Upper-division standing.

**FRENCH CIVILIZATION**

See Department of French and Italian, page 358.

**FRESHMAN SEMINAR**

**FRESHMAN SEMINAR: F S**

**Lower-Division Course**

301. **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. Multiple sections are offered in the fall semester only, with various topics and instructors. Three lecture hours a week or two lecture hours and one hour of other academic activity a week for one semester.

**DEPARTMENT OF GEOGRAPHY AND THE ENVIRONMENT**

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

**GEOGRAPHY: GRG**

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 on pages 658–662.

**Lower-Division Courses**

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-half laboratory hours a week for one semester, and a one-day field trip. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I.

301K. **Weather and Climate.** A survey of meteorological phenomena and climatological processes of the earth. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I.

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.

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; additional laboratory/discussion hours are required. Geography 306C and 309 (Topic: *Conservation*) may not both be counted.

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.

308. **Computer Cartography.** An introduction to the computer languages, equipment, and techniques employed in modern automated cartography.

308C. **Introduction to Computing in Geography.** An introduction to the use of computers in processing geographic information; hardware and operating systems for geographers; and geographic software. Three lecture hours a week for one semester; additional hours in the computer laboratory are required. Geography 308C and 360N may not both be counted.

309. **Topics in Geography.** May be repeated for credit when the topics vary.

312. **Maps and Map Interpretation.** History of maps and mapping; types and uses; chief sources; reading and interpretation.


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. Geography 319 and Latin American Studies 310 (Topic: *Geography of Latin America*) may not both be counted. **Prerequisite:** Ability to use the World Wide Web.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. **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 Center for Global Educational Opportunities. 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**

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.
323K. Geography of South America. Same as Latin American Studies 330 (Topic 3: Geography of South America). Ecological, cultural, and political challenges of the densely populated margins and sparsely populated interior frontier of South America; appropriate development and conservation pathways. Prerequisite: Upper-division standing.

324. Cultural Geography of North America. The culture regions and cultural landscapes of the United States and Canada, with particular attention to ethnicity, diffusion, and adaptation. Prerequisite: Upper-division standing.

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, Anglo-America and Latin America. Prerequisite: Upper-division standing.

326. Regions and Cultures of Europe. Spatial patterns in Europe, with emphasis on cultural, historical, and political geography. Only one of the following may be counted: Geography 326; 385 (Topic: Regions and Cultures of Europe); Russian, East European, and Eurasian Studies 345 (Topic 2: Regions and Cultures of Europe). Prerequisite: Upper-division standing.

326K. Feast or Famine? Food Supplies in a Crowded World. Food as a necessity, a commodity, and a bond of community; planetary production potential; and the challenges of population growth, climate change, land degradation, and food politics. Prerequisite: Upper-division standing.

327. Geography of the Former Soviet Union. The land and peoples of the former Soviet Union, with an examination of such problems as ethnic tension, economic restructuring, and the quality of life. Prerequisite: Upper-division standing.

328. Geography of the Middle East. Same as Middle Eastern Studies 322K (Topic 3: Geography of the Middle East). Major elements of physical and social environment in the region extending from Egypt to Afghanistan. Prerequisite: Upper-division standing.

328C. Pathways toward Extinction. Fast and present patterns and causes of animal extinction and habitat transformation; avenues toward restoration. Prerequisite: Upper-division standing.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

331. Geography of Asia. Same as Asian Studies 331. Natural regions and cultural landscapes of Asia, excluding the former Soviet Union. Asian Studies 361 (Topic: Geography of Asia) and Geography 331 may not both be counted. Prerequisite: Upper-division standing.

331K. Cultural Ecology. Same as Anthropology 324L (Topic 17: Cultural Ecology). Long-term patterns and processes of conversion of planet Earth to the human home, including the emergence of humans, the achievement of control over the food supply, the emergence of civilizations, and globalization. Geography 331K and Urban Studies 354 (Topic 1: Cultural Geography) may not both be counted. Prerequisite: Upper-division standing.

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. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Geography 301K.

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. Geography 333K and 356T (Topic: Climate Change) may not both be counted. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Upper-division standing and Geography 301C or 301K.


334C. Environmental Hazards. Earth science processes that affect human activities: soil, erosion, flooding, slope stability, earthquakes, volcanism, and water resources and quality. Prerequisite: Upper-division standing; Geography 301C; and Geological Sciences 401, 303, or 312K, or the equivalent.

334K. Soils. Morphology, genesis, properties, and distribution of world soils. Factors of soil formation. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. 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.

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. Geography 335C and 385C may not both be counted. Prerequisite: Upper-division standing, and Geography 301C, Geological Sciences 401, or the equivalent.

335K. Mountain Geocology. Geological evolution of mountains. Physical geography of mountains: climates, soils, vegetation, landforms and geomorphic processes. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Upper-division standing and six semester hours of coursework in physical geography or one or more of the geological or natural sciences.

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. Geography 335N and 356T (Topic: Landscape Ecology) may not both be counted. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Upper-division standing and three semester hours of coursework in physical geography or one of the geological or natural sciences.

336. Contemporary Cultural Geography. Recent theoretical developments in cultural geography—landscape, culture area, ecosystem, and environmental perception. Prerequisite: Upper-division standing.
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. Geography 336C and 356 (Topic: National Parks and Protected Areas) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

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 U.S. cities, such as transportation and housing, poverty and crime, metropolitan finance, environmental and architectural design; historical/comparative urban evolution. Prerequisite: For architecture majors, Architecture 328; for others, upper-division standing.

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. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Upper-division standing; and Geography 301C or Geological Sciences 401, or the equivalent.

339. Process Geomorphology. Analysis of geomorphic processes and their effects on landform development. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Upper-division standing; and Geography 301C, Geological Sciences 401, or the equivalent.

339C. Principles of Environmental Conservation. Environmental conservation issues, focusing on the factors that control the production and consumption of environment-based resources. Prerequisite: Upper-division standing.

339D. Environmental Planning and Management. Land use planning and management, with an emphasis on sustainability. Prerequisite: Upper-division standing.

339K. Environment, Development, and Food Production. Assessment of various types of nonmechanized agriculture with regard to environmental factors and management techniques. Geography 339K and 390S may not both be counted. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

342C. Sustainable Development. Historical and contemporary analysis of international development with a focus on the prospects for environmental sustainability. Asian Studies 342C and Geography 342C may not both be counted. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

347K. The Spanish Background of Hispanic America. Same as Anthropology 322M (Topic 9: The Spanish Background of Hispanic America) and Latin American Studies 330 (Topic 1: The Spanish Background of Hispanic America). Prehistoric and Roman origins of Mediterranean land use and settlement; late medieval economy and institutions; conquest and the transformation of Spanish culture in the New World, with emphasis on colonial Mexico. Prerequisite: Upper-division standing.

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. Asian Studies 361 (Topic: Geography of South Asia) and Geography 348C may not both be counted. Prerequisite: Upper-division standing.

350L. Oxford Summer Study I: British Landscapes. Study of landscape transformations on the British Isles from ancient to modern times. Involves lectures at Oxford University as well as excursions to various sites in Britain. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing.

351. Oxford Summer Study II: Nature and Society. Explores the creation of cultural environments, with an emphasis on the British countryside. Lectures at Oxford University are combined with numerous field excursions. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing.

356. Topics in Environmental Geography. Topics include environmental assessment methods and techniques, the conservation movement, and climate and people. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

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. Only one of the following may be counted: Anthropology 382N, Geography 356C, 382K. Prerequisite: Upper-division standing.

356L, 456T. Topics in Geography. Three or four 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.

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. American Studies 357 and Geography 357 may not both be counted. Prerequisite: Upper-division standing.

358. Cities in Developing Countries. Same as Asian Studies 358. 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. Asian Studies 361 (Topic: Cities in Developing Countries) and Geography 358 may not both be counted. Prerequisite: Upper-division standing.
358E. Geography and Religion. Same as Humanities 350 (Topic 3: Geography and Religion) and Middle Eastern Studies 322K (Topic 15: 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. Prerequisite: Upper-division standing.

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.

360G. Environmental Geographic Information Systems. An introduction to the creation and use of geographic information systems. Prerequisite: Consent of instructor.

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. Prerequisite: Upper-division standing.

360N. Computer Applications in Geography. Three lecture hours a week for one semester; additional hours in the computer laboratory are required. Geography 308C and 360N may not both be counted.

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.

363C. Topics in Middle East Geography. Topics may include arid lands ecology in the Mediterranean basin, historical and imaginative geographies of the Middle East, and environment and development in the Middle East. May be repeated for credit when the topics vary. Prerequisite: Geography 328 or Middle Eastern Studies 301L.

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 362K) or the equivalent or consent of instructor.

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. Geography 356T (Topic: Comparative Ecosystems) and 366C may not both be counted. May be counted towards the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Upper-division standing and three semester hours of coursework in physical geography or one of the geological or natural sciences.

366K. Biogeography. Contemporary patterns of plant and animal distribution, and the environmental and historical processes affecting them. May be counted toward the Area C requirement for the Bachelor of Arts, Plan I. Prerequisite: Upper-division standing and three semester hours of coursework in physical geography or one of the geological or natural sciences.

367K. Vegetation Ecology. Plant autecology and synecology. Ecological factors and processes of plant communities. Vegetation geocology, succession, and dynamics. Prerequisite: Upper-division standing and six semester hours of coursework in physical geography or one or more of the geological or natural sciences.

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.

372K. Proseminar in Environmental Geography. Applied geographical analysis of environmental and resource issues in the context of specific field problems. Prerequisite: Six semester hours of coursework in geography from the environmental resource management track.

373F. Field Techniques. Introduction to the collection and mapping of environmental and cultural data, involving both classroom lectures and outdoor exercises. Prerequisite: Upper-division standing, a major in geography, consent of instructor, and ability to use the World Wide Web; students must have an e-mail address.

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. Prerequisite: Upper-division standing and Geography 301C or the equivalent.

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.

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.

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.

379K. Conference Course. Supervised individual study of selected problems in geography. 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.

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

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.

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. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

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. Prerequisite: Mathematics 408C or 408K with a grade of at least C; Mathematics 316 or the equivalent with a grade of at least C; and Urban Studies 301 or consent of instructor.

Upper-Division Courses

325. Special Topics in Urban Studies. 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.

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. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.


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. 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 (including credit, public finance, trade, investment aspects). Prerequisite: Economics 304K with a grade of at least C.

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 420K 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 420K with a grade of at least C.

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. 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 U.S. cities, such as transportation and housing, poverty and crime, metropolitan finance, environmental and architectural design; historical/comparative urban evolution. Prerequisite: For architecture majors, Architecture 328; for others, upper-division standing.


Topic 4: Economy/Value/Quality of Life. Same as Architecture 350R (Topic 4: Economy/Value/Quality of Life).

353. Topics in Urban History. The historical evolution of cities, contemporary urban development trends, and the links between social development and physical form. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

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.


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. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. 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 6: The City and Urbanization. Same as Sociology 346. Examination of urbanization from a cross-national perspective: discrimination and racial inequality in urban labor markets. Prerequisite: Upper-division standing.
**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. Approximately five to ten hours a week for one semester. **Prerequisite:** Urban Studies 301 and 315, and upper-division standing or consent of instructor.

**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 consent of instructor and the undergraduate adviser.

**379. Conference Course.** Supervised individual study of selected problems in urban studies. **Prerequisite:** Upper-division standing and consent of instructor and the undergraduate adviser.

**679H. Honors Tutorial Course.** Directed reading and research or development 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.

**GERMANIC CIVILIZATION**

See Department of Germanic Studies, page 368.

**DEPARTMENT OF GERMANIC STUDIES**

Students with knowledge of German but no college credit in German must take a placement test before registering for a German course. Students with transfer credit or credit by examination are strongly encouraged to take a placement test. The lower-division placement test consists of the SAT II: German with Listening test, with additional questions from the Department of Germanic Studies. The student may earn credit through this examination for German 506, 507, 312K, and 312L; 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 and 330L, may also be earned by special examination. Information about these tests is available from the departmental undergraduate adviser and from the Division of Instructional Innovation and Assessment, 2616 Wichita. Students with transfer credit or credit by examination for German 506 normally take German 508K.

A student with no knowledge of German may take either German 506 or the intensive course, German 604; German 604 may be followed by either 612, the sequence 312K and 312L, or the sequence 312K and 310. For qualified students, an intensive sequence consisting of German 507R, 312R, and 312S is offered in the spring. Graduate students preparing for the doctoral reading examination may take German 301 and 305.

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.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

**DANISH: DAN**

**Lower-Division Courses**

*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.

*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.

*119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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 Course**

*129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

**DUTCH: DCH**

**Lower-Division Courses**

*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.

*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.

*119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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**

*129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.
375. *Studies in Dutch Literature.* Selected topics in Dutch and Flemish literature. Conducted in Dutch. May be repeated for credit. **Prerequisite:** Dutch 612 or the equivalent, and consent of instructor.

379. *Conference Course in Dutch Language or Literature.* Supervised individual study of selected problems in Dutch language or literature. May be repeated for credit. **Prerequisite:** Upper-division standing and consent of instructor.

**GERMAN: GER**

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 on pages 658–662.

### Lower-Division Courses

**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. Offered on the credit/no credit basis only. May not be used to fulfill the undergraduate foreign language requirement. **Prerequisite:** Graduate standing.

**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 604, 506, 506F; only one of the following may be counted: German 604, 506, 507F, 507R, 508K. **Prerequisite:** Two high school units or the equivalent in another foreign language, or consent of instructor.

**305. German for Graduate Students in Other Departments.** No auditors. Advanced reading. Emphasis on grammar, vocabulary, and translation. Offered on the credit/no credit basis only. 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. **Prerequisite:** Graduate standing, and German 301 or equivalent knowledge.

**506 (TCCN: GERM 1511). First-Year German I.** Basic training in grammatical patterns and usage of modern German. Five class hours a week for one semester. Only one of the following may be counted: German 604, 506, 506F.

**507 (TCCN: GERM 1512). First-Year German II.** Advanced training in grammatical patterns and usage of modern German. Five class hours a week for one semester. Only one of the following may be counted: German 604, 507, 507F, 507R, 508K. **Prerequisite:** German 506 with a grade of at least C, or appropriate score on the placement test.

**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, 507R, 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 604, 507, 507F, 507R, 508K. **Prerequisite:** Completion in residence of German 506 and consent of the undergraduate adviser.

**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 class hours a week for one semester. Only one of the following may be counted: German 604, 507, 507F, 507R, 508K. **Prerequisite:** Two high school units of German or transfer credit for German 506, and appropriate score on the placement test.

**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 312K or 312V with a grade of at least C, or appropriate score on the placement test. With consent of the German undergraduate adviser, may be taken concurrently with German 312K or 312V.

**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. Students with credit for German 612 may not take German 312K and 312L, 312R and 312S, 312V and 312W, or International Business 372 (Topic 6: Business German). **Prerequisite:** German 604, 507, 508K, or appropriate score on the placement test.

**312K (TCCN: GERM 2311). Second-Year German I: Readings in Humanities and Social Sciences.** Only one of the following may be counted: German 512, 412F, 312K, 312R, 312V. **Prerequisite:** German 604, 507, or 508K with a grade of at least C, or appropriate score on the placement test.

**312L (TCCN: GERM 2312). Second-Year German II: Readings in Humanities and Social Sciences.** Only one of the following may be counted: German 612, 312L, 312S, 312W, International Business 372 (Topic 6: Business German). **Prerequisite:** German 312K or 312V with a grade of at least C.

**312R. Intensive Second-Year German: Oral and Written Expression and Reading Skill.** German 312R covers the same material as 312K 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 612, 412F, 312K, 312R, 312V. **Prerequisite:** Completion in residence of German 506 and consent of the undergraduate adviser.

**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 612, 312L, 312S, 312W, International Business 372 (Topic 6: Business German). **Prerequisite:** Completion in residence of German 506 and consent of the undergraduate adviser.
312V. Second-Year German I: Business German. German 312V covers the same material as 312K, but with readings, discussions, and exercises that focus on the business world. Emphasis on practical, career-oriented competence. Only one of the following may be counted: German 612, 412F, 312K, 312R, 312V. Prerequisite: German 604, 507, or 508K with a grade of at least C, or appropriate score on the placement test.

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. Only one of the following may be counted: German 612, 312L, 312S, 312W, International Business 372 (Topic 6: Business German). Prerequisite: German 312K or 312W with a grade of at least C, or appropriate score on the placement test.

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 be repeated for credit. 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. Prerequisite: German 310, 312L, 612, or the equivalent with a grade of at least C.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

328. Advanced German Grammar. Description of German sounds, grammatical structures, pronunciation, word formation. Prerequisite: German 310, 612, 312L, or 312W.

329S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

330C. Advanced Conversation and Composition: Culture. German cultural material from print and visual media provides the basis for advanced conversation and composition, with considerable practice in the writing of short essays in German. Only one of the following may be counted: German 330C, 331L, 356. Prerequisite: German 310, 612, 312L, or 312W.

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. Only one of the following may be counted: German 330C, 331L, 356. Prerequisite: German 310, 612, 312L, or 312W.

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. Normally meets with International Business 372 (Topic 7: Advanced Business German). Only one of the following may be counted: German 336W, 356V, International Business 372 (Topic 7: Advanced Business German). Prerequisite: German 310, 612, 312L, or 312W.

340C. Historical Backgrounds of German Civilization. Cultural and social history of German-speaking Europe between 1500 and 1900; emphasis on social and economic conditions and on the arts, especially arts other than literature. Use of film, videos, and Web and print materials. Taught in German. German 324 and 340C may not both be counted. Prerequisite: For German majors, German 328, and German 330C, 331L, or 336W; for others, German 328, 330C, 331L, 336W, or consent of instructor.

343C. Contemporary German Civilization. Twentieth-century culture in Germany between 1900 and the present reunited Germany; focus on the arts, social and political institutions, and customs. Use of film, videos, and Web and print materials. Taught in German. German 325 and 343C may not both be counted. Prerequisite: For German majors, German 328, and German 330C, 331L, or 336W; for others, German 328, 330C, 331L, 336W, or consent of instructor.

345L. German Literature between the Beginnings and the Baroque. German 345L and 361K may not both be counted. Prerequisite: Six semester hours of upper-division coursework in German.

346L. German Literature between the Enlightenment and the Present. German 346L and 361L may not both be counted. Prerequisite: Six semester hours of upper-division coursework in German.

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, 312L, or the equivalent with a grade of at least C.

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.

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. German 356W and 369 (Topic: Wirtschaftsdeutsch International Preparation) may not both be counted. Prerequisite: German 336W (or 356V) or International Business 372 (Topic 7: Advanced Business German).

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. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in German.
179. Topics in Germanic Languages. Introduction to the phonology, morphology, syntax, dialectology, or lexicography of individual Germanic languages. May be repeated for credit when the topics vary. 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 1: The Structure of the German Language. Same as Linguistics 373 (Topic 6: The Structure of the German Language). Only one of the following may be counted: German 369 (Topic 1), 369 (Topic: German Dialectology), Linguistics 373 (Topic: German Dialectology). Topic 4: The German Language: Historical Perspectives. Same as Anthropology 320L (Topic 9: The German Language: Historical Perspectives), Classical Civilization 348 (Topic 9: The German Language: Historical Perspectives), and Linguistics 373 (Topic 9: The German Language: Historical Perspectives). Only one of the following may be counted: Anthropology 320L (Topic 8: German and English: Historical Perspectives), Classical Civilization 348 (Topic 8: German and English: 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). 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 7: Translation I. Topic 8: Translation II.

373. Topics in Germanic Literature. 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 Folktales and Fantasy Tale.

179, 279, 379. Conference Course in German 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.

679H. Honors Tutorial Course. Supervised individual research on a literary or linguistic problem, culminating in an honors paper of some length. 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.

GERMANIC CIVILIZATION: GRC

Lower-Division Courses

301. Introductory Topics in Germanic Civilization. Open only to lower-division students. Introduction to Germanic literary and cultural history. Conducted in English. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

311. Topics in Germanic Literature and Culture. Enrollment limited to sophomores. Conducted in English. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

1195, 2195, 3195, 4195, 5195, 6195, 7195, 8195, 9195. Topics in Germanic Civilization. This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Center for Global Educational Opportunities. 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 course. May be repeated for credit when the topics vary.

Upper-Division Courses

323E. Germanic Literature in Translation. Outstanding works of Germanic literature in cultural-historical perspective. Topics include medieval literature, the Renaissance, classicism, realism, modernism, exemplary writers, and genres. Taught in English. May be repeated for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May not be counted toward a major in German. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor. Topic 1: Isak Dinesen/Karen Blixen. Same as Scandinavian 373 (Topic 6: Isak Dinesen/Karen Blixen) and Women's and Gender Studies 345 (Topic 13: Isak Dinesen/Karen Blixen). English 322 (Topic 7: Isak Dinesen/Karen Blixen) and Germanic Civilization 323E (Topic 1) may not both be counted. Topic 2: Medieval German Chivalric Romance. English 322 (Topic 8: Medieval German Chivalric Romance) and Germanic Civilization 323E (Topic 2) may not both be counted. Topic 3: Twentieth-Century German Shorter Prose. English 322 (Topic 9: Twentieth-Century German Shorter Prose) and Germanic Civilization 323E (Topic 3) may not both be counted. Topic 4: Hans Christian Andersen. Same as English 322 (Topic 19: Hans Christian Andersen) and Scandinavian 373 (Topic 4: Hans Christian Andersen). Topic 5: The Detective/Crime Story in German, English, and American Tradition. Same as English 322 (Topic 35: The Detective/Crime Story in German, English, and American Tradition).

327E. Topics in Germanic Civilization. Examination of the broad spectrum of social and political life in sociohistorical perspective; and an introduction to the lifestyle of the cultures investigated. Taught in English. 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. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May not be counted toward a major in German. Prerequisite: Varies with the topic and is given in the Course Schedule. Topic 2: Freud's Vienna. Same as European Studies 361 (Topic 5: Freud's Vienna). English 322 (Topic 1: Freud's Vienna) and Germanic Civilization 327E (Topic 2) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.
332. **Preparation for Work and Study Abroad.** Open to students of all languages who are interested in working or studying abroad. Preparation for the cross-cultural experience of international exchange and the problems that may occur in adjusting to a new culture, host family, or work or study abroad situation. Taught in English. 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. **Prerequisite:** Consent of instructor.

340E. **Introduction to Germanic Civilization.** Examination of the early Germanic peoples, their myths, religions, migrations, from a cultural and historical perspective. Taught in English. May be repeated for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. May not be counted toward a major in German. **Prerequisite:** Varies with the topic and is given in the **Course Schedule.**

**Topic 1:** *Introduction to Germanic Religion and Myth.* Same as English 322 (Topic 2: Introduction to Germanic Religion and Myth), European Studies 361 (Topic 6: Introduction to Germanic Religion and Myth), and Religious Studies 365 (Topic 2: Introduction to Germanic Religion and Myth). Germanic Civilization 340E (Topic 1) and Religious Studies 361 (Topic 8: Introduction to Germanic Religion and Myth) may not both be counted. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

**Topic 2:** *Cultural Politics of Kant and Hegel.* Same as Government 365N (Topic 3: Cultural Politics of Kant and Hegel). English 322 (Topic 5: Cultural Politics of Kant and Hegel) and Germanic Civilization 360E (Topic 2) may not both be counted. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

**Topic 3:** *German Nationalisms.* Same as Government 365N (Topic 6: German Nationalisms). German national movements within their historical context, and the present-day implications of nationalism. **Prerequisite:** For government majors, six semester hours of lower-division coursework in government; for others, upper-division standing.

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**Department of Germanic Studies**

**Course Schedule**

**129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Germanic Civilization.** This course is used to record credit the student earns while enrolled at another institution in a program administered by the University’s Center for Global Educational Opportunities. 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.
361E. Cinema and Society. History and aesthetics of Germanic-language films related to Germanic and world cultural movements. Selected films shown and discussed. Taught in English. May be repeated once for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor’s degree. May not be counted toward a major in German. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: German Cinema through 1932. English 322 (Topic 11: German Cinema through 1932) and Germanic Civilization 361E (Topic 1) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 2: German Cinema since 1933. Same as English 322 (Topic 12: German Cinema since 1933) and European Studies 361 (Topic 17: German Cinema since 1933). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 3: Genres, Structure, and Trends in German Cinema. Same as English 322 (Topic 13: Genres, Structure, and Trends in German Cinema) and European Studies 361 (Topic 2: Genres, Structure, and Trends in German Cinema). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 4: Literature in the New German Cinema. Same as European Studies 361 (Topic 1: Literature in the New German Cinema). English 322 (Topic 3: Literature in the New German Cinema) and Germanic Civilization 361E (Topic 4) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 5: German Women Filmmakers. Same as European Studies 361 (Topic 15: German Women Filmmakers) and Women's and Gender Studies 340 (Topic 5: German Women Filmmakers). English 322 (Topic 14: German Women Filmmakers) and Germanic Civilization 361E (Topic 5) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

362E. Topics in Germanic Studies. Introduction to methodologies and area concentrations, such as feminist criticism and literary criticism, in the field of Germanic studies. Taught in English. May be repeated for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor’s degree. May not be counted toward a major in German. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Freudians and Feminisms. Same as Philosophy 365 (Topic 1: Freudians and Feminisms) and Women's and Gender Studies 345 (Topic 10: Freudians and Feminisms). Only one of the following may be counted: English 322 (Topic 4: Freudians and Feminisms), Germanic Civilization 362E (Topic 1), Women’s Studies 345 (Topic 10: Freudians and Feminisms). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 2: Wagner's Ring of the Nibelung. Same as English 322 (Topic 15: Wagner's Ring of the Nibelung). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 3: The German Folktales and Fantasy Tale. Same as English 322 (Topic 30: The German Folktales and Fantasy Tale) and European Studies 361 (Topic 16: The German Folktales and Fantasy Tale). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 4: Freud and Lacan, with Kristeva. English 322 (Topic 31: Freud and Lacan, with Kristeva) and Germanic Civilization 362E (Topic 4) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

179, 279, 379. Conference Course in Germanic Civilization. Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Germanic civilization. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.
NORWEGIAN: NOR

Lower-Division Courses

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.

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.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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 Course

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

SCANDINAVIAN: SCA

Lower-Division Courses

301. Scandinavian Culture and Civilization. Designed to introduce the student to various aspects of Scandinavian life; emphasis on the arts (literature, music, film); includes political and sociological aspects. Conducted in English.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Scandinavian. This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Center for Global Educational Opportunities. 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

323. Scandinavian Literature in Translation. Topics include modern Scandinavian literature and medieval Scandinavian literature. Conducted in English. May be repeated for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree or toward a German major or minor. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

327. Topics in Scandinavian Culture. Various aspects of political and cultural development of Scandinavian countries. Conducted in English. May be repeated for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree or toward a German major or minor. Prerequisite: Varies with the topic and is given in the Course Schedule.

358. Forms and Genres of Scandinavian Literature. Topics include Scandinavian prose, Scandinavian drama, and Scandinavian poetry. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

369. Topics in Scandinavian Languages. Introduction to the phonology, morphology, syntax, dialectology, or lexicography of the Danish, Norwegian, and Swedish languages. May be repeated for credit when the topics vary. Prerequisite: Consent of instructor.

373. Topics in Scandinavian Literature. Study of selected writers and topics in Scandinavian literature. May be repeated for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree or toward a German major or minor. Prerequisite: Varies with the topic and is given in the Course Schedule.

371 Courses • Department of Germanic Studies

SWEDISH: SWE

612.  

604.  

612.  

179, 279, 379. Conference Course in Scandinavian Languages or Literature. Supervised individual instruction course in which students engage in special studies necessary to expand their acquaintance with any subject in Scandinavian language or literature. May be repeated for credit. Prerequisite: Upper-division standing or consent of instructor.

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. May be repeated for credit. Prerequisite: Upper-division standing or consent of instructor.

Upper-Division Courses

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Scandinavian. This course is used to record credit the student earns while enrolled at another institution in a program administered by the University’s Center for Global Educational Opportunities. 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.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

YIDDISH: YID

Lower-Division Courses

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.

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.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.
DEPARTMENT OF GOVERNMENT

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

GOVERNMENT: GOV

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 on pages 658–662.

Lower-Division Courses

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, and government. The equivalent of one lecture hour a week for one semester.

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).

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).

314. Introductory Topics in Political Science. Introduction to varying topics in government and politics. May be repeated for credit when the topics vary. Does not fulfill any part of the legislative requirement for government. 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.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

320K. American Constitutional Development I. Primarily for pre-law students and government majors. A survey of the origin and growth of the American constitutional system, with emphasis on the political and economic background. Prerequisite: Six semester hours of lower-division coursework in government.

320L. Arab-Israeli Politics. Same as Middle Eastern Studies 323K (Topic 1: Arab-Israeli Politics). In-depth study of domestic, regional, and international factors involved in politics in the Middle East, including simulation of diplomatic interaction in the Arab-Israeli conflict. Prerequisite: Upper-division standing.

320N. American Constitutional Development II. Primarily for prelaw students and government majors. Government 320N and 357M (Topic: American Constitutional Development II) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

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. Prerequisite: Six semester hours of lower-division coursework in government.

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. Asian Studies 361 (Topic: Politics in China) and Government 322M may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

323. The British Political System. Same as European Studies 361 (Topic 10: The British Political System). The British Constitution; Parliament, cabinet, and administration; parties, politics, and elections; contemporary policies and problems. Prerequisite: Six semester hours of lower-division coursework in government.

324J. Governments and Politics of Eastern Europe. Same as European Studies 361 (Topic 14: Governments and Politics of Eastern Europe) and Russian, East European, and Eurasian Studies 335 (Topic 2: Governments and Politics of Eastern Europe). Prerequisite: Six semester hours of lower-division coursework in government.

373 Courses   •   Department of Government
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. European Studies 361 (Topic 11: Governments and Politics of Western Europe) and Government 324L may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

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. Prerequisite: Six semester hours of lower-division coursework in government.

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. Prerequisite: Six semester hours of lower-division coursework in government.


328M. Politics in Southern Europe. Same as European Studies 361 (Topic 12: Politics in Southern Europe). Comparative analysis of development politics in capitalist and socialist systems in southwestern and southeastern Europe. Government 328M and Russian, East European, and Eurasian Studies 335 (Topic 8: Politics in Southern Europe) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

328N. Politics in Southeast Europe. Same as European Studies 361 (Topic 13: Politics in Southeast Europe). Government 328N and Russian, East European, and Eurasian Studies 335 (Topic 4: Politics in Southeast Europe) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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. Prerequisite: Six semester hours of lower-division coursework in government.

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. Prerequisite: Six semester hours of lower-division coursework in government.

335M. Topics in Political Thought. Intensive examination of selected issues in political thought. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.


335N. Topics in American State Government and Politics. Analysis of varying topics in the study of American state government and politics. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 1: American State Constitutions.
Topic 2: American State Legislatures.
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.


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. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 5: Politics and Culture of Contemporary Mexico. Same as Mexican American Studies 374 (Topic 28: Politics and Culture of Contemporary Mexico), Latin American Studies 325 (Topic 3: Politics and Culture of Contemporary Mexico), and Sociology 338M. Introduction to the contemporary Mexican political system and the ways in which political change and democratization are recasting the political and civic culture of contemporary Mexico. Additional prerequisite: Upper-division standing.
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. Asian Studies 361 (Topic: East Asian International Relations) and Government 338L may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

339L. Research Methods in Government. An introduction to research design, data collection and analysis, and the use of the computer and related equipment. Prerequisite: Six semester hours of lower-division coursework in government.

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. Prerequisite: Upper-division standing, six semester hours of lower-division coursework in government, and written consent of instructor and the undergraduate adviser.

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. Prerequisite: Six semester hours of lower-division coursework in government.

342N. Public Choice. The political-economic models that have developed in this area of social science. Prerequisite: Six semester hours of lower-division coursework in government, Economics 420K, or consent of instructor.

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. Prerequisite: Six semester hours of lower-division coursework in government.

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. Prerequisite: Six semester hours of lower-division coursework in government.

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. Asian Studies 361 (Topic: Governments and Politics of South Asia) and Government 347K may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.

347L. Introduction to Political Theory. Study of political theory: what it is; its origins; tradition; political theory today. Prerequisite: Six semester hours of lower-division coursework in government.


350K. Statistical Analysis in Political Science. Elementary statistical techniques and their applications to problems in political science. Prerequisite: Six semester hours of lower-division coursework in government.

355M. Topics in Political Science. Emphasis on varying topics in government and politics of contemporary interest and concern. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

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. Prerequisite: Six semester hours of lower-division coursework in government.

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.

359. Introduction to Public Policy. A survey of American public policy, with emphasis on modern problems and trends. Prerequisite: Six semester hours of lower-division coursework in government.

360N, 460N. Topics in International Relations. Special studies stressing the theoretical aspects or the substantive policy problems of international politics. Three or four 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.

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Topic 10: Introduction to International Relations. Asian Studies 361 (Topic: Introduction to International Relations Theory) and Government 360N (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.


362L. Government Research Internship. Fieldwork in research and analysis on governmental and political problems. 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: Six semester hours of lower-division coursework in government and consent of instructor.

365L. Studies in Asian Politics. Special studies of political behavior and institutions, problems, or developments in individual countries or in the region. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.


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.

365N, 465N. Topics in Comparative Politics. Analysis of varying topics in the comparative study of political processes. 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 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 is same as Latin American Studies 337M (Topic 6: Political Development in Eastern Europe and Latin America). Government 365N (Topic 4) and Russian, East European, and Eurasian Studies 335 (Topic 7: Political Development in Eastern Europe and Latin America) may not both be counted. Prerequisite: Six semester hours of lower-division coursework in government.


Topic 6: German Nationalisms. Government 365N is same as Germanic Civilization 360E (Topic 3: German Nationalisms). German national movements within their historical context, and the present-day implications of nationalism. Prerequisite: For government majors, six semester hours of lower-division coursework in government; for others, upper-division standing.

Topic 7: German Unification: Problems and Prospects. Government 365N is same as Germanic Civilization 360E (Topic 4: German Unification: Problems and Prospects) and Russian, East European, and Eurasian Studies 335 (Topic 9: German Unification: Problems and Prospects). A brief history of Germany since 1815, the contemporary German state and its institutions, and perspectives for the current decade. Only one of the following may be counted: Germanic Civilization 360E (Topic: German Reunification: Problems and Prospects), Government 365N (Topic 7), 365N (Topic: German Reunification: Problems and Prospects). Prerequisite: For government majors, six semester hours of lower-division coursework in government; for others, upper-division standing.

Topic 8: Switzerland and Europe: Integration or Isolation. Government 365N is same as Germanic Civilization 360E (Topic 5: Switzerland and Europe: Integration or Isolation). Culture, society, history, economics, and politics in historical and contemporary Switzerland. Only one of the following may be counted: Germanic Civilization 360E (Topic: Switzerland: Seven Hundred Years), Government 365N (Topic 8), 365N (Topic: Switzerland: Seven Hundred Years). Prerequisite: For government majors, six semester hours of lower-division coursework in government; for others, upper-division standing.


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. Only one of the following may be counted: Government 365N (Topic 12), Middle Eastern Studies 323K (Topic: Globalization in the Middle East and North Africa), Technology, Literacy, and Culture 331 (Topic: Globalization in the Middle East and North Africa). Prerequisite: Six semester hours of lower-division coursework in government.


365P. The Politics of Oil. Same as Middle Eastern Studies 322K (Topic 7: The Politics of Oil). The national and international political complexities of petroleum; relationship of trends in petroleum economics to international political alignments. Prerequisite: Six semester hours of lower-division coursework in government.

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. 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. The evolution and role of African American politics within the American political system. African and African American Studies 374D (Topic: African American Politics) and Government 370K (Topic 3) may not both be counted.

Topic 4: The Black Church in African American Politics. 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 American Studies 374 (Topic: Black Church in African American Politics), 374D (Topic: Black Church in African American Politics), Government 370K (Topic 4), Religious Studies 346 (Topic: Black Church in African American Politics).

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 American Studies 374 (Topic: Race and Democracy), 374D (Topic: Race and Democracy), Government 370K (Topic 5).

370L. Topics in American Government and Politics. Analysis of varying topics in the study of American government and politics. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 1: Election Campaigns.


Topic 3: Bureaucracy in America.


Topic 7: The United States Congress.

Topic 8: Congress and the Executive Branch.


Topic 10: Congress and the Presidency.


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 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 370L (Topic 17) and 379S (Topic: Money in Politics—Honors) may not both be counted.


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.


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.

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.

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.

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.

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.

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. May be repeated for credit when the topics vary. Prerequisite: Completion of thirty semester hours of coursework, including at least six hours of government.

GREEK

See Department of Classics, page 334.
HEBREW
See Department of Middle Eastern Studies, page 395.

HINDI
See Department of Asian Studies, page 327.

DEPARTMENT OF HISTORY
Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

HISTORY: HIS
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 on pages 658–662.

Lower-Division Courses

301F. The Premodern World. Survey of world history from human origins to the sixteenth century. History 301F and 306N (Topic: Premodern World) may not both be counted.

304K (TCCN: HIST 2313). English Civilization before 1603. Survey of English civilization from Roman times to the death of Queen Elizabeth I.

304L (TCCN: HIST 2314). English Civilization since 1603. Survey of English history from the seventeenth century to the present.


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.


306K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations. Same as Middle Eastern Studies 301K. A survey of the history and civilization of the Middle East from the sixth to the fourteenth century. History 306K and Middle Eastern Languages and Cultures 312K may not both be counted.

306N. Topics in History. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American History; these are identified in the Course Schedule.


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. History 306N (Topic 5) and Middle Eastern Languages and Cultures 312L may not both be counted.


Topic 7: Introduction to Islam. Same as Islamic Studies 310, Middle Eastern Studies 310 (Topic 1: Introduction to Islam), 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. Only one of the following may be counted: History 306N (Topic 7), Middle Eastern Languages and Cultures 310, Religious Studies 311 (Topic 3: Introduction to Islam).


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.

309K (TCCN: HIST 2311). Western Civilization in Medieval Times. Survey of medieval Europe from late antiquity to the fifteenth century.

309L (TCCN: HIST 2312). Western Civilization in Modern Times. Survey of European civilization since the fifteenth century.

310. Introduction to Modern Africa. Same as African and African American Studies 310K. Introduction to modern Africa, with focus on colonial and postcolonial development in political organization, economics, sociolinguistics, and literature.

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. Only one of the following may be counted: History 310K, 346K, Latin American Studies 366 (Topic 2: Latin America before 1810).


311K. Introduction to Traditional Africa. Same as African and African American Studies 310L. Introductory, interdisciplinary course on the peoples and cultures of Africa.

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. Prerequisite: Fifteen semester hours of coursework and a passing score on the reading section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

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. History 315L and 316L may not both be counted. Partially fulfills legislative requirement for American history. Prerequisite: Fifteen semester hours of coursework and a passing score on the reading section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

317L (TCCN: HIST 2327, 2381). Topics in United States History. May be repeated for credit when the topics vary. Partially fulfills legislative requirement for American history. Prerequisite: Completion of at least thirty semester hours of coursework.
Topic 1: Colonial America.
Topic 2: The Era of the American Revolution.
Topic 4: Introduction to Asian American History. Same as Asian American Studies 312. Asian American Studies 310 (Topic: Introduction to Asian Pacific American History) 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).

317N. Topics in History. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Completion of at least thirty semester hours of coursework.

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.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

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. History 320L and Mexican American Studies 374 (Topic: Texas until 1845) may not both be counted. Three semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Upper-division standing.

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 semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Upper-division standing.

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 semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Upper-division standing.


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 320 (Topic 2: 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: History 321G, Jewish Studies 361 (Topic 2: Rome and Jerusalem), Middle Eastern Languages and Cultures 341 (Topic 7: Rome and Jerusalem), Religious Studies 361 (Topic 24: Rome and Jerusalem). Prerequisite: Upper-division standing.


322C. Cultural History of World Science to 1650. Cultural history of science from ancient times to the seventeenth century. A maximum of three semester hours of coursework in the history of science or the philosophy of science may be used to fulfill Area C requirements for the Bachelor of Arts, Plan I. Prerequisite: Upper-division standing.

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. A maximum of three semester hours of coursework in the history of science or the philosophy of science may be used to fulfill Area C requirements for the Bachelor of Arts, Plan I. History 322D and 329N may not both be counted. Prerequisite: Upper-division standing.

322G. History of the Modern Life Sciences. History of the life sciences from the eighteenth century to the present. A maximum of three semester hours of coursework in the history of science or the philosophy of science may be used to fulfill Area C requirements for the Bachelor of Arts, Plan I. Prerequisite: Upper-division standing.
322M. History of Modern Science. The history of science and its place in society from the time of Newton to the present. A maximum of three semester hours of coursework in the history of science or the philosophy of science may be used to fulfill Area C requirements for the Bachelor of Arts, Plan I. Prerequisite: Upper-division standing.

323C. Eighteenth-Century Europe. Same as European Studies 361 (Topic 20: Eighteenth-Century Europe). Major transformations in Europe’s social, political, and cultural order between the late seventeenth and late eighteenth centuries. History 323C and 366N (Topic: The Old Regime and the Enlightenment) may not both be counted. Prerequisite: History 309L is recommended but not required.

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. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

328P. Race and Class in the History of Brazil. Same as African and African American Studies 320 (Topic 2: Race and Class in the History of Brazil) and Latin American Studies 366 (Topic 1: Race and Class in the History of Brazil). The interrelationship of economic class and racial or ethnic factors from the beginning of the slave trade to the present. Prerequisite: Upper-division standing.

329K. United States Relations with Latin America. A survey of the major conflicts in US–Latin American relations in the nineteenth and twentieth centuries, as well as the economic relations between North America and Latin America. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

329P. History of the Atomic Bomb. The development, use, and influence of nuclear weapons from the 1930s to 1954. Prerequisite: Upper-division standing.

329S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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.

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. Prerequisite: Upper-division standing.

331F. History of the Ancient Middle East. Same as Middle Eastern Studies 320 (Topic 7: History of the Ancient Middle East). An introduction to the Middle East from the origins of civilization to the rise of Islam. Prerequisite: Upper-division standing.

331G. History of Iran to 1800. Same as Middle Eastern Studies 321K (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. History 331G and Religious Studies 361 (Topic 23: History of Iran to 1800) may not both be counted. Prerequisite: Upper-division standing.


331L. Modern Iran. Same as Middle Eastern Studies 323L. 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. History 331L and Middle Eastern Studies 324K (Topic: Modern Iran) may not both be counted. Prerequisite: Upper-division standing.

331M. Imperialism and Nationalism in the Middle East. Same as Middle Eastern Studies 322K (Topic 10: Imperialism and Nationalism in the Middle East). An interpretative analysis of European imperialism in the Middle East; the origin and the rise of nationalism in the Arab world, Turkey, Iran, and Israel. History 331M and Middle Eastern Studies 321K (Topic: Imperialism and Nationalism in the Middle East) may not both be counted. Prerequisite: Upper-division standing and consent of instructor.

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. Prerequisite: Upper-division standing.

332J. Twentieth-Century European Intellectual History. Explores significant intellectual developments in Europe in the twentieth century. Topics include psychoanalysis, sociology, existentialism, and poststructuralism. Prerequisite: Upper-division standing.

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. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

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. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

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. History 334C and Middle Eastern Languages and Cultures 372 (Topic 11: Music Cultures of the Middle East, Past and Present) may not both be counted. Prerequisite: Upper-division standing.

334J. History of England, 1688–1832. The rise of the eighteenth-century governing class: nobility and gentry, the rise of urban middle-class political consciousness, and the rise of industrialism and working-class consciousness. Prerequisite: Upper-division standing.


336L. The Old South. Southern institutions and the role of the South in American history. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

340K. Traditional China. Same as Asian Studies 340K. History of China from its beginnings to 1800. Asian Studies 361 (Topic: Traditional China) and History 340K may not both be counted. Prerequisite: Upper-division standing.

340M. Modern China. Same as Asian Studies 340M. History of China from the intrusion of the West circa 1500 to the Communist revolution. Asian Studies 361 (Topic: Modern China) and History 340M may not both be counted. Prerequisite: Upper-division standing.

340N. Communist China. Same as Asian Studies 340N. The history of China from the Communist takeover in 1949 to the present. Asian Studies 361 (Topic: Communist China) and History 340N may not both be counted. Prerequisite: Upper-division standing.

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. Asian Studies 361 (Topic: European Expansion in Asia) and History 340P may not both be counted. Prerequisite: Upper-division standing.

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. Asian Studies 361 (Topic: European Empires in Asia) and History 340R may not both be counted. Prerequisite: Upper-division standing.


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). Asian Studies 361 (Topic: Japan to 1800) and History 341K may not both be counted. Prerequisite: Upper-division standing.

341M. Imperial Japan. Same as Asian Studies 341M. Japan from the Meiji transformation through war, defeat, and occupation. Asian Studies 361 (Topic: Modern Japan) and History 341M may not both be counted. Prerequisite: Upper-division standing.


342C. Postwar Japan. Same as Asian Studies 341N, Japan since the war and occupation. Prerequisite: Upper-division standing.

342D. Political Economy of Japan. Same as Asian Studies 342D. Historical development of the Japanese economy since early modern times. Only one of the following may be counted: Asian Studies 361 (Topic: Political Economy of Japan), History 342D, 350L (Topic: Political Economy of Japan). Prerequisite: Upper-division standing.

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. History 343 and Religious Studies 361 (Topic 26: The Age of Reformation) may not both be counted. Prerequisite: Upper-division standing.

343G. Italian Renaissance, 1350–1550. Survey of political, socioeconomic, religious, and intellectual trends during the Italian Renaissance. History 343G and 362K (Topic: Italian Renaissance, 1350–1550) may not both be counted. Prerequisite: History 309K or the equivalent is recommended.

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 seventeenth-century Muscovy to the fall of the Romanovs in 1917. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

343P. History of Witchcraft. A study of witch beliefs and witchcraft prosecutions in western Europe and colonial America, mainly between 1100 and 1700. Prerequisite: Upper-division standing.


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. Prerequisite: Upper-division standing.


344M. Everyday Life in Early Modern Europe. Social history of early modern Europe (1400–1700), with emphasis on material conditions of social existence. Prerequisite: Upper-division standing.

344P. English Women in History. Same as Women's and Gender Studies 321 (Topic 3: English Women in History). An analysis of some of the images and roles of English women in history from ancient to modern times, with particular emphasis on the period from the eighteenth century to the present. History 344P and Women's Studies 321 (Topic 3: English Women in History) may not both be counted. Prerequisite: Upper-division standing.

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. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

345L. The American Civil War and Reconstruction, 1861–1877. Lecture and discussion course on the Civil War and Reconstruction period. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

345M. The South since 1865. The history of the South after the Civil War through the civil rights movement. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

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. Asian Studies 361 (Topic: Ancient India), and History 346C may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

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. Prerequisite: Upper-division standing or consent of instructor.


346M. Muslim India before 1750. Same as Asian Studies 346M and Religious Studies 341 (Topic 6: Muslim India before 1750). The history, art and architecture, and religions of India during the period of Muslim rule, from the tenth to the eighteenth century. Asian Studies 361 (Topic: History and Culture of India before 1750) and History 346M may not both be counted. Prerequisite: Upper-division standing.

346N. History and Culture of India since 1750. Same as Asian Studies 346N. The period of British rule, the nationalist movement, and independence, with emphasis on the impact of the West on Indian society. Asian Studies 361 (Topic: History and Culture of India since 1750) and History 346N may not both be counted. Prerequisite: Upper-division standing.


346S. Revolution in Twentieth-Century Latin America. Same as Latin American Studies 366 (Topic 9: Revolution in Twentieth-Century Latin America). An introduction to recent Latin American history, with emphasis on phenomena that explain the apparent social unrest and political instability of the region. Prerequisite: Upper-division standing.

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. 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). Prerequisite: Upper-division standing.

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. Prerequisite: Consent of instructor.

349G. Great Captains. An examination of the careers and personalities of selected military leaders and of their contributions to the evolution of military history. Prerequisite: Upper-division standing.

349R. Military History to 1640. A broad survey of world military systems from ancient times to about 1640. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

350L. Undergraduate Seminar in History. Lectures, discussion, reading, and research on selected topics in the field of history. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Three semester hours of Texas history may be substituted for half of the legislative requirement for American history. Prerequisite: Varies with the topic and is given in the Course Schedule.


Topic 2: American Cultural History of Alcohol and Drugs. Same as American Studies 370 (Topic 1: American Cultural History of Alcohol and Drugs). Partially fulfills legislative requirement for American history. 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). Prerequisite: Upper-division standing.

Topic 7: Civil Rights in America. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing and consent of instructor.

Topic 14: Lyndon Johnson and His Times. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.


Topic 29: Popular Culture in Preindustrial Europe. Same as European Studies 361 (Topic 19: Popular Culture in Preindustrial Europe). The customs, practices, and mental landscape of common people in Europe between 1500 and 1800. Prerequisite: Upper-division standing.

Topic 30: Anglo-Americans and Native Americans. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

Topic 31: Children in History. Prerequisite: Upper-division standing and consent of instructor.

Topic 32: The Galileo Affair. Prerequisite: Upper-division standing.


Topic 41: Stalinist Russia. Same as Russian, East European, and Eurasian Studies 335 (Topic 12: Stalinist Russia). Prerequisite: Upper-division standing and consent of instructor.

Topic 42: History of Modern Central America. Same as Latin American Studies 366 (Topic 15: History of Modern Central America). History 350L (Topic 42) and 363K (Topic: History of Modern Central America) may not both be counted. Prerequisite: Upper-division standing.

Topic 43: Coastal Communities in Early America. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.


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). Prerequisite: Upper-division standing or consent of instructor.


Topic 49: History of Imperialism. Prerequisite: Upper-division standing.

Topic 50: Imperialism: Empire to Globalization. Prerequisite: Upper-division standing.


Topic 54: Epics and Heroes of India. Prerequisite: Upper-division standing.


Topic 56: Germany since Hitler. Prerequisite: Upper-division standing.

Topic 57: Law and Society in Early Modern Europe. Prerequisite: Upper-division standing.

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). Prerequisite: Upper-division standing.

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.


351P. History of Religion in America since 1800. Same as Religious Studies 326. Survey of religious thought and institutions from the Second Great Awakening to the present; emphasis given to Protestantism challenged by science, industrialism, immigration, urbanism, religious heterogeneity, and indifference, and to revivalism, reform, and the social gospel. History 351P and Religious Studies 361 (Topic 12: History of Religion in America since 1800) may not both be counted. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing or consent of instructor.

353. The French Revolution and Napoleon. Analysis of the social, political, and economic origins and outcomes of the French Revolution and Napoleon's empire. Prerequisite: Upper-division standing.

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.

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.

354N. France in Modern Times. The impact of revolution on French political, economic, and social development in the nineteenth and twentieth centuries. Prerequisite: Upper-division standing.

355F. The United States, 1877–1920. Examines the Gilded Age and Progressive Era to depict the rise of modern America. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.


355N. Main Currents of American Culture to 1865. Same as American Studies 355. An interdisciplinary course concerned with the definition of American culture in historical perspective. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

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. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

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. 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.

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. Partially fulfills legislative requirement for American history. History 356G and 365G (Topic: History of the United States West) may not both be counted. Prerequisite: Upper-division standing.

356K. Main Currents of American Culture since 1865. Same as American Studies 356. An interdisciplinary course concerned with the definition of American culture in historical perspective. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

356N. American Culture and Social Life since 1945. Same as American Studies 328. Study of postwar American culture and society, using novels, plays, movies, music, television, journalism, political thought, and social criticism; special attention to the 1950s. American Studies 322 (Topic: American Culture and Social Life since 1945) and History 356N may not both be counted. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.

356P. The United States in the Civil Rights Era. Examines United States history in the post–World War II era, including how civil rights and other racial issues helped shape the politics, popular culture, and social life of this period. Partially fulfills legislative requirement for American history. History 356P and 365G (Topic: United States in the Civil Rights Era) may not both be counted. Prerequisite: Upper-division standing.

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). Only one of the following may be counted: American Studies 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), Liberal Arts Honors 350 (Topic: America and the Holocaust). Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.
357C. African American History to 1860. Same as African and African American Studies 357C. Review of West African origins; New World settlement patterns, social life, and culture; discussion of Atlantic slave trade, development of capitalism and plantation slavery, and origins of racism. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.


357P. Twentieth-Century American Indian History. Studies American Indian life and culture in the twentieth century through the use of historical and anthropological texts, autobiographies, films, and fiction. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing.


359N. History of Africa since 1800. Same as African and African American Studies 359N. Development of sub-Saharan African societies from the end of the slave trade to independence. Prerequisite: Upper-division standing.

359P. History of East Africa. Same as African and African American Studies 345. A survey of the history of Kenya, Tanzania, and Uganda from prehistoric times to the postindependence era. African and African American Studies 374 (Topic: History of East Africa) and History 359P may not both be counted. Prerequisite: Upper-division standing.

359R. History of West Africa. Same as African and African American 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. African and African American Studies 374 (Topic: History of West Africa) and History 359R may not both be counted. Prerequisite: Upper-division standing.

362G. Topics in European History. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

362K. Medieval Civilization. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing.

363K. Topics in Latin American Social and Cultural History. Survey of Latin American problems in the colonial period. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing. Some topics also require consent of instructor; these are identified in the Course Schedule.

364G. Topics in African, Asian, and Middle Eastern History. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

365G. Topics in United States History. May be repeated for credit when the topics vary. Partially fulfills legislative requirement for American history. Prerequisite: Upper-division standing or consent of instructor.

366N. Topics in History. 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. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

366R. Art, Photography, and Culture of the American West to 1880. Same as American Studies 331 and Art History 367 (Topic 1: Art, Photography, and Culture of the American West to 1880). The image and history of the West as seen through the eyes of early explorers, artists, and scientists. History 366R and Museum Course 322 (Topic: Art, Photography, and Culture of the American West to 1880) may not both be counted. Partially fulfills legislative requirement for American history. Prerequisite: For art history majors, Art History 302; for 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.
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.

372M. Proseminar in Historical Writing. Individual instruction in historical research and writing. May be repeated for credit. Prerequisite: Upper-division standing and written consent of instructor; consent forms are available in the departmental advising office.

372P. The Bible and History. Same as Jewish Studies 364 (Topic 3: The Bible and History), Middle Eastern Studies 320 (Topic 3: The Bible and History), and 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: History 372P, Jewish Studies 361 (Topic 3: The Bible and History), Middle Eastern Languages and Cultures 341 (Topic 1: The Bible and History), Religious Studies 361 (Topic 14: The Bible and History). Prerequisite: Upper-division standing or consent of instructor.

375D. Islamic Spain and North Africa to 1492. Same as Middle Eastern Studies 321K (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. History 375D and Religious Studies 361 (Topic 13: Islamic Spain and North Africa to 1492) may not both be counted. Prerequisite: Upper-division standing.

375J. Imperial Spain, 1479–1800. The reign of Ferdinand and Isabella; Spanish power in the western Mediterranean; social and economic structure of Imperial Spain; problems of the religious minorities; seventeenth-century decadence; the Enlightenment and Bourbon reforms. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

375L. Stuart England, 1603–1689. Topical lecture course focusing on the most significant political, religious, social, economic, and cultural developments in seventeenth-century England. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

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. History 366N (Topic 7: The United States and the Second World War) and 376F may not both be counted. Partially fulfills legislative requirement for American history.

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. History 366N (Topic 11: Hitler, Nazism, and World War II) and 376G may not both be counted.

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

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

HUMANITIES: HMN

Lower-Division Courses

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.

001D. DemTex. Restricted to undergraduates. Student-led seminars on topics in the humanities, social sciences, fine arts, or sciences. One lecture hour a week for one semester, or as required by the topic. May be repeated. May not be counted toward any degree.

305. Freshman Seminar. Reading, discussion, writing, and oral reporting on various humanities topics. May be repeated for credit when the topics vary. Offered on the letter-grade basis only. Humanities 305 and Liberal Arts Honors 305 may not both be counted unless the topics vary. Prerequisite: Advanced placement credit for Rhetoric and Writing 306 or the equivalent. Topic 1: Epic Journeys.

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.

116, 216, 316. Topics in the Humanities. Intensive lecture or seminar course addressing topics in various disciplines in the humanities. One, two, or 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: Consent of the humanities adviser.

Upper-Division Courses

320. Core Course in the Humanities. Analysis of major historical periods: their literature, philosophy, art, music, and architecture. May be repeated for credit when the topics vary.

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. Prerequisite: Upper-division standing or consent of instructor.
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. **Prerequisite:** Upper-division standing or consent of instructor.

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. **Prerequisite:** Upper-division standing or consent of instructor.

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. **Prerequisite:** Consent of the humanities adviser.

350. **Topics in the Humanities.** Study of the values underlying humanistic disciplines. May be repeated for credit when the topics vary. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

**Course Schedule**

**Topic 2:** Daily Life in Northern Europe. Same as Geography 358E and Middle Eastern Studies 322K (Topic 15: 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. Geography 356T (Topic: Geography and Religion) and Humanities 350 (Topic 3) may not both be counted. **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. Only one of the following may be counted: Humanities 350 (Topic 4), Religious Studies 355M, 361 (Topic 30: Renaissance Art: Beliefs, Images, and Ideas). **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.

**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.

**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. **Prerequisite:** Upper-division standing and consent of instructor.

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. Humanities 370 and 679HB may not both be counted. **Prerequisite:** Consent of the humanities adviser.

379. **Conference Course.** Individual instruction in a topic approved by the instructor and the humanities adviser. May be repeated for credit. **Prerequisite:** Upper-division standing and consent of the humanities adviser.

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 679HB may not both be counted. **Prerequisite:** For 679HA, admission to the Humanities Honors Program and consent of the humanities adviser; for 679HB, Humanities 679HA.

**ISLAMIC STUDIES**

See Department of Middle Eastern Studies, page 396.

**ITALIAN**

See Department of French and Italian, page 358.

**ITALIAN CIVILIZATION**

See Department of French and Italian, page 359.

**JAPANESE**

See Department of Asian Studies, page 328.

**JEWISH STUDIES**

See Department of Middle Eastern Studies, page 398.

**KOREAN**

See Department of Asian Studies, page 328.

**LATIN**

See Department of Classics, page 335.

**TERESA LOZANO LONG INSTITUTE OF LATIN AMERICAN STUDIES**

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

**LATIN AMERICAN STUDIES: LAS**

**Lower-Division Courses**

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.

**310. General Topics in Latin American Studies.** Topics to provide introduction to Latin America within the framework of different disciplines. Topics include civilization of Spanish America, geography of Latin America. 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 346L, 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 346L, Latin American Studies 310 (Topic 2), 366 (Topic 3: Latin America since 1810).

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. **Prerequisite:** Ability to use the World Wide Web.
Upper-Division Courses

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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.

322. Topics in Latin American Studies. Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. Additional hours are required for some topics; these topics are identified in the Course Schedule. May be repeated for credit when the topics vary. 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 370S may not both be counted unless 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: Hispanic Images and Counterimages) and Radio-Television-Film 359S (Topic: 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. Latin American Studies 322 (Topic 1) and Radio-Television-Film 359 (Topic 1: Hispanic Images and Counterimages) may not both be counted. 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.

Topic 2: Latino Audiences. Same as Mexican American Studies 374 (Topic: Latino Audiences) and Radio-Television-Film 365 (Topic 2: 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 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 lower-division 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. Journalism 327 and Latin American Studies 322 (Topic 4) may not both be counted. Prerequisite: Consent of instructor and a passing score on the College of Communication Grammar, Spelling and Punctuation Test.

Topic 5: The Brazilian Left, 1900 to the Present. Same as American Studies 321C. Only one of the following may be counted: American Studies 321 (Topic: Comparative Cultural Studies: Brazil), 321 (Topic: Brazilian Left: 1900 to Present), Latin American Studies 322 (Topic 5). Prerequisite: Upper-division standing.

Topic 6: Recent Brazil, 1919 to the Present. Same as American Studies 321D. American Studies 321 (Topic: Recent Brazil, 1919 to the Present) and Latin American Studies 322 (Topic 6) may not both be counted. Prerequisite: Upper-division standing and consent of instructor.

Topic 7: International Communication: Third World Issues. Same as Mexican American Studies 374 (Topic 17: International Communication: Third World Issues) and Radio-Television-Film 342 (Topic 3: Third World Issues). Prerequisite: For radio-television-film 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 lower-division coursework in radio-television-film; for others, upper-division standing and consent of instructor.

Topic 8: Business in Emerging Markets. Same as International Business 372 (Topic 2: Business in Emerging Markets) and Middle Eastern Studies 322K (Topic 4: Business in Emerging Markets). Only one of the following may be counted: International Business 372 (Topic: Business in Developing Countries), Latin American Studies 322 (Topic 9), 322 (Topic: Business in Developing Countries), Middle Eastern Studies 322K (Topic: Business in Developing Countries). Prerequisite: Upper-division standing.

Topic 9: Mass Media and Minorities. Same as Mexican American Studies 374 (Topic 22: Mass Media and Minorities). Survey of minority communication problems: alienation, fragmentation, media access; criticism and feedback for minority groups based on racial/ethnic background, age, sex, disability, social or economic class, and sexual orientation. Journalism 340C (Topic 1: Mass Media and Minorities) and Latin American Studies 322 (Topic 10) may not both be counted. Prerequisite: Upper-division standing.

Topic 10: 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.

324L. Topics in Latin American Anthropology. Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. 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 Maya Hieroglyphic Writing. Same as Anthropology 320L. (Topic 2: Introduction to Maya Hieroglyphic Writing). An introductory survey that includes glyph recognition and interpretation according to the latest developments in decipherment. Prerequisite: Anthropology 302 or consent of instructor.


Topic 3: Indians of South America. Same as Anthropology 322M (Topic 7: Indians of South America). Prerequisite: Upper-division standing.

Topic 4: Contemporary Mexico. Same as Anthropology 355K. Mexico in the contemporary period and recent past; the political economy of Mexico and its effects on ordinary people; nationalism, the family, and the urban and rural experience; United States–Mexican relations. Anthropology 324L (Topic: Contemporary Mexico) and Latin American Studies 324L (Topic 4) may not both be counted. Prerequisite: Upper-division standing.

Topic 7: Maya Research, 1900 to the Present. Same as Anthropology 324L (Topic 12: Maya Research, 1900 to the Present). Prerequisite: Upper-division standing.

Topic 9: The Civilization of the Maya. Same as Anthropology 360K. Maya prehistory and history: the archaeological record, codices and inscriptions, and Spanish conquest writings. Prerequisite: Upper-division standing.

Topic 10: The Civilizations of Ancient Mexico. Same as Anthropology 361K. Mexican cultures from earliest prehistory to the European conquest. Prerequisite: Anthropology 302 or consent of instructor, and six semester hours of any upper-division coursework in social science.

Topic 11: The Civilizations of Ancient Mexico. Same as Anthropology 361K. Mexican cultures from earliest prehistory to the European conquest. Prerequisite: Anthropology 302 or consent of instructor, and six semester hours of any upper-division coursework in social science.


325. Topics in Latin American Sociology. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.


Topic 2: Social Change in Developing Nations. Overview of changing social structure in the Third World. Latin American Studies 322 (Topic: Social Change in Developing Nations) and 325 (Topic 2) may not both be counted.

Topic 3: Politics and Culture of Contemporary Mexico. Same as Mexican American Studies 374 (Topic 28: Politics and Culture of Contemporary Mexico), Government 337M (Topic 5: Politics and Culture of Contemporary Mexico), and Sociology 338M. Introduction to the contemporary Mexican political system and the ways in which political change and democratization are recasting the political and civic culture of contemporary Mexico. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

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). Prerequisite: Upper-division standing.


327. Topics in Latin American Art History. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Modern Latin American Art. Same as Art History 341L. Development and sources of twentieth-century art in the Caribbean and Central and South America. Latin American Studies 322 (Topic: Modern Latin American Art) and 327 (Topic 1) may not both be counted. Prerequisite: For art history majors, Art History 302; for 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 2: Modern Art of Mexico. Same as Art History 341K. Art of the nineteenth and twentieth centuries, particularly muralism and its sources, surrealism, and later movements. Prerequisite: For art history majors, Art History 302; for 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: Mesoamerican Art. Same as Art History 347L. Mesoamerican art and architectural styles, with emphasis on the function of art in culture. Prerequisite: For art history majors, Art History 302; for 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: Contemporary Latin American Art, 1960 to the Present. Same as Art History 366N (Topic 1: Contemporary Latin American Art, 1960 to the Present). Painting, sculpture, media art, and environments. Prerequisite: For art history majors, Art History 302; for 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: Maya Art and Architecture. Same as Art History 347M. The development and function of art and architectural form in the classic Maya culture. Prerequisite: For art history majors, Art History 302; for 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: Art and Archaeology of Ancient Peru. Same as Art History 347K. The growth of civilization in South America from the earliest decorated textiles, pottery, and ceremonial buildings to the imperial Inca style. Prerequisite: For art history majors, Art History 302; for 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.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad advisor 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.
330. **Topics in Latin American Geography.** May be repeated for credit when the topics vary. Latin American Studies 322 and 330 may not both be counted unless the topics vary. **Prerequisite:** Varies with the topic and is given in the Course Schedule. 

**Topic 1:** *The Spanish Background of Hispanic America.* Same as Anthropology 322M (Topic 9: *The Spanish Background of Hispanic America*) and Geography 347K. Prehistoric and Roman origins of Mediterranean land use and settlement; late medieval economy and institutions; conquest and the transformation of Spanish culture in the New World, with emphasis on colonial Mexico. **Prerequisite:** Upper-division standing.

**Topic 2:** *Landscapes of Mexico and Caribbean America.* Same as Geography 341K. The natural regions and cultural landscapes of Mexico, Central America, and the West Indies. **Prerequisite:** Upper-division standing.

**Topic 3:** *Geography of South America.* Same as Geography 323K. Ecological, cultural, and political challenges of the densely populated margins and sparsely populated interior frontier of South America; appropriate development and conservation pathways. **Prerequisite:** Upper-division standing.

**337M. Topics in Latin American Politics.** Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. 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 States–Mexican Border Relations*). **Prerequisite:** Six semester hours of lower-division 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*). Latin American Studies 337M (Topic 6) and Russian, East European, and Eurasian Studies 335 (Topic 7: *Political Development in Eastern Europe and Latin America*) may not both be counted. **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 European Studies 361 (Topic 21: *Political Transition in Europe and Latin America*) and Government 365N (Topic 11: *Political Transition in Europe and Latin America*). **Prerequisite:** Six semester hours of lower-division coursework in government.

350. **Epic of Latin America.** Introduction to Latin American culture; main topics and debates in Latin American studies. **Prerequisite:** Upper-division standing.

351C. **Quechua Language and Society in the Andes I.** Same as Anthropology 351C. Beginning spoken Quechua; Quechua folklore. Taught in English. Only one of the following may be counted: Anthropology 324L (Topic: *Advanced Quechua Language and Society in the Andes*), 381C, 389 (Topic: *Advanced Quechua Language and Society in the Andes*), Latin American Studies 324L (Topic: *Advanced Quechua Language and Society in the Andes*), 351C, 381C, 391 (Topic: *Advanced Quechua Language and Society in the Andes*). **Prerequisite:** Upper-division standing or consent of instructor.

351D. **Quechua Language and Society in the Andes II.** Same as Anthropology 351D. Intermediate spoken Quechua; Quechua folklore. Taught in English. Only one of the following may be counted: Anthropology 324L (Topic: *Advanced Quechua Language and Society in the Andes*), 381D, 389 (Topic: *Advanced Quechua Language and Society in the Andes*), Latin American Studies 324L (Topic: *Advanced Quechua Language and Society in the Andes*), 351D, 381D, 391 (Topic: *Advanced Quechua Language and Society in the Andes*). **Prerequisite:** Upper-division standing or consent of instructor.

355. **Topics in Latin American Economics.** Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. 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 with a grade of at least C.

359H. **Honors Seminar.** An interdisciplinary discussion and writing seminar. Lectures and supervised individual research and writing of a substantial paper on a special topic. May be repeated for credit. **Prerequisite:** Upper-division standing, and consent of instructor and the Latin American studies honors adviser.

366. **Topics in Latin American History.** Topics vary each semester to allow curriculum flexibility for faculty members and visiting scholars. 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 Class in the History of Brazil.* Same as African and African American Studies 320 (Topic 2: *Race and Class in the History of Brazil*) and History 328P. The interrelationship of economic class and racial or ethnic factors from the beginning of the slave trade to the present. **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, 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 History 346L. Continuation of Latin American Studies 366 (Topic 2). Only one of the following may be counted: History 310L, Latin American Studies 310 (Topic 2: *Latin American Civilization: The National Experience*), 366 (Topic 3). **Prerequisite:** Upper-division standing.
364K (Topic 2: Latin American Cities, 1830–1930). Taught in Spanish. Three lecture hours a week for one semester, or six semester hours of upper-division coursework in Spanish, including Spanish 325K, 325L, 326K, or 326L.

Topic 10: Interpretation Principles and Practice. Same as Spanish 367K (Topic 5: Interpretation Principles and Practice). Taught in Spanish. Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).

Topic 12: Translation Principles and Practice. Same as Spanish 367K (Topic 4: Translation Principles and Practice). Taught in Spanish. Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).

Topic 13: Essay in Mexican Thought and Culture. Same as Mexican American Studies 374 (Topic 21: Essay in Mexican Thought and Culture) and Spanish 350 (Topic 2: Essay in Mexican Thought and Culture). Prerequisite: Spanish 322K.

Topic 14: Interpretation Principles and Practice. Same as Spanish 367K (Topic 5: Interpretation Principles and Practice). Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).

Topic 15: Literary Translation: Analysis and Criticism. Same as Spanish 367K (Topic 6: Literary Translation: Analysis and Criticism). Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).

Topic 16: Writing the Conquest. Same as Spanish 374K (Topic 1: Writing the Conquest). The forging of Spanish-American civilization and many of its persistent dilemmas seen through the examination of an exuberant and original body of narrative texts. Latin American Studies 370S (Topic 16) and Spanish 350 (Topic: Writing the Conquest) may not both be counted. Prerequisite: Spanish 325K, 325L, 326K, or 326L.

370S. Topics in Hispanic Literature, Culture, Civilization, and Linguistics. Three lecture hours a week for one semester, or as required by the topic. May be repeated for credit when the topics vary. Latin American Studies 322 and 370S may not both be counted unless the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 3: Civilization of Spanish America. Same as Spanish 322K. Survey of the social and cultural evolution of the Spanish American countries. Taught in Spanish. Three lecture hours and one laboratory/discussion hour a week for one semester. Prerequisite: Spanish 612 or 312L.

Topic 4: Introduction to Spanish American Literature through Modernism. Same as Spanish 325K. Main literary trends and principal writers in Spanish America from the sixteenth century through Modernism. Taught in Spanish. Prerequisite: Spanish 612 or 312L.

Topic 5: Introduction to Spanish American Literature since Modernism. Same as Spanish 325L. Main literary trends and principal writers in Spanish America since Modernism. Taught in Spanish. Prerequisite: Spanish 612 or 312L.

Topic 6: Spanish-Language Literature of the Southwest. Same as Mexican American Studies 374 (Topic 13: Spanish-Language Literature of the Southwest) and Spanish 341K. The study of culturally valuable Chicano literary texts; related readings in Mexican and other Hispanic works. Taught in Spanish. Prerequisite: Spanish 612 or 312L.


Topic 10: Contemporary Spanish American Prose. Same as Spanish 365K. Novels, short stories, and essays from different regions of Hispanic America. Taught in Spanish. Prerequisite: Spanish 325K, 325L, 326K, or 326L.

Topic 11: Comparative Structure of English and Spanish. Same as Spanish 367K (Topic 2: Comparative Structure of English and Spanish). Taught in Spanish. Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).

Topic 14: Interpretation Principles and Practice. Same as Spanish 367K (Topic 5: Interpretation Principles and Practice). Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).
379. Conference Course in Latin American Studies. Supervised individual study of selected problems in Latin American studies. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor and the undergraduate adviser in Latin American studies.

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. 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.

LIBERAL ARTS
See page 314.

LIBERAL ARTS HONORS
See page 314.

DEPARTMENT OF LINGUISTICS
Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

AMERICAN SIGN LANGUAGE: ASL
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 on pages 658–662.

Lower-Division Courses
506 (TCCN: SGNL 1501). First-Year American Sign Language I. Introduction to American Sign Language. Five lecture hours a week for one semester. Offered on the letter-grade basis only.

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. Offered on the letter-grade basis only. Prerequisite: American Sign Language 506 with a grade of at least C.

312K (TCCN: SGNL 2301). Second-Year American Sign Language I. Development of conversational skills in American Sign Language. Offered on the letter-grade basis only. Prerequisite: American Sign Language 507 with a grade of at least C.

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. Offered on the letter-grade basis only. Prerequisite: American Sign Language 312K with a grade of at least C.

Upper-Division Course
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. Prerequisite: American Sign Language 312L with a grade of at least C.

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. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upper-division standing.

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. Prerequisite: American Sign Language 312L with a grade of at least C.

LINGUISTICS: LIN

Lower-Division Courses
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 universal, dialect differences and their social significance.

312. Interdisciplinary Approaches to Language. An interdisciplinary and multidisciplinary introduction to the manifold aspects of language. May be repeated for credit when the topics vary.

315. Speech Science. Same as Communication Sciences and Disorders 315S. Physiological and acoustical bases of speech production; theories of motor control of speech; laboratory techniques in speech science research.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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
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. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.
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. 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).

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. **Prerequisite:** Rhetoric and Writing 306 and English 361K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.


129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. **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 Center for Global Educational Opportunities. Credit is recorded as assigned by 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.

340. **Automata Theory.** Introduction to the formal study of automata and of related formal languages. Only one of the following may be counted: Computer Sciences 341, 341H, Linguistics 340. **Prerequisite:** Computer Sciences 336 or consent of instructor.

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. **Prerequisite:** Linguistics 306.

345. **Language Change and Language Variation.** **Prerequisite:** Linguistics 344K.

350. **Special Topics in the Study of Language.** Nontechnical examination of social, educational, and political problems to which current linguistic knowledge is relevant. 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.

357. **Undergraduate Research.** Supervised research experience. May be repeated for credit. Offered on the pass/fail basis only. **Prerequisite:** Upper-division standing, Linguistics 306 with a grade of at least C, and consent of instructor.

360K. **Introduction to English Grammar.** Introduction to the study of the syntactic structure of modern English from the viewpoint of generative grammar. English 360K and Linguistics 360K may not both be counted. **Prerequisite:** Upper-division standing.

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. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

372K. **Sound Patterns: From Sound to Word.** Methods and principles of analyzing the sound systems of languages. **Prerequisite:** Linguistics 344K.

372L. **Syntax and Semantics: The Structure and Meaning of Utterances.** Methods and principles of describing the syntactic systems of languages. **Prerequisite:** Upper-division standing and Linguistics 306.

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. 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:** Anthropology 302, 305, 307, or Linguistics 306; or consent of instructor.

Topic 3: **Language in Culture and Society.** Same as Anthropology 325M and Sociology 352M (Topic 4: Language and Culture in 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: **Sociolinguistics of German-Speaking Society.** Same as Germanic Civilization 327E (Topic 3: Sociolinguistics of German-Speaking Society). **Prerequisite:** Upper-division standing or consent of instructor.

Topic 6: **The Structure of the German Language.** Same as German 369 (Topic 1: The Structure of the German Language). Only one of the following may be counted: German 369 (Topic: German Dialectology), Linguistics 373 (Topic 6), 373 (Topic: German Dialectology). **Prerequisite:** Six semester hours of upper-division coursework in German, or fourteen semester hours of lower-division coursework in German and six semester hours of coursework in linguistics.

See Ethnic Studies Program, page 351.

MEXICAN AMERICAN STUDIES

See Ethnic Studies Program, page 351.

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.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ARABIC: ARA

Lower-Division Courses

506 (TCCN: ARAB 1511). First-Year Arabic I. Not open to native speakers of Arabic. Modern Standard Arabic. Five class hours a week for one semester; additional hours in the computer laboratory are required.

507 (TCCN: ARAB 1512). First-Year Arabic II. Not open to native speakers of Arabic. Continuation of Arabic 506. Five class hours a week for one semester; additional hours in the computer laboratory are required. Prerequisite: Arabic 506 with a grade of at least C.

412K. Second-Year Arabic I. Not open to native speakers of Arabic. Modern Standard Arabic. Four class hours a week for one semester; additional hours in the computer laboratory are required. Prerequisite: Arabic 507 with a grade of at least C.

412L. Second-Year Arabic II. Not open to native speakers of Arabic. Modern Standard Arabic. Four class hours a week for one semester; additional hours in the computer laboratory are required. Prerequisite: Arabic 412K with a grade of at least C.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser. 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

320K. Third-Year Arabic I. Prerequisite: Arabic 412L.

320L. Third-Year Arabic II. Continuation of Arabic 320K. Prerequisite: Arabic 320K.

322. Introduction to Arabic Literature. Same as Islamic Studies 372 (Topic: Introduction to Arabic Literature). General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era. Prerequisite: Upper-division standing or consent of instructor.

322K. Levantine Arabic I. Three class hours a week for one semester. Arabic 413K and 322K may not both be counted. Prerequisite: Arabic 412L.

322L. Levantine Arabic II. Three class hours a week for one semester. Arabic 413L and 322L may not both be counted. Prerequisite: Arabic 322K.

324K. Qur’anic Arabic I. Three class hours a week for one semester. Arabic 414K and 324K may not both be counted. Prerequisite: Arabic 412L.

324L. Qur’anic Arabic II. Three class hours a week for one semester. Arabic 414L and 324L may not both be counted. Prerequisite: Arabic 324K.

325K. Egyptian Arabic I. Introduction to the Egyptian dialect of Arabic. Prerequisite: Arabic 412L.

325L. Egyptian Arabic II. Introduction to the Egyptian dialect of Arabic. Arabic 325L and 372 (Topic: Egyptian Arabic II) may not both be counted. Prerequisite: Arabic 325K.

MALAYALAM

See Department of Asian Studies, page 329.

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.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.
129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. **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 Center for Global Educational Opportunities. 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.

**330K. Fourth-Year Arabic I.** Prerequisite: Arabic 320L or the equivalent.

**330L. Fourth-Year Arabic II.** Prerequisite: Arabic 330K or the equivalent.

**360K. Arabic Literature in Translation.** Study of selected Arabic works in translation. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any bachelor's degree. **Prerequisite:** Upper-division standing or consent of instructor.

Topic 4: **Loyalty and Rebellion in Arabic Literature.** Same as Islamic Studies 372 (Topic 16: Loyalty and Rebellion in Arabic Literature).

Topic 5: **Memory and Identity in Ancient Arabia.** Same as Islamic Studies 372 (Topic 17: Memory and Identity in Ancient Arabia).


**360L. Topics in Arabic Literature.** Close textual study of prose or poetry in Arabic. Focus on themes, genres, periods, and artists. May be repeated for credit when the topics vary. **Prerequisite:** Arabic 320L or the equivalent, and Arabic 322 or 360K.

Topic 2: **Arab Women Poets.** Same as Islamic Studies 372 (Topic 14: Arab Women Poets).

Topic 3: **Politics of Court Literature.**

Topic 4: **Translating Arabic Texts.** Arabic 360L (Topic 4) and 380C (Topic 8: Translating Arabic Texts) may not both be counted.

**369. Conference Course in Arabic Language and Literature.** Supervised individual study of selected problems in Arabic language or literature. May be repeated for credit. **Prerequisite:** Nine semester hours of upper-division coursework in Arabic and consent of instructor.

**372. Topics in Arabic Culture.** Study of selected aspects of Arabic culture, such as calligraphy, architecture, archaeology, textiles, folklife, music, and folklore. Readings and lectures in English. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. May not be used to fulfill the language requirement for any bachelor's degree. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

**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**

**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 class hours a week for one semester. Hebrew 604 and 506 may not both be counted.

**507. First-Year Hebrew II.** Not open to native speakers of Hebrew. Continuation of Hebrew 506. Five class hours a week for one semester. Hebrew 604 and 507 may not both be counted. **Prerequisite:** Hebrew 506 with a grade of at least C.

**508. First-Year 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. Five lecture hours a week for one semester.

**509. First-Year Biblical Hebrew II.** Builds on material covered in Hebrew 508. 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 poetic, legal, and apocryphal 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. Five lecture hours a week for one semester. **Prerequisite:** Hebrew 508 with a grade of at least C.

**512K. Second-Year Hebrew I.** Not open to native speakers of Hebrew. Continuation of Hebrew 507 with expanded grammar and conversation. Hebrew 605 and 512K may not both be counted. **Prerequisite:** Hebrew 507 with a grade of at least C.

**512L. Second-Year Hebrew II.** Not open to native speakers of Hebrew. Continuation of Hebrew 512K with emphasis on conversation and composition. Hebrew 605 and 512L may not both be counted. **Prerequisite:** Hebrew 512K with a grade of at least C.

**513K. Second-Year Biblical Hebrew I.** Builds on material covered in Hebrew 508 and 509. A thorough study of biblical Hebrew grammar, with emphasis on nominal structures and complex sentence structures. Students are introduced to the historical development of biblical Hebrew phonology and to the commonly used reference works. Selected texts include large sections from Genesis, the Book of Judges, the Book of Job, and the Scroll of Ruth. **Prerequisite:** Hebrew 509 with a grade of at least C.

**513L. Second-Year Biblical Hebrew II.** Builds on material covered in Hebrew 513K. A study of biblical Hebrew, with an introduction to Mishnaic and Modern Hebrew. Focus on the historical development of the Hebrew language. The texts studied are taken from the Hebrew Bible and the Mishnah, and include poems from the Golden Age in Spain and Modern Hebrew poetry and prose. **Prerequisite:** Hebrew 513K with a grade of at least C.

**119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

321. Hebrew Grammar. Phonology, morphology, and syntax of Hebrew. Prerequisite: Upper-division standing, and Hebrew 312L or the equivalent; or consent of instructor.

322. Introduction to Hebrew Literature. Discussion of the forms, subjects, and ideals of Hebrew literature. All texts are in Hebrew. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and Hebrew 312L or the equivalent; or consent of instructor.

325. Advanced Conversation and Composition. Prerequisite: Upper-division standing, and Hebrew 312L or the equivalent; or consent of instructor.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

346. Topics in Hebrew Literature and Drama. The principal Hebrew prose and poetic works of the nineteenth and twentieth centuries; contemporary literature, 1948 to the present. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing, and Hebrew 312L or the equivalent; or consent of instructor.

349. Conference Course in Hebrew Language and Literature. Supervised individual study of selected problems in Hebrew language or literature. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in Hebrew and consent of instructor.

373. Hebrew Literature in Translation. Study of selected works of Hebrew literature in English translation. May be repeated for credit when the topics vary, but no more than six hours may be counted toward the major for the Bachelor of Arts with a major in Hebrew language and literature. May not be used to fulfill the foreign language requirement for any bachelor’s degree. Prerequisite: Upper-division standing or consent of instructor.

374. Hebrew Literature in Translation. Study of selected works of Hebrew literature in English translation. May be repeated for credit when the topics vary, but no more than six hours may be counted toward the major for the Bachelor of Arts with a major in Hebrew language and literature. May not be used to fulfill the foreign language requirement for any bachelor’s degree. Prerequisite: Upper-division standing or consent of instructor.

379H. 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 679HA, upper-division standing and admission to the Hebrew Language and Literature Honors Program; for 679HB, Hebrew 679HA with a grade of A.

ISLAMIC STUDIES: 1SL

Lower-Division Courses

310. Introduction to Islam. Same as History 306N (Topic 7: Introduction to Islam), Middle Eastern Studies 310 (Topic 1: Introduction to Islam), 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. Only one of the following may be counted: Islamic Studies 310, Middle Eastern Languages and Cultures 310, Religious Studies 311 (Topic 3: Introduction to Islam).

311. Topics in Islamic Studies. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Upper-Division Courses

340. Topics in Islam. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

341. Topics in Islam. Same as History 306N (Topic 7: Introduction to Islam), Middle Eastern Studies 310 (Topic 1: Introduction to Islam), 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. Only one of the following may be counted: History 306N (Topic 6: Prophet of Islam: His Life and Times), Islamic Studies 340 (Topic 1), Middle Eastern Languages and Cultures 340 (Topic 1: Prophet of Islam: His Life and Times), Religious Studies 340 (Topic 25: Prophet of Islam: His Life and Times). Prerequisite: Upper-division standing or consent of instructor.

342. Topics in Islam. Same as History 306N (Topic 7: Introduction to Islam), Middle Eastern Studies 310 (Topic 1: Introduction to Islam), 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. Only one of the following may be counted: History 306N (Topic 6: Prophet of Islam: His Life and Times), Islamic Studies 340 (Topic 1), Middle Eastern Languages and Cultures 340 (Topic 1: Prophet of Islam: His Life and Times), Religious Studies 340 (Topic 25: Prophet of Islam: His Life and Times). Prerequisite: Upper-division standing or consent of instructor.

343. Topics in Islamic Studies. Supervised individual study of selected problems in Islamic studies. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

344. Topics in Islamic Cultures. 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. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

369. Conference Course in Islamic Studies. Supervised individual study of selected problems in Islamic studies. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

371. Conference Course in Islamic Studies. Supervised individual study of selected problems in Islamic studies. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

372. Topics in Islamic Cultures. 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. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.
Topic 1: The Islamic Middle East in the Visual Arts. Same as Middle Eastern Studies 322K (Topic 16: The Islamic Middle East in the Visual Arts) and Religious Studies 358 (Topic 6: The Islamic Middle East in the Visual Arts). Only one of the following may be counted: Islamic Studies 372 (Topic 1), Middle Eastern Languages and Cultures 372 (Topic 12: The Islamic Middle East in the Visual Arts), Religious Studies 361 (Topic 32: The Islamic Middle East in the Visual Arts), 364 (Topic 1: The Islamic Middle East in the Visual Arts). Prerequisite: Upper-division standing or consent of instructor.

Topic 2: Veiling in the Muslim World. Same as Asian Studies 372 (Topic 14: Veiling in the Muslim World), Middle Eastern Studies 322K (Topic 17: 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: Islamic Studies 372 (Topic 2), Middle Eastern Languages and Cultures 372 (Topic 13: Veiling in the Muslim World), Religious Studies 363 (Topic 2: Veiling in the Muslim World), Women's Studies 340 (Topic 11: Veiling in the Muslim World). Prerequisite: Upper-division standing or consent of instructor.


Topic 10: Sufism: Islamic Mysticism and Spirituality. Same as Middle Eastern Studies 320 (Topic 16: Sufism: Islamic Mysticism and Spirituality), and Religious Studies 358 (Topic 4: Sufism: Islamic Mysticism and Spirituality). Muslim debates on Sufism; the historical development of Sufi beliefs regarding theology, religious laws, expression, and popular social practices. Only one of the following may be counted: Islamic Studies 372 (Topic 10), Middle Eastern Languages and Cultures 372 (Topic 24: Sufism: Islamic Mysticism and Spirituality), 372 (Topic: Sufism: History and Doctrines), Middle Eastern Studies 320 (Topic: Sufism: History and Doctrines), Religious Studies 361 (Topic: Sufism: History and Doctrines), 363 (Topic 1: Sufism: Islamic Mysticism and Spirituality). Prerequisite: Upper-division standing or consent of instructor.

Topic 11: Sacred and Ceremonial Textiles. Same as Anthropology 324L (Topic 29: Sacred and Ceremonial Textiles) and Middle Eastern Studies 322K (Topic 24: Sacred and Ceremonial Textiles). 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: Islamic Studies 372 (Topic 11), Middle Eastern Languages and Cultures 372 (Topic 25: Sacred and Ceremonial Textiles), Religious Studies 364 (Topic 7: Sacred and Ceremonial Textiles). Prerequisite: Upper-division standing or consent of instructor.

Topic 12: Muslim Women: Past and Present I. Same as Middle Eastern Studies 321K (Topic 9: Muslim Women: Past and Present I). Survey of the role of women in Islamic societies from the Middle Ages to the eighteenth century, with a glimpse into modern times. Islamic Studies 372 (Topic 12) and Middle Eastern Languages and Cultures 372 (Topic 26: Muslim Women: Past and Present I) may not both be counted. Prerequisite: Upper-division standing.

Topic 13: Muslim Women: Past and Present II. Same as Middle Eastern Studies 321K (Topic 10: Muslim Women: Past and Present II). Survey of the role of women in the modern Muslim world, with a glimpse into historical developments within Islamic societies. Islamic Studies 372 (Topic 13) and Middle Eastern Languages and Cultures 372 (Topic 27: Muslim Women: Past and Present II) may not both be counted. Prerequisite: Upper-division standing.

Topic 14: Arab Women Poets. Same as Arabic 360L (Topic 2: Arab Women Poets). Prerequisite: Arabic 320L or the equivalent, and Arabic 322 or 360K.

Topic 15: Introduction to Arabic Literature. Same as Arabic 322. General survey of major themes, genres, and artists in the Arabic literary tradition from the sixth century to the modern era. Prerequisite: Upper-division standing or consent of instructor.

Topic 16: Loyalty and Rebellion in Arabic Literature. Same as Arabic 360K (Topic 4: Loyalty and Rebellion in Arabic Literature). Prerequisite: Upper-division standing or consent of instructor.

Topic 17: Memory and Identity in Ancient Arabia. Same as Arabic 360K (Topic 5: Memory and Identity in Ancient Arabia). Prerequisite: Upper-division standing or consent of instructor.

Topic 18: The Arabian Nights. Same as Arabic 360K (Topic 6: The Arabian Nights). Prerequisite: Upper-division standing or consent of instructor.

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.
JEWISH STUDIES: JS

Lower-Division Courses

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 C.E. Emphasis on hermeneutics (interpretation).

311. Topics in Jewish Studies. May be repeated for credit when the topics vary.

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.

Upper-Division Courses

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.

Topic 5: Yiddish Drama and Film in Translation. Same as English 322 (Topic 5: Yiddish Drama and Film in Translation); Germanic Civilization 327E (Topic 8: Yiddish Drama and Film in Translation); Russian, East European, and Eurasian Studies 325 (Topic 8: Yiddish Drama and Film in Translation); and Slavic 324 (Topic 2: Yiddish Drama and Film in Translation). Jewish life in Poland and Russia before the Holocaust, and the transition to American Jewish life, as revealed in plays and films produced in Eastern Europe and in the United States. No knowledge of Yiddish is required. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

362. Independent Research in Jewish Studies. Tutorially directed research in Jewish studies. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

363. Topics in the Humanities and Arts. 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. Jewish Studies 361 and 363 may not both be counted unless the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Anne Frank and Beyond. Prerequisite: Upper-division standing or consent of instructor.

Topic 2: The Comic Novel in Three Traditions. Prerequisite: Upper-division standing or consent of instructor.

Topic 3: Film Adaptations of Israeli Literature. Prerequisite: Upper-division standing or consent of instructor.

Topic 4: Israeli and American Jewish Fiction. Prerequisite: Upper-division standing or consent of instructor.

Topic 5: Jerusalem in Israeli Literature and Cinema. Prerequisite: Upper-division standing or consent of instructor.

Topic 6: Key Yiddish Novels. Prerequisite: Upper-division standing or consent of instructor.

Topic 7: Love and the State in Contemporary Israeli Literature. Same as Hebrew 374 (Topic 9: Mizrahi Writing in Israel). Prerequisite: Upper-division standing, and Hebrew 312L or the equivalent; or consent of instructor.

Topic 8: Mizrahi Writing in Israel. Same as Hebrew 346 (Topic 9: Mizrahi Writing in Israel). Prerequisite: Upper-division standing, and Hebrew 312L or the equivalent; or consent of instructor.

Topic 9: Modern Jewish Prose and Poetry. Same as English 379M (Topic 5: Modern Jewish Prose and Poetry). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 10: The Sacred and the Secular in Contemporary Jewish Literature. Same as Hebrew 374 (Topic 11: The Sacred and the Secular in Contemporary Jewish Literature). Prerequisite: Upper-division standing or consent of instructor.

Topic 11: Women’s Narratives of the Holocaust and World War II. Prerequisite: Upper-division standing or consent of instructor.

Topic 12: Yiddish Literature. Prerequisite: Upper-division standing or consent of instructor.

Topic 13: Jewish-American-European Fiction: The Case of Roth, Roth, and Roth. Prerequisite: Upper-division standing or consent of instructor.

Topic 14: Jewish Prayer: The Siddur. Same as Middle Eastern Studies 320 (Topic 12: Jewish Prayer: The Siddur). The philosophical basis, nature, and historical development of Jewish prayer as it is reflected in the Jewish prayer book, the Siddur. Only one of the following may be counted: Jewish Studies 361 (Topic 1: Jewish Prayer: The Siddur), 363 (Topic 14), Middle Eastern Languages and Cultures 341 (Topic 13: Jewish Prayer: The Siddur), Religious Studies 354 (Topic 1: Jewish Prayer: The Siddur), 361 (Topic 29: Jewish Prayer: The Siddur). Prerequisite: Upper-division standing or consent of instructor.

Topic 15: Israeli Cinema and Television. Same as Middle Eastern Studies 325 (Topic 2: Israeli Cinema and Television). Israeli culture and society as expressed in films and television programs. Three lecture hours and one two-hour film screening a week for one semester. Only one of the following may be counted: Jewish Studies 361 (Topic 6: Israeli Cinema and Television), 363 (Topic 16), Middle Eastern Languages and Cultures 372 (Topic 15: Israeli Cinema and Television), Radio-Television-Film 345 (Topic 2: Israeli Cinema and Television). Prerequisite: Upper-division standing or consent of instructor.

Topic 17: Introduction to Israeli Literature. Same as Hebrew 374 (Topic 10: Introduction to Israeli Literature). Prerequisite: Upper-division standing or consent of instructor.

Topic 18: Jerusalem in Israeli Literature. Same as Hebrew 346 (Topic 8: Jerusalem in Israeli Literature). Prerequisite: Upper-division standing, and Hebrew 312L or the equivalent; or consent of instructor.

Topic 19: Anti-Semitism in History and Literature. Jewish Studies 361 (Topic 1: Anti-Semitism in History and Literature) and 364 (Topic 1) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

Topic 20: The Jewish Experience in the Greco-Roman World. Prerequisite: Upper-division standing or consent of instructor.
Topic 3: The Bible and History. Same as History 372P, Middle Eastern Studies 320 (Topic 3: The Bible and History), and 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: Jewish Studies 361 (Topic 3: The Bible and History), 364 (Topic 3), Middle Eastern Languages and Cultures 341 (Topic 1: The Bible and History), Religious Studies 361 (Topic 14: The Bible and History). Prerequisite: Upper-division standing or consent of instructor.

Topic 4: The Dead Sea Scrolls. Same as History 364G (Topic 3: The Dead Sea Scrolls), Middle Eastern Studies 320 (Topic 13: The Dead Sea Scrolls), and Religious Studies 353D. Only one of the following may be counted: History 366N (Topic 8: The Dead Sea Scrolls), Jewish Studies 361 (Topic 4: The Dead Sea Scrolls), 364 (Topic 4), Middle Eastern Languages and Cultures 341 (Topic 14: The Dead Sea Scrolls), Religious Studies 361 (Topic 31: The Dead Sea Scrolls).

365. Topics in the Social Sciences. 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.

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 370 (Topic: America and the Holocaust), History 350L (Topic: America and the Holocaust), 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.

Topic 2: Concepts in Judaic Culture. Prerequisite: Upper-division standing or consent of instructor.

Topic 3: Jewish Communities in the Middle East and North Africa. Prerequisite: Upper-division standing or consent of instructor.

Topic 4: Jewish Immigrant Culture in America. Prerequisite: Upper-division standing or consent of instructor.

Topic 5: Jewish Ethics. Prerequisite: Upper-division standing or consent of instructor.

Topic 6: Modern Israel. Same as Middle Eastern Studies 325 (Topic 1: Modern Israel). Only one of the following may be counted: Jewish Studies 361 (Topic 7: Modern Israel), 365 (Topic 6), Middle Eastern Languages and Cultures 341 (Topic 5: Modern Israel). Prerequisite: Upper-division standing or consent of instructor.

Topic 7: Rome and Jerusalem. Same as Ancient History and Classical Civilization 325 (Topic 3: Rome and Jerusalem), History 321G, Middle Eastern Studies 320 (Topic 2: 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: Jewish Studies 361 (Topic 2: Rome and Jerusalem), 365 (Topic 7), Middle Eastern Languages and Cultures 341 (Topic 7: Rome and Jerusalem), Religious Studies 361 (Topic 24: Rome and Jerusalem).

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. Prerequisite: Upper-division standing and consent of the Jewish studies adviser.

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. Prerequisite: For 679HA, admission to the Jewish Studies Honors Program; for 679HB, Jewish Studies 679HA.

MIDDLE EASTERN STUDIES: MES

Lower-Division Courses

301K. Introduction to the Middle East: Religious, Cultural, and Historical Foundations. Same as History 306K. A survey of the history and civilization of the Middle East from the sixth to the fourteenth century. Middle Eastern Languages and Cultures 312K and Middle Eastern Studies 301K may not both be counted.

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. Middle Eastern Languages and Cultures 312L and Middle Eastern Studies 301L may not both be counted.

310. Topics in Middle Eastern Studies. Studies of areas and issues in the Middle East and North Africa. May be repeated for credit when the topics vary.

Topic 1: Introduction to Islam. Same as History 306N (Topic 7: Introduction to Islam), 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. Only one of the following may be counted: Middle Eastern Languages and Cultures 310, Middle Eastern Studies 310 (Topic 1), Religious Studies 311 (Topic 3: Introduction to Islam).

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad advisor 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

320. Topics in the Ancient Middle East. Analysis of significant social and cultural events that shaped Western culture: domestication, cities, kinship, religion, writing, crafts (pottery, metallurgy), and the wheel. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 2: 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: Jewish Studies 361 (Topic 2: Rome and Jerusalem), Middle Eastern Languages and Cultures 341 (Topic 7: Rome and Jerusalem), Religious Studies 361 (Topic 24: Rome and Jerusalem). Prerequisite: Upper-division standing.
Topic 3: The Bible and History. Same as History 372P, Jewish Studies 364 (Topic 3: The Bible and History), and 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: Jewish Studies 361 (Topic 3: The Bible and History), Middle Eastern Languages and Cultures 341 (Topic 1: The Bible and History), Middle Eastern Studies 320 (Topic 3), Religious Studies 361 (Topic 14: The Bible and History). Prerequisite: Upper-division standing or consent of instructor.

Topic 4: Survey of Ancient Near Eastern Art. Same as Art History 325. The art of Mesopotamia, Anatolia, Syria, and Persia to the Islamic period. 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: Biblical Archaeology. Middle Eastern Languages and Cultures 341 (Topic 5: Biblical Archaeology) and Middle Eastern Studies 320 (Topic 5) may not both be counted.

Topic 6: Fundamentals of Palestinian Archaeology. Middle Eastern Languages and Cultures 341 (Topic 11: Fundamentals of Palestinian Archaeology) and Middle Eastern Studies 320 (Topic 6) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

Topic 7: History of the Middle East. Same as History 331F. Introduction to the Middle East from the origins of civilization to the rise of Islam. Prerequisite: Upper-division standing.

Topic 8: Art of Ancient Israel. Middle Eastern Languages and Cultures 341 (Topic 9: Material Culture of Ancient Israel) and Middle Eastern Studies 320 (Topic 5) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

Topic 10: Art of Ancient Israel and Phoenicia. Middle Eastern Languages and Cultures 341 (Topic 10: Art of Ancient Israel and Phoenicia) and Middle Eastern Studies 320 (Topic 10) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

Topic 12: Jewish Prayer: The Siddur. Same as Jewish Studies 363 (Topic 16: Jewish Prayer: The Siddur). The philosophical basis, nature, and historical development of Jewish prayer as it is reflected in the Jewish prayer book, the Siddur. Only one of the following may be counted: Jewish Studies 361 (Topic 1: Jewish Prayer: The Siddur), Middle Eastern Languages and Cultures 341 (Topic 13: Jewish Prayer: The Siddur), Middle Eastern Studies 320 (Topic 12), Religious Studies 354 (Topic 1: Jewish Prayer: The Siddur), 361 (Topic 29: Jewish Prayer: The Siddur). Prerequisite: Upper-division standing or consent of instructor.

Topic 13: The Dead Sea Scrolls. Same as History 364G (Topic 3: The Dead Sea Scrolls), Jewish Studies 364 (Topic 4: The Dead Sea Scrolls), and Religious Studies 353D. Only one of the following may be counted: History 366N (Topic 8: The Dead Sea Scrolls), Jewish Studies 361 (Topic 4: The Dead Sea Scrolls), Middle Eastern Languages and Cultures 341 (Topic 14: The Dead Sea Scrolls), Middle Eastern Studies 320 (Topic 13), Religious Studies 361 (Topic 31: The Dead Sea Scrolls). Prerequisite: Upper-division standing or consent of instructor.

Topic 14: The Qur'an. Same as Islamic Studies 340 (Topic 2: The Qur'an) and Religious Studies 325G. The history, language and style, and themes of the Qur'an. Middle Eastern Languages and Cultures 340 (Topic 3: The Qur'an) and Middle Eastern Studies 320 (Topic 14) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.


Topic 17: Introduction to World Literature. Same as English 379N (Topic 4: Introduction to World Literature). A multicultural look at major literary forms and concepts through the reading and analysis of classics of drama, lyric and narrative verse, shorter prose fiction, the essay, literary biography, the novel, and autobiography. Middle Eastern Languages and Cultures 320 (Topic 1: Introduction to World Literature) and Middle Eastern Studies 320 (Topic 17) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

321K. Topics in the Middle East from 600 to 1800. Detailed studies in the civilizations and the cultures of Middle Eastern peoples from the rise of Islam to modern times. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Concepts in Judaic Culture. Same as English 379N (Topic 3: Concepts in Judaic Culture). Only one of the following may be counted: Linguistics 373 (Topic 4: Concepts in Judaic Culture), Middle Eastern Languages and Cultures 341 (Topic 6: Concepts in Judaic Culture), Middle Eastern Studies 321K (Topic 1). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 2: History of the Arab World. Same as History 331J. A general survey of the origins and development of Arabic civilization. Prerequisite: Upper-division standing.

Topic 3: History of Iran to 1800. 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. Middle Eastern Studies 321K (Topic 3) and Religious Studies 361 (Topic 23: History of Iran to 1800) may not both be counted. Prerequisite: Upper-division 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. Middle Eastern Studies 321K (Topic 4) and Religious Studies 361 (Topic 13: Islamic Spain and North Africa to 1492) may not both be counted. Prerequisite: Upper-division standing.
322K. Topics in the Contemporary Middle East. Detailed studies of particular areas or issues in societies and cultures of the modern Middle East and North Africa. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.


Topic 3: Geography of the Middle East. Same as Geography 328. Major elements of physical and social environment in the region extending from Egypt to Afghanistan. Prerequisite: Upper-division standing.


Topic 7: The Politics of Oil. Same as Government 365P. The national and international political complexities of petroleum; relationship of trends in petroleum economics to international political alignments. Prerequisite: Six semester hours of lower-division coursework in government.

322K. Topics in the Contemporary Middle East. Detailed studies of particular areas or issues in societies and cultures of the modern Middle East and North Africa. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.


Topic 3: Geography of the Middle East. Same as Geography 328. Major elements of physical and social environment in the region extending from Egypt to Afghanistan. Prerequisite: Upper-division standing.


Topic 7: The Politics of Oil. Same as Government 365P. The national and international political complexities of petroleum; relationship of trends in petroleum economics to international political alignments. Prerequisite: Six semester hours of lower-division coursework in government.

Topic 8: Folklore, Gender, and the Middle East. Same as Anthropology 324L (Topic 11: Folklore, Gender, and the Middle East) and Women's and Gender Studies 340 (Topic 6: Folklore, Gender, and the Middle East). Prerequisite: Upper-division standing.

Topic 9: Persian Literature, Past and Present. Same as Persian 361 (Topic 2: Persian Literature, Past and Present). Prerequisite: Upper-division standing or consent of instructor.

Topic 10: Imperialism and Nationalism in the Middle East. Same as History 331M. An interpretative analysis of European imperialism in the Middle East; the origin and the rise of nationalism in the Arab world, Turkey, Iran, and Israel. Prerequisite: Upper-division standing.


Topic 14: Development Communication. Same as Radio-Television-Film 342 (Topic 6: Development Communication). Asian Studies 361 (Topic 17: Development Communication) and Middle Eastern Studies 322K (Topic 14) may not both be counted. Prerequisite: For radio-television-film 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 lower-division coursework in radio-television film; for others, upper-division standing and consent of instructor.

Topic 15: Geography and Religion. Same as Geography 358E and 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. Geography 356T (Topic: Geography and Religion) and Middle Eastern Studies 322K (Topic 15) may not both be counted. Prerequisite: Upper-division standing.

Topic 16: The Islamic Middle East in the Visual Arts. Same as Islamic Studies 372 (Topic 1: The Islamic Middle East in the Visual Arts) and Religious Studies 358 (Topic 6: The Islamic Middle East in the Visual Arts). Only one of the following may be counted: Middle Eastern Languages and Cultures 372 (Topic 12: The Islamic Middle East in the Visual Arts), Middle Eastern Studies 322K (Topic 16), Religious Studies 361 (Topic 32: The Islamic Middle East in the Visual Arts), 364 (Topic 1: The Islamic Middle East in the Visual Arts). Prerequisite: Upper-division standing.

Topic 17: 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), 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: Middle Eastern Languages and Cultures 372 (Topic 13: Veiling in the Muslim World), Middle Eastern Studies 322K (Topic 17), Religious Studies 363 (Topic 2: Veiling in the Muslim World), Women's Studies 340 (Topic 11: Veiling in the Muslim World). Prerequisite: Upper-division standing or consent of instructor.
Topic 18: Popular Iranian Rituals and Traditions. Same as Asian Studies 361 (Topic 18: Popular Iranian Rituals and Traditions), Islamic Studies 372 (Topic 3: Popular Iranian Rituals and Traditions), and Religious Studies 358 (Topic 7: Popular Iranian Rituals and Traditions). Adoption of old Persian cultural heritage into Islamic practices, past and present. Only one of the following may be counted: Middle Eastern Languages and Cultures 372 (Topic 14: Popular Iranian Rituals and Traditions), Middle Eastern Studies 322K (Topic 18), Religious Studies 361 (Topic 33: Popular Iranian Rituals and Traditions), 364 (Topic 2: Popular Iranian Rituals and Traditions). Prerequisite: Upper-division standing or consent of instructor.

Topic 19: Middle Eastern Magic, Religion, and Folklore. Same as Anthropology 325L (Topic 10: Middle Eastern Magic, Religion, and Folklore) and English 325L. (Topic 10: Middle Eastern Magic, Religion, and Folklore), Middle Eastern Languages and Cultures 372 (Topic 16: Middle Eastern Magic, Religion, and Folklore) and Middle Eastern Studies 322K (Topic 19) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.


Topic 24: Sacred and Ceremonial Textiles. Same as Anthropology 324L (Topic 29: Sacred and Ceremonial Textiles) and Islamic Studies 372 (Topic 11: Sacred and Ceremonial Textiles). 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: Middle Eastern Languages and Cultures 372 (Topic 25: Sacred and Ceremonial Textiles) Middle Eastern Studies 322K (Topic 24), Religious Studies 364 (Topic 7: Sacred and Ceremonial Textiles). Prerequisite: Upper-division standing or consent of instructor.


Topic 26: Self-Revelation in Women’s Writing. Same as African and African American Studies 374 (Topic 26: Self-Revelation in Women’s Writing), Comparative Literature 323 (Topic 4: Self-Revelation in Women’s Writing), English 376L. (Topic 9: Self-Revelation in Women’s Writing), and Women’s and Gender Studies 340 (Topic 14: Self-Revelation in Women’s Writing). Middle Eastern Languages and Cultures 374 (Topic 3: Self-Revelation in Women’s Writing) and Middle Eastern Studies 322K (Topic 26) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

323K. Topics in the Modern Arab World. Aspects of contemporary Arab societies and their cultural heritage. 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.

Topic 1: 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. Prerequisite: Upper-division standing.

Topic 3: Arab Cinema. Three lecture hours and one two-hour film screening a week for one semester. Middle Eastern Languages and Cultures 372 (Topic 17: Arab Cinema) and Middle Eastern Studies 323K (Topic 3) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

323L. 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. Prerequisite: Upper-division standing.

324K. Topics in Iran: Culture and Society. Aspects of contemporary Iranian society and culture. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Iranian Women Writers. Same as Persian 361 (Topic 3: Iranian Women Writers) and Women’s and Gender Studies 340 (Topic 10: Iranian Women Writers). Prerequisite: Upper-division standing or consent of instructor.

Topic 2: Iranian Literature in Exile. Same as Persian 361 (Topic 4: Iranian Literature in Exile), Middle Eastern Studies 324K (Topic 2) and Persian 329 (Topic: Iranian Literature in Exile) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

Topic 3: Images of the West and Westerners in Persian Fiction. Same as Persian 361 (Topic 1: Images of the West and Westerners in Persian Fiction). Prerequisite: Upper-division standing or consent of instructor.

Topic 4: Iranian Film and Fiction. Same as Persian 361 (Topic 5: Iranian Film and Fiction). Middle Eastern Studies 324K (Topic 4) and 381 (Topic 7: Iranian Film and Fiction) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

325. Topics in Modern Israel. Aspects of contemporary Israeli society and its cultural heritage. 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.
Topic 1: Modern Israel. Same as Jewish Studies 365 (Topic 6: Modern Israel). Only one of the following may be counted: Jewish Studies 361 (Topic 7: Modern Israel), Middle Eastern Languages and Cultures 341 (Topic 5: Modern Israel), Middle Eastern Studies 325 (Topic 1). Prerequisite: Upper-division standing or consent of instructor.

Topic 2: Israeli Cinema and Television. Same as Jewish Studies 363 (Topic 16: Israeli Cinema and Television). Three lecture hours and one-two-hour film screening a week for one semester. Only one of the following may be counted: Jewish Studies 361 (Topic 6: Israeli Cinema and Television), Middle Eastern Languages and Cultures 372 (Topic 15: Israeli Cinema and Television), Middle Eastern Studies 325 (Topic 2), Radio-Television-Film 345 (Topic 2: Israeli Cinema and Television). Prerequisite: Upper-division standing or consent of instructor.

326. Topics in Modern Turkey. Aspects of contemporary Turkish society and its cultural heritage. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Shamanism in Central Asia, Same as Anthropology 324L (Topic 30: Shamanism in Central Asia); Religious Studies 342 (Topic 1: Shamanism in Central Asia); and Russian, East European, and Eurasian Studies 345 (Topic 3: Shamanism in Central Asia). Only one of the following may be counted: Middle Eastern Languages and Cultures 340 (Topic 4: Shamanism in Central Asia), Middle Eastern Studies 326 (Topic 1), Religious Studies 352 (Topic 1: Shamanism in Central Asia), 361 (Topic: Shamanism in Central Asia). Prerequisite: Upper-division standing or consent of instructor.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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. Prerequisite: Upper-division standing.

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. Middle Eastern Languages and Cultures 372 (Topic 11: Music Cultures of the Middle East, Past and Present) and Middle Eastern Studies 334C may not both be counted. Prerequisite: Upper-division standing.

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. 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.

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.

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.

360. Conference Course. Supervised individual research, discussion, and writing of papers about various general and specialized Middle Eastern subjects. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

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.

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

506. First-Year Persian I. Elementary colloquial Persian. Five class hours a week for one semester.

507. First-Year Persian II. Continuation of Persian 506. Elementary literary Persian. Five class hours a week for one semester. Prerequisite: Persian 506 with a grade of at least C.

312K. Second-Year Persian I. Intermediate Persian reading. Three class hours a week for one semester. Prerequisite: Persian 507 with a grade of at least C.

312L. Second-Year Persian II. Continuation of Persian 312K. Intermediate Persian composition and reading. Three class hours a week for one semester. Prerequisite: Persian 312K with a grade of at least C.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

329. Topics in Persian Language and Literature. Study of various aspects of Persian linguistics and literature. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing or consent of instructor.

Topic 1: Ferdowsi's Shāhnāmeh.

Topic 2: Šấdī’s Golestan.

Topic 3: Hâfīz’s Ghazals.

Topic 4: Sadeq Hedayat and Twentieth-Century Persian Fiction.

Topic 5: Forugh Farrokhzad and Modernist Persian Poetry.

Topic 6: Persian Prose Nonfiction.
129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. **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 Center for Global Educational Opportunities. 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.

361. **Topics in Persian Literature in Translation.** Conducted in English. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any bachelor's degree. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

- Topic 1: *Images of the West and Westerners in Persian Fiction. Same as Middle Eastern Studies 324K (Topic 3: Images of the West and Westerners in Persian Fiction). Prerequisite:* Upper-division standing or consent of instructor.
- Topic 2: *Persian Literature, Past and Present. Same as Middle Eastern Studies 322K (Topic 9: Persian Literature, Past and Present). Prerequisite:* Upper-division standing or consent of instructor.
- Topic 3: *Iranian Women Writers. Same as Middle Eastern Studies 324K (Topic 1: Iranian Women Writers) and Women's and Gender Studies 340 (Topic 10: Iranian Woman Writers). Prerequisite:* Upper-division standing or consent of instructor.
- Topic 5: *Iranian Film and Fiction. Same as Middle Eastern Studies 324K (Topic 4: Iranian Film and Fiction). Persian 361 (Topic 5) and 384C (Topic 10: Iranian Film and Fiction) may not both be counted. Prerequisite:* Upper-division standing or consent of instructor.

369. **Conference Course in Persian Language and Literature.** Supervised individual study of selected problems in Persian language or literature. May be repeated for credit. **Prerequisite:** Nine semester hours of upper-division coursework in Persian and consent of instructor.

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**

506. **First-Year Turkish I.** Modern Standard Turkish. Five class hours a week for one semester.

507. **First-Year Turkish II.** Modern Standard Turkish. Continuation of Turkish 506. Five class hours a week for one semester. **Prerequisite:** Turkish 506 with a grade of at least C.

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 class hours a week for one semester. **Prerequisite:** Turkish 507 with a grade of at least C.

412L. **Second-Year Turkish II.** Continuation of Turkish 412K. Four class hours a week for one semester. **Prerequisite:** Turkish 412K with a grade of at least C.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. **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 Center for Global Educational Opportunities. 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**

320K. **Third-Year Turkish I.** Intermediate to high-level Turkish in four basic language skills: speaking, listening, reading, and writing. Turkish culture. Three class hours a week for one semester. **Prerequisite:** Turkish 412L or the equivalent.

320L. **Third-Year Turkish II.** Continuation of Turkish 320K. Three class hours a week for one semester. **Prerequisite:** Turkish 320K or the equivalent.

329. **Topics in Turkish Language and Literature.** May be repeated for credit when the topics vary. **Prerequisite:** Upper-division standing or consent of instructor.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. **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 Center for Global Educational Opportunities. 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.

361. **Topics in Turkish Literature in Translation.** May be repeated for credit when the topics vary. May not be counted toward the foreign language requirement for any bachelor's degree. **Prerequisite:** Upper-division standing or consent of instructor.

369. **Conference Course in Turkish Language and Literature.** Supervised individual study of selected problems in Turkish language or literature. May be repeated for credit. **Prerequisite:** Nine semester hours of upper-division coursework in Turkish and consent of instructor.

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 Turkish Language and Literature Honors Program; for 679HB, Turkish 679HA.

372. **Topics in Turkish Culture.** Examines cultural issues in Turkey, among Turkic people of Central Asia, and Turkish immigrants throughout the world. May be repeated for credit when the topics vary. No more than six hours may be counted toward the major in Turkish language and literature. **Prerequisite:** Upper-division standing.
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 sciences: Philosophy 313K, 344K, 358, 363, and 363L.
Law: Philosophy 311, 312, 313, 318, 325K, 342, and 347.
Literature: Philosophy 346, 348, 349, 356, 361K, and 366K; and, for American literature, Philosophy 351 and 352.
Natural sciences: Philosophy 322, 363, and 363L.
Premedicine and predentistry: Philosophy 312, 318, 322, 325M, and 363.
Social sciences: Philosophy 311K, 322, 363, and 363L.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

PHILOSOPHY: PHIL

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 on pages 658–662.

Lower-Division Courses

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.

301K. Ancient Philosophy. 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 laboratory/discussion hour a week for one semester.

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.

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.

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.

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.

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.

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.

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. Philosophy 305 and Religious Studies 311 (Topic 2: Introduction to the Philosophy of Religion) may not both be counted.

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.

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.
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 evaluation. 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 610Q and 318 may not both be counted. Prerequisite: For 610QA, admission to the Plan II Honors Program; for 610QB, Philosophy 610QA.

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.

311K. Games and Decisions. Introduction to the theories of games and rational decision, with applications to ethical, social, and political issues. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

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.

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 a semester. Only one of the following may be counted: Computer Sciences 313H, 313K, Philosophy 313, 313K, 313Q.

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 Sciences 313H, 313K, Philosophy 313, 313K, 313Q. Prerequisite: Three years of high school mathematics.

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 Sciences 313H, 313K, Philosophy 313, 313K, 313Q. Prerequisite: Three years of high school mathematics.

314. Introduction to Inductive Logic and Scientific Reasoning. The principles and methods of reasoning involved in the sciences and in the acquisition of knowledge; induction, confirmation, explanation, laws, and theories. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

316K. Science and Philosophy. Introduction to scientific method, including discussion of the nature and goals of science. May not be counted by students with credit for Philosophy 363.

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.

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.

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.

319K. Introduction to the Philosophy of Education. Same as Curriculum and Instruction 350 (Topic 1: Introduction to the Philosophy of Education). Introduction to some main philosophical theories of education, such as those of Plato, Rousseau, and Dewey; topics include learning, teaching, freedom, equality, and reason.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

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. Prerequisite: Six semester hours of coursework in philosophy.

322. Science and the Modern World. The historical development and impact of scientific ideas through the modern period to the present. May be used to fulfill the Area C requirement for the Bachelor of Arts, Plan I, only if preceded by six semester hours of coursework in biological or physical science.

322K. History of Ethics. Survey of ethical theories from ancient times through the nineteenth century.

323K. Metaphysics. Problems of substance, change, categories of being, mind, body, space and time, approached either systematically or historically. Prerequisite: Six semester hours of coursework in philosophy.

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. Prerequisite: Six semester hours of coursework in philosophy or psychology.

325C. Environmental Ethics. Moral issues concerning the relation of human beings to the environment, including biodiversity, resource depletion, and animal rights. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester.

325K. Ethical Theories. Major traditional and contemporary ethical theories discussed and critically examined. Prerequisite: Six semester hours of coursework in philosophy.
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.

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.

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 a semester. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

328. Nineteenth-Century Philosophy. Major figures in nineteenth-century European philosophy, including Hegel, Schopenhauer, Nietzsche, and Mill. Prerequisite: Three semester hours of coursework in philosophy.

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. Classical Civilization 342 (Topic: History of Ancient Philosophy) and Philosophy 329K may not both be counted. Prerequisite: Six semester hours of coursework in philosophy.

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.

329M. Philosophical Classics. Intensive study of one or two important philosophers or philosophical works from the eighteenth century or earlier. 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.

Topic 2: Indian Philosophies. Same as Asian Studies 372 (Topic 2: Indian Philosophies) and Religious Studies 341 (Topic 1: Indian Philosophies). Philosophy 348 (Topic 2) and Religious Studies 361 (Topic 6: Indian Philosophies) may not both be counted.

330K. Ancient Philosophy after Aristotle. Same as Classical Civilization 330K. Epicureans, Stoics, Skeptics, Plotinus and the Neoplatonist tradition. Three class hours a week for one semester. Prerequisite: Six semester hours of coursework in philosophy.

332. Philosophy of Language. Contemporary theories of meaning and linguistic structure, and their relationships to epistemology, metaphysics, and ethics. Prerequisite: Six semester hours of coursework in philosophy.

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.

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.

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 Löwenheim-Skolem theorems), and further topics in logic. Prerequisite: Philosophy 313, 313K, or 313Q.

344M. Philosophy of Mathematics. Philosophical issues concerning mathematics and its foundations, such as the correlation of mathematics to logic, mathematical truth, and mathematical knowledge. May be used to fulfill the Area C requirement for the Bachelor of Arts, Plan I, only if preceded by six semester hours of coursework in mathematics.

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. May be repeated for credit when the topics vary.

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.

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 2: Indian Philosophies. Same as Asian Studies 372 (Topic 2: Indian Philosophies) and Religious Studies 341 (Topic 1: Indian Philosophies). Philosophy 348 (Topic 2) and Religious Studies 361 (Topic 6: Indian Philosophies) may not both be counted.

349. History of Medieval and Renaissance Philosophy. Philosophical thought from Augustine through Cusanus and Vico, with emphasis on its cultural bearing. Prerequisite: Three semester hours of coursework in philosophy.
351. American Philosophy: Puritans through Transcendentalists. Same as American Studies 327 (Topic 2: American Philosophy: Puritans through Transcendentalists). Main currents of American thought in its first two centuries, with readings in Edwards, Adams, Jefferson, Emerson, and others. Only one of the following may be counted: Philosophy 351, Religious Studies 346 (Topic 1: American Philosophy: Puritans through Transcendentalists), 361 (Topic 1: American Philosophy: Puritans through Transcendentalists). Prerequisite: Three semester hours of coursework in philosophy.

352. American Philosophy: The Pragmatist Movement. Same as American Studies 327 (Topic 3: American Philosophy: The Pragmatist Movement). Late nineteenth century to the present, with emphasis on Peirce, James, and Dewey. Prerequisite: Three semester hours of coursework in philosophy.

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. May be repeated for credit when the topics vary.

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.

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. Prerequisite: Philosophy 313, 313K, or 313Q.

361K. Philosophy in Literature. Formulation, analysis, and criticism of philosophical ideas in selected literary works.

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. May be used to fulfill the Area C requirement for the Bachelor of Arts, Plan I, degree only if preceded by six semester hours of coursework in biological or physical science. May be counted as psychology if preceded by six semester hours of upper-division coursework in psychology.

363L. Philosophy of Science. Past topics include philosophy of biology; scientific hypotheses and evidence; philosophical consequences of quantum mechanics. May be repeated for credit when the topics vary. May be used to fulfill the Area C requirement for the Bachelor of Arts, Plan I, degree only if preceded by six semester hours of coursework in biological or physical science.

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 1: Freudsians and Feminisms. Same as Germanic Civilization 362E (Topic 1: Freudsians and Feminisms) and Women's and Gender Studies 345 (Topic 10: Freudsians and Feminisms). Only one of the following may be counted: English 322 (Topic 4: Freudsians and Feminisms), Philosophy 365 (Topic 1), Women's Studies 345 (Topic 10: Freudsians and Feminisms). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.


Topic 3: Cultural Politics of Kant and Hegel. Same as Germanic Civilization 360E (Topic 2: Cultural Politics of Kant and Hegel), English 322 (Topic 5: Cultural Politics of Kant and Hegel) and Philosophy 365 (Topic 3) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 4: Contemporary European Social Theory. Same as Government 335M (Topic 8: Contemporary European Social Theory) and Sociology 352M (Topic 7: Contemporary European Social Theory). Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

Topic 5: Contemporary American Social Theory. Same as Government 335M (Topic 9: Contemporary American Social Theory) and Sociology 352M (Topic 8: Contemporary American Social Theory). Government 335M (Topic: Social Theory) and Philosophy 365 (Topic 5) may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

366K. Existentialism. Same as Religious Studies 356E. 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 361 (Topic: Existentialism) may not both be counted.

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.

375M. Major Seminar. May be repeated for credit when the topics vary. Prerequisite: Nine semester hours of coursework in philosophy.

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.

379K. Conference Course. Intensive tutorial study of selected problems in philosophy. 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

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

SOCIAL SCIENCE: S S

Lower-Division Course

301. Honors Social Science. An introduction to the study of the individual, society, or culture using the methods of one of the social sciences. With consent of the director of Plan II, may be repeated once for elective credit. Prerequisite: Admission to the Plan II Honors Program.

TUTORIAL COURSE: T C

Lower-Division Courses

301. The Freshman Tutorial. Small-group seminar for first-year students, involving reading, discussion, writing, and oral reporting around a central topic, usually interdisciplinary. Several sections are offered each semester, with various topics and instructors. May be repeated once with a different topic for elective credit. Prerequisite: Admission to the Plan II Honors Program.

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, 316K, Tutorial Course 603B. Prerequisite: For 603A, admission to the Plan II Honors Program; for 603B, Tutorial Course 603A.

310. Modes of Reasoning. Introduction to forms of quantitative reasoning: computer science, game theory, operations research, or statistics and probability. Philosophy 313Q and Tutorial Course 310 may not both be counted. Prerequisite: Admission to the Plan II Honors Program.

Upper-Division Courses

325. Topics in the Arts and Sciences. Analysis of various topics within the arts and sciences through reading, research, written reports, and discussion. With consent of the director of Plan II, may be repeated for credit. Prerequisite: Upper-division standing in Plan II.

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. May be repeated for credit. Some topics are offered on the pass/fail basis only; these are identified in the Course Schedule. Prerequisite: Upper-division standing in Plan II.

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. 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.

359T. Essay Course. Directed reading followed by the writing of an essay. Conference course. Prerequisite: Two semesters of Tutorial Course 357 and consent of the director.

660H. Thesis Course. Directed reading followed by the writing of a substantial essay. Conference course for two semesters. Prerequisite: For 660HA, two semesters of Tutorial Course 357 and consent of the director; for 660HB, Tutorial Course 660HA.

365. Conference Course. Directed reading and writing on an interdisciplinary topic. May be repeated for credit. Prerequisite: Upper-division standing in Plan II and consent of instructor and the director of Plan II.

165K. Conference Course. May be repeated for credit. Prerequisite: Upper-division standing in Plan II and consent of the director of Plan II.

POLISH

See Department of Slavic and Eurasian Studies, page 427.

PORTUGUESE

See Department of Spanish and Portuguese, page 434.

PORTUGUESE CIVILIZATION

See Department of Spanish and Portuguese, page 434.

DEPARTMENT OF PSYCHOLOGY

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

PSYCHOLOGY: PSY

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 on pages 658–662.

Lower-Division Courses

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. Prerequisite: A passing score on the reading section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

304 (TCCN: PSYC 2308). Introduction to Child Psychology. General introduction to physical, social, and cognitive development from conception onward. Psychology 304 and 333D may not both be counted. Prerequisite: Psychology 301 with a grade of at least C.

305. Introduction to Cognitive Psychology. Introduction to the study of how people perceive, act, communicate, and reason. Prerequisite: Psychology 301 with a grade of at least C.

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. Prerequisite: Psychology 301 with a grade of at least C.

309 (TCCN: PSYC 2316). Personality. Research and theory concerning personality structure, dynamics, development, and assessment. Prerequisite: Psychology 301 with a grade of at least C.

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. Prerequisite: Psychology 301 with a grade of at least C.
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, a major in psychology, and credit for one of the following: Mathematics 302, 303D, 305G, 408C, 408D, 408K (or 308K), 408L (or 308L), 408M (or 308M), 316.


119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

323. Perception. Theory and research in the ways we extract information from the environment. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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. Psychology 323P and 341K (Topic: Perceptual Systems: Neurons/Behavior/Evolution) may not both be counted. Prerequisite: For psychology majors, Psychology 301 and 418 with a grade of at least C in each; for nonmajors, 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

326K. Principles of Conditioning and Learning. Laws of animal and human learning, and the underlying mechanisms. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

329S, 339S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309. Psychology 308 or six semester hours of coursework in biology is strongly recommended.

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. Psychology 332C and 341K (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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.
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. Psychology 333C and 341K (Topic: Controversial Issues in Development) may not both be counted. Prerequisite: For psychology majors, Psychology 301 and 418 with a grade of at least C in each; for nonmajors, 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

333D. Introduction to Developmental Psychology. Physical, social, and cognitive development in humans. Psychology 304 and 333D may not both be counted. Only one of the following may be counted: Psychology 333D, Women's and Gender Studies 345 (Topic: 6: Introduction to Developmental Psychology), Women's Studies 345 (Topic 6: Introduction to Developmental Psychology). Prerequisite: For psychology majors, upper-division standing and Psychology 301 and 418 with a grade of at least C in each; for nonmajors, 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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. Psychology 333E and 341K (Topic: Identity Formation) may not both be counted. Prerequisite: For psychology majors, Psychology 301 and 418 with a grade of at least C in each; for nonmajors, 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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. Psychology 333F and 341K (Topic: Fantasy and Reality) may not both be counted. Prerequisite: For psychology majors, Psychology 301 and 418 with a grade of at least C in each; for nonmajors, 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

333G. Social Development in Children. Development of social behavior (for example, sex typing and aggression) and social relationships. Only one of the following may be counted: Psychology 333G, Women's and Gender Studies 345 (Topic 19: Social Development in Children), Women's Studies 345 (Topic 19: Social Development in Children). Prerequisite: For psychology majors, upper-division standing, Psychology 301 and 418 with a grade of at least C in each, and Psychology 304 or 333D; for nonmajors, upper-division standing, Psychology 301 with a grade of at least C, Psychology 304 or 333D, and one of the following with a grade of at least C: Biology 318M, Civil Engineering 311S, Economics 329, Educational Psychology 371, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

333H. Adolescent Development. Physical, cognitive, social, and personality development during adolescence. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

333I. Family Violence. Examination of the forms of family violence, the effects of violence on children's development, and the causes of and solutions to this problem. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.
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. Psychology 333W and 341K (Topic: Moral Development) may not both be counted. Prerequisite: For psychology majors, Psychology 301 and 418 with a grade of at least C in each; for nonmajors, 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

334E. Evolutionary Psychology. Fundamentals of evolutionary psychology, including issues of natural and sexual selection, adaptation, and domain-specific psychological mechanisms. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

338K. Psychology of Reading. Theory and research on the reading process and its acquisition. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

339. Behavior Problems of Children. Adjustment difficulties during childhood and adolescence; causation and treatment. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

340M. Industrial Psychology. A general introduction to organizational behavior and issues in industrial/organizational psychology. Topics include organizational structure, selection and placement, leadership, job satisfaction, training, and change. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

341K. Selected Topics in Psychology. Topics of contemporary interest that may vary from semester to 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309. Additional prerequisites vary with the topic and are given in the Course Schedule.

Topic 4: Health Psychology.
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 341K (Topic 15) and 341K (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.
Topic 43K. Substance Abuse. Causes of substance abuse: the evolutionary perspective, sex differences, predisposition, biological and cognitive theories; emphasis on food and alcohol. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.
345. Individual Differences. Study of genetic and environmental sources of human variability in intelligence, personality, interests. **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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

346K. Psychology of Sex. Development of sex from genes to human behavior. **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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

350. Motivation. Theory and research on motivation; biological and social determinants. **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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

352. Abnormal Psychology. Biological and social factors in the development and treatment of psychopathology. **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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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. **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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

355. Cognition. Theoretical and critical analysis of the development, nature, and function of the thought process. **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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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. Psychology 341K (Topic: Animal Cognition) and 355D may not both be counted. **Prerequisite:** For psychology majors, Psychology 301 and 418 with a grade of at least C in each; for nonmajors, 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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. Psychology 341K (Topic: Reasoning and Decision Making) and 355R may not both be counted. **Prerequisite:** For psychology majors, Psychology 301 and 418 with a grade of at least C in each; for nonmajors, 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

357. Undergraduate Research. Supervised research experience. Individual instruction. May be repeated for credit. Offered on the pass/fail basis only. May not be counted toward a major in psychology. **Prerequisite:** At least thirty semester hours of college coursework, Psychology 301 with a grade of at least C, and consent of instructor.

458. Experimental Psychology. For psychology majors planning graduate work in the behavioral sciences. 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, a major in psychology, Psychology 301 and 418 with a grade of at least C in each, and a grade point average of at least 3.00 in psychology courses taken at the University.

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.

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 be repeated for credit. Offered on the pass/fail basis only. May not be counted toward a major in psychology. **Prerequisite:** Upper-division standing, Psychology 301 with a grade of at least C, and consent of instructor.

359H. Honors Research 1. **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.
364. Introduction to Clinical Psychology. Introduction to techniques of assessment and treatment of psychopathology. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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. Psychology 341K (Topic: Gender and Racial Attitudes) and 365G may not both be counted. Prerequisite: For psychology majors, Psychology 301 and 418 with a grade of at least C in each; for nonmajors, 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

365M. Cross-Cultural Psychology. Impact of national culture on social-psychological processes and on the ways people function in multicultural organizations. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

371. Learning Theories and Applications. Analysis of theory and research in learning. 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, Government 350K, Kinesiology 373, Mathematics 316, Psychology 317, Sociology 317L, Social Work 318, Statistics 309.

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 be repeated for credit. Offered on the pass/fail basis only. May not be counted toward a major in psychology. Prerequisite: Upper-division standing and consent of the practicum supervisor.

379H. Honors Research II. Two lecture hours and two laboratory 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.

RELIGIOUS STUDIES

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

RELIGIOUS STUDIES: R S

Lower-Division Courses

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. Only one of the following may be counted: History 306N (Topic 1: History of the Religions of Asia), Religious Studies 302, 311 (Topic 1: History of the Religions of Asia).


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. Religious Studies 305 and 311 (Topic 2: Introduction to the Philosophy of Religion) may not both be counted.

310. Introduction to the Study of Religion. Same as Asian Studies 301M (Topic 5: Introduction to the Study of Religion) and Sociology 313K. Introduction to scholarly methods in the study of religion.

312. Topics in the Religions of Asia. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

313. Topics in Judaism. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

314. Topics in Islam. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

315. Topics in Christian History. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

316K. Topics in Religions of the Americas. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

317. Topics in the Religions of Africa. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

318. The Rise of Christianity. Same as Classical Civilization 318. Introduction to the origins and development of Christianity. Classical Civilization 304C (Topic: The Rise of Christianity) and Religious Studies 318 may not both be counted.

319. Introduction to Islam. Same as History 306N (Topic 7: Introduction to Islam), Islamic Studies 310, and Middle Eastern Studies 310 (Topic 1: Introduction to Islam). The beliefs, theology, history, and main social and legal institutions of Islam, including the concept of God and society, the role of women, and Islamic government and movements. Only one of the following may be counted: Middle Eastern Languages and Cultures 310, Religious Studies 311 (Topic 3: Introduction to Islam), 319.
119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. **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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser for 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**


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. Only one of the following may be counted: History 366N (Topic 9: History of Indian Buddhism), Religious Studies 322, 361 (Topic 34: History of Indian Buddhism). **Prerequisite:** Upper-division standing or consent of instructor.

325. **Prophet of Islam: His Life and Times.** Same as History 364G (Topic 2: Prophet of Islam: His Life and Times), Islamic Studies 340 (Topic 1: Prophet of Islam: His Life and Times), and Middle Eastern Studies 321K (Topic 6: 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. Only one of the following may be counted: History 366N (Topic 6: Prophet of Islam: His Life and Times), Middle Eastern Languages and Cultures 340 (Topic 2: Prophet of Islam: His Life and Times), Religious Studies 325, 361 (Topic 25: Prophet of Islam: His Life and Times). **Prerequisite:** Upper-division standing or consent of instructor.

325G. **The Qur’an.** Same as Islamic Studies 340 (Topic 2: The Qur’an) and Middle Eastern Studies 320 (Topic 14: The Qur’an). The history, language and style, and themes of the Qur’an. Middle Eastern Languages and Cultures 340 (Topic 3: The Qur’an) and Religious Studies 325G may not both be counted. **Prerequisite:** Upper-division standing or consent of instructor.

326. **History of Religion in America since 1800.** Same as History 351P. Survey of religious thought and institutions from the Second Great Awakening to the present; emphasis given to Protestantism challenged by science, industrialism, immigration, urbanism, religious heterogeneity, and indifference, and to revivalism, reform, and the social gospel. Religious Studies 326 and 361 (Topic 12: History of Religion in America since 1800) may not both be counted. Partially fulfills legislative requirement for American history. **Prerequisite:** Upper-division standing.

327. **The History of Religion in America to 1800.** Same as History 351N. Survey of religious thought, practices, and institutions in the colonies and early republic. Partially fulfills legislative requirement for American history. **Prerequisite:** Upper-division standing.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. **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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser for 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.

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. **Prerequisite:** Upper-division standing or consent of instructor.

337. **Religion and Society.** Same as Sociology 343. The growth and decline of religious groups and traditions; “cults” and new religions; comparative sociology of religion; the United States religious landscape; religion and individual health and well-being; spirituality and other aspects of social life. Religious Studies 337 and 361 (Topic 16: Religion and Society) may not both be counted. **Prerequisite:** Upper-division standing.

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). Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. Religious Studies 341 (Topic 1) and 361 (Topic 6: Indian Philosophies) may not both be counted.

   **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, within the context of Indian culture. Only one of the following may be counted: Art History 372 (Topic: Diversity of Indian Traditions), Religious Studies 341 (Topic 2), 361 (Topic 37: Diversity of Indian Traditions). **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. Only one of the following may be counted: Anthropology 324L (Topic: Gender/Sex/Family in Indian Religions and Cultures), Asian Studies 372 (Topic: Gender/Sex/Family in Indian Religions and Cultures), Religious Studies 341 (Topic 3).

   **Topic 4:** Islam in South Asia: The Sufi Traditions. Asian Studies 340 (Topic: Islam in South Asia: The Sufi Traditions) and Religious Studies 341 (Topic 4) may not both be counted. **Prerequisite:** Upper-division standing.

   **Topic 5:** Gandhi and Gandhism. Same as Asian Studies 361 (Topic 6: Gandhi and Gandhism) and History 350L (Topic 5: Gandhi and Gandhism). **Prerequisite:** Upper-division standing.

   **Topic 6:** Muslim India before 1750. Same as Asian Studies 346M and History 346M. History, art and architecture, and religions of India during the period of Muslim rule from the tenth to the eighteenth century. **Prerequisite:** Upper-division standing.
Topic 7: Formation of Indian Art. Same as Asian Studies 372 (Topic 18: Formation of Indian Art). The major achievements of South Asia up to 500 CE, within the context of Indian culture. Only one of the following may be counted: Religious Studies 341 (Topic 7), 351 (Topic 2: Formation of Indian Art), 361 (Topic 7: Early Indian Art and Aesthetic Theory), 361 (Topic 36: Formation of Indian Art). 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 8: Buddhist Art. Same as Asian Studies 372 (Topic 24: Buddhist Art). Only one of the following may be counted: Art History 372 (Topic: Buddhist Art), Religious Studies 341 (Topic 8), 351 (Topic 4: Buddhist Art), 361 (Topic: Buddhist Art). 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 9: The Taj Mahal and the Diversity of Indian Art. Only one of the following may be counted: Art History 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), 351 (Topic: The Taj Mahal and the Diversity of Indian Art).

Topic 10: Early Art of India. Same as Asian Studies 372 (Topic 15: Early Art of India). Artistic achievement of South Asia up to 1000 CE, with a focus on the function and meaning of works of art within the context of Indian culture. Only one of the following may be counted: Art History 372 (Topic: Early Art of India), Religious Studies 341 (Topic 10), 351 (Topic 1: Early Art of India), 361 (Topic 35: Early Art of India). 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.

341G. Yoga as Philosophy and Practice. Only one of the following may be counted: Philosophy 356 (Topic: Yoga as Philosophy and Practice), Religious Studies 341G, 361 (Topic: Yoga as Philosophy and Practice). Prerequisite: Upper-division standing.

342. Topics in Religions of Central Asia. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Shamanism in Central Asia. Same as Anthropology 324L (Topic 30: Shamanism in Central Asia); Middle Eastern Studies 326 (Topic 1: Shamanism in Central Asia); and Russian, East European, and Eurasian Studies 345 (Topic 3: Shamanism in Central Asia). Only one of the following may be counted: Middle Eastern Languages and Cultures 340 (Topic 4: Shamanism in Central Asia), Religious Studies 342 (Topic 1), 352 (Topic 1: Shamanism in Central Asia), 361 (Topic: Shamanism in Central Asia). Prerequisite: Upper-division standing or consent of instructor.

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. Religious Studies 344 and 361 (Topic 26: The Age of Reformation) may not both be counted. Prerequisite: Upper-division standing.

345. Islamic Spain and North Africa to 1492. Same as History 375D and Middle Eastern Studies 321K (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. Religious Studies 345 and 361 (Topic 13: Islamic Spain and North Africa to 1492) may not both be counted. Prerequisite: Upper-division standing.

346. Topics in the Religions of the United States. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. 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), Religious Studies 346 (Topic 2) and 361 (Topic 9: Religion in American Political Thought) may not both be counted. Prerequisite: Upper-division standing and six semester hours of upper-division coursework in government.


Topic 4: American Indian Cultures North of Mexico. Prerequisite: Upper-division standing, and Anthropology 302 or consent of instructor.

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. Prerequisite: Upper-division standing.

Topic 4: Ritual and Religion in Korea. 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 351 (Topic: The Asian Perspective on Death and Dying), 352 (Topic 6). Prerequisite: Upper-division standing or consent of instructor.

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.
353D. **The Dead Sea Scrolls.** Same as History 364G (Topic 3: *The Dead Sea Scrolls*), Jewish Studies 364 (Topic 4: *The Dead Sea Scrolls*), and Middle Eastern Studies 320 (Topic 13: *The Dead Sea Scrolls*). Only one of the following may be counted: History 366N (Topic 8: *The Dead Sea Scrolls*), Jewish Studies 361 (Topic 4: *The Dead Sea Scrolls*), Middle Eastern Languages and Cultures 341 (Topic 14: *The Dead Sea Scrolls*), Religious Studies 353D, 361 (Topic 31: *The Dead Sea Scrolls*). **Prerequisite:** Upper-division standing or consent of instructor.

354D. **The Bible and History.** Same as History 372P, Jewish Studies 364 (Topic 3: *The Bible and History*), and Middle Eastern Studies 320 (Topic 3: *The Bible and History*). 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: Jewish Studies 361 (Topic 3: *The Bible and History*), Middle Eastern Languages and Cultures 341 (Topic 1: *The Bible and History*), Religious Studies 354D, 361 (Topic 14: *The Bible and History*). **Prerequisite:** Upper-division standing or consent of instructor.

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. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

355D. **Reformation Theology.** Same as Germanic Civilization 360E (Topic 1: *Reformation Theology*) and History 362G (Topic 1: *Reformation Theology*). Only one of the following may be counted: English 322 (Topic 10: *Reformation Theology*), History 366N (Topic 3: *Reformation Theology*), Religious Studies 355D. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in eitherEnglish or rhetoric and writing; for others, upper-division standing.

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 English and American literature. Religious Studies 355K and 361 (Topic 20: *The Bible in English and American Literature*) may not both be counted. **Prerequisite:** Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

356. **Major Works on Religion and Interpretation.** Same as American Studies 327 (Topic 1: *Major Works on Religion and Interpretation*) and Philosophy 356 (Topic 1: *Major Works on Religion and Interpretation*). Survey of a selection of works that have made a significant contribution to discourse on religious thought. Three lecture hours or two lecture hours and one laboratory/discussion hour a week for one semester. History 366N (Topic 2: *Major Works on Religion and Interpretation*) and Religious Studies 356 may not both be counted.

356E. **Existentialism.** Same as Philosophy 366K. 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. Religious Studies 361 (Topic: *Existentialism*) and 356E may not both be counted.

357. **Topics in the Religions of Europe.** May be repeated for credit when the topics vary. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

**358. Topics in the Religions of the Middle East.** 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*). Only one of the following may be counted: Religious Studies 357 (Topic 1), 355E (Topic 1: *Heresy and the Inquisition*), 361 (Topic 27: *Heresy and the Inquisition*). **Prerequisite:** Upper-division standing and consent of instructor.

Topic 2: **Byzantine Art.** Same as Art History 329J. Examination of early Christian and medieval art and architecture in the eastern Roman empire, including related traditions (Coptic, Armenian, Georgian, Crusader, Norman). Religious Studies 355E (Topic 2: *Byzantine Art*) and 357 (Topic 2) may not both be counted. **Prerequisite:** Art history majors, Art History 302; for 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: *Midnight Sun People*. Only one of the following may be counted: Anthropology 324L (Topic: *Midnight Sun People*), Germanic Civilization 327E (Topic: *Midnight Sun People*), Religious Studies 357 (Topic 4), 361 (Topic: *Midnight Sun People*), Scandinavian 327 (Topic: *Midnight Sun People*).
Topic 6: The Islamic Middle East in the Visual Arts. Same as Islamic Studies 372 (Topic 1: The Islamic Middle East in the Visual Arts) and Middle Eastern Studies 322K (Topic 16: The Islamic Middle East in the Visual Arts). Only one of the following may be counted: Middle Eastern Languages and Cultures 372 (Topic 12: The Islamic Middle East in the Visual Arts), Religious Studies 358 (Topic 6), 361 (Topic 32: The Islamic Middle East in the Visual Arts), 364 (Topic 1: The Islamic Middle East in the Visual Arts). Prerequisite: Upper-division standing or consent of instructor.

Topic 7: Popular Iranian Rituals and Traditions. Same as Asian Studies 361 (Topic 18: Popular Iranian Rituals and Traditions), Islamic Studies 372 (Topic 3: Popular Iranian Rituals and Traditions), and Middle Eastern Studies 322K (Topic 18: Popular Iranian Rituals and Traditions). Adoption of old Persian cultural heritage into Islamic practices, past and present. Only one of the following may be counted: Middle Eastern Languages and Cultures 372 (Topic 14: Popular Iranian Rituals and Traditions), Religious Studies 358 (Topic 7), 361 (Topic 33: Popular Iranian Rituals and Traditions), 364 (Topic 2: Popular Iranian Rituals and Traditions). Prerequisite: Upper-division standing or consent of instructor.

360. Topics in Religions of Sub-Saharan Africa. May be repeated for credit when the topics vary.

362. Independent Research in Religious Studies. Tutorially directed research in religious studies. Conference course. May be repeated for credit. Prerequisite: Upper-division standing and consent of instructor.

363R. 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. Prerequisite: Upper-division standing.

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 320 (Topic 2: 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: Jewish Studies 361 (Topic 2: Rome and Jerusalem), Middle Eastern Languages and Cultures 341 (Topic 7: Rome and Jerusalem), Religious Studies 361 (Topic 24: Rome and Jerusalem), 365 (Topic 1). Prerequisite: Upper-division standing.

Topic 2: Introduction to Germanic Religion and Myth. Same as English 322 (Topic 2: Introduction to Germanic Religion and Myth), European Studies 361 (Topic 6: Introduction to Germanic Religion and Myth), and Germanic Civilization 340E (Topic 1: Introduction to Germanic Religion and Myth). Religious Studies 361 (Topic 8: Introduction to Germanic Religion and Myth) and 365 (Topic 2) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

366. Topics in Religions of the Americas. May be repeated for credit when the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

368. Topics in Religions of Latin America. 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. Prerequisite: Upper-division standing.

373. Topics in Comparative Religion. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Religion, Violence, and Nonviolence. Same as Sociology 321J. Historical examination of religious beliefs and practices regarding warfare and violence. Only one of the following may be counted: Religious Studies 361 (Topic 15: Religion, Violence, and Nonviolence), 373 (Topic 1), Sociology 321K (Topic: Religion, Violence, and Nonviolence). Prerequisite: Upper-division standing or consent of instructor.

Topic 2: Inventions of Death. Same as English 376L (Topic 6: Inventions of Death), Religious Studies 361 (Topic 19: Death) and 373 (Topic 2) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

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.

DIVISION OF RHETORIC AND WRITING

The Division of Rhetoric and Writing provides lower- and upper-division writing instruction. Courses include the required first-year course Rhetoric and Writing 306, lower-division elective courses, and upper-division courses in rhetoric and writing. The division also administers the Undergraduate Writing Center, which supports writing instruction in all undergraduate courses, the Computer Writing and Research Laboratory, which offers innovative approaches for integrating computers into writing instruction, and the Writing Across the Curriculum Initiative, which oversees substantial writing component certification for the College of Liberal Arts.

PLACEMENT IN RHETORIC AND WRITING 306

In addition to meeting the prerequisite for Rhetoric and Writing 306, all students must also take a designated placement examination, administered by the Division of Instructional Innovation and Assessment, before enrolling in the course. The student should obtain an examination score before seeing an adviser for approval to register. Those who receive placement credit for Rhetoric and Writing 306 may elect to register for Rhetoric and Writing 309S, Critical Reading and Persuasive Writing.

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 this course.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.
Rhetoric and Writing: RHE

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 on pages 658–662.

Lower-Division Courses

306 (TCCN: ENGL 1301). Rhetoric and Writing. An introductory writing course that includes instruction in practical reasoning and the principles of rhetoric. 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).

306Q (TCCN: ENGL 1306). 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.

309K (TCCN: ENGL 1302). 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 the equivalent.

309S. Critical Reading and Persuasive Writing. A writing course designed to teach advanced rhetorical analysis and advocacy on public issues. Prerequisite: Rhetoric and Writing 306 or the equivalent.

310. Intermediate Expository Writing. An intensive writing workshop, focusing on style and readability. Rhetoric and Writing 309L and 310 may not both be counted. Prerequisite: Rhetoric and Writing 306 or the equivalent.

312. Computers and Writing. A writing course focused on using, interpreting, and analyzing traditional and emerging technologies. Taught using networked computers. Rhetoric and Writing 309M and 312 may not both be counted. Prerequisite: Rhetoric and Writing 306.

315. Introduction to Visual Rhetoric. A writing course designed to teach students to analyze and produce visual and nonverbal forms of rhetoric. Prerequisite: Rhetoric and Writing 306.

317 (TCCN: ENGL 2311). Technical Writing. Reading and writing in professional and technological environments. Prerequisite: Rhetoric and Writing 306 or the equivalent.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Division 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

321. Principles of Rhetoric. Examines major terms, issues, and approaches in the theory and practice of rhetoric and writing. Prerequisite: Completion of at least thirty semester hours of coursework, including English 316K or the equivalent.

325M. Advanced Writing. An advanced course designed to improve and refine writing. Prerequisite: Completion of at least thirty semester hours of coursework, including English 316K or the equivalent.

328. Topics in Professional and Technical Writing for Liberal Arts Majors. For liberal arts majors only. 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. May be repeated for credit when the topics vary. Prerequisite: Completion of at least thirty semester hours of coursework, including English 316K or the equivalent.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Division 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.

330C. Advanced Studies in Computers and Writing. An advanced course that examines the role of information technologies in communication. Taught using networked computers. May be repeated for credit when the topics vary. Prerequisite: Completion of at least thirty semester hours of coursework, including English 316K or the equivalent.

330D. History of Rhetoric. An advanced survey of figures and movements in the history of rhetoric, from classical to contemporary. May be repeated for credit when the topics vary. Prerequisite: Completion of at least thirty semester hours of coursework, including English 316K or the equivalent.

330E. Rhetorical Theory and Analysis. An advanced examination of rhetorical theories and their applications. May be repeated for credit when the topics vary. Prerequisite: Completion of at least thirty semester hours of coursework, including English 316K or the equivalent.

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. Prerequisite: Completion of at least thirty semester hours of coursework, including English 316K or the equivalent.

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: Completion of at least thirty-six semester hours of coursework, including English 316K or the equivalent, and approval of written application by the supervising instructor.

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: Completion of at least thirty semester hours of coursework, including English 316K or the equivalent, and approval of written application by instructor.
Department of 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 do so on contract and, upon graduation and commissioning, enter active duty in the Air Force.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

AIR FORCE SCIENCE: AFS

Lower-Division Courses (General Military Courses)

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.

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.

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.

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.

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 (Professional Officer Courses)

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.

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. 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.
322. **Air Force Leadership Studies II.** Continuation of Air Force Science 321. Offered in the spring semester only. **Prerequisite:** Air Force Science 321 and concurrent enrollment in Air Force Science 120L.

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. Offered in the fall semester only. **Prerequisite:** Air Force Science 322 and concurrent enrollment in Air Force Science 120L.

332. **Current Issues and Preparation for Active Duty.** Preparation for active duty. Includes study of the evolution and jurisdiction of military law, officership, and current Air Force issues. 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. Students incur no military obligation until they enter the advanced course. 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 six-week summer camp, normally between the sophomore and the 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 $250 to $400 a month for up to ten months for each year of their scholarship. The scholarship pays for required tuition, fees, and laboratory expenses, and provides an allowance each semester for books. Nonscholarship students receive $350 to $400 a month during the advanced course. For additional information, contact the scholarship and enrollment officer.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

**MILITARY SCIENCE: M S**

**Lower-Division Courses**

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.

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.

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 one-hour lecture/practice session a week for one semester. **Prerequisite:** Concurrent enrollment in Military Science 000.

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.

212. **Basic Military Science II-B.** Introduction to individual and team aspects of military tactics in small-unit 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 upper-division 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**

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. **Prerequisite:** Concurrent enrollment in Military Science 000 and approval of departmental representative.
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.

375. Leadership and Ethics (IV-A). Military leadership and professional ethics; post and installation support system; introduction to the military justice system. Prerequisite: Concurrent enrollment in Military Science 000 and approval of departmental representative.

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. Prerequisite: Concurrent enrollment in Military Science 000 and approval of departmental representative.

379. Advanced Military Science V-A. Advanced study and research on historic and contemporary military subjects and events. Prerequisite: Concurrent enrollment in Military Science 000.

379K. Advanced Military Science V-B. Advanced study and research on historic and contemporary military subjects and events. 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, cost of textbooks, fees of 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. Scholarships are obtained by applying 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. For additional information, contact the chair of the department.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

NAVAL SCIENCE: NS

Lower-Division Courses

000. Drill. Three laboratory hours a week for one semester.

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.

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.

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. Prerequisite: Consent of instructor.

Upper-Division Courses

326. Evolution of Warfare. Explores the forms of warfare employed by great leaders in history as they relate to the evolution of warfare. Prerequisite: Consent of instructor.


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. Prerequisite: Naval Science 335 and consent of instructor.

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. Prerequisite: Consent of instructor.

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.

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.

RUSSIAN

See Department of Slavic and Eurasian Studies, page 428.

CENTER FOR RUSSIAN, EAST EUROPEAN, AND EURASIAN STUDIES

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

RUSSIAN, EAST EUROPEAN, AND EURASIAN STUDIES: REE

Lower-Division Courses

301. Introduction to Russian, East European, and Eurasian Studies. An introduction to the former Soviet Union and Eastern Europe through each of the major disciplines represented in the program: language, literature, anthropology, geography, history, government, sociology, and economics. History 306N (Topic 4: Introduction to Russian, East European, and Eurasian Studies: History) and Russian, East European, and Eurasian Studies 301 may not both be counted. Government 314 (Topic 4: Introduction to Russian, East European, and Eurasian Studies: Political Science) and Russian, East European, and Studies 301 may not both be counted. Core course required for a degree in Russian, East European, and Eurasian studies.

302. Topics in Russian, East European, and Eurasian Studies. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.
119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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
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. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any degree.

321. Topics in Russian or Eastern European Politics. May be repeated for credit when the topics vary.

325. Topics in Language, Literature, and Culture. May be repeated for credit when the topics vary. Fulfills the basic Russian, East European, and Eurasian studies requirement in language, literature, and culture. Prerequisite: Varies with the topic and is given in the Course Schedule.

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 2: Readings in Russian Literature I. Prose and poetry of the first half of the nineteenth century. Russian 320K and Russian, East European, and Eurasian Studies 325 (Topic 2) may not both be counted. Prerequisite: Russian 612, 312L, or the equivalent.

Topic 4: Readings in Russian Literature II. Prose and poetry of the second half of the nineteenth century. Russian 320L and Russian, East European, and Eurasian Studies 325 (Topic 4) may not both be counted. Prerequisite: Russian 612, 312L, or the equivalent.

Topic 5: The Polish Experience. Same as Polish 324 (Topic 1: The Polish Experience). A historical, sociopolitical picture of Poland's complex cultural history. Prerequisite: Upper-division standing or consent of instructor.

Topic 6: Survey of Twentieth-Century Russian Literature I. Short prose, poetry, and drama, 1890 to 1930. Russian 670A and Russian, East European, and Eurasian Studies 325 (Topic 6) may not both be counted. Prerequisite: Six semester hours of upper-division coursework in Russian or consent of instructor.

Topic 7: Survey of Twentieth-Century Russian Literature II. Short prose, poetry, and drama, 1930 to the present. Russian 670B and Russian, East European, and Eurasian Studies 325 (Topic 7) may not both be counted. Prerequisite: Russian, East European, and Eurasian Studies 325 (Topic 6).

Topic 8: Yiddish Drama and Film in Translation. Same as English 322 (Topic 34: Yiddish Drama and Film in Translation), Germanic Civilization 327E (Topic 8: Yiddish Drama and Film in Translation), Jewish Studies 361 (Topic 5: Yiddish Drama and Film in Translation), and Slavic 324 (Topic 2: Yiddish Drama and Film in Translation). Jewish life in Poland and Russia before the Holocaust, and the transition to American Jewish life, as revealed in plays and films produced in Eastern Europe and in the United States. No knowledge of Yiddish is required. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

Topic 9: The Russian Novel. Same as English 322 (Topic 37: The Russian Novel) and Russian 356 (Topic 1: The Russian Novel). European Studies 361 (Topic: The Russian Novel) and Russian, East European, and Eurasian Studies 325 (Topic 9) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

330. Introduction to the Culture and Society of Eastern Europe. A survey of literature, art, architecture, and music from an East European country. May be repeated for credit when the topics vary.

335. Topics in History, Economics, and Government. May be repeated for credit when the topics vary. Fulfills the basic Russian, East European, and Eurasian studies requirement in history, economics, and government. Prerequisite: Varies with the topic and is given in the Course Schedule.

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 357K and Russian, East European, and Eurasian Studies 335 (Topic 1) may not both be counted. Prerequisite: Upper-division standing, and Economics 304K and 304L with a grade of at least C in each; or consent of instructor.


Topic 4: Politics in Southeast Europe. Only one of the following may be counted: European Studies 361 (Topic 13: Politics in Southeast Europe); Government 328N; Russian, East European, and Eurasian Studies 335 (Topic 4). 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 7: Political Development in Eastern Europe and Latin America. Only one of the following may be counted: Government 365N (Topic 4: Political Development in Eastern Europe and Latin America); Latin American Studies 337M (Topic 6: Political Development in Eastern Europe and Latin America); Russian, East European, and Eurasian Studies 335 (Topic 7).

Topic 8: Politics in Southern Europe. Comparative analysis of development politics in capitalist and socialist systems in southwestern and southeastern Europe. Only one of the following may be counted: European Studies 361 (Topic 12: Politics in Southern Europe); Government 328M; Russian, East European, and Eurasian Studies 335 (Topic 8). Prerequisite: Six semester hours of lower-division coursework in government.

Topic 9: German Unification: Problems and Prospects. Same as Germanic Civilization 360E (Topic 4: German Unification: Problems and Prospects) and Government 365N (Topic 7: German Unification: Problems and Prospects). A brief history of Germany since 1815, the contemporary German state and its institutions, and perspectives for the current decade. Only one of the following may be counted: Germanic Civilization 360E (Topic: German Unification: Problems and Prospects); Government 365N (Topic: German Reunification: Problems and Prospects); Russian, East European, and Eurasian Studies 335 (Topic 9). Prerequisite: For government majors, six semester hours of lower-division coursework in government; for others, 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. Prerequisite: Upper-division standing.

Topic 12: Stalinist Russia. Same as History 350L (Topic 41: Stalinist Russia). Prerequisite: Upper-division standing and consent of instructor.

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 304K and 304L 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 Crisis. 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.


345. Topics in Sociology, Geography, and Anthropology. May be repeated for credit when the topics vary. Fulfills the basic Russian, East European, and Eurasian studies requirement in sociology, geography, and anthropology. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Post-Soviet Societies. Only one of the following may be counted: Russian, East European, and Eurasian Studies 345 (Topic 1); Sociology 321K (Topic 1: Post-Soviet Societies); Women's and Gender Studies 345 (Topic: Post-Soviet Societies); Women's Studies 345 (Topic: Post-Soviet Societies).

Topic 2: Regions and Cultures of Europe. Spatial patterns in Europe, with emphasis on cultural, historical, and political geography. Only one of the following may be counted: Geography 326; 385 (Topic: Regions and Cultures of Europe); Russian, East European, and Eurasian Studies 345 (Topic 2). Prerequisite: Upper-division standing.

Topic 3: Shamanism in Central Asia. Same as Anthropology 324L (Topic 30: Shamanism in Central Asia); Middle Eastern Studies 326 (Topic 1: Shamanism in Central Asia); and Religious Studies 342 (Topic 1: Shamanism in Central Asia). Only one of the following may be counted: Middle Eastern Languages and Cultures 340 (Topic 4: Shamanism in Central Asia); Religious Studies 352 (Topic 1: Shamanism in Central Asia); 361 (Topic: Shamanism in Central Asia); Russian, East European, and Eurasian Studies 345 (Topic 3). Prerequisite: Upper-division standing or consent of instructor.

350. European Literature: East and West. A study of selected major works of East European literature and their relationships to West European literary movements. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

351. Reading Seminar: Transitions in Russia and Eastern Europe. First in a sequence of three courses. Students explore transitions from communism in a broad comparative and interdisciplinary context. Through reading, discussion, and training in research methods, students prepare for the research portion of the sequence by defining and planning a project. Prerequisite: Upper-division standing, admission to the Transitions Program, and consent of instructor.

352. Research Seminar: Transitions in Russia and Eastern Europe. Second in a sequence of three courses. Students carry out research planned in Russian, East European, and Eurasian Studies 351 and meet with local experts in Berlin, Prague, and Moscow. Research facilitates more specialized examination of important currents in transitions in Russia and Eastern Europe. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing; admission to the Transitions Program; Russian, East European, and Eurasian Studies 351; and consent of instructor.
353. Writing Seminar: Transitions in Russia and Eastern Europe. Third in a sequence of three courses. Students produce a research paper based on readings, discussion, and research conducted in Russian, East European, and Eurasian Studies 351 and 352. The paper presents the student’s findings and analysis of a particular aspect of transition in Russia and Eastern Europe. The equivalent of three lecture hours a week for one semester. Prerequisite: Upper-division standing; admission to the Transitions Program; Russian, East European, and Eurasian Studies 352; and consent of instructor.

379C. Conference Course. May be repeated for credit. Prerequisite: Consent of the undergraduate adviser in Russian, East European, and Eurasian studies.

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.

Related Courses
Related courses may be counted as Russian, East European, and Eurasian studies content courses for the Russian, East European, and Eurasian studies program with the written approval of the instructor indicating that a Russian, East European, and Eurasian orientation for the student’s work has been arranged.

Many of the following courses may be repeated for credit when the topics vary. Only topics in Russian, East European, and Eurasian studies may be counted as related courses in the Russian, East European, and Eurasian studies program.

For a description of each of the following courses, see the chapter for the college that offers the course.

School of Architecture

Red McCombs School of Business
International Business 350. International Trade (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

International Business 372. Seminar in International Business (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

College of Communication
Journalism 361E. International News (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

College of Fine Arts
Art History 302. Survey of Ancient through Medieval Art (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

Art History 363. Topics in Medieval Art.

Art History 366P. Topics in Modernism.

College of Liberal Arts
Anthropology 324L. Topics in Anthropology.

Czech 506. First-Year Czech I.

Czech 507. First-Year Czech II.

Czech 312K. Second-Year Czech I.

Czech 312L. Second-Year Czech II.

Czech 330. Modern Czech Literature.

Czech 379. Conference Course in Czech Language or Literature.


Economics 346K. Russian Economic Development since 1917.

Economics 350K. Selected Topics in Economics.

Economics 357K. Marxist Economics.

Geography 326. Regions and Cultures of Europe.

Geography 327. Geography of the Former Soviet Union.

German 363K. Topics in German Culture.

Government 314. Introductory Topics in Political Science.

Government 324J. Governments and Politics of Eastern Europe.

Government 328M. Politics in Southern Europe.

Government 335M. Topics in Political Thought.

Government 336M. Governments and Politics of Russia.

Government 344. American Foreign Relations (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

Government 344L. Introduction to Comparative Politics (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

Government 360N. Topics in International Relations (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

Government 365N. Topics in Comparative Politics (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

History 343L. History of Russia to 1917.

History 343M. History of Russia since 1917.

History 350L. Undergraduate Seminar in History (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

History 366N. Topics in History (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

Humanities 350. Topics in the Humanities (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

Linguistics 322. Gypsy Language and Culture.

Philosophy 334K. Modern Thinkers (when approved by the director of the Center for Russian, East European, and Eurasian Studies).

Philosophy 371H. Philosophy Honors (when approved by the director of the Center for Russian, East European, and Eurasian Studies).
Polish 506. First-Year Polish I.
Polish 507. First-Year Polish II.
Polish 312K. Second-Year Polish I.
Polish 312L. Second-Year Polish II.
Polish 379. Conference Course in Polish Language or Literature.
Russian 804. Accelerated First-Year Russian.
Russian 505S. Intensive First-Year Russian I.
Russian 506. First-Year Russian I.
Russian 507. First-Year Russian II.
Russian 612. Accelerated Second-Year Russian.
Russian 412K. Second-Year Russian I.
Russian 412L. Second-Year Russian II.
Russian 515S. Intensive Second-Year Russian I.
Russian 324. Advanced Russian I.
Russian 325. Advanced Russian II.
Russian 525S. Intensive Third-Year Russian I.
Russian 326. Topics in Advanced Russian.
Russian 330. Topics in Russian Culture.
Russian 360. Study of an Individual Writer.
Russian 369. Topics in Russian Linguistics.
Russian 379. Conference Course in Russian Language or Literature.
Russian 679H. Honors Tutorial Course.
Serbian/Croatian 506. First-Year Serbian/Croatian I.
Serbian/Croatian 507. First-Year Serbian/Croatian II.
Serbian/Croatian 312K. Second-Year Serbian/Croatian I.
Serbian/Croatian 312L. Second-Year Serbian/Croatian II.
Serbian/Croatian 379. Conference Course in Serbian/Croatian.
Slavic 320. Literature and Nationalism in the Balkans.
Slavic 321. The Jewish Experience in Eastern Europe.
Slavic 324. Seminar on Slavic and East European Studies.
Yiddish 604. Accelerated First-Year Yiddish.

SANSKRIT

See Department of Asian Studies, page 329.

SCANDINAVIAN

See Department of Germanic Studies, page 371.

SCIENCE, TECHNOLOGY, AND SOCIETY

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

SCIENCE, TECHNOLOGY, AND SOCIETY: STS

Lower-Division Courses

311. Topics in Science, Technology, and Society. Some topics may include an academic service-learning component; these are identified in the Course Schedule. Science, Technology, and Society 311 and Technology, Literacy, and Culture 311 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.

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.

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.

Upper-Division Courses

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. Science, Technology, and Society 321 and Technology, Literacy, and Culture 321 may not both be counted. Prerequisite: Completion of at least thirty semester hours of coursework.

331. Topics in Science, Technology, and Society. Some topics may include an academic service-learning component; these are identified in the Course Schedule. Science, Technology, and Society 331 and Technology, Literacy, and Culture 331 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.

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. Science, Technology, and Society 331 (Topic: Impacts of Science: Nanotechnology, Technology, and Life) and 332 may not both be counted.

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. Science, Technology, and Society 360 and Technology, Literacy, and Culture 360 may not both be counted. Prerequisite: Completion of at least ninety semester hours of coursework, including Science, Technology, and Society 321 (or Technology, Literacy, and Culture 321).

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.

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 (or Technology, Literacy, and Culture 370) may be counted toward the concentration requirement. Prerequisite: Science, Technology, and Society 321 (or Technology, Literacy, and Culture 321), upper-division standing, and consent of instructor.

SERBIAN/CROATIAN

See Department of Slavic and Eurasian Studies, page 429.
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 Division of Instructional Innovation and Assessment, 2616 Wichita. Information about testing in other languages is available from the department office.

The normal two-year sequence of lower-division courses in Russian is 506, 507, 412K, and 412L. In Czech, Polish, and Serbian/Croatian, it is 506, 507, 312K, and 312L.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

CZECH: CZ

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 on pages 658–662.

Lower-Division Courses

301K. Introduction to Czech Civilization. Introduction to selected topics in the culture of the Czech and Slavic people. Conducted in English. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any bachelor's degree.

Topic 1: Robots and Beer Pubs: Czech Culture. Introduction to the Czech people and culture, and how terms of Czech origin, such as “robot” and “pilsner beer,” became common throughout the world. Also examines Czech art history and architecture.

306 (TCCN: CZEC 1511). First-Year Czech I. Five class hours a week for one semester.

307 (TCCN: CZEC 1512). First-Year Czech II. Five class hours a week for one semester. Prerequisite: Czech 506 or consent of instructor.

312K (TCCN: CZEC 2311). Second-Year Czech I. Prerequisite: Czech 507 or consent of instructor.

312L (TCCN: CZEC 2312). Second-Year Czech II. Prerequisite: Czech 312K or consent of instructor.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

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. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any degree. Prerequisite: Varies with the topic and is given in the Course Schedule.

325. Third-Year Czech I. Prerequisite: Czech 312L.

326. Third-Year Czech II. Continuation of Czech 325. Prerequisite: Czech 325.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

330. Modern Czech Literature. A study of Czech literature from the 1860s to the present; emphasis on translation from Czech into English. Czech 330 and Russian, East European, and Eurasian Studies 325 (Topic: Modern Czech Literature) may not both be counted. Prerequisite: Upper-division standing or consent of instructor.

379. Conference Course in Czech Language or Literature. May be repeated for credit. Prerequisite: Six semester hours of upper-division coursework in Czech, or upper-division standing and consent of instructor.

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 679HB, Czech 679HA.

POLISH: POL

Lower-Division Courses

506. First-Year Polish I. Emphasis on four-skills proficiency. Five class hours a week for one semester.

507. First-Year Polish II. Emphasis on four-skills proficiency. Five class hours a week for one semester. Prerequisite: Polish 506 or consent of instructor.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. Topics in Polish. This course is used to record credit the student earns while enrolled at another institution in a program administered by the University's Center for Global Educational Opportunities. 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

311. Introduction to the Polish Language I. Designed to give students a rapid introduction to fundamentals of the language. May not be used to fulfill the foreign language requirement for any bachelor's degree.

321. Introduction to the Polish Language II. Continuation of Polish 321. May not be used to fulfill the foreign language requirement for any bachelor's degree. Prerequisite: Polish 321 or consent of instructor.
324. **Topics in Polish Studies.** Selected aspects of Polish history or culture. Readings and lectures in English. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any degree. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

Topic 1: *The Polish Experience.* Same as Russian, East European, and Eurasian Studies 325 (Topic 5: *The Polish Experience*). A historical, sociopolitical picture of Poland's complex cultural history. **Prerequisite:** Upper-division standing or consent of instructor.

379. **Conference Course in Polish Language or Literature.** May be repeated for credit. **Prerequisite:** Six semester hours of upper-division coursework in Polish or consent of instructor.

RUSSIAN: RUS

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 Texas Common Course Numbering (TCCN) designation. Only 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 on pages 658–662.

**Lower-Division Courses**

804. **Accelerated First-Year Russian.** Designed primarily for language majors. Covers the same material as Russian 506 and 507, but in one semester. Eight lecture hours and two laboratory hours a week for one semester. May not be counted by students with credit for Russian 505S, 506, 506T, 507, or 507T.

505S. **Intensive First-Year Russian I.** Intensive introduction to proficiency in four skills in Russian (listening, speaking, reading, and writing), in preparation for study aboard program. Thirteen and one-half class hours a week for the first summer term. Only one of the following may be counted: Russian 804, 505S, 506, 506T.

506 (TCCN: RUSS 1511). **First-Year Russian I.** Five class hours a week for one semester. Only one of the following may be counted: Russian 804, 505S, 506, 506T.

506T. **First-Year Russian for Special Purposes I.** Possible sections include Russian for science and technology and Russian for business. Five class hours a week for one semester. Only one of the following may be counted: Russian 804, 505S, 506, 506T.

507 (TCCN: RUSS 1512). **First-Year Russian II.** Five class hours a week for one semester. Only one of the following may be counted: Russian 804, 507, 507T. **Prerequisite:** Russian 506 or 506T or appropriate score on Russian placement examination.

507T. **First-Year Russian for Special Purposes II.** Possible sections include Russian for science and technology and Russian for business. Five class hours a week for one semester. Only one of the following may be counted: Russian 804, 507, 507T. **Prerequisite:** Russian 506, 506T, or appropriate score on Russian placement examination.

612. **Accelerated Second-Year Russian.** Designed primarily for language majors. Covers the same material as Russian 412K and 412L, but in one semester. Six lecture hours a week for one semester. May not be counted by students with credit for Russian 412K (or 312K), 412L (or 312L), 312M, or 515S. **Prerequisite:** Russian 804, 507, 507T, or appropriate score on Russian placement examination.

312K, 412K. **Second-Year Russian I.** Four lecture hours a week for one semester. Only one of the following may be counted: Russian 612, 412K (or 312K), 312M, or 515S. **Prerequisite:** Russian 804, 507, 507T, or appropriate score on Russian placement examination.

312L, 412L. **Second-Year Russian II.** Four lecture hours a week for one semester. Russian 612 and 412L (or 312L) may not both be counted. **Prerequisite:** Russian 412K (or 312K), 312M, or appropriate score on Russian placement examination.

312M. **Second-Year Russian I—Technical.** Only one of the following may be counted: Russian 612, 412K (or 312K), 312M, 515S. **Prerequisite:** Russian 804, 507, 507T, or appropriate score on Russian placement examination.

515S. **Intensive Second-Year Russian I.** Intensive extension and development of proficiency in four skills in Russian (listening, speaking, reading, and writing), in preparation for study aboard program. Thirteen and one-half class hours a week for the first summer term. Only one of the following may be counted: Russian 612, 412K (or 312K), 312M, 515S. **Prerequisite:** Russian 507, 507T, 804, or appropriate score on Russian placement examination.

316C. **Masterworks of Russian Literature in Translation.** Introduction to the masterpieces of the Russian literary tradition in English translation, emphasizing cultural and social context. Conducted in English.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. **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 Center for Global Educational Opportunities. 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**

324. **Advanced Russian I.** Oral expression, reading, and composition. Russian 324 and 525S may not both be counted. **Prerequisite:** Russian 612, 412L (or 312L), or appropriate score on Russian placement examination.

325. **Advanced Russian II.** Oral expression, reading, and composition. **Prerequisite:** Russian 324 or appropriate score on Russian placement examination.

525S. **Intensive Third-Year Russian I.** Intensive work in advanced composition and conversation skills in Russian, in preparation for study aboard program. Thirteen and one-half class hours a week for the first summer term. Russian 324 and 525S may not both be counted. **Prerequisite:** Russian 612, 412L (or 312L), or appropriate score on Russian placement examination.

326. **Topics in Advanced Russian.** 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. May be repeated for credit when the topics vary. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

327. **Advanced Training in Spoken Russian.** Continuation of Russian 326. **Prerequisite:** Russian 326.

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. May be repeated for credit when the topics vary. **Prerequisite:** Two years of coursework in Russian, or the equivalent.
129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. **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 Center for Global Educational Opportunities. 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.

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. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any bachelor's degree. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

   Topic 1: Contemporary Russian Culture. Same as European Studies 361 (Topic 3: Contemporary Russian Culture). **Prerequisite:** Upper-division standing or consent of instructor.

356. **Russian Literature in Translation.** A survey of nineteenth- and/or twentieth-century Russian literature. Lectures and readings in English. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any bachelor's degree. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

   Topic 1: The Russian Novel. Same as English 322 (Topic 37: The Russian Novel) and Russian, East European, and Eurasian Studies 325 (Topic 9: The Russian Novel). European Studies 361 (Topic: The Russian Novel) and Russian 356 (Topic 1) may not both be counted. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

360. **Study of an Individual Writer.** Readings in translation of selected works of one major Russian writer. Conducted in English. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any bachelor's degree. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

369. **Topics in Russian Linguistics.** Introduction to selected topics in the structure or history of Russian. Conducted in English. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any bachelor's degree. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

379. **Conference Course in Russian Language or Literature.** 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.

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 679HB, Russian 679HA.

**SERBIAN/CROATIAN: S C**

**Lower-Division Courses**

506. **First-Year Serbian/Croatian I.** Emphasis on proficiency in four skills: listening, speaking, reading, and writing. Five class hours a week for one semester.

507. **First-Year Serbian/Croatian II.** Emphasis on proficiency in four skills: listening, speaking, reading, and writing. Five class hours a week for one semester. **Prerequisite:** Serbian/Croatian 506 or consent of instructor.

312K. **Second-Year Serbian/Croatian I.** Emphasis on proficiency in four skills: listening, speaking, reading, and writing. Three class hours a week for one semester. **Prerequisite:** Serbian/Croatian 507 or consent of instructor.

312L. **Second-Year Serbian/Croatian II.** Emphasis on proficiency in four skills: listening, speaking, reading, and writing. Three class hours a week for one semester. **Prerequisite:** Serbian/Croatian 312K or consent of instructor.

**Upper-Division Courses**

321. **Introduction to Serbian/Croatian I.** Designed to give qualified students a rapid introduction to the fundamentals of the language. May not be used to fulfill the foreign language requirement for any bachelor's degree. **Prerequisite:** Upper-division standing and fulfillment of the foreign language requirement for the Bachelor of Arts degree, or consent of instructor.

322. **Introduction to Serbian/Croatian II.** Continuation of Serbian/Croatian 321. Designed to complete the student's study of the structure of the language and to introduce readings in Serbian and Croatian. May not be used to fulfill the foreign language requirement for any bachelor's degree. **Prerequisite:** Serbian/Croatian 321 or consent of instructor.

379. **Conference Course in Serbian/Croatian.** May be repeated for credit. **Prerequisite:** Serbian/Croatian 321 and 322 and consent of instructor.

**SLAVIC: SLA**

**Lower-Division Courses**

301. **Introduction to Slavic Civilization.** Introduction to selected topics in the cultures of the Slavic peoples. Conducted in English. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any bachelor's degree.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. **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 Center for Global Educational Opportunities. 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**

320. **Literature and Nationalism in the Balkans.** Same as European Studies 361 (Topic 8: Literature and Nationalism in the Balkans). Examination of the literary and political movements among the Balkan nationalities in the nineteenth and early twentieth centuries. Russian, East European, and Eurasian Studies 325 (Topic: Literature and Nationalism in the Balkans) and Slavic 320 may not both be counted. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. **Prerequisite:** Upper-division standing or consent of instructor.
321. The Jewish Experience in Eastern Europe. A panorama of the sociocultural history of the Jews of Eastern Europe of the past three centuries. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. **Prerequisite:** Upper-division standing or consent of instructor.

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. May be repeated for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

Topic 2: **Yiddish Drama and Film in Translation.** Same as English 322 (Topic 34: Yiddish Drama and Film in Translation); Germanic Civilization 327E (Topic 8: Yiddish Drama and Film in Translation); Jewish Studies 361 (Topic 5: Yiddish Drama and Film in Translation); and Russian, East European, and Eurasian Studies 325 (Topic 8: Yiddish Drama and Film in Translation). Jewish life in Poland and Russia before the Holocaust, and the transition to American Jewish life, as revealed in plays and films produced in Eastern Europe and in the United States. No knowledge of Yiddish is required. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.

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. May be repeated for credit when the topics vary. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. **Prerequisite:** Varies with the topic and is given in the Course Schedule.

Topic 1: **The New York Jew: A Literary Archetype.** Study of Russian Jewish immigrants from 1880 to 1990, and exploration of the question of whether there is a Jewish American literature. **Prerequisite:** For English majors, nine semester hours of lower-division coursework in English, including English 316K or the equivalent; for others, upper-division standing.

129S, 229S, 429S, 529S, 629S, 729S, 829S, 929S. **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 Center for Global Educational Opportunities. 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.

356. Slavic and East European Literatures in Translation. The nineteenth and twentieth centuries: representative works, chiefly prose. Conducted in English. May be repeated for credit when the topics vary. May not be used to fulfill the foreign language requirement for any bachelor's degree. **Prerequisite:** For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

379. Conference Course in Slavic and East European Languages and Literatures. May be repeated for credit. **Prerequisite:** Upper-division standing and consent of instructor.

**SOCIAL SCIENCE**

See Plan II Honors Program, page 409.

**DEPARTMENT OF SOCIOLOGY**

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

**SOCIOLOGY: SOC**

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 on pages 658–662.

**Lower-Division Courses**

101C. Introduction to the Department of Sociology. The discipline of sociology as taught at the University. One lecture hour a week for one semester. Recommended for all sociology majors within one year of declaring the major.


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. May be repeated for credit when the topics vary. Sociology 308 (Topic: Ethnicity and Gender: La Chicana) and 308D may not both be counted.

308C. Peace and Conflict. Theories of conflict, violence, and war; nonviolence and peace movements; arms control and conflict resolution; alternative security systems.

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). Sociology 308D and Women's Studies 301 (Topic 6: Ethnicity and Gender: La Chicana) may not both be counted.


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. Some sections are offered on the letter-grade basis only; these are identified in the Course Schedule.

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:** Sociology 317L.
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.

319. Introduction to Social Demography. Social consequences of changes in fertility, mortality, migration, population growth and composition.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

320K. Political Sociology. A survey of approaches to the study of the state as a social structure; political power and power systems; ideology: political parties and elites. Prerequisite: Upper-division standing.


321K. Contemporary Issues in Sociology: Special Topics. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule. Topic 1: Post-Soviet Societies. Only one of the following may be counted: Russian, East European, and Eurasian Studies 345 (Topic 1: Post-Soviet Societies); Sociology 321K (Topic 1); Women's and Gender Studies 345 (Topic: Post-Soviet Societies); Women's Studies 345 (Topic: Post-Soviet Societies).

Topic 4: Women and Socialism. Same as Women's and Gender Studies 345 (Topic 25: Women and Socialism). The origins of socialism, its relationship to gender issues, and the role women have played in existing socialist states as revolutionaries and citizens. Prerequisite: Upper-division standing.

Topic 5: Sociology of Intentional Community. Literary, historical, and contemporary records of utopian ventures to create the perfect society, and how these attempts shed light on the nature of the less-than-perfect human societies in which we live. Prerequisite: Upper-division standing.

321L. Sociology of Education. Same as African and African American 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. Only one of the following may be counted: African and African American Studies 320 (Topic: Sociology of Education), Sociology 321L, Women's Studies 345 (Topic 23: Sociology of Education). Prerequisite: Upper-division standing.

321M. Race and Popular American Culture. Same as African and African American Studies 321M and Radio-Television-Film 359 (Topic 2: Race and Popular American Culture). The intersection of African American racial politics and the changing popular media industry, especially film, music, and television. African and African American Studies 320 (Topic: Race and Popular American Culture) and Sociology 321M may not both be counted. 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.

323. The Family. The American family in historical and comparative perspective; emphasis on recent changes and prospects for the future. Prerequisite: Upper-division standing.


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. Prerequisite: Upper-division standing and completion of six semester hours of coursework in sociology.

325L. Sociology of Criminal Justice. Police, courts, and prisons: how they work; their impact on those who pass through them. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing. Completion of Sociology 317L or another statistics course is recommended, but not required.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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. Prerequisite: Upper-division standing.

330P. Sociology and Social Psychology. Examines how individuals perceive, interact with, and affect other individuals from the perspectives of both psychology and sociology. Sociology 321K (Topic: Sociology and Social Psychology) and 330P may not both be counted. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

336C. American Dilemmas. Examines a variety 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. Prerequisite: Upper-division standing.

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. Only one of the following may be counted: African and African American Studies 374 (Topic: Race, Class, and Health), Sociology 321K (Topic: Race, Class, and Health), 336D. Prerequisite: Upper-division standing.

336G. Gender Politics in the Islamic World. Study of the Islamic world and major sociological concepts such as gender, social organizations, culture, and politics. Examines how culture is mediated by politics, resulting in diverse interpretations of Islam and in different policies with respect to women's rights. Sociology 321K (Topic: Gender Politics in the Islamic World) and 336G may not both be counted. Prerequisite: Upper-division standing.

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. Sociology 321K (Topic: Social Psychology and the Law) and 336P may not both be counted. Prerequisite: Upper-division standing.

338M. Politics and Culture of Contemporary Mexico. Same as Mexican American Studies 374 (Topic 28: Politics and Culture of Contemporary Mexico), Government 337M (Topic 5: Politics and Culture of Contemporary Mexico), and Latin American Studies 325 (Topic 3: Politics and Culture of Contemporary Mexico). Introduction to the contemporary Mexican political system and the ways in which political change and democratization are recasting the political and civic culture of contemporary Mexico. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.

340C. Globalization. A sociological analysis of the interrelated economic, political, and cultural aspects of globalization. Examines the consequences of globalization for nations around the world and for groups within these nations. Sociology 321K (Topic: Globalization) and 340C may not both be counted. Prerequisite: Upper-division standing.

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 relationships. Sociology 321K (Topic: Violence) and 340D may not both be counted. Prerequisite: Upper-division standing.

340G. Sociology of Sexualities. Review of sociological perspectives on sexuality. Examines how social institutions in U.S. society shape sexual values, beliefs, and practices. Topics include changing cultural images of sexuality, sexual identities, and social movements. Sociology 321K (Topic: Sociology of Sexualities) and 340G may not both be counted. Prerequisite: Sociology 302, and either Sociology 333K or three semester hours of coursework in women's and gender studies.

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. Sociology 321K (Topic: Aging and the Life Course) and 340L may not both be counted. Prerequisite: Upper-division standing.

340R. Religion and Global Change. The global spread and transformations of the major world religions, the interactions between them, and the different social impacts these traditions have on society. Focuses mainly on Christian traditions, but includes various schools of Hinduism, Buddhism, Judaism, and Islam. Sociology 321K (Topic: Religion and Global Change) and 340R may not both be counted. Prerequisite: Upper-division standing.

343. Religion and Society. Same as Religious Studies 337. The growth and decline of religious groups and traditions; “sects” and new religions; comparative sociology of religion; the United States religious landscape; religion and individual health and well-being; spirituality and other aspects of social life. Religious Studies 361 (Topic 16: Religion and Society) and Sociology 343 may not both be counted. Prerequisite: Upper-division standing.

344. Racial and Ethnic Relations. Contemporary racial and ethnic problems; emphasis on minority groups in the United States. Prerequisite: Upper-division standing.


350N. Research Internship. Fieldwork in research and analysis on sociological problems and institutions. About ten hours of fieldwork a week for one semester. 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.

352. Social Movements. Characteristics of crowds, publics, and social movements; their role in social organization and social change. Prerequisite: Upper-division standing.

352M. Topics in Interdisciplinary Social Science. An interdisciplinary analysis of significant social, economic, and political issues. 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 325M, and Linguistics 373 (Topic 2: Language and Speech in American Society). Prerequisite: Anthropology 302, 305, 307, or Linguistics 306; or consent of instructor. 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.
Upper-division standing and six semester hours of lower-division coursework in government.

Topic 8: Contemporary American Social Theory. Same as Government 335M (Topic 9: Contemporary American Social Theory) and Philosophy 365 (Topic 5: Contemporary American Social Theory). Government 335M (Topic: Social Theory) and Sociology 352M (Topic 8) may not both be counted. Prerequisite: Upper-division standing and six semester hours of lower-division coursework in government.


353. Industrial Sociology. The work setting; the formal organization of work; individual and collective adaptation in industrial organizations; bureaucracy as a social problem. Prerequisite: Upper-division standing.


358C. Sociology of Entrepreneurship. Same as African and African American Studies 358C and Management 337 (Topic 16: Sociology of Entrepreneurship). Examines the creation of entrepreneurial activities in the United States, including those of all racial and ethnic groups. African and African American Studies 374 (Topic: Sociology of Entrepreneurship) and Sociology 358C may not both be counted. Prerequisite: For management majors, one of the following courses with a grade of at least C, or two of the following courses with a grade of at least C in each: Management 335, 335H, 336, 336H, Operations Management 335, 335H; for others, sixty semester hours of college coursework.


362. Social Change. Theories of how and why society changes, with special emphasis on technological innovations, social movements, and demographic transitions. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

369K. Population and Society. The study of populations, including their growth, age structure, and patterns of fertility, mortality, and migration; the social causes and consequences of these phenomena. Prerequisite: Upper-division standing.

369L. Analytical Demography. Formal demography; stable population theory; life tables and techniques of mortality estimation; estimates and projections. Prerequisite: Upper-division standing and college algebra or the equivalent.

679H. Honors Tutorial Course. An individual conference course to provide training in sociological research and writing. Conference course for two semesters, with additional meeting times to be arranged. Prerequisite: For 679HA, upper-division standing and admission to the Sociology Honors Program; for 679HB, Sociology 679HA.

379M. Sociological Theory. Restricted to sociology majors. Critical examination of major sociological theories and their relevance to current research and social conditions. Prerequisite: Upper-division standing, and six semester hours of coursework in sociology or consent of instructor.

379N. Conference Course. Supervised individual study of selected problems in sociology. 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.

DEPARTMENT OF SPANISH AND PORTUGUESE

CREDIT AND PLACEMENT BY EXAMINATION

The placement test in Spanish is the University of Wisconsin College-Level Placement Test in Spanish. A student with no college credit in Spanish is encouraged to take this test before enrolling in any Spanish course if he or she took any Spanish in high school.

Students who took Spanish in high school should enroll in Spanish 508K, Alternate First-Year Spanish II. If a student wishes to enroll in a more advanced course, he or she must take the placement test first.

Students who have taken Spanish courses at the University of Texas at Austin are not eligible to take the placement test unless they obtain approval in advance from the lower-division coordinator for Spanish.

Spanish credit already earned is not affected by the results of the placement test.

All students with some knowledge of Portuguese should take a placement test given by the lower-division coordinator for Portuguese.

COURSE SELECTION

1. A student with no knowledge of Spanish may choose from the following courses:
   a. Spanish 506, First-Year Spanish I, an introduction to the fundamentals of Spanish that emphasizes the four skills (listening, speaking, reading, writing) progressively.
   b. Spanish 604, Accelerated Beginners’ Spanish, which combines the coursework of the first two semesters, Spanish 506 and 507, into one semester. This course is intended primarily for graduate students, students in Latin American studies, language majors who wish to add a second language, and students who demonstrate exceptional language ability or scholarship.

2. A student who receives credit for Spanish 506 through the placement examination must take Spanish 508K, Alternate First-Year Spanish II. Spanish 508K is a beginning-level course for students who studied Spanish in high school.

3. A student who receives credit for Spanish 506 and 507 through the placement examination may choose from the following courses:
   b. Spanish 612, Accelerated Second-Year Spanish: Oral Expression, Reading, and Composition, which combines the coursework of the third and fourth semesters, Spanish 312K and 312L, into one semester. This course is intended primarily for graduate students, students in Latin
American studies, language majors who wish to add a second language, and students who demonstrate exceptional language ability or scholarship. The prerequisite for Spanish 612 is Spanish 604 with a grade of at least B or 507 or 508K with a grade of A; and written consent of the lower-division coordinator in Spanish.

4. Students with transfer credit or credit by examination for three semesters of Spanish (506, 507, and 312K) must take Spanish 312L, Second-Year Spanish II: Oral Expression, Reading, and Composition.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

PORTUGUESE CIVILIZATION: PRC

Lower-Division Course

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad advisor 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

320E. Portuguese and Brazilian Civilization. Social, literary, and cultural topics of Portugal, Brazil, Portuguese Africa, and Portuguese Asia. Conducted in English. May be repeated for credit when the topics vary. May be counted toward a major or a minor in Portuguese. May not be counted toward fulfillment of the foreign language requirement for any bachelor's degree. Prerequisite: Upper-division standing.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad advisor 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

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 on pages 658–662.

Lower-Division Courses

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 604, 406 and 407, 508. Prerequisite: Consent of the lower-division coordinator for Portuguese.

406 (TCCN: PORT 1411). First-Year Portuguese I. Four class hours a week for one semester. Only one of the following may be counted: Portuguese 604, 406 and 407, 508.

407 (TCCN: PORT 1412). First-Year Portuguese II. Four class hours a week for one semester. Only one of the following may be counted: Portuguese 604, 406 and 407, 508. Prerequisite: Portuguese 406 with a grade of at least C.

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 604, 406 and 407, 508. Prerequisite: Spanish 312L with a grade of at least B.

612. Accelerated Second-Year Portuguese: Oral Expression, Reading, and Composition. Covers the same material as Portuguese 312K and 312L, but in one semester. Six lecture hours a week for one semester. Only one of the following may be counted: Portuguese 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 lower-division coordinator for Portuguese.

312K (TCCN: PORT 2311). Second-Year Portuguese I: Oral Expression, Reading, and Composition. Only one of the following may be counted: Portuguese 612, 312K and 312L, 516. Prerequisite: Portuguese 604, 407, or 508 with a grade of at least C.

312L (TCCN: PORT 2312). Second-Year Portuguese II: Oral Expression, Reading, and Composition. Only one of the following may be counted: Portuguese 612, 312K and 312L, 516. Prerequisite: Portuguese 312K with a grade of at least C.

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 612, 312K and 312L, 516. Prerequisite: Portuguese 508 with a grade of at least B.

318. Conversation and Composition. Intensive practice in oral expression, based on cultural readings, with some writing. Prerequisite: Portuguese 312L. With consent of the lower-division coordinator for Portuguese, Portuguese 312L may be taken concurrently.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad advisor 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

Unless otherwise noted below or in the Course Schedule, all upper-division courses are conducted in Portuguese.

321. Practical Phonetics. Recommended for Portuguese majors, especially for those preparing to teach. A thorough review of Portuguese pronunciation, phonetics, and oral reading. Prerequisite: Portuguese 612 or 312L.

322C. Conference Course in Luso-Brazilian Civilization. Prerequisite: Portuguese 612 or 312L, and written consent of the department chair.
322L. Conference Course in Luso-Brazilian Literature. Prerequisite: Portuguese 612 or 312L, and written consent of the department chair.

326K. Advanced Conversation and Composition. Advanced, intensive practice in both oral and written expression based on cultural readings. Prerequisite: Portuguese 612 or 312L.

327K. Introduction to Brazilian Literature before 1800. Survey of literature in colonial Brazil from its earliest manifestations in the sixteenth century through the late eighteenth century. Portuguese 327 and 327K may not both be counted. Prerequisite: Portuguese 612 or 312L.

327L. Introduction to Brazilian Literature since 1800. Survey of Brazilian drama, poetry, and prose. Includes the broad literary and cultural movements of the period from the early nineteenth century to the twentieth century. Portuguese 327 and 327L may not both be counted. Prerequisite: Portuguese 612 or 312L.

328. Introduction to Portuguese Literature. Main literary trends and principal writers of Portugal. Prerequisite: Portuguese 612 or 312L.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

341. Luso-Brazilian Civilization and Culture. Analysis of social, political, and cultural aspects of Portugal and/or Brazil. May be repeated for credit when the topics vary. Prerequisite: Portuguese 612 or 312L.

362. Advanced Composition. Translation of English texts into Portuguese and free composition; special attention to idiomatic expressions and to grammatical and syntactical features. Prerequisite: Portuguese 612 or 312L.

364L. Applied Linguistics. Introduction to the linguistic structure of Portuguese; application of linguistic principles to the teaching of Portuguese. Prerequisite: Portuguese 612 or 312L.

375. Luso-Brazilian Literature. Representative writers and significant periods of Luso-Brazilian literature. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division coursework in Portuguese. Topic S: Brazil: An Introduction. Same as Latin American Studies 370P (Topic 1: Brazil: An Introduction).

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.

379H. Honors Thesis. Supervised individual research on a topic in literature, linguistics, or civilization. The equivalent of three lecture hours a week for one semester. May be repeated for credit. Prerequisite: Upper-division standing, admission to the Portuguese Honors Program, and consent of the honors adviser.

SPANISH: SPN

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 on pages 658–662.

Lower-Division Courses

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. Offered on the letter-grade basis only. May not be used to fulfill the undergraduate foreign language requirement. Prerequisite: Graduate standing.

604. Accelerated Beginners’ Spanish. Designed primarily for language majors and students who demonstrate exceptional language ability or scholarship. A six-hour course comparable to Spanish 506 and 507. Six lecture hours a week for one semester. Offered in the fall semester only. May not be counted by students with credit for Spanish 506, 306C, 507, or 508K. Prerequisite: Written consent of the lower-division coordinator for Spanish.

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. Offered every spring semester. Offered on the letter-grade basis only. May not be used to fulfill the undergraduate foreign language requirement. Prerequisite: Graduate standing, and Spanish 301 or consent of instructor.

506 (TCCN: SPAN 1511). First-Year Spanish I. Designed for students who have not previously studied any Spanish. Five class hours a week for one semester. Only one of the following may be counted: Spanish 604, 506, 306C.

507 (TCCN: SPAN 1512). First-Year Spanish II. Five class hours a week for one semester. Only one of the following may be counted: Spanish 604, 507, 508K. Prerequisite: Spanish 506 completed at the University of Texas at Austin with a grade of at least C. Students who receive credit for Spanish 506 through the placement examination or by transfer must take Spanish 508K instead of 507.

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 class hours a week for one semester. Only one of the following may be counted: Spanish 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.

612. Accelerated Second-Year Spanish: Oral Expression, Reading, and Composition. A six-semester-hour course comparable to Spanish 312K and 312L combined. Six lecture hours a week for one semester. Offered in the spring semester only. Spanish 612 and 312K may not both be counted; Spanish 612 and 312L may not both be counted. Prerequisite: Spanish 604 with a grade of at least B or 507 or 508K with a grade of A, and written consent of the lower-division coordinator in Spanish.
312K (TCCN: SPAN 2311). Second-Year Spanish I: Oral Expression, Reading, and Composition. Spanish 612 and 312K may not both be counted. Prerequisite: Spanish 604, 507, or 508K, with a grade of at least C, or an appropriate score on the University of Wisconsin College-Level Placement Test in Spanish.

312L (TCCN: SPAN 2312). Second-Year Spanish II: Oral Expression, Reading, and Composition. Spanish 612 and 312L may not both be counted. Prerequisite: Spanish 312K with a grade of at least C, or an appropriate score on the University of Wisconsin College-Level Placement Test in Spanish.

315N. Readings in Hispanic Literature. Readings in various literary genres and in the literatures of the Spanish-speaking countries. Development of skills needed to read and to discuss literary texts in Spanish. Spanish 315N and 318 may not both be counted. May not be counted toward a major in Spanish. Prerequisite: Spanish 612 or 312L.

318. Conversation and Composition. Designed to give intensive practice in oral expression, based on cultural readings, with some writing. Spanish 315N 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. With consent of the lower-division coordinator for Spanish, Spanish 312L may be taken concurrently.

319. Advanced Oral Expression. Designed to develop listening comprehension and oral skill to an advanced level. May not be counted toward a major in Spanish. Recommended for all Spanish majors. Prerequisite: Consent of instructor.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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. May not be counted toward a major in Spanish.

Upper-Division Courses

Unless otherwise noted below or in the Course Schedule, all upper-division courses except Spanish 349 are conducted in Spanish.

322K. Civilization of Spanish America. Same as Latin American Studies 370S (Topic 3: Civilization of Spanish America). Survey of the social and cultural evolution of the Spanish American countries. Three lecture hours and one discussion hour a week for one semester. Prerequisite: Spanish 612 or 312L.

325K. Introduction to Spanish American Literature through Modernism. Same as Latin American Studies 370S (Topic 4: Introduction to Spanish American Literature through Modernism). Main literary trends and principal writers in Spanish America from the sixteenth century through Modernism. Prerequisite: Spanish 612 or 312L.

325L. Introduction to Spanish American Literature since Modernism. Same as Latin American Studies 370S (Topic 5: Introduction to Spanish American Literature since Modernism). Main literary trends and principal writers in Spanish America since Modernism. Prerequisite: Spanish 612 or 312L.

326K. Introduction to Spanish Literature before 1700. Main literary trends and principal writers from the Middle Ages through the Golden Age. Prerequisite: Spanish 612 or 312L.

326L. Introduction to Spanish Literature since 1700. Main trends and principal writers, with emphasis on the Romantics, the Realists of the nineteenth century, the Generation of '98, and contemporary figures. Prerequisite: Spanish 612 or 312L.

327G. Advanced Grammar and Composition I. Study and practice of Spanish grammar, focusing on grammar points of particular concern to English speakers. Includes oral exercises and guided composition. Spanish 327 and 327G may not both be counted. Prerequisite: Spanish 612 or 312L.

327W. Advanced Grammar and Composition II. Designed to develop writing skills needed for upper-division coursework in Spanish. Emphasizes grammar using various topics in Spanish language, literature, and culture. Explores different compositional styles. Prerequisite: Spanish 327G (or 327).

28. 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 612 or 312L.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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. May not be counted toward a major in Spanish.

341K. Spanish-Language Literature of the Southwest. Same as Mexican American Studies 374 (Topic 13: Spanish-Language Literature of the Southwest) and Latin American Studies 370S (Topic 6: Spanish-Language Literature of the Southwest). The study of culturally valuable Chicano literary texts; related readings in Mexican and other Hispanic works. Prerequisite: Spanish 612 or 312L.

345L. Introduction to Hispanic Linguistics. Introduction to the study of the Spanish language through different areas of linguistics such as phonology, morphology, syntax, semantics, socio linguistics, and second-language acquisition. Prerequisite: Spanish 327G (or 327). Linguistics 306 is recommended but not required.

346. Practical Phonetics. Recommended for Spanish majors, especially for those preparing to teach. A thorough review of Spanish pronunciation, phonetics, and oral reading. Prerequisite: Spanish 612 or 312L.

347L. Linguistics in Translation. Conducted in English. May be repeated for credit when the topics vary. 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. Prerequisite: Varies with the topic and is given in the Course Schedule. Topic 1: Language, Culture, and Society in Latin America.

349. Literature in Translation. Conducted in English. May be repeated for credit when the topics vary. 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. Prerequisite: Varies with the topic and is given in the Course Schedule.
350. Studies in Hispanic Life and Culture. Sequel to Spanish 322K and 328, approaching in a more specialized way the study of important currents in Hispanic civilization. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.


Topic 3: The Indian in Spanish American Literature. Same as Latin American Studies 370S (Topic 17: The Indian in Spanish American Literature). Prerequisite: Spanish 322K.


Topic 5: Tracking Cultures: Literary and Cultural Points of Contact. Prerequisite: Upper-division standing and consent of instructor.

Topic 6: Tracking Cultures: Cultural Itineraries in Spain and Morocco. Prerequisite: Upper-division standing and consent of instructor.

Topic 8: Cultures in Contact in Medieval Spain. Jewish Studies 361 (Topic: Cultures in Contact in Medieval Spain) and Spanish 350 (Topic 8) may not both be counted. Prerequisite: Spanish 328.

Topic 9: History of the Spanish Civil War. Prerequisite: Spanish 328.


Topic 11: Mexican and Mexican American Ballads. Same as Latin American Studies 370S (Topic 20: Mexican and Mexican American Ballads) and Mexican American Studies 374 (Topic 29: Mexican and Mexican American Ballads). Examines the corrido genre in the nineteenth and twentieth centuries, with special focus on its pivotal role in the Mexican Revolution and in the collision between cultures in the border zone. Prerequisite: Spanish 322K.


352. Topics in Spanish and Spanish American Literature. Major writers and works of Spanish and Spanish American literature. 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 328.

Topic 2: Literature of the Spanish Civil War. Spanish 350 (Topic 3: Literature of the Spanish Civil War) and 352 (Topic 2) may not both be counted. Prerequisite: Spanish 325K, 325L, 326K, 326L, or 328.

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 or 325L.

362K. Spanish Drama and Poetry. A study of major writers and trends. Topics include modern drama, lyric poetry, Hispanic film. May be repeated for credit when the topics vary. Prerequisite: Spanish 325K, 325L, 326K, or 326L.

364K. Spanish American Drama and Poetry. Main trends and principal writers, with emphasis on poetry. May be repeated for credit when the topics vary. Prerequisite: Spanish 325K, 325L, 326K, or 326L.


364L. Applied Linguistics. Practical application of linguistic principles to the teaching of Spanish. Prerequisite: Spanish 346.

365C. Conference Course in Hispanic Civilization. Prerequisite: Spanish 612 or 312L; and written consent of the department chair.

365G. Conference Course in Hispanic Linguistics. Prerequisite: Spanish 612 or 312L; and written consent of the department chair.

365K. Contemporary Spanish American Prose. Same as Latin American Studies 370S (Topic 10: Contemporary Spanish American Prose). Novels, short stories, and essays from different regions of Hispanic America. Prerequisite: Spanish 325K, 325L, 326K, or 326L.

365L. Conference Course in Hispanic Literature. Prerequisite: Spanish 612 or 312L; and written consent of the department chair.

366K. Nineteenth-Century Spanish Literature. Literary trends, with intensive and extensive reading of representative works. Prerequisite: Spanish 325K, 325L, 326K, or 326L.

367K. Syntax and Stylistics. Examination of Spanish syntax and style: the study of literary language and style, translation of idiomatic English, free composition, oral expression, rhetoric, and style. May be repeated for credit when the topics vary. May be taught in English or Spanish, depending on the topic. Topics taught in English may not be counted toward fulfillment of the foreign language requirement for any degree; they may not be counted toward a major in Spanish without the consent of the chair of the Department of Spanish and Portuguese. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Advanced Oral Expression for Teachers. Restricted to students in the language teaching concentration. Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327), and consent of instructor.

Topic 2: Comparative Structure of English and Spanish. Same as Latin American Studies 370S (Topic 11: Comparative Structure of English and Spanish). Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).

Topic 3: Spanish Grammar. Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).

Topic 4: Translation Principles and Practice. Same as Latin American Studies 370S (Topic 12: Translation Principles and Practice). Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).

Topic 5: Interpretation Principles and Practice. Same as Latin American Studies 370S (Topic 14: Interpretation Principles and Practice). Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).

Topic 6: Literary Translation: Analysis and Criticism. Same as Latin American Studies 370S (Topic 15: Literary Translation: Analysis and Criticism). Prerequisite: Six semester hours of upper-division coursework in Spanish, including Spanish 327G (or 327).
379H. 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. \textit{Prerequisite:} Upper-division standing, admission to the Spanish Honors Program, and consent of the honors adviser.

379H. Honors Thesis. Supervised individual research on a literary, linguistic, or cultural topic. The equivalent of three lecture hours a week for one semester. May be repeated for credit. \textit{Prerequisite:} Upper-division standing, admission to the Spanish Honors Program, and consent of the honors adviser.

SWEDISH
See Department of Germanic Studies, page 372.

TAMIL
See Department of Asian Studies, page 330.

TURKISH
See Department of Middle Eastern Studies, page 404.

TUTORIAL COURSES
See Plan II Honors Program, page 409.

URBAN STUDIES
See Department of Geography and the Environment, page 364.

URDU
See Department of Asian Studies, page 330.

UTEACH-LIBERAL ARTS
Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

UTEACH-LIBERAL ARTS: UTL

Lower-Division Courses

101. Introduction to the Teaching Profession. Internship in an elementary school under the supervision of a mentor teacher. Course readings and a weekly seminar 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; ten hours of fieldwork a semester are also required. Offered on the letter-grade basis only. \textit{Prerequisite:} Consent of the UTeach adviser in the College of Liberal Arts.

202. Introduction to Teaching in the Middle School. Internship in a middle school under the supervision of a mentor teacher. Course readings and a weekly seminar complement the 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. \textit{Prerequisite:} Consent of the UTeach adviser in the College of Liberal Arts.

303E. Teaching English in the High School. Internship with a high school English teacher. Course readings and a weekly seminar complement the 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 class hours a week for one semester; at least thirty hours of fieldwork a semester is required. Offered on the letter-grade basis only. \textit{Prerequisite:} UTeach-Liberal Arts 101 and consent of the UTeach adviser in the College of Liberal Arts.
303L. Teaching Languages Other Than English in High School. Internship in a high school under the supervision of a mentor teacher. Course readings and a weekly seminar complement the field experience. Seminar topics include standards, teaching for proficiency, curriculum design and implementation. Prerequisite: Consent of the UTeach adviser in the Center for Women's and Gender Studies. Women's and Gender Studies 303L may not both be counted. Prerequisite: UTeach-Liberal Arts 101; 202 with a grade of at least B; and consent of the UTeach adviser in the College of Liberal Arts.

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 a semester. May not be counted toward any degree. Prerequisite: Consent of the UTeach adviser in the College of Liberal Arts.

Upper-Division Course
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. May be repeated for credit when the topics vary. Prerequisite: Consent of the UTeach adviser in the College of Liberal Arts.

VIETNAMESE
See Department of Asian Studies, page 330.

CENTER FOR WOMEN'S AND GENDER STUDIES
Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

WOMEN'S AND GENDER STUDIES: WGS

Lower-Division Courses
301. Introductory Topics in Women's and Gender Studies. Topics in addition to the following may be offered; these are listed in the Course Schedule. Three lecture hours a week for one semester, or as required for the topic. May be repeated for credit when the topics vary. Women's and Gender Studies 301 and Women's Studies 301 may not both be counted unless the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

Upper-Division Courses
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. May be repeated for credit when the topics vary. Women's and Gender Studies 321 and Women's Studies 321 may not both be counted unless the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Women's and Gender Studies: Humanities. Same as American Studies 323 and English 370W. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.
Introduction to Women's and Gender Studies in the Social Sciences. Multidisciplinary course using approaches from the social sciences to examine gender constructs and male/female roles. Topics are listed in the Course Schedule. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and six additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

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: Upper-division standing.
Topic 10:  **Iranian Women Writers.** Women's and Gender Studies 340 (Topic 10) is same as Persian 361 (Topic 3:  **Iranian Women Writers**) and Middle Eastern Studies 324K (Topic 1:  **Iranian Women Writers**). Prerequisite: Upper-division standing or consent of instructor.

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**), Middle Eastern Studies 322K (Topic 17:  **Veiling in the Muslim World**), and Religious Studies 358 (Topic 5:  **Veiling in the Muslim World**). Only one of the following may be counted: Middle Eastern Languages and Cultures 372 (Topic 13:  **Veiling in the Muslim World**), Religious Studies 363 (Topic 2:  **Veiling in the Muslim World**), Women's and Gender Studies 340 (Topic 11), Women's Studies 340 (Topic 11:  **Veiling in the Muslim World**). Prerequisite: Upper-division standing or consent of instructor.

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**). Only one of the following may be counted: Japanese 361 (Topic 7:  **Women in Modern Japanese Fiction**), Women's and Gender Studies 340 (Topic 12), Women's Studies 340 (Topic 12:  **Women in Modern Japanese Fiction**). Prerequisite: Upper-division standing or consent of instructor.

Topic 14:  **Self-Revelation in Women’s Writing.** Women’s and Gender Studies 340 (Topic 14) is same as African and African American Studies 374 (Topic 26:  **Self-Revelation in Women’s Writing**), Comparative Literature 323 (Topic 4:  **Self-Revelation in Women’s Writing**), English 376L (Topic 9:  **Self-Revelation in Women’s Writing**), and Middle Eastern Studies 322K (Topic 26:  **Self-Revelation in Women’s Writing**). Middle Eastern Languages and Cultures 374 (Topic 3:  **Self-Revelation in Women’s Writing**) and Women's and Gender Studies 340 (Topic 14) may not both be counted. Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.


Topic 17:  **Italian Women Writers.** Women’s and Gender Studies 340 (Topic 17) is same as English 322 (Topic 38:  **Italian Women Writers**) and Italian Civilization 349 (Topic 5:  **Italian Women Writers**). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, 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 or consent of instructor.

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 21:  **Mass Media and Minorities.** A historical and sociological overview of media constructions of race, ethnicity, gender, class, issues, and leaders. Prerequisite: Upper-division standing.

**345. Topics in Women’s and Gender Studies.** Topics in addition to the following may be offered; these are listed in the **Course Schedule.** Three lecture hours a week for one semester, or as required for the topic. May be repeated for credit when the topics vary. Women's and Gender Studies 345 and Women's Studies 345 may not both be counted unless the topics vary. Some topics partially fulfill legislative requirement for American history; these are identified in the **Course Schedule.** Prerequisite: Varies with the topic and is given in the **Course Schedule.**

**Topic 1:  Child Development.**

**Topic 2: The Family.** Family history and origins; comparative family systems; the American family; social antecedents of family structure and process; family formation and dissolution; family and society.

**Topic 4: Fostering Social Competence in Young Children.** Same as Human Development and Family Sciences 366. Child and adult interactions and guidance strategies that foster social competence of young children. Two lecture hours a week for one semester, and four laboratory hours a week to be arranged as a four-hour block between 8:30 AM and 4:45 PM, Monday through Thursday. Only one of the following may be counted: Human Development and Family Sciences 316, Women's and Gender Studies 345 (Topic 4), Women's Studies 301 (Topic 8:  **Guidance in Adult-Child Relationships**), 345 (Topic 4:  **Guidance in Adult-Child Relationships**). Prerequisite: Human Development and Family Sciences 313 and 113L (or Child Development 313 and 113L), and three semester hours of upper-division course-work in human development and family sciences, education, psychology, or sociology.

**Topic 5: Women and Sport.** Same as Kinesiology 352K (Topic 3:  **Women and Sport**), Women's and Gender Studies 345 (Topic 5) and Women's Studies 345 (Topic 5:  **Women and Sport**) may not both be counted.

**Topic 6: Introduction to Developmental Psychology.** Physical, social, and cognitive development in humans. Only one of the following may be counted: Psychology 333D, Women's and Gender Studies 345 (Topic 6), Women's Studies 345 (Topic 6:  **Introduction to Developmental Psychology**). Prerequisite: Upper-division standing. Psychology 301 with a grade of at least C, and Psychology 418 or an equivalent statistics course with a grade of at least C.

**Topic 8: Gender-Based Discrimination.** Same as American Studies 370 (Topic 6:  **Gender-Based Discrimination**) and Government 357M (Topic 1:  **Gender-Based Discrimination**). Prerequisite: Six semester hours of lower-division coursework in government.

**Topic 9: Women in Classical Antiquity.** Same as Classical Civilization 348 (Topic 7:  **Women in Classical Antiquity**). Only one of the following may be counted: Classical Civilization 342 (Topic:  **Women in Classical Antiquity**), Women's and Gender Studies 345 (Topic 9), Women's Studies 345 (Topic 9:  **Women in Classical Antiquity**).
Topic 10: *Freudians and Feminisms.* Same as Germanic Civilization 362E (Topic 1: *Freudians and Feminisms*) and Philosophy 365 (Topic 1: *Freudians and Feminisms*). Only one of the following may be counted: English 322 (Topic 4: *Freudians and Feminisms*), Women's and Gender Studies 345 (Topic 10), Women's Studies 345 (Topic 10: *Freudians and Feminisms*). Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing.


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 Germanic Civilization 323E (Topic 1: *Isak Dinesen/Karen Blixen* and Scandinavian 373 (Topic 6: *Isak Dinesen/Karen Blixen*). English 322 (Topic 7: *Isak Dinesen/Karen Blixen*) and Women's and Gender Studies 345 (Topic 13) may not both be counted. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 14: *Social Dramas of Henrik Ibsen.* Same as English 322 (Topic 17: *Social Dramas of Henrik Ibsen*) and Scandinavian 323 (Topic 2: *Social Dramas of Henrik Ibsen*). Men and women in their public and private lives. Prerequisite: For English majors, Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing; for others, upper-division standing or consent of instructor.

Topic 15: *Contemporary Women Authors.* Same as African and African American Studies 374 (Topic 13: *Contemporary Women Authors*) and English 370W (Topic 2: *Contemporary Women Authors*). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 16: *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 370W (Topic 4: *Language and Gender*), Linguistics 373 (Topic: *Language and the Sexes*), Women's and Gender Studies 345 (Topic 17), Women's Studies 345 (Topic 17: *Language and Gender*), 345 (Topic: *Language and the Sexes*). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 17: *Postcolonial Women Writers.* Same as English 370W (Topic 8: *Postcolonial Women Writers*). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 18: *Social Development in Children.* Development of social behavior (for example, sex typing and aggression) and social relationships. Only one of the following may be counted: Psychology 333R, Women's and Gender Studies 345 (Topic 19), Women's Studies 345 (Topic 19: *Social Development in Children*). 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 19: *Women through the Life Cycle.* Same as Rhetoric and Writing 379C (Topic 3: *Women through the Life Cycle*), Women's and Gender Studies 345 (Topic 20) and Women's Studies 345 (Topic 20: *Women through the Life Cycle*) may not both be counted. Prerequisite: Completion of at least thirty semester hours of coursework, including English 316K or the equivalent, and consent of instructor.

Topic 20: *Male-Female Communication.* Same as Communication Studies 365K. 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. Women's and Gender Studies 345 (Topic 21) and Women's Studies 345 (Topic 21: *Male-Female Communication*) may not both be counted. Prerequisite: Upper-division standing.

Topic 21: *Women Mystery Writers.* Same as English 370W (Topic 6: *Women Mystery Writers*). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.


Topic 23: *Sociology of Education.* Same as African and African American 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. Only one of the following may be counted: African and African American Studies 320 (Topic: *Sociology of Education*), Sociology 321K (Topic: *Sociology of Education*), Women's and Gender Studies 345 (Topic 23), Women's Studies 345 (Topic 23: *Sociology of Education*). Prerequisite: Upper-division standing.

Topic 24: *Women and Social Development in Children.* Development of social behavior (for example, sex typing and aggression) and social relationships. Only one of the following may be counted: Psychology 333R, Women's and Gender Studies 345 (Topic 19), Women's Studies 345 (Topic 19: *Social Development in Children*). 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 26: *American Dilemmas.* Examination of critical American social problems and how these problems are a natural outgrowth of the existing social structure. Prerequisite: Upper-division standing.

Topic 27: *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: *Gay and Lesbian Literature and Culture.* Same as English 370W (Topic 8: *Gay and Lesbian Literature and Culture*). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 30: *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. Introduction to the concepts of leadership and the application of those concepts in public and political leadership. Prerequisite: Upper-division standing.

Topic 35: Psychosocial Issues in Women's Health. Includes 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: Upper-division 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 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: Cultures of Immigration and Dislocation), Women's and Gender Studies 34S (Topic 39), Women's Studies 34S (Topic: Cultures of Immigration and Dislocation). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

Topic 40: Major Authors: Virginia Woolf. Same as English 370W (Topic 10: Major Authors: Virginia Woolf). Prerequisite: Rhetoric and Writing 306 and English 316K or their equivalents, and three additional semester hours of lower-division coursework in either English or rhetoric and writing.

360. Research and Thesis in Women's and Gender Studies. Individual project or paper to be completed under the direction of a women’s and gender studies faculty member. Conference course. Women’s and Gender Studies 360 and Women’s Studies 360 may not both be counted. Prerequisite: Consent of the women’s and gender studies adviser.

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. Women’s and Gender Studies 379L and Women’s Studies 379L may not both be counted. Prerequisite: At least twelve semester hours of coursework in women’s and gender studies and consent of the director.

379S. Senior Seminar. Intensive study of selected topics in women’s and gender studies. May not be repeated for credit. Prerequisite: Completion of at least ninety semester hours of coursework, including nine hours in women's and gender studies.

YIDDISH

See Department of Germanic Studies, page 372.

YORUBA

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 concentration, 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.

The assumption is sometimes made by both teachers and students that independent and creative study is exclusively for the gifted. In fact, the primary condition 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—not only in special honors courses and seminars and in conference, studio, or laboratory work, but also in their regular courses.

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.
COLLEGE ACADEMIC PROGRAMS

The College of Natural Sciences offers the following programs to supplement the degree plans described on pages 454–490. Additional information is given at http://cns.utexas.edu/student/.

EMERGING SCHOLARS PROGRAM

The Emerging Scholars Program (ESP), sponsored by the faculty of the Department of Mathematics and the College of Natural Sciences, is a nationally recognized program in which freshmen calculus students also take a supplemental problem-solving course. Students are invited to participate who have strong academic credentials and a history of achievement in mathematics and sciences. The program allows highly motivated mathematics, science, and engineering majors to work closely with faculty members and other high-achieving students. Students in the program have the chance not only to excel in calculus but also to learn calculus in a more thorough, more satisfying way.

TEXAS INTERDISCIPLINARY PLAN

The Texas Interdisciplinary Plan (TIP) is a program designed to provide freshmen with the advantages of a small-college learning environment, including reserved seats in a balance of small and large classes, learning cohorts, mentoring, tutoring, advising, a critical thinking seminar, and social activities. TIP also helps students choose classes appropriate to their degree programs or career choices. Students are invited to apply to the program.

TEXAS INTERDISCIPLINARY PLAN (TEXAS IP) CURRICULUM

The Texas Interdisciplinary Plan (Texas IP) curriculum allows students to pursue an integrated course of study with a focus on the development and application of critical thinking skills. The eighteen-semester-hour program of study is designed to complement the student’s major with an interdisciplinary sequence of courses that may encompass the humanities, the social sciences, the natural sciences, and the arts. Students have the opportunity to present an original work in a capstone seminar. Those who plan to pursue the Texas IP curriculum should apply to the program adviser for admission no later than the end of their sophomore year. For more information, see http://www.utexas.edu/tip/TexasIP/.

Students who complete the requirements for the Texas IP curriculum receive a certificate. The requirements are

1. Critical Thinking Seminar: Liberal Arts 302, Philosophy 311, Natural Sciences 302, or Natural Sciences 311. Selected courses may be substituted on a petition basis.
2. Critical Writing Seminar: Rhetoric and Writing 309K or 309S. Selected courses in the Division of Rhetoric and Writing may be substituted on a petition basis.
3. Three additional courses, including at least three semester hours of upper-division coursework, from an interdisciplinary topic area prescribed by the Texas Interdisciplinary Plan; or, with approval of the Texas IP Faculty Advisory Panel, a three-course interdisciplinary topic area designed by the student.
4. Senior Capstone Seminar: Liberal Arts 371 or Natural Sciences 371.

In the College of Liberal Arts, the Texas IP curriculum may be used to fulfill the minor requirement in the Bachelor of Arts, Plan I, with the exception of majors in Latin American studies, if all eighteen semester hours are completed. Spanish majors pursuing the Hispanic linguistics concentration are also excluded from using the Texas IP curriculum for the minor. Final approval of the Texas IP minor coursework rests with the College of Liberal Arts associate dean for academic and student affairs or the associate dean’s authorized representative.

In the College of Natural Sciences, the Texas IP curriculum may be used to complement any major. Some courses that are required by the Texas IP curriculum will also fulfill degree requirements established by the student’s major department and given later in this chapter; however, some of the eighteen hours of coursework in the curriculum may be in addition to the number of hours required for the degree.

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 Poster Session to recognize and reward students who participate in research. Additional opportunities vary from department to department; information is available in the Academic Advising Center for the student’s major.

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 sciences 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.
**ADMISSION**

Interested students are encouraged to apply for admission to the program at any time during their undergraduate careers. Applications are available in the Office of Special Projects in the College of Natural Sciences. Applicants must be considering a teaching career in middle grades or secondary school science, computer sciences, or math and must meet grade point average requirements. Students who are interested in early childhood through grade four certification should contact the College of Education.

**CERTIFICATION REQUIREMENTS**

UTeach-Natural Sciences prepares students in the College of Natural Sciences and the Jackson School of Geosciences for single-field certification in mathematics or computer sciences or for composite certification with biology, chemistry, geological sciences, or physics as the primary teaching field. (Composite certification requires forty-eight 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 UTeach-Natural Sciences office. However, students are strongly encouraged to consider the teaching options in biology, chemistry, geological sciences, mathematics, and physics. These incorporate not only the basic education requirements and 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 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.

**Coursework for Certification**

**Professional Development Sequence**

- UTeach-Natural Sciences 101, Secondary Teacher Education Preparation: STEP 1
- UTeach-Natural Sciences 110, Secondary Teacher Education Preparation: STEP 2
- UTeach-Natural Sciences 170, Student Teaching Seminar
- Curriculum and Instruction 650S, Secondary School Teaching Practicum
- Curriculum and Instruction 365C, Knowing and Learning in Math and Science
- Curriculum and Instruction 365D, Classroom Interactions
- Curriculum and Instruction 365E, Project-Based Instruction

Students seeking middle grades teacher certification must take the following courses in addition to the professional development sequence. To be recommended for certification, the student must earn a grade of at least C in each course.

- Educational Psychology 363M, Topic 3: Adolescent Development; or Psychology 301, Introduction to Psychology, and 304, Introduction to Child Psychology
- Curriculum and Instruction 371, Topic 10: Secondary School Reading in the Content Subjects

**Supporting Courses**

- Biology 337, Topic: Research Methods; Chemistry 368, Topic: Research Methods; or Physics 341, Topic: Research Methods
- History 329U, Perspectives on Science and Mathematics; or Philosophy 329U, Perspectives on Science and Mathematics

**THE ELEMENTS OF COMPUTING PROGRAM**

The Elements of Computing Program is designed to support computational work in other disciplines and to provide students with the skills in the use of computer applications. Any non–computer sciences major with a University grade point average of at least 2.00 may take any elements of computing course for which he or she meets the prerequisite. No application process is required.

Non–computer sciences majors who wish to build a concentration in computing may request certification in the elements of computing. Students who complete the following certification requirements and submit a request to the program director receive a certificate of completion of the program and a letter listing the courses taken. Additional information about the Elements of Computing Program is given at http://academics.cs.utexas.edu/undergraduate/nonmajor/elements.html.

The certification requirements are

1. Mathematics 305G with a grade of at least C, or an equivalent score on the SAT Mathematics Level 1 or Level 2 test.
2. Computer Sciences 303E and 313E, with a grade of at least C in each.
3. Two of the following courses, with a grade of at least C in each: Computer Sciences 323E, 324E, 326E, 327E, 329E.
4. The student must complete at least two long-session semesters in residence.

**INTERNATIONAL STUDIES IN SCIENCE**

A Certificate of International Studies in Science is awarded to students who fulfill specific requirements set out by the college's Study Abroad Committee. Information about the program is available from the Student Division of the Office of the Dean.
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 of Natural Sciences. Awards are made for reasons ranging from academic promise to financial need. Interested students should inquire at the department offices or at the Student Division of the Office of the Dean, Will C. Hogg 2.112.

NATURAL SCIENCES CAREER SERVICES

Natural Sciences Career Services, Will C. Hogg 2.308, offers career planning and job placement assistance for students and alumni. Career Services helps students with all aspects of their career planning and job search.

Career advisers are available to assist students individually, and workshops are held throughout the year. The staff offers interview tips, sets up mock interviews, and helps students with career planning, résumé writing, job search techniques, and business and professional etiquette.

Career Services helps students seeking full-time positions after graduation and those seeking part-time, intern, and cooperative education positions related to their academic majors and career goals. Job postings are available and on-campus interviews are held throughout the year. A Career Expo every fall brings students and employers together to discuss job openings and career information. Many company information sessions are scheduled on campus and a résumé referral service is available for students and employers.

A resource room provides a library of career information, including information on career options, company literature, employment and salary information, company contacts, books, and videotapes. Web access is available for students to register, submit their résumés, and sign up for interviews. Registered students are also contacted weekly by e-mail with career information.

Education Career Services, part of the College of Education, assists all University students who have completed a teacher certification program. 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.

As a complement to the assistance available from the college, the Career Exploration Center 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 the job search or for graduate study.

The University makes no promise to secure employment for each graduate.

ADMISSION AND REGISTRATION

ADMISSION

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

In the College of Natural Sciences, all students are admitted to the entry-level major for the field they wish to study. After completing some of the courses required for the degree, each student selects the major and the option he or she plans to pursue. Some programs have additional admission requirements; these are given below.

ADMISSION TO THE DEPARTMENT OF COMPUTER SCIENCES

Admission to the Bachelor of Arts degree program or the Bachelor of Science in Computer Sciences, option I, degree program is a two-step process. Students begin as pre–computer sciences majors and, after completing a sequence of lower-division courses, apply for admission to the major.

Application to the Bachelor of Science in Computer Sciences, option II (the Turing Scholars Program), is made by a different process than the one outlined below. The Turing Scholars Program is described on page 451.

THE PRE–COMPUTER SCIENCES MAJOR

Freshman and transfer applicants to the University who wish to major in computer sciences should apply to the pre–computer sciences major. Applicants who are admitted are expected to attend Orientation before they enter the University.

Pre–computer sciences students who lack either one year of programming in high school or credit for Mathematics 305G (precalculus) will be delayed by at least one semester in completing the basic sequence coursework that is required for admission to the computer sciences major.

ADMISSION TO THE MAJOR IN COMPUTER SCIENCES

To apply for admission to the Bachelor of Arts or the Bachelor of Science in Computer Sciences, option I, degree program, the student must earn a grade of at least C in each of four basic sequence courses: Computer Sciences 307, 313K, 315, and Mathematics 408C or 408L. He or she must complete at least two of these courses in residence at the University. These requirements apply both to pre–computer
sciences students and to other University students seeking admission to one of these two computer sciences programs.

Applications are evaluated after the end of each fall semester, spring semester, and summer session by the Department of Computer Sciences Admission Committee. 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.

ADMISSION TO THE COORDINATED PROGRAM IN DIETETICS

Freshman and transfer applicants to the University who plan to enter the Coordinated Program in Dietetics should apply for admission to the entry-level major in nutrition. When they have met the requirements described below, students may apply for admission to the Coordinated Program in Dietetics (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 (CPD), including Biology 311C and 416K; Chemistry 301, 302, 204, and 310M; and Nutrition 307, 107L, 311, 111L, and 315. A list of other recommended courses is available from the Department of Human Ecology. Students must also have a grade point average of at least 2.70 in coursework taken in residence at the University. Students should consult advisers in the Department of Human Ecology for information about the application process and deadlines. Application materials are available from the department.

The number of qualified students who want to enroll in the CPD may exceed the number who can be adequately instructed by the faculty and accommodated within available facilities. Admission decisions are based on the student’s grade point average in the biology, chemistry, and nutrition courses listed above, his or her University grade point average, and other factors. These factors may include, but are not limited to, the difficulty of the student’s previous coursework, work or volunteer experience, leadership, commitment to the profession of dietetics, and successful completion of the interview process. Students whose applications are denied may reapply.

ADMISSION TO THE TEXTILES AND APPAREL PROGRAM

The number of qualified students who want to major in textiles and apparel exceeds the number who can be adequately instructed by the faculty and accommodated within available facilities. The following policies have been adopted to provide the best possible educational experience for qualified students.

Freshman and transfer applicants to the University who plan to major in textiles and apparel should apply for admission as human ecology majors. When they have met the requirements described below, students may apply for admission to the textiles and apparel degree program. Students in the human ecology major have priority to register for Textiles and Apparel 205 and 105L. Students who are not in the human ecology or textiles and apparel major may register for textiles and apparel courses if space is available.

ADMISSION TO THE MAJOR IN TEXTILES AND APPAREL

To apply for admission to the Bachelor of Science in Textiles and Apparel, option I or option II, students first must earn a grade of at least C in each of the following basic sequence courses: Mathematics 408C or 408K, Chemistry 301, Textiles and Apparel 205 and 105L; at least six hours of this coursework must be completed in residence at the University. The student must also have a grade point average of at least 2.50 in coursework taken in residence at the University. Also included in the admission process for the apparel design specialization within option I is an assessment of basic machine sewing and construction skills. These requirements apply both to students with a major in human ecology and to other University students seeking admission to the textiles and apparel degree program. Students should consult advisers in the Department of Human Ecology for information about the application process and deadlines. Application materials are available from the department.

Applications for admission to the textiles and apparel degree program are evaluated each long-session semester by the Textiles and Apparel Admission Panel. Students whose applications are denied may reapply. 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 may include, but are not limited to, the difficulty of the student’s course load, course repetitions, life experiences, and performance on an assessment of apparel construction and design skills.

449 Admission and Registration
Admission to the textiles and apparel major is highly competitive; students may be denied admission even though they meet the coursework and grade point average requirements for application. Grade point averages required for admission vary from semester to semester. Students who plan to major in textiles and apparel should have an alternate degree plan in mind, such as the Bachelor of Arts with a major in human ecology, in case the application for admission is denied.

ADMISSION TO THE FIELD EXPERIENCE PROGRAMS

All textiles and apparel students must complete a field experience. Admission to the field experience programs is subject to the approval of the faculty admission panel. Option I, apparel design and conservation, includes a three-semester-hour field experience, the Apparel Design or Conservation Internship Program, offered as Textiles and Apparel 352D; students usually complete the internship during the senior year. The student must apply for admission to the internship program the semester before he or she plans to enter it. Application forms are available from the Department of Human Ecology. Before they apply, students must complete the following courses with a grade of at least C: Textiles and Apparel 205, 105L, 212K, 212L, 316L, 319, 126, 226L, 164K (Topic 1: Flat Pattern), and 264L (Topic 1: Flat Pattern).

Option II, retail merchandising, includes a nine-semester-hour field experience program, the Retail Merchandising Internship Program, offered as Textiles and Apparel 315K, 352M, and 355P; students normally complete the internship during the senior year. The student must apply for admission to the program the semester before he or she plans to enter it; materials, information about deadlines, and directions for application are available from the Department of Human Ecology. Before they apply, students must complete the following courses with a grade of at least C in each: Textiles and Apparel 205, 105L, 212K, 212L, 316Q, 319, and 376; Marketing 320F or Advertising 318F; Accounting 310F; Mathematics 305G or 408K; Mathematics 316, Statistics 309, or Educational Psychology 371; and Communication Studies 306M. Before beginning the internship, students must successfully complete competitive interviews with representatives from participating retail establishments.

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 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 before registration and are accessible through the registrar’s Web site, http://www.utexas.edu/student/registrar/. General Information is also sold at campus-area bookstores.

ACADEMIC ADVISING

Students in the College of Natural Sciences are advised by faculty members and by academic advisers at one of the college’s advising centers. Students who are not seeking a degree and those who have not yet selected a major are advised through the Student Division of the Office of the Dean.

Academic advising in the college begins after the twelfth class day in the fall and spring and after the fourth class day in the summer. Students for whom advising is required are encouraged to meet with an adviser as early as possible. Those who wait until the period immediately before registration may be unable to schedule an appointment and therefore may be unable to register.

ACADEMIC POLICIES AND PROCEDURES

REPEITION OF A COURSE

No student may enroll in any course in 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 in the College of Natural Sciences 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.

HONORS

University-wide honors are described on pages 14–16 and in General Information. In addition, the College of Natural Sciences encourages academic excellence through the Dean’s Scholars Program and the Turing Scholars Program. Students may also graduate with departmental honors and earn membership in one or more of the honorary scholastic societies open to undergraduates.

DEAN’S SCHOLARS HONORS OPTION

The Dean’s Scholars Honors option is offered in most fields in the College of Natural Sciences. Dean’s Scholars Honors 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. Upon completion of the Dean’s Scholars Honors option requirements, approved by the department faculty and the program director, and an approved thesis, the student graduates with the bachelor of science degree in his or her major with an honors option.

Application to the honors option is separate from, and in addition to, application to the University. Application materials and information about deadlines are available in the program office and at 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 undertaken, the quality of the essays required by the application, and the student’s interest and aptitude in math and science as demonstrated by extracurricular activities.

TURING SCHOLARS IN COMPUTER SCIENCES

The Department of Computer Sciences offers a comprehensive honors degree program for highly motivated and talented students. The key features of the program are an intensive, accelerated path through the core curriculum within the freshman year; a first-semester sophomore-year course that exposes students to significant concepts that are often not encountered until graduate school; special Turing Scholars sections of many advanced computer sciences courses; a second-semester sophomore-year 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 Sciences.

Application to the degree 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 Sciences and online. 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, his or her class rank, the rigor of the courses the student has taken, the quality of the essays required by the application, 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 on pages 472–474.

DEPARTMENTAL HONORARY SOCIETIES

Several departments within the College of Natural Sciences sponsor honorary scholastic and professional societies. For information about eligibility criteria and activities, the student should consult the appropriate department office or the faculty adviser for the society.

The University sponsors chapters of the following national organizations of interest to students in natural sciences: Alpha Chi Sigma, professional chemical fraternity; Alpha Epsilon Delta, honorary fraternity for students who have completed at least three semesters of premedical coursework; Beta Beta Beta, honorary biological society; Omicron Nu, honorary human ecology society; Pi Mu Epsilon, honorary mathematical society; Sigma Gamma Epsilon, honorary geological sciences society; Sigma Pi Sigma, honorary physics society; Upsilon Pi Epsilon, honorary computer sciences society.

DEPARTMENTAL HONORS PROGRAMS

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 PROGRAM

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 PROGRAM**

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 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 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 PROGRAM**

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) Biology 679H or two semesters of Biology 379H, *Honors Tutorial Course*; (2) a thesis or presentation 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 PROGRAM**

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 SCIENCES DEPARTMENTAL HONORS PROGRAM**

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 Sciences 379H, *Computer Sciences 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 sciences 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 PROGRAM**

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 Department 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*; 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 Human Development and Family Sciences 379H of at least 3.00, and a grade point average of at least 3.50 in coursework in the Department 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 PROGRAM

Majors who plan to seek special departmental honors in human ecology must follow the requirements of the Honors Program in Human Development and Family Sciences, Nutrition, or Textiles and Apparel.

MATHEMATICS DEPARTMENTAL HONORS PROGRAM

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.

NUTRITION DEPARTMENTAL HONORS PROGRAM

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 Department 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 379H of at least 3.00, and a grade point average of at least 3.50 in coursework in the Department 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 PROGRAM

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 379H, 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 PROGRAM

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 Department 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 Department 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 OF NATURAL SCIENCES

All students must fulfill the general requirements for graduation given in chapter 1. 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. For all other degrees offered by the College of Natural Sciences, thirty of these sixty hours must be taken in the College of Natural Sciences or the College of Liberal Arts.
2. All University students must complete in residence at least twenty-four of the last thirty semester hours counted toward the degree. For students seeking the Bachelor of Science in Clinical 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 degree programs.

4. 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.

5. 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. Applications are submitted online at https://utdirect.utexas.edu/ns/grad.html.

APPLYING FOR A DEGREE

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 entitled to graduate and for registering so as to fulfill all these requirements. The student should seek an official ruling in the Student Division Office 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 a graduation application form in the Student Division Office. 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

The College of Natural Sciences offers the Bachelor of Arts, Plan I, and several bachelor of science degrees. The requirements of the Bachelor of Arts, Plan I, begin on page 455. For this degree students may major in any of the departments of the College of Liberal Arts or the College of Natural Sciences; these majors are listed on pages 5–8. The Bachelor of Arts, Plan II, a broad liberal arts honors program for outstanding students, is described on pages 309–311. Plan II emphasizes the humanities but also permits a concentration equivalent to a major in science. A student may not earn more than one Bachelor of Arts degree from the University.

The bachelor of science degrees are listed on pages 7–8. The requirements of these degrees are given on pages 460–490.

MARINE SCIENCE PROGRAM

The Department of Marine Science does not offer an undergraduate degree. However, students who are interested in marine science may pursue the Bachelor of Science in Biology, option III, marine and freshwater biology. The department also offers a number of courses that may be counted toward bachelor’s degree requirements; with the approval of his or her major department, any University student may minor in marine science.

Marine science courses are taught both on campus and at the Marine Science Institute at Port Aransas.

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 among 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. For information about each program, consult 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 College of Natural Sciences. Such credit may be used only as electives and/or to fulfill the substantial writing component requirement, and only by students who are commissioned by the University ROTC program.

BIBLE COURSES

No more than twelve semester hours of Bible courses may be counted toward a degree.
ADMISSION DEFICIENCIES

Students admitted to the University with deficiencies in high school units must remove them by the means prescribed in General Information.

CONCURRENT ENROLLMENT

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 Natural Sciences unless specifically approved in advance by the college. Students petition for approval online at https://utdirect.utexas.edu/ns/ccc.html. No more than 30 percent of the semester hours required for any degree offered in the College of Natural Sciences may be taken by correspondence.

A student in his or her final semester may not enroll concurrently at another educational institution in any course that is to be counted toward the degree. All transfer coursework must be added to the student's academic record before his or her last semester.

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. In general, only electives may be taken on the pass/fail basis. Complete rules on registration on the pass/fail basis are given in General Information.

COURSES IN A SINGLE FIELD

No more than thirty-six hours may be counted in any one subject, including the major, unless major requirements state otherwise. No more than thirty-six hours may be counted in any one college or school other than the College of Liberal Arts or the College of Natural Sciences.

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.

SUMMARY

The following is a brief overview of the Bachelor of Arts, Plan I; for detailed regulations see “Degree Requirements, Specific,” pages 456–460.

A total of 120 semester hours is required for the degree. Of the 120 hours, thirty-six must be in upper-division courses. At least sixty hours, including eighteen hours of upper-division coursework, and at least twenty-four of the last thirty hours must be taken 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. A maximum of sixteen semester hours of classroom and/or correspondence coursework may be taken on the pass/fail basis.

Three categories of work must be completed: prescribed work; major requirements, including minor requirements, if any; and electives to provide a total of 120 semester hours.

PRESCRIBED WORK

For all majors for the Bachelor of Arts, Plan I, there are four specific area requirements that make up about half of the degree program:

Area A (English composition and literature, writing, and foreign language): Rhetoric and Writing 306 and English 316K and two courses certified as having a substantial writing component are required. The foreign language requirement is stated in terms of proficiency; the actual number of hours varies with the language selected and previous knowledge of the language.

Area B (social sciences): Eighteen semester hours must be completed, including courses in four subjects. Of these eighteen hours, six hours must be in American history and six hours must be in American government, including Texas government.

Area C (natural sciences): Eighteen semester hours are required, including three hours of mathematics. Lists of courses that may be used to fulfill this requirement are available in the Student Division Office.

Area D (general culture): Six semester hours are required. Lists of courses that may be used to fulfill this requirement are available in the Student Division Office.

Courses in the major may be used to fulfill area requirements unless expressly prohibited. A course taken to meet the requirements of one area may not also be used to fulfill the requirements of another area. The only exception to this rule is that a course taken to fulfill another area requirement may also be used to fulfill the requirement for courses having a substantial writing component, if the course is so certified. No courses used to fulfill area requirements may be taken on the pass/fail basis.

MAJOR

Each candidate must select a major. The number of semester hours required in the major varies with the field selected. Some majors require specific courses in other subjects as well. At least eighteen hours of coursework in the major, including six hours of upper-division coursework, must be completed in residence at the University.

ELECTIVES

The remaining coursework to make the required total of 120 semester hours consists of electives. A maximum of sixteen hours of elective work may be taken on the pass/fail basis.
DEGREE REQUIREMENTS, SPECIFIC

Specific requirements for the Bachelor of Arts, Plan I, are divided into four areas: A, B, C, and D. With the dean's approval, interdepartmental courses, courses offered by other colleges and schools of the University, and credit by examination may be used to meet these requirements; however, these courses may not be used to meet the requirements of special programs or majors without the approval of the program director or the department chair. A course taken to meet the requirements of one area may not also be used to fulfill the requirements of another area; the only exception to this rule is that a course taken to fulfill the Area A foreign language requirement or the Area B, C, or D requirement may also be counted toward the writing requirement in Area A, if the course is certified as having a substantial writing component. No courses used to fulfill area requirements may be taken on the pass/fail basis.

In addition to the following requirements, the student must fulfill the University requirements for graduation given in chapter 1 and the requirements of the College of Natural Sciences on pages 453–454.

PRESCRIBED WORK

Area A, Language and Literature

English composition and literature: Rhetoric and Writing 306 and English 316K.

Writing: In addition to Rhetoric and Writing 306 and English 316K, in taking courses to fulfill other degree requirements, each student must complete two courses certified as having a substantial writing component. One of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses used to fulfill the writing requirement may be used simultaneously to fulfill other area requirements or major requirements. Courses with a substantial writing component are identified in the Course Schedule.

Foreign language: Students must complete four semesters 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; however, 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 may accelerate their progress at any point in the sequence by means of credit by examination.

To achieve proficiency in a foreign language as rapidly as possible, qualified students are urged to take advantage of the intensive foreign language study program. Information about this program is available from the appropriate language department. Courses used to fulfill the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be counted.

Area B, Social Sciences

Eighteen semester hours, distributed among at least four of the fields of study listed below. None of the courses used to fulfill Area B requirements may be taken on the pass/fail basis. Courses in anthropology, geography, linguistics, and psychology used to fulfill Area B requirements may not also be used to fulfill Area C requirements.

1. Six hours in each of the following fields of study:
   a. American government, including Texas government
   b. American history

2. Three hours each from any two of the following fields of study:
   a. Anthropology
   b. Economics
   c. Geography
   d. Linguistics
   e. Psychology
   f. Sociology

Area C, Natural Sciences

Each student must have credit for three semester hours in a course offered by the University of Texas at Austin Department of Mathematics, excluding Mathematics 301, 316K, and 316L. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward the Area C requirement or toward the total number of hours required for the degree. 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 without degree credit to remove their deficiency.

Fifteen additional semester hours, with no more than nine in any one department, from the fields of study listed below. No more than nine hours of mathematics and computer sciences combined may be included in these fifteen hours. Nine of these fifteen hours must be taken in courses in the College of Natural Sciences or the Jackson School of Geosciences, items 1 through 10 below, with at least six hours taken in one subject from items 1 through 8; these nine hours may include no more than three hours of mathematics or computer sciences. The remaining six hours may be chosen from courses in the natural sciences listed below or from the list of approved alternative courses in subjects 11 through 16 that is available from the Student Division Office. Of these six hours, a maximum of three semester hours in courses in either the history of science or the philosophy of science may be used.

<table>
<thead>
<tr>
<th>Area C, Natural Sciences</th>
<th>Math, computer sciences, | natural sciences</th>
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<tbody>
<tr>
<td>1. Six hours in each of the following fields of study:</td>
<td>Math, computer sciences, | natural sciences</td>
</tr>
<tr>
<td>a. American government, including Texas government</td>
<td>Math, computer sciences, | natural sciences</td>
</tr>
<tr>
<td>b. American history</td>
<td>Math, computer sciences, | natural sciences</td>
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</tbody>
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<table>
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<tr>
<th>2. Three hours each from any two of the following fields of study:</th>
<th>Math, computer sciences, | natural sciences</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Anthropology</td>
<td>Math, computer sciences, | natural sciences</td>
</tr>
<tr>
<td>b. Economics</td>
<td>Math, computer sciences, | natural sciences</td>
</tr>
<tr>
<td>c. Geography</td>
<td>Math, computer sciences, | natural sciences</td>
</tr>
<tr>
<td>d. Linguistics</td>
<td>Math, computer sciences, | natural sciences</td>
</tr>
<tr>
<td>e. Psychology</td>
<td>Math, computer sciences, | natural sciences</td>
</tr>
<tr>
<td>f. Sociology</td>
<td>Math, computer sciences, | natural sciences</td>
</tr>
</tbody>
</table>

| 3. Three hours in a course offered by the University of Texas at Austin Department of Mathematics, excluding Mathematics 301, 316K, and 316L. | Math, computer sciences, \| natural sciences |

| 4. Fifteen additional semester hours, with no more than nine in any one department, from the fields of study listed below. No more than nine hours of mathematics and computer sciences combined may be included in these fifteen hours. Nine of these fifteen hours must be taken in courses in the College of Natural Sciences or the Jackson School of Geosciences, items 1 through 10 below, with at least six hours taken in one subject from items 1 through 8; these nine hours may include no more than three hours of mathematics or computer sciences. The remaining six hours may be chosen from courses in the natural sciences listed below or from the list of approved alternative courses in subjects 11 through 16 that is available from the Student Division Office. Of these six hours, a maximum of three semester hours in courses in either the history of science or the philosophy of science may be used. | Math, computer sciences, \| natural sciences |
A course listed in two or more departments may be used as a course in only one department in fulfilling requirements under Area C. Courses in anthropology, geography, linguistics, and psychology used to fulfill Area C requirements may not also be used to fulfill Area B requirements. Courses in philosophy used to fulfill Area C requirements may not also be used to fulfill Area D requirements.

1. Astronomy
2. Biology
3. Chemistry
4. Geological sciences
5. Marine science
6. Nutrition
7. Physical science
8. Physics
9. Mathematics
10. Computer sciences
11. Experimental psychology
12. Physical anthropology
13. Physical geography
14. Philosophy (courses in logic)
15. History of science and philosophy of science
16. Other science courses approved by the dean

Students should confer with the staff in their advising center or the Student Division Office to determine which courses are included in items 11 through 16.

Students, counselors, and advisers are urged to make careful selection of Area C courses in order to develop a meaningful pattern and a coherent sequence.

**Area D, General Culture**

Six semester hours from the fields of study listed below. Three of these six hours must be chosen from subarea 1, 2, 3, or 4 (excluding courses in logic).

A student who uses Greek or Latin to meet the foreign language requirement may use additional coursework in the same language to meet the Area D requirement, but only courses beyond the fourth semester proficiency level may be used.

1. Architecture
2. Classics, including classical civilization, Greek, Latin
3. Fine arts, including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies
4. Philosophy
5. Approved interdisciplinary courses including, but not restricted to, those in programs of special concentration cutting across specific departments, schools, or colleges. Lists of approved courses are available in the advising centers and the Student Division Office.

**SPECIAL REQUIREMENTS**

**Elective Requirements and Limitations**

In addition to the area requirements given above and the major requirements given below, the student must take enough elective coursework to complete the 120 semester hours required for the degree. These 120 hours may include no more than twelve hours of Bible; nine hours of air force science, military science, or naval science; sixteen hours taken on the pass/fail basis; thirty-six hours in any one subject offered in the College of Natural Sciences or the College of Liberal Arts, unless major requirements state otherwise; and thirty-six hours in courses offered in any other single college or school of the University.

**Minimum Scholastic Requirements**

The student must earn a 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 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 program in the section “Majors and Minors” below, since some majors include higher minimum scholastic requirements.

For more information about grades and the grade point average, see General Information.

**CONCENTRATIONS**

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 cultural studies; science, technology, and society; or western civilization and American institutions. These concentrations, administered by the College of Liberal Arts, are described on pages 297–298. Students may also pursue a concentration in actuarial studies, administered by the Department of Mathematics and described on page 517.

**MAJORS AND MINORS**

**Major requirements.** The Bachelor of Arts, Plan I, requires the completion of all requirements for one major. Requirements for majors offered by the College of Natural Sciences are given below; those for majors offered by the College of Liberal Arts are given in chapter 10.

The major subject is not shown on the diploma. It is not possible for a student to receive a second Bachelor of Arts degree from the University.
Advising of majors. A student who has chosen a major is advised in the advising center for his or her major before registration each semester. Students who have not chosen a major must be advised in the Student Division Office, College of Natural Sciences. For matters concerning degree requirements, specific academic problems, petitions, and academic advice in general, the student should consult his or her advising center or the Student Division Office, Will C. Hogg 2.112.

Hour requirements for the major. A major consists of at least twenty-one but no more than forty-two semester hours, with at least twelve hours in upper-division courses. Of these twelve semester hours, six must be taken in residence. These restrictions exist in the context of the general residence requirement for the major of eighteen semester hours.

Unless otherwise indicated, a course taken to fulfill the requirements under “Prescribed Work,” pages 456–457, may also be counted toward fulfillment of the major requirements.

A student who earns credit by examination with a grade of C or better will be given the appropriate grade and degree credit, including hours required in the major.

Minors. Most departments require completion of a minor to accompany the major. These requirements, if any, are given below.

Astronomy

Major: Physics 301, 101L, 315, 115L, 316, and 116L; nine semester hours of upper-division coursework in astronomy, including at least two of the following courses: Astronomy 352K, 352L, 353, 358, and 364; and six additional upper-division hours in astronomy and/or physics.

Minor for astronomy majors: Six semester hours of coursework (other than astronomy, lower-division 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 requirement or six semester hours of upper-division coursework approved by the undergraduate adviser.

A grade of at least C is required in each semester of each course counted toward the major and minor requirements.

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 379H. No more than six of the hours counted toward the major requirement may be earned in conference courses.

Biochemistry

Biochemistry majors must take either Mathematics 408C and 408D or Mathematics 408K, 408L, and 408M; and eight semester hours of physics: either Physics 301, 101L, 316, and 116L; 303K, 103M, 303L, and 103N; or 317K, 117M, 317L, and 117N.

Major: Chemistry 301 or 301H, 302 or 302H, 204 or 317; either 118K, 118L, 318M, and 318N, or 210C, 310M, and 310N; 339K, 339L, 353M, 153K, 455, 369L, and 370.

Minor for biochemistry majors: Biology 311C, 311D, and 325; six additional semester hours in biology, three of which are chosen from Biology 328, 339, 345, 361T or 371M, and 365S; and three additional hours chosen from the preceding list or from Biology 320, 126L and 226R, 226T, 330, 331L, 344, 347, 349, and 360K.

Biology

In addition to the requirements below, biology majors must complete Mathematics 408C or 408K; Chemistry 301, 302, and 204; and one of the following: (1) Chemistry 210C, 310M, and 310N; (2) eight hours of coursework in physics, including laboratory work; or (3) six hours of coursework in computer sciences, including at least three hours of upper-division work.

Major: The following coursework:

2. Biology 205L, 206L, 208L, or 309H.
3. Eighteen semester hours of coursework, including three hours in each of the following areas; no course may be counted toward more than one area.

4. Three additional hours of coursework chosen from the following: the biology and marine science courses listed in areas a through f above; other upper-division biology courses; Chemistry 339K and 339L, or 369.

The courses counted toward requirements 3 and 4 must include at least three laboratory courses. They may include three hours in undergraduate research or special studies courses. Another three hours in special studies courses may be counted as electives. The student must earn a grade of at least C in each course taken at the University and counted toward the major requirement.

**Chemistry**

Chemistry majors must take Mathematics 408C and 408D, or 408K, 408L, and 408M; and eight semester hours of physics: either Physics 301, 101L, 316, and 116L; 303K, 103M, 303L, and 103N; or 317K, 117M, 317L, and 117N.

**Major:** Chemistry 301 or 301H, 302 or 302H, 204 or 317; either 210C, 310M, and 310N, or 118K, 118L, 318M, and 318N; 353, 153K, 354 or 354L, 154K, 456, 376K.

**Minor for chemistry majors:** 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 Sciences 303E, 313E, and six hours chosen from Computer Sciences 323E, 324E, 326E, 327E, and 329E. Students who complete the second option may simultaneously fulfill the requirements of the Elements of Computing Program and may apply to the director of the program for a certificate of completion. The Elements of Computing Program is described on page 447.

The student must complete each course in the major and the minor with a grade of at least C.

**Computer Sciences**

An undergraduate may not enroll in any computer sciences course more than once without written consent of an undergraduate adviser in computer sciences. No student may enroll in any computer sciences course more than twice. No student may take more than three upper-division computer sciences courses in a semester without written consent of an undergraduate adviser in computer sciences.

**Major:** Computer Sciences 307, 310 or 310H, 313K or 313H, 315 or 315H, 336 or 336H, 337 or 337H, 341 or 341H, 352 or 352H, 372 or 372H, and at least twelve additional semester hours of approved upper-division coursework in computer sciences. Computer Sciences 370 may be counted toward the degree only once.


A grade of at least C is required in each course counted toward the major and minor requirements.

With the exception of Computer Sciences 307, 313K, and 315, all computer sciences courses that may be counted toward a degree in computer sciences are restricted to students who have been admitted to the computer sciences major or have the consent of the undergraduate faculty adviser.

**Human Ecology**

To fulfill the Area C requirement for the Bachelor of Arts, human ecology majors must complete Mathematics 305G, 408K, or 408C; Mathematics 316; either (a) Chemistry 301, 302, and Biology 311C, or (b) Chemistry 301 and Biology 311C and 311D; and two to four additional hours in astronomy, biology, chemistry, computer sciences, geological sciences, mathematics, and/or physics. Courses designed for nonscience majors may not be counted toward this requirement.

**Major:** Thirty semester hours of coursework in the Department of Human Ecology, including at least fifteen hours of upper-division coursework and at least six hours chosen from each of the following areas: (a) Human Development and Family Sciences 304, 312, 313, 113L, 315L, 322, and 337; (b) Nutrition 307, 107L, 311, 111L, 315, 316, 318, 332, and 338W; and (c) Textiles and Apparel 205, 105L, 316Q, 319, 325L, and 325M.

The student must earn a grade of at least C in each course in the major. 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 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. Mathematics 301, 302, 303D, 305G, and equivalent courses may not be counted toward the total number of hours required for the degree. The student must earn a grade of at least C in Mathematics 408C and 408D and in each mathematics course used to fulfill the major requirement.

The student must complete the following:

1. Mathematics 408C and 408D.
3. Mathematics 328K, 343K, or 373K.
4. Mathematics 361K or 365C.
5. Mathematics 362K.
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 it as described on page 451.

PRESCRIBED WORK COMMON TO BOTH OPTIONS

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. Option I: One of the following foreign language/culture choices. Students in option II are exempt from this requirement.
   a. Second-semester-level proficiency in a foreign language.
   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 foreign culture courses chosen from a list available in the dean's office and the college advising centers.

3. Six semester hours of American government, including Texas government.
4. Six semester hours of American history.
5. Three semester hours in anthropology, economics, geography, linguistics, psychology, or sociology.
6. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.
7. At least thirty-six semester hours of upper-division coursework.
8. At least eighteen semester hours of upper-division coursework, including at least twelve semester hours in physics and astronomy, must be completed in residence at the University.

Major: Mathematics for middle grades and secondary school teaching options: At least twenty-four semester hours of upper-division coursework in mathematics. Mathematics 301, 302, 303D, 305G, and equivalent courses may not be counted toward the total number of hours required for the degree. The student must earn a grade of at least C in Mathematics 408C and 408D and in each mathematics course used to fulfill the major requirement.

The middle grades and secondary school 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. The UTeach-Natural Sciences program is described on pages 446–447.

The student must complete the following:
1. Mathematics 408C and 408D.
4. Mathematics 326K or 360M or Science 360 (Topic: Math Domain). Students seeking middle grades mathematics certification must complete Mathematics 326K.
5. Mathematics 361K or 365C.
6. Mathematics 328K, 343K, or 373K.

Physics

Students majoring in physics must take Chemistry 301, 302, and 204.

Major: Physics 315, 115L, and at least sixteen semester hours of upper-division physics, including Physics 336K, 352K, and 453.

First minor for physics majors: Twelve semester hours of mathematics, of which six must be in upper-division 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 College of Engineering. Courses used to fulfill specific degree requirements other than the substantial writing component requirement may not also be used to fulfill this requirement.

2. Students in either option who enter the University with fewer than two high school units in a single foreign language must take the first two semesters in a language without degree credit to remove their foreign language deficiency.
ADDITIONAL PRESCRIBED WORK FOR EACH OPTION

OPTION I: ASTRONOMY

9. Six semester hours in biology, chemistry, computer sciences, and/or geological sciences. Chemistry 301 and the courses in the Elements of Computing Program may be counted toward this requirement; any other course to be counted must meet major requirements in the department that offers it.

10. Mathematics 408C and 408D, or the equivalent; and 427K, 427L, and 340L. Only courses at the level of calculus and above may be counted toward the total number of hours required for the degree.


12. Twelve semester hours of upper-division coursework in astronomy, including Astronomy 352K, 353, and 358. Astronomy 351 is recommended.

13. Nine additional semester hours of upper-division coursework in physics and/or astronomy.

14. Enough additional coursework to make a total of 123 semester hours.

OPTION II: ASTRONOMY HONORS

9. Breadth requirement: An honors mathematics course, and fifteen additional hours chosen from at least three of the following areas: biology, chemistry, computer sciences, and physics. To count toward this requirement, a course must be an honors or major-level course or section.

10. Twelve semester hours of upper-division coursework in astronomy approved by the departmental honors adviser.

11. Nineteen semester hours of upper-division coursework in physics approved by the departmental honors adviser.

12. Three additional semester hours of upper-division coursework in astronomy or physics.

13. Natural Sciences 301C.

14. A section of Rhetoric and Writing 309S that is restricted to Dean’s Scholars.

15. Astronomy 379H and a three-semester-hour upper-division research course approved by the departmental honors adviser.

16. Twenty-five additional hours of coursework approved by the departmental honors adviser.

17. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.

18. Enough additional coursework to make a total of 120 semester hours.

SPECIAL REQUIREMENTS

The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also earn a grade point average of at least 2.00 in physics and astronomy courses taken at the University and used to fulfill requirements 11, 12, and 13 (option I) or 9, 10, 11, and 12 (option II) of the prescribed work above.

To graduate under option II, students must earn grades of A in the departmental research and thesis courses described in requirement 15 above and must present their research in an approved public forum, such as the annual College of Natural Sciences Poster Session. Students must also have a grade point average at graduation of at least 3.50 in coursework taken in residence at the University. Students who fail to maintain an in-residence grade point average of at least 3.25 will usually be academically dismissed from option II; under special circumstances and at the discretion of the departmental honors adviser, a student may be allowed to continue under academic review.

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 computation option is intended to prepare students for the workplace by giving them opportunities to develop hands-on computation skills. The honors option is intended to prepare students for academic or research careers.

Students who plan to follow option III, biochemistry honors, must complete the application process described on page 452.

PRESCRIBED WORK COMMON TO ALL OPTIONS

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. Options I and II: One of the following foreign language/culture choices. Students in option III are exempt from this requirement.
   a. Second-semester-level proficiency in a foreign language.
   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 foreign culture courses chosen from a list available in the dean’s office and the college advising centers.

3. Students in all options who enter the University with fewer than two high school units in a single foreign language must take the first two semesters in a language without degree credit to remove their foreign language deficiency.
3. Six semester hours of American government, including Texas government.
4. Six semester hours of American history.
5. Three semester hours in anthropology, economics, geography, linguistics, psychology, or sociology.
6. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.
7. At least thirty-six semester hours of chemistry:
   a. General chemistry: Chemistry 301 or 301H, 302 or 302H, and 204 or 317. Students in the honors option must complete Chemistry 301H and 302H.
   b. Organic chemistry: Chemistry 118K, 118L, 318M, and 318N; or 210C, 310M, and 310N.
   d. Physical chemistry: Chemistry 153K and 353M.
   e. Analytical chemistry: Chemistry 455.
8. At least thirty-six semester hours of upper-division coursework.
9. At least eighteen 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

10. Mathematics 408C and 408D, or 408K, 408L, and 408M; and at least three semester hours of upper-division coursework in mathematics or computer sciences.
11. One of the following sequences: Physics 301, 101L, 316, and 116L; 303K, 103M, 303L, and 103N; 317K, 117M, 317L, and 117N.
12. Biology 311C, 311D, and 325; and nine additional semester hours in biology, chosen from the following courses. These nine hours must include at least three hours in each of the following areas; a single course may not fulfill this requirement in more than one area.
   b. Physiology: Biology 328, 339, 345, 361T, 365R or 371M, 365S.
13. Nine semester hours of coursework in the College of Natural Sciences (excluding chemistry), the College of Engineering, and the Jackson School of Geosciences. Any course designed for science or engineering majors may be counted. With the exception of the courses in the Elements of Computing 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 College of Engineering may be counted.
14. At least six semester hours chosen from the following courses: Chemistry 431,* 341,* 354L, 354L, 369K,* 369T, 371K,* 375K or 475K, and 376K.* At least three of these hours must be in a laboratory course; courses marked with an asterisk fulfill this laboratory requirement. 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 371K may be counted toward this requirement; three additional hours may be counted as electives.
15. A total of forty-two semester hours of chemistry.
16. Enough additional coursework to make a total of 127 semester hours.

OPTION II: COMPUTATION

Students who complete option II may simultaneously fulfill the requirements of the Elements of Computing Program and may apply to the director of the program for a certificate of completion. The Elements of Computing Program is described on page 447.

10. Mathematics 408C and 408D, or 408K, 408L, and 408M; and either 340L or 341.
11. One of the following sequences: Physics 301, 101L, 316, and 116L; 303K, 103M, 303L, and 103N; 317K, 117M, 317L, and 117N.
12. Biology 311C, 311D, and 325; and nine additional semester hours in biology, chosen from the following courses. These nine hours must include at least three hours in each of the following areas; a single course may not fulfill this requirement in more than one area.
   b. Physiology: Biology 328, 339, 345, 361T, 365R or 371M, 365S.
14. Twelve semester hours in the elements of computing, consisting of Computer Sciences 303E, 313E, and six hours chosen from Computer Sciences 323E, 324E, 326E, 327E, and 329E.
15. Three semester hours chosen from the following laboratory courses: Chemistry 431, 341, 369K, 369T, 371K, and 376K.
16. A total of forty-two semester hours of chemistry.
17. Enough additional coursework to make a total of 127 semester hours.
OPTION III: BIOCHEMISTRY HONORS

10. Breadth requirement: An honors mathematics course, Biology 315H, Chemistry 301H and 302H, and six semester hours of coursework in computer sciences and/or physics. To count toward this requirement, a course must be an honors or major-level course or section.
11. Natural Sciences 301C.
12. A section of Rhetoric and Writing 309S that is restricted to Dean's Scholars.
13. Chemistry 379H and a three-semester-hour upper-division course approved by the departmental honors adviser.
14. Twenty-eight 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.

SPECIAL REQUIREMENTS

The student must fulfill the University-wide requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also make a grade of at least C in each course in chemistry taken at the University and used to fulfill requirement 7 of the prescribed work above.

To graduate under option III, students must earn grades of A in the departmental research and thesis courses described in requirement 13 above and must present their research in an approved public forum, such as the annual College of Natural Sciences Poster Session. Students must also have a grade point average at graduation of at least 3.50 in coursework taken in residence at the University. Students who fail to maintain an in-residence grade point average of at least 3.25 will usually be academically dismissed from option III; under special circumstances and at the discretion of the departmental honors adviser, a student may be allowed to continue under academic review.

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 nine options: ecology, evolution, and behavior; human biology; marine and freshwater biology; microbiology; cell and molecular biology; neurobiology; plant biology; teaching; and biology honors. (Admission to option IX, biology honors, requires completion of the application process described on page 452.) 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. See “Order and Choice of Work” on page 467 for more information.

PRESCRIBED WORK COMMON TO ALL OPTIONS

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.
2. Options I–VII: One of the following foreign language/culture choices. Students in options VIII and IX are exempt from this requirement.4
   a. Second-semester-level proficiency in a foreign language.
   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 foreign culture courses chosen from a list available in the dean’s office and the college advising centers.
3. Six semester hours of American government, including Texas government.
4. Six semester hours of American history.
5. Three semester hours in anthropology, economics, geography, linguistics, psychology, or sociology.
6. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.
7. 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. The student must earn a grade of at least C in each course. In most options, the student must use specific courses to meet this requirement; these courses are listed in “Additional Prescribed Work for Each Option.”
   b. Physiology and neurobiology: Biology 328, 361T, 365R.
8. At least eighteen semester hours of upper-division coursework in biology 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: ECOLOGY, EVOLUTION, AND BEHAVIOR**

9. Mathematics 408C and 408D, or 408K and 408L.
10. An eight-semester-hour sequence of coursework in physics chosen from the following: Physics 301, 101L, 316, and 116L; 317K, 117M, 317L, and 117N; 303K, 103M, 303L, and 103N; 302K, 102M, 302L, and 102N.
11. Chemistry 301, 302, and 204.
12. Biology 311C, 311D, and 325, with a grade of at least C in each. Three of these courses must be upper-division. One of the four courses must have a field component; the following courses may be used: Biology 321L, 342L, 353L, 455L, 373L, Marine Science 352D, 354, 354C.
13. At least four laboratory courses in biology, with a grade of at least C in each. These courses must be completed before the student progresses to other upper-division biology courses.
14. Biology 318M with a grade of at least C, and Chemistry 210C, 310M, and 310N with a grade of at least C in each.
15. In fulfilling requirement 7 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 e.
   b. Anatomy: Anthropology 432L, Biology 478L, Kinesiology 324K.
   c. Physiology: Biology 345E, 361T, 365R, 371M.
   e. Evolution and ecology: Anthropology 348, Biology 357, 364, 370, 373. Biology 373 may not be counted both toward requirement 15a and toward requirement 16a, 16b, or 16c.
16. In fulfilling requirement 7 above, the student must complete at least fifteen semester hours of coursework, including at least nine hours of upper-division work, in one of the following concentrations.

17. Biology 137 (Topic 1: *Human Biology*), completed on the pass/fail basis in the student's senior year.

18. Enough additional coursework to make a total of 126 semester hours.

**OPTION III: MARINE AND FRESHWATER BIOLOGY**

9. Mathematics 408C and 408D, or 408K and 408L.
10. An eight-semester-hour sequence of coursework in physics chosen from the following: Physics 301, 101L, 316, and 116L; 317K, 117M, 317L, and 117N; 303K, 103M, 303L, and 103N; 302K, 102M, 302L, and 102N.
11. Chemistry 301, 302, 204, 210C, 310M, 310N, and either 369 or both 339K and 339L.
12. Biology 311C, 311D, and 325, with a grade of at least C in each. These courses must be completed before students progress to other upper-division biology courses.
13. Five semester hours of upper-division laboratory coursework, chosen from Biology 129L, 130L, 160L, 361L, and 368L.
14. In fulfilling requirement 7 above, the student must complete the following courses.
   b. Biology 329 or 332; 333 or 366; and 339 or 364.
   c. Six semester hours chosen from the following: Biology 329, 332, 333, 335, 336, 339, 339M, 361, 364, 366. A course counted toward requirement 14a or 14b may not also be counted toward requirement 14c.
15. Enough additional coursework to make a total of 126 semester hours.

**OPTION IV: MICROBIOLOGY**

9. Mathematics 408C and 408D, or 408K and 408L.
10. An eight-semester-hour sequence of coursework in physics chosen from the following: Physics 301, 101L, 316, and 116L; 317K, 117M, 317L, and 117N; 303K, 103M, 303L, and 103N; 302K, 102M, 302L, and 102N.
11. Chemistry 301, 302, 204, 210C, 310M, 310N, and either 369 or both 339K and 339L.
12. Biology 311C, 311D, and 325, with a grade of at least C in each. These courses must be completed before students progress to other upper-division biology courses.
13. Five semester hours of upper-division laboratory coursework, chosen from Biology 129L, 130L, 160L, 361L, and 368L.
14. In fulfilling requirement 7 above, the student must complete the following courses.
   b. Biology 329 or 332; 333 or 366; and 339 or 364.
   c. Six semester hours chosen from the following: Biology 329, 332, 333, 335, 336, 339, 339M, 361, 364, 366. A course counted toward requirement 14a or 14b may not also be counted toward requirement 14c.
15. Enough additional coursework to make a total of 126 semester hours.

**OPTION V: CELL AND MOLECULAR BIOLOGY**

9. Mathematics 408C and 408D, or 408K and 408L.
10. An eight-semester-hour sequence of coursework in physics chosen from the following: Physics 301, 101L, 316, and 116L; 317K, 117M, 317L, and 117N; 303K, 103M, 303L, and 103N; 302K, 102M, 302L, and 102N.
11. Chemistry 301, 302, 204, 210C, 310M, 310N, and either 369 or both 339K and 339L.
12. Biology 311C, 311D, and 325, with a grade of at least C in each. These courses must be completed before students progress to other upper-division biology courses.
13. Five semester hours of upper-division laboratory coursework, chosen from Biology 129L, 130L, 160L, 361L, and 368L.
14. In fulfilling requirement 7 above, the student must complete the following courses.
   b. Biology 329 or 332; 333 or 366; and 339 or 364.
   c. Six semester hours chosen from the following: Biology 329, 332, 333, 335, 336, 339, 339M, 361, 364, 366. A course counted toward requirement 14a or 14b may not also be counted toward requirement 14c.
15. Enough additional coursework to make a total of 126 semester hours.

15. Enough additional coursework to make a total of 126 semester hours.

**OPTION VII: PLANT BIOLOGY**

9. Mathematics 408C and 408D, or 408K and 408L.

10. An eight-semester-hour sequence of coursework in physics chosen from the following: Physics 301, 101L, 316, and 116L; 317K, 117M, 317L, and 117N; 303K, 103M, 303L, and 103N; 302K, 102M, 302L, and 102N.

11. Chemistry 301, 302, 204, 210C, 310M, and 310N.

12. Biology 311C, 311D, and 325, with a grade of at least C in each. These courses must be completed before the student progresses to other upper-division biology courses.

13. At least four laboratory courses in biology, with a grade of at least C in each. Three of these courses must be upper-division. The student must complete Biology 205L, 206L, 208L, or 309H. Biology 177, 277, or 377 may be counted only once toward the laboratory requirement.

14. In fulfilling requirement 7 above, the student must complete at least twenty-four hours of coursework chosen from the following: Biology 320, 322 and 122L, 323L, 324 and 124L, 327 and 127L, 328, 128L, 331L, 343M, 350M, 351, 262 and 262L, 363, 370, 472L, 373, 373L, 374 and 174L, 375.

15. 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.

16. 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. For information about additional certification requirements, consult the UTeach-Natural Sciences academic adviser.

9. Mathematics 408C and 408D, or 408K and 408L.

10. An eight-semester-hour sequence of coursework in physics chosen from the following: Physics 301, 101L, 316, and 116L; 317K, 117M, 317L, and 117N; 303K, 103M, 303L, and 103N; 302K, 102M, 302L, and 102N.

11. Chemistry 301, 302, 204, and 210C, 310M, and 310N.

12. Biology 311C, 311D, and 325, with a grade of at least C in each. These courses must be completed before the student progresses to other upper-division biology courses.

13. At least four laboratory courses in biology, with a grade of at least C in each. Three of these courses must be upper-division. The student must complete Biology 205L, 206L, 208L, or 309H. Biology 177, 277, or 377 may be counted only once toward the laboratory requirement.

14. In fulfilling requirement 7 above, the student must complete at least twenty-four hours of coursework chosen from the following: Biology 320, 322 and 122L, 323L, 324 and 124L, 327 and 127L, 328, 128L, 331L, 343M, 350M, 351, 262 and 262L, 363, 370, 472L, 373, 373L, 374 and 174L, 375.

15. 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.

16. Enough additional coursework to make a total of 126 semester hours.
c. One of the following courses with a substantial field component: Biology 321L, 340L, 342L, 353L, 455L, 456L, 373L, Marine Science 352D, 354, 354C.

15. One of the following research methods courses: Biology 328D, 337 (Topic: Research Methods—UTeach), Chemistry 368 (Topic: Research Methods—UTeach), Physics 341 (Topic: Research Methods—UTeach).

16. History 329U or Philosophy 329U.

17. One of the following:
   a. For composite science certification: 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 and physics courses used to fulfill requirements 10 and 11.
   b. For life science certification: Biology 373 and three additional semester hours of biology chosen from the courses listed in requirement 14b.


19. 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 371 (Topic 10: Secondary School Reading in the Content Subjects).

20. Enough additional coursework to make a total of 126 semester hours.

OPTION IX: BIOLOGY HONORS

9. Breadth requirement: An honors mathematics course; Biology 315H and 325H; Chemistry 301H and 302H; and either a three-semester-hour honors-designated computer sciences course or Physics 301, 315, or 316.

10. Chemistry 204, 118K, 118L, 318M, and 318N.

11. In fulfilling requirement 7 above, the student must complete Biology 320 or 344, 349, 365R, 370, and at least six additional semester hours of upper-division coursework in biology chosen from a list available in the student’s advising office.

12. Three upper-division laboratory courses in biology.

13. Natural Sciences 301C.

14. A section of Rhetoric and Writing 309S that is restricted to Dean’s Scholars.

15. Biology 679H.

16. Thirty-two additional semester hours of coursework approved by the departmental honors adviser.

17. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.

18. Enough additional coursework to make a total of 120 semester hours.

SPECIAL REQUIREMENTS

The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also make a grade of at least C in each biology course counted toward the degree, in each course used to fulfill requirement 7 of the prescribed work, and in each course used to meet the prescribed work requirements for his or her option.

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 each of the professional development courses listed in requirement 18 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 19. For information about the portfolio review and additional teacher certification requirements, consult the UTeach-Natural Sciences academic adviser.

To graduate under the honors option, students must earn a grade of A in each half of Biology 679H and must present their research in an approved public forum, such as the annual College of Natural Sciences Poster Session. Students must also have a grade point average at graduation of at least 3.50 in coursework taken in residence at the University. Students who fail to maintain an in-residence grade point average of at least 3.25 will usually be academically dismissed from the honors option; under special circumstances and at the discretion of the departmental honors adviser, a student may be allowed to continue under academic review.

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 and 302 and Mathematics 408C and 408D. 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.
5. Students in all options who enter the University with fewer than two high school units in a single foreign language must take the first two semesters in a language without degree credit to remove their foreign language deficiency.

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. (To follow option IV, students must complete the application process described on page 452.)

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

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. 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 in a foreign language.  
   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 foreign culture courses chosen from a list available in the dean's office and the college advising centers.

3. Six semester hours of American government, including Texas government.

4. Six semester hours of American history.

5. Three semester hours in anthropology, economics, geography, linguistics, psychology, or sociology.

6. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.

7. The following courses:
   a. General chemistry: Chemistry 301 or 301H, 302 or 302H, and 317. Students in option IV must complete Chemistry 301H and 302H.  
   b. Organic chemistry: Chemistry 118K, 118L, 318M, and 318N; or 310C, 310M, and 310N.  
   c. Biochemistry: Chemistry 339K or 369.  
   d. Physical chemistry: Chemistry 353, 153K, 154K, and either 354 or 354L.  
   e. Inorganic chemistry: Chemistry 431.  
   f. Analytical chemistry: Chemistry 456 and 376K.

8. Thirty-six semester hours of upper-division coursework.

9. At least eighteen 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

10. Mathematics 408C and 408D, or 408K, 408L, and 408M; and at least three semester hours of upper-division coursework in mathematics or computer sciences.

11. One of the following sequences: Physics 301, 101L, 316, and 116L; 303K, 103M, 303L, and 103N; 317K, 117M, 317L, and 117N.

12. Six semester hours chosen from the following courses: Chemistry 339L, 341, *354, 367L, 368, 369K, *369L, *370, 371K, *375K, and 475K. 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 371K may be counted toward this requirement; three additional hours may be counted as electives.

13. Nine semester hours of coursework in the College of Natural Sciences (excluding chemistry), the College 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 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 College of Engineering may be counted.

14. Enough additional coursework to make a total of 127 semester hours.

**OPTION II: COMPUTATION**

Students who complete option II may simultaneously fulfill the requirements of the Elements of Computing Program and may apply to the director of the program for a certificate of completion. The Elements of Computing Program is described on page 447.

10. Mathematics 408C and 408D, or 408K, 408L, and 408M; and Mathematics 340L or 341 or three semester hours of upper-division coursework in computer sciences.

11. One of the following sequences: Physics 301, 101L, 316, and 116L; 303K, 103M, 303L, and 103N; 317K, 117M, 317L, and 117N.


13. One of the following laboratory courses: Chemistry 341, 369K, 369L, 371K.

14. Twelve semester hours in the elements of computing, consisting of Computer Sciences 303E, 313E, and six hours chosen from Computer Sciences 323E, 324E, 326E, 327E, and 329E.

15. Enough additional coursework to make a total of 127 semester hours. Students are encouraged to take additional chemistry courses as electives.

**OPTION III: 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 chemistry as the primary teaching field or physical science certification. However, completion of the course requirements does not guarantee the student’s certification. For information about additional requirements, consult the UTeach-Natural Sciences academic adviser.

10. Mathematics 408C and 408D, or 408K, 408L, and 408M.

11. To fulfill requirement 6 above, students must complete History 329U or Philosophy 329U.

12. One of the following sequences: Physics 301, 101L, 316, and 116L; 303K, 103M, 303L, and 103N; 317K, 117M, 317L, and 117N.

13. In place of requirement 7 above, students must complete at least thirty-four semester hours of chemistry, including the following courses:
   a. General chemistry: Chemistry 301, 302, and either 204 or 317.
   b. Organic chemistry: Chemistry 118K, 118L, 318M, and 318N; or 210C, 310M, and 310N.
   d. Physical chemistry: Chemistry 353 or 353M.
   e. Analytical chemistry: Chemistry 455 or 456.
   f. Chemistry 368 (Topic: 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.

14. One of the following:
   a. For composite science certification: (1) Biology 311C and 311D; (2) six hours of coursework in geological sciences; courses intended for nonscience majors may not be counted toward this requirement; (3) enough additional approved coursework in biology, geological sciences, or physics to provide the required twelve hours in a second field.

   The physics courses used to fulfill requirement 12 above are also counted toward composite science certification.
   b. For physical science certification: (1) to fulfill requirement 12 above, Physics 301, 101L, 316, and 116L; (2) Physics 315 and 115L; (3) Mathematics 427K and 427L; (4) Chemistry 153K, 354L, and 154K; (5) Physics 453 and three additional hours of upper-division coursework in physics.


16. 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 371 (Topic 10: Secondary School Reading in the Content Subjects).

17. Enough additional coursework, if needed, to make a total of 120 semester hours.
OPTION IV: CHEMISTRY HONORS

10. Breadth requirement: An honors mathematics course, Chemistry 301H and 302H, Physics 301 and 316, and a three-semester-hour honors course in biology or computer sciences.
12. Natural Sciences 301C.
13. A section of Rhetoric and Writing 309S that is restricted to Dean’s Scholars.
14. Chemistry 379H and a three-semester-hour upper-division course approved by the departmental honors adviser.
15. Twenty-five additional hours of coursework approved by the departmental honors adviser.
16. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
17. Enough additional coursework to make a total of 120 semester hours.

SPECIAL REQUIREMENTS

The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also earn a grade of at least C in each course in chemistry taken at the University and counted toward the prescribed work for the degree.

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 each of the professional development courses listed in requirement 15 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 16. 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 earn grades of A in the departmental research and thesis courses described in requirement 14 above and must present their research in an approved public forum, such as the annual College of Natural Sciences Poster Session. Students must also have a grade point average at graduation of at least 3.50 in coursework taken in residence at the University. Students who fail to maintain an in-residence grade point average of at least 3.25 will usually be academically dismissed from option IV; under special circumstances and at the discretion of the departmental honors adviser, a student may be allowed to continue under academic review.

ORDER AND CHOICE OF WORK

Students are strongly recommended to take the chemistry/biochemistry–major sections of the following courses: Chemistry 301 or 301H (if taken), 302 or 302H, 118K, 118L, 318M, and 318N. Students planning a graduate program are strongly recommended to take Physics 301, 101L, 316, 116L, 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 SAT Subject Test in Mathematics Level 1 to take Mathematics 408C 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 408K, 408L, and 408M; Physics 301 and 101L, or 303K and 103M, or 317K and 117M (to be taken after Mathematics 408C); Rhetoric and Writing 306; three semester hours to fulfill requirement 5 and three hours to fulfill requirement 6 of the prescribed work.

Second year: Chemistry 118K, 118L, 318M, and 318N, or 210C, 310M, and 310N; any coursework needed to meet requirement 2 of the prescribed work; three semester hours to be counted toward requirement 13 of the prescribed work; English 316K; Physics 316 and 116L, or 303L and 103N, or 317L and 117N; an upper-division mathematics course (such as Mathematics 427K) or an upper-division computer sciences course.

Third year: Chemistry 339K or 369, 353, 153K, 354L, 456; six semester hours of American government; six semester hours of American history; three semester hours of electives; a three-semester-hour elective to fulfill requirement 1 of the prescribed work; three semester hours to be counted toward requirement 13 of the prescribed work.

Fourth year: Chemistry 431, 154K, 376K, and courses to fulfill requirement 12 of the prescribed work. The student must also take enough additional coursework to fulfill requirements 8, 9, 13, and 14 of the prescribed work. It is recommended that the majority of the elective courses taken to fulfill requirements 8 and 13 be chosen from upper-division courses in biology, chemistry, chemical engineering, mathematics, and physics.
BACHELOR OF SCIENCE IN CLINICAL LABORATORY SCIENCE

The student preparing for a career in clinical laboratory science (medical technology) completes at least one hundred hours of academic work at the University. After this work is completed, the student enters an accredited school of clinical laboratory science (or medical technology) for an additional twelve to sixteen months of clinical education. After completion of this education, the student is awarded the Bachelor of Science in Clinical Laboratory Science and is eligible for national certifying examinations administered by the National Credentialing Agency for Laboratory Personnel (NCA) and the American Society for Clinical Pathology (ASCP). Successful completion of these exams results in national certification as a clinical laboratory scientist or medical technologist.

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. Clinical laboratory science is also an excellent foundation for graduate study in medicine, dentistry, management, education, and other disciplines.

PRESCRIBED WORK

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. One of the following foreign language/culture options:
   a. Second-semester-level proficiency in a foreign language.
   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 foreign culture courses chosen from a list available in the dean’s office and the college advising centers.

3. Six semester hours of American government, including Texas government.

4. Six semester hours of American history.

5. Three semester hours in anthropology, economics, geography, linguistics, psychology, or sociology.

6. Mathematics 408C or 408K.

7. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.


10. Eight semester hours of physics, in one of the following sequences: Physics 317K, 117M, 317L, and 117N; or 302K, 102M, 302L, and 102N.

11. Enough additional elective coursework, if necessary, to make a total of at least one hundred semester hours of academic work completed at the University before the clinical education program.

12. The completion of twelve to sixteen months of clinical education in a program of clinical laboratory science (or medical technology) accredited by the National Accrediting Agency for Clinical Laboratory Science (NAACLS). The student must apply to and be accepted into a clinical education program. The faculty adviser in the School of Biological Sciences 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 in the School of Biological Sciences 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 11 of the prescribed work above, or the requirements for a second bachelor's degree.

SPECIAL REQUIREMENTS

The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also make a grade of at least C in each course used to fulfill requirements 8 and 12 of the prescribed work above.

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.

6. Students who enter the University with fewer than two high school units in a single foreign language must take the first two semesters in a language without degree credit to remove their language deficiency.
**BACHELOR OF SCIENCE IN COMPUTER SCIENCES**

The Bachelor of Science in Computer Sciences degree program provides a strong technical background for students planning to begin careers upon graduation and for those interested in graduate study in computer sciences. This program allows students to take more coursework in computer sciences and related technical areas than does the Bachelor of Arts degree program.

Students who would like to pursue the Bachelor of Science in Computer Sciences must first be admitted to the degree program. The admission process for option I is described in the section “Admission to the Department of Computer Sciences,” pages 448–449; for option II, in the section “Turing Scholars in Computer Sciences,” page 451; and for option III, in the section “Dean’s Scholars Honors Options,” pages 450–451.

**ADDITIONAL PRESCRIBED WORK FOR EACH OPTION**

**OPTION I: COMPUTER SCIENCES**


10. One of the following sequences of coursework:
   a. Biology 311C and 311D; and Biology 205L, 206L, or 208L.
   b. Chemistry 301, 302, and 204.
   c. Geological Sciences 401 and either 404C or 405.
   d. Physics 303K, 303L, 103M, and 103N.

11. An additional sequence chosen from those in requirement 10 above, or one of the following sequences:
   a. Biology 325 and at least three hours of upper-division coursework in biology approved by the undergraduate adviser.
   b. Chemistry 118K, 118L, 318M, and 318N, or Chemistry 210C, 310M, and 310N, 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 10 and requirement 11.
   f. Electrical Engineering 313 and 331.


14. Enough additional coursework to make a total of 130 semester hours.

**OPTION II: TURING SCHOLARS HONORS**


**PRESCRIBED WORK COMMON TO ALL OPTIONS**

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. Options I and II: One of the following foreign language/culture choices. Students in option III are exempt from this requirement.
   a. Second-semester-level proficiency in a foreign language.
   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 foreign culture courses chosen from a list available in the dean’s office and the college advising centers.

3. Six semester hours of American history.

4. Six semester hours of American government, including Texas government.

5. Three semester hours in psychology, anthropology, economics, sociology, geography, or linguistics (excluding Linguistics 340).

6. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance. Courses in computer programming may not be used to fulfill this requirement.

7. Students in all options who enter the University with fewer than two high school units in a single foreign language must take the first two semesters in a language without degree credit to remove their foreign language deficiency.
10. One of the following sequences of coursework:
   a. Biology 311C and 311D; and Biology 205L, 206L, or 208L.
   b. Chemistry 301, 302, and 204.
   c. Geological Sciences 401 and either 404C or 405.
   d. Physics 303K, 303L, 103M, and 103N.
11. An additional sequence chosen from those in requirement 10 above, or one of the following sequences.
   a. Biology 325 and at least three hours of upper-division coursework in biology approved by the undergraduate adviser.
   b. Chemistry 118K, 118L, 318M, and 318N, or Chemistry 210C, 310M, and 310N, or at least six hours of upper-division coursework in chemistry approved by the undergraduate adviser.
   c. Geological Sciences 416K and 426P, or 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 10 and requirement 11.
   f. Electrical Engineering 313 and 331.
13. Computer Sciences 310 or 310H, 313K or 313H, and 315 or 315H.
14. At least thirty-four semester hours of upper-division coursework in computer sciences, including Computer Sciences 336 or 336H, 337 or 337H, 341 or 341H, 345 or 345H, 352 or 352H, 372 or 372H, 178H, and 379H.
   The courses the student chooses to fulfill this requirement must be approved by the Turing Scholars program director; at least five of them, in addition to Computer Sciences 178H and 379H, must be honors courses. The honors thesis the student completes in Computer Sciences 379H must be approved by the program director.
15. Enough additional coursework to make a total of 130 semester hours.

**OPTION III: COMPUTER SCIENCES HONORS**

9. Breadth requirement: An honors mathematics course; Computer Sciences 310H, 313H, and 315H; and six semester hours chosen from the following courses, including coursework in two fields of study: Biology 315H, 325H, Chemistry 301, 302, Physics 301, 315, 316.
10. At least six semester hours of upper-division coursework in mathematics approved by the undergraduate adviser.
11. Computer Sciences 336H, 352H, 372H, and twelve additional hours of upper-division coursework in computer sciences.8
12. Natural Sciences 301C.
13. A section of Rhetoric and Writing 309S that is restricted to Dean's Scholars.
14. Computer Sciences 379H and a three-semester-hour upper-division research course approved by the departmental honors adviser.
15. Thirty-one additional semester hours of coursework approved by the departmental honors adviser.
16. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
17. Enough additional coursework to make a total of 120 semester hours.

**SPECIAL REQUIREMENTS**

The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 435–434. He or she must also make a grade of at least C in each course in computer sciences used to fulfill the prescribed work requirements for his or her option; students in options I and II must also earn a grade of at least C in each course used to fulfill requirements 9 and 12 of the prescribed work.

With the exception of Computer Sciences 307, 313K, and 315, all computer sciences courses that may be counted toward a degree in computer sciences are restricted to students who have been admitted to the computer sciences major or have the consent of the undergraduate faculty adviser.

An undergraduate may not enroll in any computer sciences course more than once without written consent of an undergraduate adviser in computer sciences. No student may enroll in any computer sciences course more than twice. No student may take more than three upper-division computer sciences courses in a semester without written consent of an undergraduate adviser in computer sciences.

Students in the Turing Scholars program must maintain a University grade point average of at least 3.50; like all students, they must also know and abide by the academic and disciplinary policies given in this catalog and in 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 sciences 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.

To graduate under option III, students must earn grades of A in the departmental research and thesis courses described in requirement 14 above and must present their research in an approved public forum, such as the annual College of Natural Sciences Poster...
Session. Students must also have a grade point average at graduation of at least 3.50 in coursework taken in residence at the University. Students who fail to maintain an in-residence grade point average of at least 3.25 will usually be academically dismissed from option III; under special circumstances and at the discretion of the departmental honors adviser, a student may be allowed to continue under academic review.

ORDER AND CHOICE OF WORK

The student must consult the faculty adviser each semester regarding order and choice of work.

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 six options: option I, early childhood; option II, human development; option III, families and personal relationships; option IV, families and society; option V, general human development and family sciences; and option VI, human development and family sciences honors. Option V is limited to students with an in-residence University grade point average of at least 3.00, credit for Human Development and Family Sciences 304, 312, 313, 113L, and 315L with a grade of at least C in each, and consent of the faculty undergraduate adviser in human development and family sciences; admission to option VI requires completion of the application process described on page 452.

PRESCRIBED WORK COMMON TO ALL OPTIONS

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. Students who enter the University with fewer than two high school units in a single foreign language must take the first two semesters in a language without degree credit to remove their language deficiency.

3. Six semester hours of American government, including Texas government; six semester hours of American history; Psychology 301; and six semester hours, at least three of which must be upper-division, chosen from courses in economics, social or cultural anthropology, and psychology. Neither Psychology 304 nor 333D may be counted toward this degree.

4. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.

5. At least thirty-six semester hours of upper-division coursework.

6. Eighteen semester hours in the Department 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.

7. Educational Psychology 371 or Mathematics 316; Mathematics 408C or 408K.

8. Chemistry 301 or 313N; Biology 311C; Biology 311D or Chemistry 302 or 314N; and three additional semester hours of coursework in astronomy, biology, chemistry, computer sciences, geological sciences, mathematics, nutrition (other than Nutrition 311), or physics. Courses designed for nonscience majors may not be counted toward this requirement; students should consult the Department of Human Ecology for a list of courses that may be counted.

9. Nine semester hours from an approved list of supporting courses available from the Department of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals.

10. Thirty-one semester hours in the Department of Human Ecology, consisting of Nutrition 311; Human Development and Family Sciences 304, 312, 313, 113L, 315L, and 360; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355; and
six 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 for these courses may be obtained in the human development and family sciences division office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester.

11. Nine additional semester hours chosen from Human Development and Family Sciences 338, 339, 351, 366, 378K (Topic 6: Introduction to Early Childhood Intervention), and 378L.

12. Enough additional coursework to make a total of 126 semester hours.

OPTION II: HUMAN DEVELOPMENT
This option involves the study of development across the lifespan.

7. Educational Psychology 371 or Mathematics 316; Mathematics 408C or 408K.

8. Chemistry 301 or 313N; Biology 311C; Biology 311D or Chemistry 302 or 314N; and three additional semester hours of coursework in astronomy, biology, chemistry, computer sciences, geological sciences, mathematics, nutrition (other than Nutrition 311), or physics. Courses designed for nonscience majors may not be counted toward this requirement; students should consult the Department of Human Ecology for a list of courses that may be counted.

9. Nine semester hours from an approved list of supporting courses available from the Department of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals.

10. Thirty-one semester hours in the Department of Human Ecology, consisting of Nutrition 311; Human Development and Family Sciences 304, 312, 313, 113L, 315L, and 360; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355; and six 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 for these courses may be obtained in the human development and family sciences division office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester.


12. Enough additional coursework to make a total of 126 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.

7. Educational Psychology 371 or Mathematics 316; Mathematics 408C or 408K.

8. Chemistry 301 or 313N; Biology 311C; Biology 311D or Chemistry 302 or 314N; and three additional semester hours of coursework in astronomy, biology, chemistry, computer sciences, geological sciences, mathematics, nutrition (other than Nutrition 311), or physics. Courses designed for nonscience majors may not be counted toward this requirement; students should consult the Department of Human Ecology for a list of courses that may be counted.

9. Nine semester hours from an approved list of supporting courses available from the Department of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals.

10. Thirty-one semester hours in the Department of Human Ecology, consisting of Nutrition 311; Human Development and Family Sciences 304, 312, 313, 113L, 315L, and 360; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355; and six 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 for these courses may be obtained in the human development and family sciences division office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester.


12. Enough additional coursework to make a total of 126 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.

7. Educational Psychology 371 or Mathematics 316; Mathematics 408C or 408K.

8. Chemistry 301 or 313N; Biology 311C; Biology 311D or Chemistry 302 or 314N; and three additional semester hours of coursework in astronomy, biology, chemistry, computer sciences, geological sciences, mathematics, nutrition (other than Nutrition 311), or physics. Courses designed for nonscience majors
may not be counted toward this requirement; students should consult the Department of Human Ecology for a list of courses that may be counted.

9. Nine semester hours from an approved list of supporting courses available from the Department of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals.

10. Thirty-one semester hours in the Department of Human Ecology, consisting of Nutrition 311; Human Development and Family Sciences 304, 312, 313, 113L, 315L, and 360; six hours chosen from Human Development and Family Sciences 352, 652E, 352L, 652P, and 355; and six additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652E, 352L, 652P, and 355 is restricted to students whose applications have been approved. Applications for these courses may be obtained in the human development and family sciences division office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester.


12. Enough additional coursework to make a total of 126 semester hours.

OPTION V: GENERAL HUMAN DEVELOPMENT AND FAMILY SCIENCES

This option allows the student to individualize the degree plan to match his or her career goals. Option V is limited to students with an in-residence University grade point average of at least 3.00, credit for Human Development and Family Sciences 304, 312, 313, 113L, and 315L with a grade of at least C in each, and consent of the faculty undergraduate adviser.

7. Educational Psychology 371 or Mathematics 316; Mathematics 408C or 408K.

8. Chemistry 301 or 313N; Biology 311C; Biology 311D or Chemistry 302 or 314N; and three additional semester hours of coursework in astronomy, biology, chemistry, computer sciences, geological sciences, mathematics, nutrition (other than Nutrition 311), or physics. Courses designed for nonscience majors may not be counted toward this requirement; students should consult the Department of Human Ecology for a list of courses that may be counted.

9. Nine semester hours from an approved list of supporting courses available from the Department of Human Ecology. Students should confer with their advisers about courses appropriate to their career goals.

10. Thirty-one semester hours in the Department of Human Ecology, consisting of Nutrition 311; Human Development and Family Sciences 304, 312, 313, 113L, 315L, and 360; six hours chosen from Human Development and Family Sciences 352, 652E, 352L, 652P, and 355; and six additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652E, 352L, 652P, and 355 is restricted to students whose applications have been approved. Applications for these courses may be obtained in the human development and family sciences division office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester.

11. Nine additional semester hours in human development and family sciences.

12. Enough additional coursework to make a total of 126 semester hours.

OPTION VI: HUMAN DEVELOPMENT AND FAMILY SCIENCES HONORS

This option is designed to prepare students for academic or research careers.

7. Breadth requirement: An honors mathematics course; Biology 315H and 325H; Chemistry 301H and 302H; and either a three-semester-hour honors-designated computer sciences course or Physics 301, 316, or 315.

8. Human Ecology 115H and 225H.


10. Natural Sciences 301C.

11. A section of Rhetoric and Writing 309S that is restricted to Dean's Scholars.

12. Human Development and Family Sciences 379H and a three-semester-hour upper-division research course approved by the departmental honors adviser.

13. Twenty additional semester hours of coursework approved by the departmental honors adviser.

14. Six 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.

SPECIAL REQUIREMENTS

All students must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. They must also make a grade of at least C in each course in the Department of Human Ecology that is counted toward the degree. Students in options I through V must also make a grade of at least C in each course used to fulfill requirement 10 of the prescribed work for the option.
To graduate under option VI, students must earn grades of 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 annual College of Natural Sciences Poster Session. Students must also have a grade point average at graduation of at least 3.50 in coursework taken in residence at the University. Students who fail to maintain an in-residence grade point average of at least 3.25 will usually be academically dismissed from option VI; under special circumstances and at the discretion of the departmental honors adviser, a student may be allowed to continue under academic review.

**BACHELOR OF SCIENCE IN INTERDISCIPLINARY SCIENCE**

**PRESCRIBED WORK COMMON TO BOTH OPTIONS**

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. Students who enter the University with fewer than two high school units in a single foreign language must take the first two semesters in a language without degree credit to remove their language deficiency.

3. Six semester hours of American government, including Texas government.

4. Six semester hours of American history.

5. History 329U or Philosophy 329U.


**ADDITIONAL PRESCRIBED WORK FOR EACH OPTION**

**OPTION I: MIDDLE GRADES TEACHING IN MATHEMATICS AND SCIENCE**

This option 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, consult the UTeach-Natural Sciences academic adviser.


8. Educational Psychology 363M (Topic: Adolescent Development), or Psychology 301 and 304.

9. The following foundation courses:
   a. Mathematics 408C, 408D, 315C, 316L or 362K, 326K, and 333L.
   b. Chemistry 301, 302, and 204.
   c. Physics 302K, 102M, 302L, and 102N, or an equivalent sequence. Students who choose the physics concentration must take Physics 301, 101L, 316, and 116L.
   d. Computer Sciences 303E or the equivalent.
   e. Biology 311C and 311D, and 205L, 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: Research Methods—UTeach), Chemistry 368 (Topic: Research Methods—UTeach), or Physics 341 (Topic: Research Methods—UTeach).

10. One of the following concentrations:
   a. Twelve hours of approved coursework in mathematics, including Mathematics 358K. Mathematics 325K, 341 or 340L, and 360M are recommended.
   b. Twelve hours of approved coursework beyond the foundation courses listed above in any one of the following areas: chemistry, biology, physics, or geological sciences.

11. Enough additional coursework to make a total of at least 126 semester hours.

**SPECIAL REQUIREMENTS**

The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also make a grade of at least C in all courses used to fulfill requirements 5, 9, and 10 of the prescribed work above.

To graduate and be recommended for certification, students must have a University grade point average of at least 2.50. They must earn a grade of at least C in the professional development courses listed in requirements 6, 7, and 8 and must pass the final teaching portfolio review. For information about the portfolio review and additional teacher certification requirements, consult the UTeach-Natural Sciences academic adviser.

**OPTION II: SECONDARY SCHOOL TEACHING IN COMPUTER SCIENCES AND MATHEMATICS**

This option is designed to fulfill the course requirements for certification as a secondary school teacher in Texas, but completion of the course requirements does not guarantee the student’s certification. For information about additional certification requirements, consult the UTeach-Natural Sciences academic adviser.

7. Three semester hours in anthropology, economics, geography, linguistics, psychology, or sociology.
8. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.

9. The following foundation courses:
   b. Computer Sciences 303E or 305J, 307, 310, 315, 326E or 356, 327E or 347, and 349.
   c. Six additional hours in computer sciences chosen from Computer Sciences 323E, 324E or 354, 336, 337, 345, 352, and 372.
   d. Physics 303K, 103M, 303L, and 103N; or 317K, 317L, 117M, and 117N.
   e. Management Information Systems 311F.
   f. Information Studies 312.
   g. Biology 337 (Topic: Research Methods—UTeach), Chemistry 368 (Topic: Research Methods—UTeach), or Physics 341 (Topic: Research Methods—UTeach).

10. Enough additional coursework to make a total of at least 126 semester hours.

SPECIAL REQUIREMENTS

The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also make a grade of at least C in all courses used to fulfill requirements 5, 6, and 9 of the prescribed work above.

To graduate and be recommended for certification, students must have a University grade point average of at least 2.50. They must earn a grade of at least C in the professional development courses listed in requirement 6 and must pass the final teaching portfolio review. For information about the portfolio review and additional teacher certification requirements, consult the UTeach-Natural 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. Admission to option VI, mathematics honors, requires completion of the application process described on page 453.

None of the following courses may be counted toward the degree: Mathematics 301, 302, 303D, 305G.

PRESCRIBED WORK COMMON TO ALL OPTIONS

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. Options I–V: Courses 506 and 507 (or the equivalent) in a single foreign language, and a three-semester-hour course in the same language for which 507 is a prerequisite; or as much of this coursework as required by the student’s score on the appropriate language placement test. Students in option VI are exempt from this requirement.

For students in all options 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 hours required for the degree.

3. Six semester hours of American history.
4. Six semester hours of American government, including Texas government.
5. Three semester hours in anthropology, economics, geography, linguistics, psychology, or sociology.
6. Forty-two semester hours of upper-division coursework.
7. Eighteen semester hours in mathematics must be completed in residence at the University.

ADDITIONAL PRESCRIBED WORK FOR EACH OPTION

OPTION I: ACTUARIAL SCIENCE

8. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.
9. Six semester hours in architecture, classics (including classical civilization, Greek, Latin), fine arts (including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies), philosophy, or programs of special concentration. Three of these hours must be taken in architecture, classics, fine arts, or philosophy (excluding courses in logic).
10. Mathematics 408C and 408D, or 408K, 408L, and 408M.
12. Economics 304K and 304L.
13. Accounting 310F or both 311 and 312.
14. Finance 357.
16. 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, 365C, 367K, 373K.
   b. Mathematics 340L or 341.
   c. Mathematics 362K and either 358K or 378K.
   d. At least three courses chosen from the following: Mathematics 339J, 339U, 339V, 449P, 349R.
   e. Enough additional coursework to provide a total of at least thirty-two 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 17.
17. At least six semester hours of upper-division coursework must be outside both mathematics and the subject areas listed in requirement 8. Philosophy courses in logic, computer sciences courses in discrete mathematics, engineering courses, and courses counted toward requirement 16e may not be used to fulfill this requirement.
18. Enough additional coursework to make a total of 126 semester hours.

OPTION II: APPLIED MATHEMATICS
8. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.
9. Six semester hours in architecture, classics (including classical civilization, Greek, Latin), fine arts (including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies), philosophy, or programs of special concentration. Three of these hours must be taken in architecture, classics, fine arts, or philosophy (excluding courses in logic).
10. Mathematics 408C and 408D, or 408K, 408L, and 408M.
11. Computer Sciences 303E or the equivalent.
12. 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 340L or 341.
   b. Mathematics 427K, 348, 362K, and 474M.
   c. Mathematics 361 and 365C.
   d. Mathematics 343K or 373K.
   e. Enough of the following coursework to provide a total of at least thirty-two hours: Mathematics 346, 365D, 368K, 372K, 376C.
13. At least six semester hours of upper-division coursework must be outside both mathematics and the subject areas listed in requirement 8. Philosophy courses in logic, computer sciences courses in discrete mathematics, and engineering courses may not be used to fulfill this requirement.
14. Enough additional coursework to make a total of 126 semester hours.

OPTION III: MATHEMATICAL SCIENCES
Specialization in Statistics, Probability, and Data Analysis
8. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.
9. Six semester hours in architecture, classics (including classical civilization, Greek, Latin), fine arts (including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies), philosophy, or programs of special concentration. Three of these hours must be taken in architecture, classics, fine arts, or philosophy (excluding courses in logic).
10. Mathematics 408C and 408D, or 408K, 408L, and 408M.
11. Computer Sciences 303E or the equivalent.
12. At least thirty-two semester hours of upper-division coursework in mathematics and related areas, consisting of:
   b. Mathematics 427K and 362K.
   c. Mathematics 340L or 341.
   d. Mathematics 361K or 365C.
   e. Mathematics 358K and 378K.
   f. Mathematics 328K, 343K, 346, or 373K.

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 358K or 378K.

13. At least six semester hours of upper-division coursework must be outside both mathematics and the subject areas listed in requirement 8. Philosophy courses in logic, computer sciences courses in discrete mathematics, engineering courses, and courses counted toward requirement 12g may not be used to fulfill this requirement.

14. Enough additional coursework to make a total of 126 semester hours.

**Specialization in Scientific Computation**

Students who complete this specialization may simultaneously fulfill the requirements of the Elements of Computing Program and may apply to the director of that program for a certificate of completion. The Elements of Computing Program is described on page 447.

8. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.

9. Six semester hours in architecture, classics (including classical civilization, Greek, Latin), fine arts (including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies), philosophy, or programs of special concentration. Three of these hours must be taken in architecture, classics, fine arts, or philosophy (excluding courses in logic).

10. Mathematics 408C and 408D, or 408K, 408L, and 408M.

11. Computer Sciences 303E and 313E, or 307 and 315.

12. At least thirty-two semester hours of upper-division coursework in mathematics and related areas, consisting of
   a. Mathematics 340L or 341.
   b. Mathematics 427K, 348, 362K, and 368K.
   c. Mathematics 361K or 365C.

14. Enough additional coursework to make a total of 126 semester hours.

**OPTION IV: PURE MATHEMATICS**

8. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.

9. Six semester hours in architecture, classics (including classical civilization, Greek, Latin), fine arts (including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies), philosophy, or programs of special concentration. Three of these hours must be taken in architecture, classics, fine arts, or philosophy (excluding courses in logic).

10. Mathematics 408C and 408D, or 408K, 408L, and 408M.

11. At least thirty-two semester hours of upper-division coursework in mathematics, consisting of
   a. Mathematics 340L or 341.
   d. Additional hours of upper-division coursework in mathematics chosen with the approval of the mathematics adviser. Either Mathematics 343K or 361K may be counted toward this requirement, but not both.

12. At least six semester hours of upper-division coursework must be outside both mathematics and the subject areas listed in requirement 8. Philosophy courses in logic, computer sciences courses in discrete mathematics, and engineering courses may not be used to fulfill this requirement.

13. 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; however, completion of the course requirements does not guarantee the student's certification. For information about additional certification requirements, 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 in place of those that do not.

8. Eight semester hours in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.

9. Six semester hours in architecture, classics (including classical civilization, Greek, Latin), fine arts (including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies), philosophy, or programs of special concentration. Three of these hours must consist of History 329U or Philosophy 329U.

10. Mathematics 408C and 408D, or 408K, 408L, and 408M.

11. At least six semester hours of upper-division coursework must be outside both mathematics and the subject areas listed in requirement 8. Philosophy courses in logic, computer sciences courses in discrete mathematics, and engineering courses may not be used to fulfill this requirement.

12. Mathematics 315C.

13. Biology 337 (Topic: Research Methods—UTeach), Chemistry 368 (Topic: Research Methods—UTeach), or Physics 341 (Topic: Research Methods—UTeach). The course used to fulfill this requirement may also be counted toward requirement 8 above if it is in the same field of study as the other courses counted toward requirement 8. Students are encouraged to take at least one course to fulfill requirement 8 before taking research methods.

14. At least thirty-two semester hours of upper-division coursework in mathematics, consisting of
   a. Mathematics 340L or 341.
   c. Mathematics 326K or 360M or Science 360 (Topic: Math Domain). Students seeking middle grades mathematics certification must complete Mathematics 326K.
   d. Mathematics 361K or 365C.
   e. Mathematics 328K, 343K, or 373K.
   f. Mathematics 427K or 378K.
   g. Enough of the following coursework to provide a total of at least thirty-two semester hours: Mathematics 326K, 427K, 328K, 339J, 339U, 343K, 343L, 348, 360M, 361, 365C, 365D, 368K, 373K, 373L, 175T (Topic: Seminar for Prospective Teachers), 378K. A course used to fulfill requirements 14a through 14f may not also be counted toward requirement 14g.


17. Students seeking middle grades certification must complete the following courses: Educational Psychology 363M (Topic 3: Adolescent Development), or Psychology 301 and 304; Curriculum and Instruction 371 (Topic 10: Secondary School Reading in the Content Subjects); and Mathematics 326K.

18. Enough additional coursework to make a total of 126 semester hours.

OPTION VI: MATHEMATICS HONORS

8. Breadth requirement: An honors mathematics course; and fifteen semester hours chosen from the following courses, including coursework in three fields of study: Biology 315H, 325H, Chemistry 301H, 302H, Computer Sciences 315H, Physics 301, 315, 316.

9. Three semester hours in architecture, classics (including classical civilization, Greek, Latin), fine arts (including art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies), philosophy (excluding courses in logic), or programs of special concentration.

10. An honors section of Mathematics 427K, and six semester hours of coursework chosen from Mathematics 365C, 367K, and 373K.

11. Twenty additional semester hours of upper-division coursework in mathematics approved by the departmental faculty adviser.

12. Natural Sciences 301C.

13. A section of Rhetoric and Writing 309S that is restricted to Dean’s Scholars.

14. Mathematics 379H and a three-semester-hour upper-division research course approved by the departmental honors adviser.
15. Thirty additional semester hours of coursework approved by the departmental honors adviser.
16. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
17. Enough additional coursework to make a total of 120 semester hours.

SPECIAL REQUIREMENTS

The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also make a grade of at least C in each course completed at the University and counted toward the prescribed work requirements for his or her option.

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 each of the professional development courses listed in requirement 16 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 17. For information about the portfolio review and additional teacher certification requirements, consult the UTeach-Natural Sciences academic adviser.

To graduate under option VI, students must earn grades of A in the departmental research and thesis courses described in requirement 14 above and must present their research in an approved public forum, such as the annual College of Natural Sciences Poster Session. Students must also have a grade point average at graduation of at least 3.50 in coursework taken in residence at the University. Students who fail to maintain an in-residence grade point average of at least 3.25 will usually be academically dismissed from option VI; under special circumstances and at the discretion of the departmental honors adviser, a student may be allowed to continue under academic review.

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: dietetics, nutritional sciences, nutrition and health, teaching certification, nutrition honors, and international nutrition. All options include a prescribed core of science and nutrition courses and additional coursework in the area of specialization. Admission to option V, nutrition honors, requires completion of the application process described on page 453.

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. 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, (312) 899-0040.

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.

The nutrition and health option gives students flexibility to combine the study of nutrition with coursework in another area of interest. Additional courses in a specialization may enhance nutrition-related career opportunities; however, this option does not lead to dietetic registration. Students who select the business sequence can earn a Business Foundations Certificate and seek employment in areas such as sales and customer support in the food industry. The communication sequence provides training in public speaking and writing for the lay public along with study of the role culture plays in these areas. The computer science sequence can lead to an Elements of Computing Certificate and provide skills for future employment opportunities combining technology with nutrition. Students who are interested in the range of factors influencing health may choose the exercise and fitness sequence. The nutritional science and behavior sequence provides a scientific background for understanding eating behavior.

The teaching option allows students to meet the state certification requirements to teach composite science in secondary and/or middle grades. There is no certification for teaching nutrition or health in Texas public schools.

The honors option is a selective program; admission into the option and continuation in it require the approval of the departmental honors adviser. In addition to a core of research, writing, and seminar courses in the College of Natural Sciences, students in the honors 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 first-hand 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**

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. Students who enter the University with fewer than two high school units in a single foreign language must take the first two semesters in a language without degree credit to remove their language deficiency.

3. Six semester hours of American government, including Texas government.

4. Six semester hours of American history.

5. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.

6. At least thirty-six semester hours of upper-division coursework, of which at least twenty-four must be in nutrition. Eighteen hours of upper-division coursework 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 must apply for admission after completing sixty semester hours of prerequisite coursework. Information about admission is given on page 449. Upon completing the CPD, which includes approximately one thousand 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 772C, 572F, 373S; summer session: Nutrition 274C and 174P. 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.

7. At least six semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 and 113L.

8. Mathematics 408K or 408C.

9. Three semester hours of statistics chosen from Biology 318M, Educational Psychology 371, and Mathematics 316.

10. Chemistry 301, 302, 204, 310M, and either 369 or both 339K and 339L.

11. Biology 311C, 416K or 365R, and 416L or 365S.

12. Accounting 310F or 311.


14. At least twenty-eight additional semester hours in nutrition, consisting of the following:
   a. Behavioral and clinical nutrition:
      i. CPD: Nutrition 315, 318, 330, 332, and 370.
      ii. DPD: Nutrition 315, 318, 332, 370, and six semester hours chosen from Nutrition 330, 371, and either 360 (Topic 1: Nutrition and Athletic Performance) or 365 (Topic 2: Nutrition and Genes).
   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, 355, 366L, or 379H. With the approval of the faculty undergraduate adviser, DPD students may count Nutrition 352 toward this requirement.
   d. Professional development: Nutrition 245C or 162. Students in the CPD must select Nutrition 245C.

15. Students in the CPD must complete an additional fifteen semester hours of supervised practice: Nutrition 772C, 572F, 274C, and 174P.

16. Enough additional coursework to make a total of 126 semester hours.
OPTION II: NUTRITIONAL SCIENCES

7. At least six semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 and 113L.
8. Mathematics 408K or 408C.
9. Three semester hours of statistics chosen from Biology 318M, Educational Psychology 371, and Mathematics 316.
10. Chemistry 301, 302, 204, 210C, 310M, 310N, and either 369 or both 339K and 339L.
12. One of the following four-semester-hour sequences: Physics 301 and 101L, 302K and 102M, 303K and 103M, or 317K and 117M.
14. Twelve additional semester hours of nutrition, including the following:
   a. Nutritional sciences: Nutrition 365 or 371. The same topic of Nutrition 365 may not be counted both toward this requirement and toward requirement 13.
   c. Research: Three semester hours of coursework chosen from Nutrition 366L, Biology 325L, 331L, and Chemistry 369L.
15. Enough additional coursework to make a total of 126 semester hours.

OPTION III: NUTRITION AND HEALTH

7. At least six semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 and 113L.
8. Mathematics 408K or 408C.
9. Three semester hours of statistics chosen from Biology 318M, Educational Psychology 371, and Mathematics 316.
10. Chemistry 301, 302, 204, 310M, and either 369 or both 339K and 339L.
11. Biology 311C, 416K or 365R, and 416L or 365S.
13. Eighteen additional semester hours of nutrition, including the following:
   b. Research: Nutrition 324 and 124L, 355, 366L, or 379H. With departmental approval, students in option III may substitute Nutrition 352.
14. One of the following specialization sequences, with at least six hours of upper-division coursework:
   e. Nutritional science and behavior: Nutrition 318 and 330, and fifteen hours chosen from Biology 349, 359K, 365L, 365N, 365T, 365W, Psychology 333T, 343K, 350, 352, and 353K. In fulfilling requirement 7 above, students in the nutritional science and behavior sequence must select Psychology 301. In fulfilling requirement 11, they must select Biology 365R and 365S; they must also complete Biology 311C and 311D.
15. Enough additional coursework to make a total of 126 semester hours.
OPTION IV: TEACHING

This option is designed to fulfill the course requirements for certification as a middle grades or secondary school teacher in Texas, but completion of the course requirements does not guarantee the student's certification. For information about additional requirements, consult the UTeach-Natural Sciences academic adviser.

7. At least six semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 and 113L.
8. Mathematics 408K or 408C.
9. Three semester hours of statistics chosen from Biology 318M, Educational Psychology 371, and Mathematics 316.
10. Chemistry 301, 302, 204, 310M, and either 369 or both 339K and 339L.
11. Biology 311C, 311D, 416K or 365R, and 416L or 365S.
12. For students with biological sciences as the primary teaching area, Biology 325; for students with chemistry as the primary teaching area, Chemistry 210C, 310N, and 455.
13. History 329U or Philosophy 329U.
14. An eight-semester-hour sequence of coursework in physics chosen from the following: Physics 301, 101L, 316, and 116L; 302K, 102M, 302L, and 102N; 303K, 103M, 303L, and 103N; or 317K, 117M, 317L, and 117N.
15. Six semester hours of coursework in geological sciences; courses intended for nontechnical majors may not be counted toward this requirement.
17. Six semester hours in addition to the core coursework, consisting of one of the following research courses: Nutrition 366L, Biology 337 (Topic: Research Methods—UTeach), Chemistry 368 (Topic: Research Methods—UTeach), or Physics 341 (Topic: Research Methods—UTeach); and three additional hours in nutrition.
19. 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 371 (Topic 10: Secondary School Reading in the Content Subjects).
20. Enough additional coursework to make a total of 126 semester hours.

OPTION V: NUTRITION HONORS

7. Breadth requirement: An honors mathematics course; Biology 315H and 325H; Chemistry 301H and 302H; and either a three-semester-hour honors-designated computer sciences course or Physics 301, 316, or 315.
8. At least three semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 and 113L.
9. Chemistry 310M and 310N, and either 369 or both 339K and 339L.
10. Biology 365R and 365S.
11. Nutrition 311, 111L, 326 or 365, and 126L.
12. Nutrition 365 (Topic 1: Vitamins and Minerals), 366L, and twelve additional semester hours of nutrition or related coursework approved by the departmental honors adviser.
13. Natural Sciences 301C.
14. A section of Rhetoric and Writing 309S that is restricted to Dean’s Scholars.
15. Nutrition 379H and a three-semester-hour upper-division research course approved by the departmental honors adviser.
16. Twelve semester hours of additional coursework approved by the departmental honors adviser.
17. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
18. 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 to which students must make a separate study abroad application. Admission to the study abroad program is competitive and requires a University grade point average of at least 2.50. The study abroad program requires travel and program fees, in addition to regular tuition. Financial aid is available for those who qualify.

During the study abroad experience, students complete Nutrition 352 (Topic: International Field Experience in 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 Department of Human Ecology.

7. Economics 304K or 304L, and at least three semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, and Human Development and Family Sciences 313 and 113L.
8. Six semester hours chosen from the following:
   Geography 339K, 357, Mexican American Studies 307, 318, Sociology 335, 354K.
9. Fourth-semester-level proficiency in Spanish or in a foreign language selected based on the
   student's proposed area of study abroad.
10. Mathematics 408K or 408C.
11. Three semester hours of statistics chosen from Biology 318M, Educational Psychology 371, and
    Mathematics 316.
12. Chemistry 301, 302, 204, 210C, 310M, 310N, and either 369 or both 339K and 339L.
15. At least ten additional semester hours of nutrition, including the following: Nutrition 316, 116L, and either 318 or 332.
16. Enough additional coursework to make a total of 126 semester hours.

SPECIAL REQUIREMENTS

The student must fulfill the University-wide graduation requirements given on pages 18–19 and the
   college requirements given on pages 453–454. He or she must also make a grade of at least C in each course completed at the University and counted toward the prescribed work for the degree.
   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 each of the professional development courses listed in requirement 18 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 19. For information about the portfolio review and additional teacher certification requirements, consult the UTeach-Natural Sciences academic adviser.
   To graduate under option V, students must earn grades of A in the departmental research and thesis
courses described in requirement 15 above and must present their research in an approved public forum,
such as the annual College of Natural Sciences Poster Session. Students must also have a grade point
average at graduation of at least 3.50 in coursework taken in residence at the University. Students who fail to maintain an in-residence grade point average of at least 3.25 will usually be academically dismissed from option V; under special circumstances and at the discretion of the departmental honors adviser, a student may be allowed to continue under academic review.

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 physicist—observation, imagination, model building, prediction, and deduction—will 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 sciences, 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. These students should consider the options in computation, radiation physics, space sciences, 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.
   Admission to option VI, physics honors, requires completion of the application process described on page 453.

PRESCRIBED WORK COMMON TO ALL OPTIONS

1. Rhetoric and Writing 306 and English 316K. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.
2. Options I–IV: One of the following foreign language/culture choices. Students in options V and VI are exempt from this requirement.
   a. Second-semester-level proficiency in a foreign language.
   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 foreign culture courses chosen from a list available in the dean's office and the college advising centers.
3. Six semester hours of American government, including Texas government.
4. Six semester hours of American history.
5. Three semester hours in anthropology, economics, geography, linguistics, psychology, or sociology.
6. Three semester hours in architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.
7. Thirty-six semester hours of upper-division coursework.
8. At least eighteen 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.

ADDITIONAL PRESCRIBED WORK FOR EACH OPTION

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.

9. Chemistry 302, and 204 or 317.
10. Three semester hours of biology and at least two additional 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.
12. Mathematics 408C and 408D or the equivalent, 427K and 427L, and nine 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.
13. At least twenty-nine semester hours of upper-division coursework in physics, including Physics 336K, 352K, 453, 369, 373, and 474, or their equivalents.
14. Enough additional coursework to make a total of 126 semester hours.

OPTION II: COMPUTATION

This option is designed to provide the necessary foundation and hands-on skill in computation for the student who plans a career or further study in computational physics or computer sciences. Students who complete this option may simultaneously fulfill the requirements of the Elements of Computing Program and may apply to the director of the program for a certificate of completion. The Elements of Computing Program is described on page 447.

9. Chemistry 302, and 204 or 317.
10. Three semester hours of biology and at least two additional 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.
12. 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 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.
13. At least twenty-six semester hours of upper-division coursework in physics, including Physics 329, 336K, 352K, 453, 369, 373, and 474, or their equivalents.
14. Twelve semester hours in the elements of computing, consisting of Computer Sciences 303E, 313E, and six hours chosen from Computer Sciences 323E, 324E, 326E, and 327E.
15. 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.

9. Chemistry 302, and 204 or 317.
10. Three semester hours of biology and at least two additional 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.
12. Mathematics 408C and 408D or the equivalent, 427K and 427L, and nine 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.
13. At least twenty-two semester hours of upper-division coursework in physics, including Physics 336K, 352K, 453, 362K, 362L, 369, 373, and 474, or their equivalents.
15. 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.

9. Chemistry 302, and 204 or 317.
10. Three semester hours of biology and at least two additional 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.
12. Mathematics 408C and 408D or the equivalent, 427K and 427L, and nine 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.
13. At least twenty-two semester hours of upper-division coursework in physics, consisting of Physics 329, 336K, 352K, 453, 362K, 369, and 373, or their equivalents.
14. 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.
15. 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 science certification, or mathematics/physical science certification. However, completion of the course requirements does not guarantee the student’s certification. For information about additional requirements, consult the UTeach-Natural Sciences academic adviser.

10. Mathematics 408C and 408D or the equivalent, 427K and 427L, and either 340L, 341, 361, or 362K.
11. At least twenty-two semester hours of upper-division coursework in physics, consisting of Physics 329, 336K, 338K, and 453; either 333, 352K, or 373; a three-hour course approved by the undergraduate adviser, such as Physics 370C or an upper-division astronomy course; and Physics 341 (Topic: Research Methods). With the consent of the program coordinator, an upper-division physics course that includes a substantial research component may be substituted for Physics 341.
12. History 329U or Philosophy 329U.
13. One of the following:
   a. For composite science certification: (1) Biology 311C and 311D; (2) Chemistry 301 and 302; (3) six hours of coursework in geological sciences; courses intended for nonscience majors may not be counted toward this requirement; (4) enough additional approved coursework in biology, chemistry, or geological sciences to provide the required twelve hours in a second field.
   b. For physical science certification: (1) Chemistry 301, 302, 304 or 317, 353, 153K, 354L, 154K, and 455 or 456; (2) three additional hours of upper-division coursework in physics.
   c. For mathematics/physical science certification: (1) Chemistry 301 and 302; (2) Mathematics 315C, 325K, 326K or 360M, 333L, 358K, and 362K.
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 371 (Topic 10: Secondary School Reading in the Content Subjects).
16. At least eighteen semester hours of upper-division coursework, including at least twelve hours of upper-division work in physics taken in residence at the University.
17. Enough additional coursework to make a total of at least 120 semester hours.

OPTION VI: PHYSICS HONORS

12. Natural Sciences 301C.
13. A section of Rhetoric and Writing 309S that is restricted to Dean’s Scholars.
14. Physics 379H and a three-semester-hour upper-division research course approved by the departmental honors adviser.
15. Twenty additional semester hours of coursework approved by the departmental honors adviser.
16. Six semester hours of coursework in the College of Liberal Arts or the College of Fine Arts.
17. Enough additional coursework to make a total of 120 semester hours.

SPECIAL REQUIREMENTS

The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also earn a grade point average of at least 2.00 in physics courses taken at the University and counted toward the prescribed work requirements for his or her option.
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 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, consult the UTeach-Natural Sciences academic adviser.

To graduate under option VI, students must earn grades of A in the departmental research and thesis courses described in requirement 14 above and must present their research in an approved public forum, such as the annual College of Natural Sciences Poster Session. Students must also have a grade point average of at least 3.50 in coursework taken in residence at the University. Students who fail to maintain an in-residence grade point average of at least 3.25 will usually be academically dismissed from option VI; under special circumstances and at the discretion of the departmental honors adviser, a student may be allowed to continue under academic review.

BACHELOR OF SCIENCE IN TEXTILES AND APPAREL

Students who would like to pursue the Bachelor of Science in Textiles and Apparel must first be admitted to the degree program. Information about admission is given on pages 449–450. Information is also given there about admission to the field experience programs that are part of the degree.

OPTION I: APPAREL DESIGN AND CONSERVATION

This option incorporates principles from arts, sciences, and humanities. The apparel design specialization provides instruction in constructing, designing, and coordinating fashions and making patterns and samples as preparation for a career in the apparel industry. The conservation specialization emphasizes the chemical properties of textiles and the preservation, conservation, and exhibition of textiles and apparel in museums and other collections.

PRESCRIBED WORK

1. Rhetoric and Writing 306, English 316K, and three additional semester hours in either English or rhetoric and writing. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.

2. Students who enter the University with fewer than two high school units in a single foreign language must take the first two semesters in a language without degree credit to remove their language deficiency.

3. Six semester hours of American government, including Texas government; six hours of lower-division coursework in anthropology, economics, psychology, or sociology; and six hours of upper-division coursework in either (a) for the apparel design specialization, American studies, anthropology, cultural studies, psychology, or sociology; or (b) for the conservation specialization, anthropology.

4. Mathematics 408C or 408K; and Mathematics 316, Statistics 309, or Educational Psychology 371.

5. Chemistry 301, 302, and 204; and either Biology 311C (for the apparel design specialization) or Chemistry 310M (for the conservation specialization).

6. Accounting 310F, Management 320F, and Marketing 320F.

7. Either (a) for the apparel design specialization, three semester hours of studio art, or (b) for the conservation specialization, Art History 303; and nine semester hours of upper-division coursework in art history or studio art.

8. Textiles and Apparel 205, 105L, 319, 325L, 325M, 352D, 260L, and 260M; Human Development and Family Sciences 322; and one of the following sequences:


   b. Conservation specialization: Textiles and Apparel 355D; three semester hours chosen from Textiles and Apparel 327, 328, 355N, and 376; twelve semester hours chosen from Textiles and Apparel 315K, 126 and 226L, 355C, and topics of 164K and 264L; and six or seven semester hours chosen from Textiles and Apparel 212K, 212L, 316L, and 316Q.

9. Thirty-six semester hours of upper-division coursework, of which at least eighteen must be within and at least twelve must be outside the Department of Human Ecology.

10. Enough additional coursework to make a total of 126 semester hours.
SPECIAL REQUIREMENTS
The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also make a grade of at least C in each course completed at the University and counted toward the prescribed work for the degree. At least eighteen hours of the coursework used to fulfill requirement 8 of the prescribed work must be completed in residence at the University. Courses designed for nonscience majors may not be counted.

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.

OPTION II: RETAIL MERCHANDISING
This option incorporates principles from arts, sciences, and humanities and provides specialized instruction for professional careers in merchandising.

PRESCRIBED WORK
1. Rhetoric and Writing 306, English 316K, and three additional semester hours in either English or rhetoric and writing. In addition, in taking courses to fulfill other degree requirements, the student must complete two courses certified as having a substantial writing component; one of these courses must be upper-division. If the writing requirement is not fulfilled by courses specified for the degree, the student must fulfill it either with electives or with coursework taken in addition to the number of hours required for the degree. Courses with a substantial writing component are identified in the Course Schedule.
2. Students who enter the University with fewer than two high school units in a single foreign language must take the first two semesters in a language without degree credit to remove their language deficiency.
3. Six semester hours of American government, including Texas government; six semester hours of American history; six semester hours of economics; and three semester hours of psychology, sociology, or anthropology.
4. Mathematics 408C or 408K; and Educational Psychology 371, Mathematics 316, or Statistics 309.
5. Chemistry 301, 302, and 204; and Biology 311C and 311D.
6. Art History 301.
7. Communication Studies 306M, Accounting 310F, Marketing 320F, and Advertising 318J; and six semester hours chosen from Management 320F, Management Information Systems 311F, and Legal Environment of Business 320F.
8. Forty-seven semester hours in the Department of Human Ecology, including the following coursework:
   b. Human Development and Family Sciences 322; Human Ecology 361; and three additional hours in human development and family sciences or nutrition.
9. Thirty-six semester hours of upper-division coursework, of which at least eighteen must be within and at least twelve must be outside the Department of Human Ecology.
10. Enough additional coursework to make a total of 126 semester hours.

SPECIAL REQUIREMENTS
The student must fulfill the University-wide graduation requirements given on pages 18–19 and the college requirements given on pages 453–454. He or she must also make a grade of at least C in each course completed at the University and counted toward the prescribed work for the degree. At least eighteen of the forty-seven hours in the Department of Human Ecology used to fulfill requirement 8 of the prescribed work must be completed in residence at the University. Courses designed for nonscience majors may not be counted.

ORDER AND CHOICE OF WORK
The student should confer with the faculty adviser each semester regarding 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 2006–2007 and 2007–2008; 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.

NATURAL SCIENCES

NATURAL SCIENCES: NSC

Lower-Division Courses

001. First-Year Interest Group Seminar. Restricted to students in the First-Year Interest Group Program. Basic issues in various natural sciences disciplines. One lecture hour a week for one semester.

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.

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.

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.

109, 209, 309. Topics in Natural 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.

110. Dean's Scholars Seminar. Restricted to students in the Dean's Scholars Program. Emphasis on student participation. Format may include student speakers, outside speakers, discussions, visits to laboratories, or other projects. The equivalent of one lecture hour a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

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.

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.

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.

Upper-Division Courses

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 328C, 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: Upper-division standing. Additional prerequisites may vary with the topic and are given in the Course Schedule.

371. Texas Interdisciplinary Plan Seminar. Restricted to students in the Texas Interdisciplinary Plan. An analysis of interdisciplinary themes within the arts and sciences through reading, research, discussion, and writing. Three lecture hours a week for one semester, with additional hours to be arranged. Liberal Arts 371 and Natural Sciences 371 may not both be counted. May not be repeated for credit. Prerequisite: Upper-division standing and consent of the Texas Interdisciplinary Plan adviser.

ACTUARIAL FOUNDATIONS

See Department of Mathematics, page 517.

DEPARTMENT OF ASTRONOMY

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ASTRONOMY: AST

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 on pages 658–662.

Lower-Division Courses

301 (TCCN: PHYS 1311). Introduction to Astronomy. General introduction to astronomy for nonscience majors. The solar system, stars, galaxies, and cosmology. Only one of the following may be counted: Astronomy 301, 302, 303, 307.
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.

302. Self-Paced Introduction to Astronomy. General, self-paced introduction to astronomy for nonscience majors. The solar system, stars, galaxies, and cosmology. Only one of the following may be counted: Astronomy 301, 302, 303, 307.

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. Only one of the following may be counted: Astronomy 301, 302, 303, 307.

103L (TCCN: PHYS 1111). 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.

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.

307. Introductory Astronomy. Introduction to astronomy for science and engineering students. The solar system, stars, galaxies, and cosmology. 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.

309 (TCCN: PHYS 1312). Topics in Astronomy for Nonscience Students. Selected topics in modern astronomy: solar system, galaxies, peculiar stars, cosmology, and others. May be repeated for credit when the topics vary. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

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. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

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. Astronomy 309N and 309Q may not both be counted. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

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. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

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. Astronomy 309N and 309Q may not both be counted; Astronomy 309Q and 309R may not both be counted. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

309R. Galaxies, Quasars, and the Universe. For nonscience majors. Galaxies, quasars, giant black holes; cosmic evolution; the origin and future of the universe. Astronomy 309Q and 309R may not both be counted. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

309T. The Milky Way Galaxy. Our spiral system of stars, gas, and dust; star formation. Prerequisite: Astronomy 301, 302, 303, or consent of instructor.

110K, 210K, 310K. Conference Course. Supervised study of selected areas of astronomy, by arrangement with a faculty member. May be repeated for credit when the topics vary. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. Prerequisite: Written consent of instructor.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

321. Current Problems in Astronomy. For nonscience majors. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing; and Astronomy 301, 302, 303, or consent of instructor.

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. Prerequisite: Upper-division standing; and Astronomy 301, 302, 303, or consent of instructor.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

350L. History and Philosophy of Astronomy. Historical influence of astronomical concepts on social, economic, literary, and scientific life; the place of astronomy in society. Prerequisite: Upper-division standing; and Astronomy 301, 302, 303, or consent of instructor.

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 College of Engineering, or consent of instructor.

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. Prerequisite: Physics 316 and 116L.
352L. Positional, Dynamical, and Kinematical Astronomy. Coordinate systems and time; stellar positions and motions; the kinematics and dynamics of star clusters and galaxies. Prerequisite: Credit or registration for Mathematics 427K.

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 352K is recommended.

353. Astrophysics. Survey of the physics of stellar and nonstellar radiation laws, stellar atmospheres and interiors; high-energy astrophysics. Prerequisite: Physics 316 and 116L.

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. Prerequisite: Physics 316 or the equivalent; Astronomy 352K or 307 is recommended.

364. Solar System Astronomy. Modern studies of the solar system, including properties of the planets and smaller bodies, and the origin of planetary systems. Prerequisite: Physics 316 and 116L.

367M. 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.

175, 275, 375. Conference Course. May be repeated for credit when the topics vary. Prerequisite: Upper-division standing and consent of instructor.

376. Special Topics in Advanced Astronomy. Designed for science majors. May be repeated for credit when the topics vary. Up to six semester hours may be counted toward the major requirement for the Bachelor of Arts with a major in astronomy. Prerequisite: Upper-division standing and consent of instructor.

379H. Honors Tutorial Course. Research project and thesis for students electing to take the honors program in astronomy. May be repeated once for credit. Prerequisite: Consent of the student's research supervisor and the departmental honors adviser.

BIOCHEMISTRY

See Department of Chemistry and Biochemistry, page 500.

SCHOOL OF BIOLOGICAL SCIENCES

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

BIOLOGY: BIO

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 on pages 658–662.

Lower-Division Courses

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 be repeated for credit when the topics vary. 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. Prerequisite: Varies with the topic and is given in the Course Schedule.

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. May not be counted toward a degree in biology.

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.

301L. Molecules to Organisms. Designed for nonscience majors. Introduction to the structure and function of organisms from the molecular to the organism level; an integrated approach to cellular and molecular biology, genetics, development, and physiology of organisms. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 301L, 302, 211, 311C; only one of the following may be counted: Biology 301L, 303, 311D, 214. Biology 301E and 301L may not both be counted. May not be counted toward a degree in biology.

301M. 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. Only one of the following may be counted: Biology 301M, 304, 311D, 213. Biology 301E and 301M may not both be counted. May not be counted toward a degree in biology.

102C, 202C, 302C, 402C. Conference Course. Supervised study of selected topics in biology, by individual arrangement with the School of Biological Sciences and instructor. May be repeated for credit. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

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. May not be counted toward a degree in biology.

305F. An Introduction to the Sensory Physiology of Plants. 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. May not be counted toward a degree in biology.
205L. Laboratory Experiments in Biology: Cellular and Molecular Biology. Designed to give lower-division students training in laboratory techniques and experiment design and interpretation. One lecture hour and four laboratory hours a week for one semester. Biology 205L and 309H may not both be counted. Prerequisite: Credit or registration for Biology 211 or 311C.

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 biology.

206L. Laboratory Experiments in Biology: Structure and Function of Organisms. The organizing principles of organismal biology, such as reproduction, development, homeostatic mechanisms, transport mechanisms, communication and effector systems, and adaptive biomechanics. Comparative study and an experimental rather than an observational context are emphasized. One lecture hour and four laboratory hours a week for one semester. Prerequisite: Credit or registration for Biology 311D or 214.

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 biology.

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 or 214.

309D. The Human Body. Designed for nonscience majors. Introduction to the systems of the body, their functions and interrelationships. Three lecture hours and one discussion hour a week for one semester. May not be counted toward a degree in biology. May not be taken for credit after or at the same time as another physiology course.

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 309E, 309F, 346. May not be counted toward a degree in biology. May not be taken for credit after or at the same time as another genetics course.

309H. Honors Laboratory Experiments in Biology: Cellular and Molecular Biology. Training in laboratory techniques in cellular and molecular biology. The laboratory also emphasizes experimental design and data analysis. One lecture hour and six laboratory hours a week for one semester. Biology 205L and 309H may not both be counted. Prerequisite: Biology 211 or 311C, and Chemistry 301, with a grade of at least B in each, and consent of instructor.

211. Introductory Biology: Cell Biology. Introduction to macromolecules; the structure, organization, and physiology of cells; organelles and membranes; energy transformation and metabolism in cells. Two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 301L, 302, 211, 311C. Prerequisite: Credit or registration for Chemistry 301 or 313N.

311C. 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, 302, 211, 311C. Biology 311C and 212 may not both be counted. Prerequisite: Credit or registration for Chemistry 301 or 313N.

311D. 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. Only one of the following may be counted: Biology 301L, 303, 311D, 214. Only one of the following may be counted: Biology 301M, 304, 311D, 213. Prerequisite: Biology 211 and 212 with a grade of at least C in each, or Biology 311C with a grade of at least C.

212. Introductory Biology: Genetics and Evolution. Introduction to Mendelian and chromosomes inheritance, molecular genetics, bacterial and viral genetics, population genetics, evolutionary mechanisms and speciation. Two lecture hours and one discussion hour a week for one semester. Biology 311C and 212 may not both be counted. Prerequisite: Credit or registration for Biology 211.

213. Introductory Biology: Diversity and Ecology. Introduction to the evolution of life, the diversity of prokaryotic and eukaryotic organisms, population biology, species interactions, the organization of biological communities and ecosystems. Two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 301M, 304, 311D, 213. Prerequisite: Biology 211 and 212 with a grade of at least C in each, or Biology 311C with a grade of at least C.

214. Introductory Biology: Structure and Function of Organisms. Introduction to the physiology, anatomy, development, control systems, and evolution of plants and animals. Two lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 301L, 303, 311D, 214. Prerequisite: Biology 211 and 212 with a grade of at least C in each, or Biology 311C with a grade of at least C.

315H. Advanced Introduction to Genetics: Honors. Restricted to biology and biochemistry majors. 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 4 or 5 on the College Board Advanced Placement Examination in Biology and credit or registration for Chemistry 301.

416K (TCCN: BIOL 2401). Physiology and Functional Anatomy I. Designed for prenursing and allied health students. Not recommended for premedical and predental students. Cell biology and histology; biochemistry; nervous, endocrine, and musculoskeletal systems. Taught in an integrated lecture-laboratory format. Three lecture hours, three laboratory hours, and one discussion hour a week for one semester. Prerequisite: For nutrition majors, Biology 211 or 311C, and Nutrition 311, with a grade of at least C in each; for others, Biology 211 or 311C with a grade of at least C and six semester hours of coursework in college chemistry.

416L (TCCN: BIOL 2402). Physiology and Functional Anatomy II. Designed for prenursing and allied health students. Not recommended for premedical and predental students. Cardiovascular, respiratory, renal, digestive, immune, and reproductive systems. Taught in an integrated lecture-laboratory format. Three lecture hours, three laboratory hours, and one discussion hour a week for one semester. Prerequisite: Biology 416K with a grade of at least C.
119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad advisor 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

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 325H with a grade of at least C.

121C. Perspectives in General Microbiology. Adjunct to Biology 226R: additional reading and writing on microbial genetics and regulation. One lecture hour a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C, and credit or registration for Biology 226R.

121E. Perspectives in General Microbiology. Adjunct to Biology 226T: additional reading and writing on microbial cell structure and genetics. One lecture hour a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C, and credit with a grade of at least C or registration for Biology 226T.

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), 384, 384K (Topic 13: Aquatic Entomology), 388 (Topic: Applied Aquatic Entomology). Prerequisite: Biology 325 or 325H with a grade of at least C.

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. Prerequisite: Biology 325 or 325H with a grade of at least C, Chemistry 302, and concurrent enrollment in Biology 122L.

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.

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 325H with at least C, and credit or registration for Biology 320.

324. Survey of the Plant Kingdom. Review of the groups of living and fossil plants, emphasizing their organization, reproduction, and evolution. Prerequisite: Biology 325 or 325H with a grade of at least C, and concurrent enrollment in Biology 124L.

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.

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 325H may not both be counted. Prerequisite: Biology 211 or 311C, and 311D or 214, with a grade of at least C in each.

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 325H may not both be counted. Prerequisite: Biology 315H with a grade of at least C.

226R. Laboratory Experience in Genetics. Experimentation and direct observation in fundamental aspects of transmission genetics. One lecture hour, four laboratory hours, and two hours of computing work a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C.

126L. General Microbiology Laboratory. Introduction to microbiology laboratory techniques and experimental demonstration of principles of microbiology. Three laboratory hours a week for one semester. Prerequisite: For nursing majors, credit with a grade of at least C or registration for Biology 226N; for other majors, credit with a grade of at least C or registration for Biology 226T.

226N. General Microbiology: Immunity and Host-Microbe Interactions. For nursing majors. Basic characteristics of microorganisms; infection and immunity. Two lecture hours and one enrichment/discussion hour a week for one semester. May not be counted toward a degree in biology. Prerequisite: Biology 211 or 311C with a grade of at least C, and Chemistry 313N and 314N.

226R. General Microbiology: Microbial Cell Structure and Genetics. Microbial cell structure and function; introduction to microbial genetics and regulation. Two lecture hours and one enrichment/discussion hour a week for one semester. Prerequisite: Biology 325 or 325H, and Chemistry 302, with a grade of at least C in each.

226T. General Microbiology: Virology, Immunology, and Host-Microbe Interactions. Overview of the interactions of microorganisms and the human host, including introductory virology, microbial pathogenesis, and the host response to infection. Two lecture hours and one enrichment/discussion hour a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C, and credit with a grade of at least C or registration for Biology 226R and 126L.

327. General Phycology. A general survey of the algae and their biology. Only one of the following may be counted: Biology 327, 388J, Botany 385K. Prerequisite: Biology 324, 124L, and 325 or 325H, with a grade of at least C in each, and concurrent enrollment in Biology 127L.
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.

328. Introductory Plant Physiology. General principles of the mineral nutrition, water relations, metabolic activities, growth and development of green plants. Prerequisite: Biology 325 or 325H with a grade of at least C, and Chemistry 302.

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 325H with a grade of at least C.

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.

329. Medical Mycology. A basic introduction to medical mycology and an overview of research involving both the fungal zoopathogen and its host. Prerequisite: Biology 325 or 325H with a grade of at least C, and Biology 126L and 226R with a grade of at least C in each.

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 or 341 with a grade of at least C, and credit with a grade of at least C or registration for Biology 329.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the student abroad advisor 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.

329W. Cooperative Biological Sciences. This course covers the work period of biological sciences 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; and Biology 325 or 325H with a grade of at least C.

330. Animal Virology. Mechanisms by which viruses replicate and kill or transform cells. Prerequisite: Biology 325 or 325H with a grade of at least C, and Biology 126L and 226T with a grade of at least C in each.

130L. Virology Laboratory. Basic experimental techniques applied to selected bacteriophages and animal viruses. Three laboratory hours a week for one semester. Prerequisite: Biology 325 or 325H, and 126L 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.

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 six laboratory hours a week for one semester. Prerequisite: Biology 205L, 206L, 208L, or 126L; and Biology 325 or 325H with a grade of at least C.

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. Prerequisite: Biology 325 or 325H with a grade of at least C, and Biology 126L and 226R with a grade of at least C in each.

333. Molecular Genetics of Bacteriophages and Plasmids. Mechanisms of the phage infection cycle and of plasmid replication and gene expression; transposons and transposition. Prerequisite: Biology 325 or 325H with a grade of at least C, and Biology 126L and 226R with a grade of at least C in each.

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. 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 339K and 339L, or 369.

336. Tumor Biology. Natural history and causal mechanisms of cancer; viral and chemical carcinogens. Only one of the following may be counted: Biology 336, 391M, Microbiology 389M. Prerequisite: Biology 325 or 325H with a grade of at least C, and Biology 330 or 360K with a grade of at least C.

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. May be repeated for credit when the topics vary. Some topics are offered on the pass/fail basis only; these are identified in the Course Schedule. Prerequisite: Biology 325 or 325H with a grade of at least C. Additional prerequisites vary with the topic and are given in the Course Schedule.

Topic 1: Human Biology. Restricted to human biology majors in their final semester. This topic is offered as 137 only. Additional prerequisite: Consent of the academic advisor.

337L. Computational Biology. 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 325H, and 344 with a grade of at least C in each.

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 325H with a grade of at least C, and Biology 359K or 370 with a grade of at least C.

339. Metabolism and Biochemistry of Microorganisms. A study of the metabolic processes of microorganisms, using a biochemical approach. Biology 339 and 391R may not both be counted. Prerequisite: Biology 126L and 226R with a grade of at least C in each; Chemistry 310M and 310N (or 610); and Chemistry 339K or 369 with a grade of at least C.
339M. **Bacterial Signal Transduction.** Advanced studies in molecular and cellular biology of signal transduction systems in diverse microorganisms. Topics include chemotaxis and motility, morphogenesis and development, and secretion and virulence. Taught entirely through reading and discussion of original articles. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and Biology 126L and 226R with a grade of at least C in each.

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 325H with a grade of at least C.

342L. **Field Ornithology.** Field course with emphasis on field study techniques, species identification by sight and sound, mist netting and banding, censusing techniques, and territory mapping. Two lecture hours and six hours of weekend fieldwork a week for one semester. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and credit with a grade of at least C or registration for Biology 340L.

343M. **Transmembrane Signaling Mechanisms.** Mechanisms by which hormones, light, and other stimuli trigger changes in plant and animal cell metabolism. Only one of the following may be counted: Biology 343M, 388C, Botany 383M. **Prerequisite:** Biology 325 or 325H, and Chemistry 339K with a grade of at least C in each.

344. **Molecular Biology.** Molecular basis of cellular processes: biochemistry of cellular metabolism; gene structure and function; DNA replication; RNA and protein synthesis; viruses; molecular aspects of immunology and cancer; recombinant DNA. Three lecture hours and one discussion hour a week for one semester. Biology 326D and 344 may not both be counted. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

345. **Cell Physiology.** An integrated approach to basic processes in physiology: metabolism, transport, energetics, molecular and cellular control mechanisms. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and Chemistry 310M.

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 325H with a grade of at least C.

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. Only one of the following may be counted: Biology 309E, 309F, 346. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

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 325H with a grade of at least C.

348L. **Invertebrate Biology.** A study of the interdependent structure and function and of the evolution of invertebrate animals. Three lecture hours and three laboratory hours a week for one semester. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

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 325H with a grade of at least C.

350M. **Plant Molecular Biology.** Fundamentals of plant molecular biology, including structure and expression of the chloroplast and mitochondrial genomes. Only one of the following may be counted: Biology 350M, 388M, Botany 390M. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

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. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

352. **Reproductive Biology of Flowering Plants.** Pollination biology, breeding systems, reproductive strategies, and fruit and seed dispersal from evolutionary and ecological vantage points. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

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 325H with a grade of at least C.

353L. **Entomology.** Characteristics, importance, and biology of the major groups of insects. Two lecture hours and three hours of laboratory or fieldwork a week for one semester. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

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 325H with a grade of at least C.

355L. **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 325H with a grade of at least C.

356L. **Limnology and Oceanography.** Same as Marine Science 440. 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 325H with a grade of at least C, and Chemistry 302.

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 325H with a grade of at least C.

458L. **Systematics.** Comparative study of biological variation of living and fossil organisms, including speciation, biogeography, taxonomy, and phylogeny of genes, populations, species, and higher taxa. Three lecture hours and four laboratory hours a week for one semester. **Prerequisite:** Biology 325 or 325H with a grade of at least C.
359. Global Environmental Change. Global change as it affects terrestrial ecosystems, including feedback between ecosystems and the atmosphere. Greenhouse gases and global warming, ozone, biological invasions, and land-use change. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and Biology 322 or 324 with a grade of at least C.

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 325H with a grade of at least C, and Biology 359K or 370 with a grade of at least C.

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 and one-half discussion hours a week for one semester. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

359R. Animal Sexuality. The biology of sexuality, including genetics, morphology, physiology, and psychology of sex. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

360K. Immunology. The basic concepts of humoral and cell-associated immune phenomena. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and Biology 126L, 226R, and 226T with a grade of at least C in each.

160L. Immunology Laboratory. **Prerequisite:** Credit with a grade of at least C or registration for Biology 360K.

361. Human Infectious Diseases. Etiology, pathogenesis, diagnosis, and immunobiology of the major microbial diseases, with emphasis on their prevention. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and Biology 126L, 226R, and 226T with a grade of at least C in each.

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 325H with a grade of at least C, and Biology 126L, 226R, and 226T with a grade of at least C in each.

361P. Public Health Internship. Students conduct goal-oriented research projects at the Texas Department of State Health Services and other sites. An average of twelve hours of fieldwork a week for a total of 180 hours of fieldwork for one semester. **Prerequisite:** Biology 126L, 226R, and 226T, with a grade of at least B in each; students must also complete an application available at the Natural Sciences Career Services office.

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 325H with a grade of at least C.

262. Plant Systematics. Elementary principles of plant taxonomy as exemplified by families of flowering plants found seasonally around Austin. Two lecture hours a week for one semester. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and concurrent enrollment in Biology 262L.

262L. Angiosperm Diversity Laboratory. Practical experience in recognizing, identifying, and classifying families of flowering plants. Four laboratory hours a week for one semester. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and concurrent enrollment in Biology 262.

363. Plant Speciation. Nature of species in higher plants, speciation phenomena in plants, natural hybridization, polyploidy, agamospermy, evolutionary mechanisms. Lectures, readings, discussions, demonstrations. Only one of the following may be counted: Biology 363, 387E, Botany 382L. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

364. Microbial Ecology. The ability of microbes to adapt to and change their environment. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and Biology 126L and 226R with a grade of at least C in each.

364E. Current Topics in Advanced Microbial Ecology. Development and structure of microbial communities, microbial phylology, endosymbiotic and symbiotic relationships, biogeochemistry, elemental cycling by microbes, and the microbial ecology of disease. Emphasis on active research areas in these topics. **Prerequisite:** Biology 325 or 325H, and 364 with a grade of at least C in each.

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. Biology 337 (Topic: Principles of Drug Action) and 365D may not both be counted. **Prerequisite:** Biology 325 or 325H with a grade of at least C.

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. Student exercises are supplemented with demonstrations in faculty laboratories. Four laboratory hours and one discussion hour a week for one semester. **Prerequisite:** Biology 205L, 206L, 309H, or 126L, with a grade of at least C; Biology 325 or 325H with a grade of at least C, and Biology 365R or 371M with a grade of at least C.

465M. Experimental Methods in Physiology. A lecture-laboratory course that emphasizes an experimental approach to physiological problems. One lecture hour and seven laboratory hours a week for one semester. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and Biology 345, 361T, 365R, or 371M with a grade of at least C.

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. **Prerequisite:** Biology 349 with a grade of at least C, and Biology 365R or 371M with a grade of at least C.

365R. Vertebrate Physiology I. Vertebrate systems physiology: basic cellular physiology, nervous and muscular systems. 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 325H with a grade of at least C.

365S. Vertebrate Physiology II. Vertebrate systems physiology: body fluids, cardiovascular system, respiration, digestion, metabolism, and endocrinology. Three lecture hours and one discussion hour a week for one semester. **Prerequisite:** Biology 325 or 325H with a grade of at least C, and Biology 361T, 365R, or 371M with a grade of at least C.
365I. 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. Prerequisite: Biology 325 or 325H with a grade of at least C, and Biology 365R or 371M with a grade of at least C.

365W. Neurobiology of Addiction. Study of the neurobiology of neurotransmitters, and the influence of alcohol and drugs of abuse on neurotransmitters. Prerequisite: Biology 365R or 371M with a grade of at least C.

366. Microbial Genetics. Molecular biology of nucleic acids; biosynthesis of macromolecules, transfer of genetic material from cell to cell, recombination, mutation, and regulatory mechanisms. Prerequisite: Biology 325 or 325H with a grade of at least C, and Biology 126L and 226R with a grade of at least C in each.

366R. Molecular Genetics. Recommended for students planning to pursue advanced degrees in experimental and biochemical genetics. Prerequisite: Biology 325 or 325H with a grade of at least C.

367. Plant Genetics. Genes, gene systems, linkage systems, and genetic systems in higher plants. Only one of the following may be counted: Biology 367, 387C, Botany 387K. Prerequisite: Biology 325 or 325H with a grade of at least C.

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 a semester. Only one of the following may be counted: Biology 368L, 390P, Microbiology 382L. Prerequisite: Biology 325 or 325H, and 126L with a grade of at least C in each.

369L. Herpetology. Biology of amphibians and reptiles, including evolution, ecology, behavior, physiology, life history, and field identification. Three lecture hours and three laboratory hours a week for one semester, with weekend field trips to be arranged. Prerequisite: Biology 325 or 325H with a grade of at least C, and Biology 455L, 357, 359K, or 478L with a grade of at least C.

370. Evolution. Introduction to modern evolutionary biology, focusing on the evolution of molecular, developmental, morphological, and behavioral traits. Genetically and ecologically based evolutionary changes within populations and of evolutionary divergence in animals and plants. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Biology 370, 385K (Topic 2: Evolution), Botany 387L, Zoology 382L (Topic 7: Evolution). Prerequisite: Biology 325 or 325H with a grade of at least C.

170C, 270C, 370C, 470C. Conference Course. Supervised study of selected topics in biology, by individual arrangement with the instructor. May be repeated for credit when the topics vary. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. Prerequisite: Biology 325 or 325H with a grade of at least C. Additional prerequisites vary with the topic and are given in the Course Schedule.

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 325H with a grade of at least C.

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 325H with a grade of at least C.

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 325H with a grade of at least C.

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. Only one of the following may be counted: Biology 472L, 487G, Botany 484L. Prerequisite: Biology 325 or 325H with a grade of at least C, and Biology 374 and 174L with a grade of at least C in each.

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 325H with a grade of at least C.

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.

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. Prerequisite: Biology 325 or 325H with a grade of at least C, and concurrent enrollment in Biology 174L.

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.

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. Prerequisite: Biology 325 or 325H with a grade of at least C, and Biology 357, 359J, or 373 with a grade of at least C.

376. Conservation Genetics. Genetic attributes of rare plant and animal species, especially as they affect conservation; germ plasm resource conservation in wild and domesticated species. Only one of the following may be counted: Biology 376, 385C, Botany 386C. Prerequisite: Biology 325 or 325H with a grade of at least C.
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. May be repeated for credit. Up to three semester hours may be counted toward the major requirement for the Bachelor of Arts degree with a major in biology. Prerequisite: Biology 325 or 325H with a grade of at least C, and written consent of instructor.

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 six laboratory hours a week for one semester. Biology 478L and Kinesiology 324K may not both be counted. Prerequisite: Biology 325 or 325H with a grade of at least C.

478T. Natural Resource Management. Land management, policy and regulation development, and ecological “footprint” evaluation. Students have the opportunity for practical application of these subjects through off-campus field projects. Three lecture hours and two hours of discussion or fieldwork a week for one semester. Prerequisite: Biology 325 or 325H with a grade of at least C; and one of the following courses or consent of instructor: Biology 351, 357, 373, 375, Geography 334, 346.

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. Prerequisite: Biology 325 or 325H with a grade of at least B.

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.

379J. Regulation of Eukaryotic Gene Expression. Enrollment is limited to upper-division undergraduates. Study of gene expression and its regulation in eukaryotes at the transcriptional and post-transcriptional levels. Includes transcription, RNA splicing, polyadenylation, RNA and RNA-protein interactions. Prerequisite: Biology 325 or 325H with a grade of at least C; and Chemistry 339K and 339L, or Chemistry 369.

DEPARTMENT OF CHEMISTRY AND BIOCHEMISTRY

PLACEMENT IN 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 encouraged to take the test. Students with three semesters or more of high school chemistry that included laboratory experience, or credit for Chemistry 301, 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://www.utexas.edu/academic/mec/ and from the Division of Instructional Innovation and Assessment, The University of Texas at Austin, PO Box 7246, Austin TX 78713-7246.

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. Chemistry 304K and 305 may apply toward degree requirements such as those in Area C of the Bachelor of Arts, Plan I.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

BIOCHEMISTRY: BCH

Lower-Division Course

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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 Course

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

CHEMISTRY: CH

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 on pages 658–662.

Lower-Division Courses

301 (TCCN: CHEM 1311). Principles of Chemistry I. 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 or registration for Mathematics 408C or 408K.

301H. Principles of Chemistry I: Honors. Chemistry 301 and 301H may not both be counted. Prerequisite: Credit or registration for Mathematics 408C or 408K, and consent of the departmental honors adviser.

302 (TCCN: CHEM 1312). Principles of Chemistry II. Development and application of concepts, theories, and laws underlying chemistry. 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 301H with a grade of at least C, and credit or registration for Mathematics 408C or 408K.

302H. Principles of Chemistry II: Honors. Chemistry 302 and 302H may not both be counted. Prerequisite: Chemistry 301 or 301H with a grade of at least C, Mathematics 408C or 408K with a grade of at least C, and consent of the departmental honors adviser.
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. 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.

204 (TCCN: CHEM 1111 and 1112 combined). Introduction to Chemical Practice. Introductory laboratory course in chemistry. 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; these are identified in the Course Schedule. Chemistry 204 and 317 may not both be counted. Prerequisite: Credit or registration for Chemistry 302.

304K. Chemistry in Context I. Designed for nonscience majors. Chemistry 304K and 305 form a two-semester sequence designed to fulfill the science requirement for students not majoring in science or engineering. Issues of contemporary 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. May not be counted toward any chemistry or biochemistry degree. May not be counted by students who have earned a grade of C or better in Chemistry 301. Not intended as preparation for Chemistry 301.

305. Chemistry in Context II. Designed for nonscience majors. Chemistry 304K and 305 form a two-semester sequence designed to fulfill the science requirement for students not majoring in science or engineering. Chemistry 305 addresses nuclear reactions, alternative energy sources, elementary organic chemistry, polymers, pharmaceuticals, nutrition, and genetics. May not be counted toward any chemistry or biochemistry degree. May not be counted by students who have earned a grade of C or better in Chemistry 301. Prerequisite: Chemistry 301 or 304K.

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. Prerequisite: Consent of the undergraduate adviser in chemistry.

107, 207. Conference Course. Supervised study in chemistry. One discussion hour a week for one semester, with additional hours to be arranged. May be repeated for credit when the topics vary. 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. Prerequisite: Written consent of instructor.

207K. Introduction to Science Outreach in Elementary Schools. Students develop and present level-appropriate science laboratories to students in local elementary schools. A hands-on, discovery learning approach to science is emphasized. One class hour and four hours of fieldwork a week for one semester. May be counted as an elective only. Prerequisite: Consent of the UTeach advisor in the College of Natural Sciences.

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.

210C. Organic Chemistry Laboratory. Primarily for premedical, predental, life sciences, and pharmacy majors. One lecture hour and five laboratory hours a week for one semester. Only one of the following may be counted: Chemistry 210C, 110L, 118L. Prerequisite: Chemistry 204 or 317 with a grade of at least C, Chemistry 310M (or 610A) with a grade of at least C, and credit or registration for Chemistry 310N (or credit for 610B).

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 110K and 118K 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 (or credit for 610A).

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 310M (or 610A) with a grade of at least C, 110K, and credit or registration for Chemistry 310N (or credit for 610B).

310M (TCCN: CHEM 2323). Organic Chemistry I. Primarily for premedical, predental, life sciences, and pharmacy majors. The development of organic chemical structure, nomenclature, and reactivity. Only one of the following may be counted: Chemistry 610A, 310M, 618A, 318M. Prerequisite: Chemistry 302 with a grade of at least C, and credit or registration for Chemistry 204 or 317.

310N (TCCN: CHEM 2325). Organic Chemistry II. Primarily for premedical, predental, life sciences, and pharmacy majors. The development of organic chemical reactivity, with a focus on carbohydrates, proteins, and nucleic acids. Only one of the following may be counted: Chemistry 610B, 310N, 618B, 318N. Prerequisite: Chemistry 204 or 317 with a grade of at least C, Chemistry 310M (or 610A) with a grade of at least C, and credit or registration for Chemistry 210C.

313N. General and Organic Chemistry. Recommended for human ecology and nursing students. Introduction to chemical principles and organic chemistry, with emphasis on compounds of biological importance. May not be counted by students with credit for Chemistry 610, 618, or an equivalent organic chemistry course. May not be counted toward any chemistry degree.

113P. General and Organic Chemistry Laboratory. Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Chemistry 304K or 313N.

314N. Elementary Organic Chemistry and Biochemistry. A one-semester biochemistry course for human ecology and nursing students. May not be counted by students with credit for Chemistry 339K. May not be counted toward any chemistry degree. Prerequisite: Chemistry 313N, or Chemistry 310M (or 610A), 310N (or 610B), 110K, and 110L.
114P. Elementary Organic Chemistry and Biochemistry Laboratory. Introduction to biochemical laboratory procedures. Three laboratory hours a week for one semester. Prerequisite: Chemistry 113P and credit or registration for Chemistry 314N.

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.

118K. Organic Chemistry Laboratory. Primarily for chemistry and chemical engineering 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 110K and 118K may not both be counted. Prerequisite: Chemistry 302 and either 204 or 317 with a grade of at least C in each, and credit or registration for Chemistry 318M (or credit for 618A).

118L. Organic Chemistry Laboratory. Primarily for chemistry and chemical engineering 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 318M (or 618A) with a grade of at least C, 118K, and credit or registration for Chemistry 318N (or credit for 618B).

318M. Organic Chemistry I. Primarily for chemistry and chemical engineering majors. The development of organic chemical structure, nomenclature, and reactivity. Only one of the following may be counted: Chemistry 610A, 310M, 618A, 318M. Prerequisite: Chemistry 302 and either Chemistry 204 or 317 with a grade of at least C in each, and credit or registration for Chemistry 118K.

318N. Organic Chemistry II. Primarily for chemistry and chemical engineering majors. The development of organic chemical reactivity, with an emphasis on synthesis and polymers. Only one of the following may be counted: Chemistry 610B, 310N, 618B, 318N. Prerequisite: Chemistry 318M (or 618A) with a grade of at least C, Chemistry 118K with a grade of at least C, and credit or registration for Chemistry 118L.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Department of Chemistry and Biochemistry. University credit is awarded for 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

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. 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.

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 310N (or 610B) or 318N (or 618B) 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.

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: Chemistry 302, and either Chemistry 204 or 317 with a grade of at least C.

339K. Biochemistry I. Chemistry 339K and 339L should be taken as a two-semester sequence. Students who do not plan to take Chemistry 339L should register for Chemistry 369 rather than 339K. Structure and function of amino acids, proteins, carbohydrates, lipids, and nucleic acids. Chemistry 339K and 369 may not both be counted. Prerequisite: Eight semester hours of coursework in organic chemistry.

339L. Biochemistry II. A second-semester biochemistry course designed for chemistry, premedical, predental, and life sciences majors. Biosynthesis of nucleic acids and proteins. Prerequisite: Chemistry 339K.

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.

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.

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.

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.
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. Chemistry 353 and 353M may not both be counted. Prerequisite: Mathematics 408C and 408D, or two of the following: Mathematics 408K, 408L, 408M; Chemistry 302 or 302H with a grade of at least C; and Physics 316 and 116L, 303 and 103N, or 317L and 117N.

153K. Physical Chemistry Laboratory. Three laboratory hours a week for one semester. Prerequisite: Chemistry 353 or 353M with a grade of at least C.

353M. Physical Chemistry I for Life Sciences. For biochemistry and biology majors. Thermochromic and kinetic reactions in cells, enzyme catalysis, electrical and transport properties of membranes. Chemistry 353 and 353M may not both be counted. Prerequisite: Mathematics 408C and 408D, or two of the following: Mathematics 408K, 408L, 408M; Chemistry 302 or 302H with a grade of at least C; and Physics 316 and 116L, 303 and 103N, or 317L and 117N.

354. Quantum Chemistry and Spectroscopy. Fundamental principles of quantum mechanics, exactly soluble model problems, electronic structure of atoms and molecules, spectroscopy. Prerequisite: Mathematics 408C and 408D, or two of the following: Mathematics 408K, 408L, 408M; and Physics 316 and 116L.

154K. Physical Chemistry Laboratory. Three laboratory hours a week for one semester. Prerequisite: Chemistry 353 or 353M with a grade of at least C, and credit or registration for Chemistry 354 or 354L.

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. 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 353M with a grade of at least C.

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 and either 204 or 317, with a grade of at least C in each.

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 302H with a grade of at least C, and Chemistry 204 or 317 with a grade of at least C.

367L. Macromolecular Chemistry. Designed for chemistry and chemical engineering students. Occurrence, preparation, structure, and properties of macromolecular substances. Prerequisite: Chemistry 610A and 610B, 310M and 310N, 618A and 618B, or 318M and 318N; Chemistry 210C, or 118K and 118L; and Chemistry 353 or 353M with a grade of at least C.

368. Advanced Topics in Chemistry. May be repeated for credit when the topics vary. Prerequisite: Chemistry 610A and 610B, 310M and 310N, 618A and 618B, or 318M and 318N; Chemistry 353 or 353M with a grade of at least C; and Chemistry 354 or 354L with a grade of at least C.

369. Fundamentals of Biochemistry. Chemistry 339K and 369 may not both be counted. May not be counted by biochemistry majors. Prerequisite: Chemistry 310M (or 610A) or 318M (or 618A).

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 repeated for credit. 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. 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.

369L. Biochemistry Laboratory. An introduction to modern fundamental techniques of biochemistry. Two lecture hours and seven laboratory hours a week for one semester. Prerequisite: Chemistry 339K and credit or registration for 339L.

369T. Biotechnology Laboratory. Advanced techniques in biotechnology. Nine laboratory hours a week for one semester. Prerequisite: Consent of instructor.

370. Physical Methods for Biochemistry. Theory of electrophoresis, ultracentrifugation, spectroscopy, electron microscopy, and diffraction as applied to biological macromolecules. Prerequisite: Chemistry 339K.

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 hands-on, discovery learning approach to science is emphasized. One class hour and six hours of fieldwork a week for one semester. May be repeated for credit. 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. 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.

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. May be repeated for credit. No more than six semester hours may be counted toward a degree in chemistry or biochemistry. Prerequisite: Eight semester hours of coursework in organic chemistry, Chemistry 333, and consent of the undergraduate adviser.

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.

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 SCIENCES

An undergraduate may not enroll in any computer sciences course more than once without written consent of an undergraduate adviser in computer sciences. No student may enroll in any computer sciences course more than twice. No student may take more than three upper-division computer sciences courses in a semester without written consent of an undergraduate adviser in computer sciences.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

COMPUTER SCIENCES: C S

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 on pages 658–662.

Lower-Division Courses

301K. Foundations of Logical Thought. Introductory logic in the context of computing; introduction to formal notations; basic proof techniques; sets, relations, and functions. Some sections also require one discussion hour a week; these are identified in the Course Schedule. Prerequisite: Credit with a grade of at least C or registration for Computer Sciences 303E or 307.

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. Credit for Computer Sciences 302 may not be earned after a student has received credit for Computer Sciences 303E, 305J, or 307.

303E. Elements of Computers and Programming. Problem solving and fundamental algorithms for various applications in science and business and on the World Wide Web. Introductory programming in a modern object-oriented programming language. Computer Sciences 303E and 305J may not both be counted. Credit for Computer Sciences 303E may not be earned after a student has received credit for Computer Sciences 307. Prerequisite: Credit with a grade of at least C or registration for Mathematics 305G, or equivalent score on the SAT Mathematics with a grade of at least C.

305J. Introduction to Computing. Introduction to computer science concepts. Programming in a modern object-oriented programming language. Three lecture hours and one discussion hour a week for one semester. Computer Sciences 303E and 305J may not both be counted. Credit for Computer Sciences 305J may not be earned after a student has received credit for Computer Sciences 307. Prerequisite: Some knowledge of and experience in computer programming; and credit with a grade of at least C or registration for Mathematics 305G, or equivalent score on the SAT Mathematics Level 1 or Level 2 test.

307 (TCCN: COSC 2336). Foundations of Computer Science. Fundamental computer science concepts: data types, data structures, algorithms, and programming; functions and recursion; abstraction and encapsulation. Correctness: specification, testing, and proving. Simple sorting and searching algorithms. Introduction to analysis of algorithms. Three lecture hours and one laboratory hour a week for one semester. Prerequisite: One of the following: one year of programming in high school, Computer Sciences 303E or 305J with a grade of at least C, or consent of instructor; and credit or registration for Mathematics 408C or 408K, or a score of at least 520 on the SAT Mathematics Level 1 or Level 2 test.

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 Sciences 315 or 315H with a grade of at least C.

310. Computer Organization and Programming. Basic computer organization; machine representation of instructions and data; hardware/software interface. Three lecture hours and one discussion hour a week for one semester. Computer Sciences 310 and 310H may not both be counted. Prerequisite: Computer Sciences 315 or 315H with a grade of at least C.

310H. Computer Organization and Programming: Honors. Basic computer organization; machine representation of instructions and data; hardware/software interface. Three lecture hours and one discussion hour a week for one semester. Computer Sciences 310 and 310H may not both be counted. Prerequisite: Computer Sciences 315 or 315H with a grade of at least C, and consent of the honors director.

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. May not be counted toward a degree in computer sciences. Prerequisite: Computer Sciences 303E or 305J with a grade of at least C.

313H. Logic, Sets, and Functions: Honors. Propositional and predicate logic; proof techniques, including induction, sets, relations, and functions. Introduction to the analysis of algorithms and techniques for proving properties of programs. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Computer Sciences 313H, 313K, Philosophy 313, 313K, 313Q. Prerequisite: Consent of the honors director.

313K. Logic, Lists, and Functions. Propositional and predicate logic; proof techniques, including induction, sets, relations, and functions. Three lecture hours and one discussion hour a week for one semester. Only one of the following may be counted: Computer Sciences 313H, 313K, Philosophy 313, 313K, 313Q. Prerequisite: Credit or registration for Mathematics 408C or 408K.

315. Algorithms and Data Structures. Implementation of basic data structures, including stacks, queues, lists, priority queues, trees, binary search trees, graphs, and sets. Recursion. Efficient sorting and searching algorithms. Hashing. Multithreaded programs. Three lecture hours and one laboratory hour a week for one semester. Computer Sciences 315 and 315H may not both be counted. Prerequisite: Computer Sciences 307 with a grade of at least C and credit or registration for Philosophy 313K.
315H. Algorithms and Data Structures: Honors. Data types, data structures, algorithms, and programming; functions and recursion; abstraction and encapsulation. Correctness: specification, testing, proving. Introduction to analysis of algorithms. Implementation and use of basic data structures, including stacks, queues, lists, priority queues, trees, binary search trees, graphs, sets. Efficient sorting and searching algorithms. Hashing. Multithreaded programs. Three lecture hours and one discussion hour a week for one semester. Computer Sciences 315 and 315H may not both be counted. Prerequisite: Consent of the honors director.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 321H. Elements of Scientific Computing: Honors. 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. May not be counted toward a degree in computer sciences. Prerequisite: Computer Sciences 303E, 313E, and Mathematics 408C or 408L with a grade of at least C in each.

326E. Elements of Networking. Introduction to the principles and basic concepts of the Internet. Networking applications and protocols. Simple client/server applications. Other topics may include network technologies and topologies, packet and circuit switching, LANS and WANS, Internet security, and network management. May not be counted toward a degree in computer sciences. Prerequisite: Computer Sciences 303E and 313E with a grade of at least C in each.

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. Topics may include data integrity, performance, concurrency, transaction processing, recovery, security, and Web applications. May not be counted toward a degree in computer sciences. Prerequisite: Computer Sciences 303E and 313E with a grade of at least C in each.

Upper-Division Courses

120N, 220N, 320N. Topics in Computer Sciences for Nonmajors. For each semester hour of credit earned, one lecture hour a week for one semester. May be repeated for credit when the topics vary. May not be counted toward a degree in computer sciences. Prerequisite: Varies with the topic and is given in the Course Schedule.

321H. Functional and Symbolic Programming: Honors. Introduction to functional and symbolic programming and to the use of these concepts throughout computer science. Prerequisite: Credit with a grade of at least C or registration for Computer Sciences 337 or 337H, and consent of the honors director.

323E. Elements of Scientific Computing. Fundamentals of software issues related to scientific computing. Topics 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. May not be counted toward a degree in computer sciences. Computer Sciences 323E and 323H may not both be counted. Prerequisite: Computer Sciences 303E or the equivalent, Mathematics 408C or 408K, 408D or 408M, and credit with a grade of at least C or registration for Mathematics 341 or 340L.

323H. Elements of Scientific Computing: Honors. Fundamentals of software issues related to scientific computing. Topics 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. May not be counted toward a degree in computer sciences. Computer Sciences 323E and 323H may not both be counted. Prerequisite: Computer Sciences 303E, 305J, or 307; Mathematics 408D or 408M; credit with a grade of at least C or registration for Mathematics 341 or 340L; and consent of the honors director.

324E. Elements of Graphics and Visualization. Prerequisite: Consent of the undergraduate adviser.

129S, 229S, 429S, 529S, 629S, 729S, 829S, 929S. Topics in Elements of Computing. This course is used to record credit the student earns while enrolled at another institution in a program administered by the University’s Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Department of Computer 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.

329W. Cooperative Computer Sciences. This course covers the work period of computer sciences 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: Computer Sciences 336 or 336H with a grade of at least C, and consent of the undergraduate adviser.
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. Only one of the following may be counted: Computer Sciences 134, 234, 178 (Topic: Technical Writing). May not be counted toward the number of hours in computer sciences required for the Bachelor of Science in Computer Sciences degree. Prerequisite: Computer Sciences 310 or 310H with a grade of at least C.

336. Analysis of Programs. Proofs of program correctness and a survey of mathematical techniques useful in the analysis and verification of programs. Computer Sciences 336 and 336H may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 315 or 315H, Philosophy 313K or Computer Sciences 313H, and Mathematics 408C or 408L, and consent of the honors director.

336H. Analysis of Programs: Honors. A survey of mathematical techniques useful in the analysis and verification of programs. Computer Sciences 336 and 336H may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 315 or 315H, Mathematics 408C or 408L, and Philosophy 313K or Computer Sciences 313H.

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 Sciences 337 and 337H may not both be counted. Prerequisite: Computer Sciences 315 or 315H with a grade of at least C; Computer Sciences 336 or 336H with a grade of at least C, or consent of the honors director; and Mathematics 408C or 408L with a grade of at least C.

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 Sciences 337 and 337H may not both be counted. Prerequisite: Computer Sciences 315 or 315H with a grade of at least C; Computer Sciences 336 or 336H with a grade of at least C, or consent of the honors director; and Mathematics 408C or 408L with a grade of at least C.

341. Automata Theory. Introduction to the formal study of automata and of related formal languages with applications in computer science. Only one of the following may be counted: Computer Sciences 341, 341H, Linguistics 340. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, 328 or 337 or 337H, and Mathematics 408D or 408M, and consent of the honors director.

341H. Automata Theory: Honors. Introduction to the formal study of automata and of related formal languages with applications in computer science. Only one of the following may be counted: Computer Sciences 341, 341H, Linguistics 340. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, 337 or 337H, and Mathematics 408D or 408M, and consent of the honors director.

342. Neural Networks. Biological information processing; architectures and algorithms for supervised learning, self-organization, reinforcement learning, and neuro-evolution; hardware implementations and simulators; applications in engineering, artificial intelligence, and cognitive science. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.

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. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.

344M. Autonomous Multiagent Systems. 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. Computer Sciences 344M and 378 (Topic: Autonomous Multiagent Systems) may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.

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. Computer Sciences 344R and 378 (Topic: Robotics) may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.

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. Computer Sciences 345 and 345H may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.

345H. Programming Languages: Honors. 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. Computer Sciences 345 and 345H may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M, and consent of the honors director.

346. Cryptography. A theoretical introduction to cryptography. Topics include private key cryptosystems, public key cryptosystems, digital signatures, secret sharing schemes, and the necessary mathematical background. Computer Sciences 346 and 378 (Topic: Cryptography) may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.

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. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.
349. Contemporary Issues in Computer Science. Social, professional, and ethical issues involved in the use of computer technology. Topics may include software engineering ethics, computer safety and reliability, constitutional issues, intellectual property, computer crime, societal impact, emerging technologies, philosophical issues. Computer Sciences 349 and 378 (Topic: Contemporary Issues in Computer Science) may not both be counted. Prerequisite: Computer Sciences 315 or 315H with a grade of at least C.

351. LISP and Symbolic Computation. 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. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.

352. Computer Systems Architecture. Computer architecture and organizational issues; structural and behavioral characteristics of system components. Processor, memory hierarchy, and input/output issues. Evaluation of design alternatives. The relationship between hardware and software. Computer Sciences 352 and 352H may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, Electrical Engineering 316, and Mathematics 408D or 408M.

352H. Computer Systems Architecture: Honors. Computer architecture and organizational issues; structural and behavioral characteristics of system components. Processor, memory hierarchy, and input/output issues. Evaluation of design alternatives. The relationship between hardware and software. Computer Sciences 352 and 352H may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, Electrical Engineering 316, and Mathematics 408D or 408M; and consent of the honors director.

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. Prerequisite: Computer Sciences 341 or 341H with a grade of at least C.

354. Computer Graphics. Introduction to techniques for human-machine communication through imagery. Topics 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. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, Mathematics 408D or 408M, and Mathematics 341 or 340L.

356. Computer Networks. Introduction to computer networks, including common terminology, basic design issues, and types of networks and protocols. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M; and credit with a grade of at least C or registration for Computer Sciences 352 or 352H.

357. Algorithms. Algorithmic paradigms: divide and conquer, greedy algorithms, dynamic programming, branch and bound. NP-completeness and topics selected from the following: cryptography algorithms, approximation algorithms, randomized algorithms, parallel algorithms, lower bounds. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, 328 or 337 or 337H, and Mathematics 408D or 408M.

361. Introduction to Computer Security. 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. Computer Sciences 361 and 378 (Topic: Introduction to Security) may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.

367. Numerical Methods. Topics 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. Only one of the following may be counted: Computer Sciences 367, Mathematics 368K, Physics 329. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, Mathematics 408D or 408M, and Mathematics 341 or 340L.

369. Systems Modeling I. Introduction to performance modeling, with emphasis on computer systems. Modeling methodology, queueing network models, simulation, analysis of results. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M; and consent of the undergraduate adviser.

370. Undergraduate Reading and Research. Supervised study of selected problems in computer sciences, 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 sciences. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M; and consent of the undergraduate adviser.

371D. Distributed Computing. Models, principles, and fundamental protocols, including event ordering and global predicate detection, atomic commit, state-machine replication, rollback recovery, primary backup, consensus for synchronous and asynchronous systems, and byzantine fault-tolerance. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, 372 or 372H, and Mathematics 408D or 408M.

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. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, 328 or 337 or 337H, and Mathematics 408D or 408M.

371R. Information Retrieval and Web Search. Introduction to traditional and recent methodologies for indexing, processing, querying, and classifying unstructured and semistructured textual data, including hypertext and World-Wide Web documents. Computer Sciences 371R and 378 (Topic: Intelligent Information Retrieval and Web Search) may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.

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. Prerequisite: The following courses, with a grade of at least C in each: Computer Sciences 310 or 310H, 336 or 336H, and Mathematics 408D or 408M.
DEPARTMENT OF HUMAN ECOLOGY

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

HUMAN DEVELOPMENT AND FAMILY SCIENCES: HDF

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 on pages 658–662.

Lower-Division Courses

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. Human Development and Family Sciences 304 and Women's Studies 301 (Topic 4: Family Relationships) may not both be counted.

312. Family Resource Management. Management concepts and theory in resource allocation used to meet family and life demands. Human Development and Family Sciences 312 and 321 may not both be counted. Prerequisite: Human Development and Family Sciences 304 (or Child Development 304).

313 (TCCN: TECA 1354). Child Development. Same as Women's and Gender Studies 301 (Topic 5: Child Development). Motor, language, cognitive, social, and emotional development in the family context. Human Development and Family Sciences 313 and Women's Studies 301 (Topic 5: Child Development) may not both be counted. Prerequisite: Psychology 301 and concurrent enrollment in Human Development and Family Sciences 113L.

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. One and one-half laboratory hours a week for one semester. Prerequisite: Psychology 301 and concurrent enrollment in Human Development and Family Sciences 313.

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, with an additional fifteen hours of laboratory observation to be arranged. Human Development and Family Sciences 315L and 333L may not both be counted. Prerequisite: Credit or registration for Human Development and Family Sciences 304, 313, and 113L.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Department 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

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. Prerequisite: Upper-division standing.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Department 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.

335. Adult Development. Adulthood and the development, changes, and maturation that occurs, including the impact of relationships in adulthood. Prerequisite: Upper-division standing and Human Development and Family Sciences 313 and 113L.

337. Personal Relationships. The process by which a variety of intimate relationships are formed, maintained, and dissolved, as well as gender issues in communication and conflict, sexual aspects of relationships, division of labor, and the involvement of partners with their social networks. Prerequisite: Upper-division standing; and Human Development and Family Sciences 304 and 315L with a grade of at least C in each.

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. Human Development and Family Sciences 338 and 348 (Topic 1: Art and Science) may not both be counted. Prerequisite: Upper-division standing; and Human Development and Family Sciences 313 and 113L, or Psychology 304.

339. Working with Children and Families. The history, background, and various theoretical approaches of early childhood education; methods of assessments, planning for individuals and groups, and working with families and parents in various settings. Three lecture hours a week for one semester, with an additional ten hours of fieldwork to be arranged. Human Development and Family Sciences 339 and 348 (Topic 2: Music and Literature) may not both be counted. Prerequisite: Upper-division standing and Human Development and Family Sciences 304, 313, and 113L.

345. Peer Relationships. Children's peer relationships from toddlerhood to adolescence. Human Development and Family Sciences 345 and 378K (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.

347. Socioeconomic Problems of the Family. An analysis of socioeconomic factors affecting the economic well-being of families and individuals. Prerequisite: Upper-division standing and three semester hours of coursework in economics.

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. Child Development 378K (Topic: Infant Development and Attachment Relationships) and Human Development and Family Sciences 351 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.

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; Human Development and Family Sciences 312 and 315L; 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 Department of Human Ecology; and consent of instructor. Admission by application only, filed with the division of human development and family sciences, Department of Human Ecology, by May 1 for enrollment in the following spring semester or by December 1 for enrollment in the following fall semester.

652F. Field Experience II: 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; Human Development and Family Sciences 312 and 315L; twelve 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 Department of Human Ecology; and consent of instructor. Admission by application only, filed with the division of human development and family sciences, Department of Human Ecology, by May 1 for enrollment in the following spring semester or by December 1 for enrollment in the following fall semester.

352L. Field Experience: Early Childhood. Study of the skills necessary for planning, guiding, and interacting with young children. Students work directly with young children in a classroom setting. 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; Human Development and Family Sciences 312, 315L, and 366; 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 Department of Human Ecology; and consent of instructor. Admission by application only, filed with the division of human development and family sciences, Department of Human Ecology, by May 1 for enrollment in the following spring semester or by December 1 for enrollment in the following fall semester.
652P. Field Experience II: Practice Teaching. Designed for students in their last semester. Study of skills necessary for planning, guiding, and interacting with young children. Students will work directly with children and families in an applied classroom setting. 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; Human Development and Family Sciences 312, 315L, 338, and 366; six additional semester hours of upper-division coursework in human development and family sciences; nine semester hours of coursework from the list of approved supporting courses available from the Department of Human Ecology; and consent of instructor. Admission by application only, filed with the division of human development and family sciences, Department of Human Ecology, by May 1 for enrollment in the following spring semester or by December 1 for enrollment in the following fall semester.

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. Prerequisite: Human Development and Family Sciences 322 with a grade of at least C.

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; Human Development and Family Sciences 315L; and credit or registration for Educational Psychology 371 or Mathematics 316. Admission by application only, filed with the division of human development and family sciences, Department of Human Ecology, by May 1 for enrollment in the following spring semester or by December 1 for enrollment in the following fall semester. For nonmajors, the application process may be waived by consent of instructor. Additional prerequisites vary with the topic and are given in the Course Schedule.

Topic 1: Research in Human Development and Family Sciences.

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. Human Development and Family Sciences 358 and 378K (Topic 2: Parent-Child 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.

360. Methods of Family Life Education. An examination, integrating theory and applied knowledge, of the best practices for working with families. Prerequisite: Nine semester hours of upper-division coursework in human development and family sciences, or consent of instructor.

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. Human Development and Family Sciences 362 and 378K (Topic 4: Children and Public Policy) may not both be counted. Prerequisite: Six semester hours of upper-division coursework in human development and family sciences, anthropology, education, psychology, sociology, or social work.

366. Fostering Social Competence in Young Children. Same as Women’s and Gender Studies 345 (Topic 4: Fostering Social Competence in Young Children). Child and adult interactions and guidance strategies that foster the social competence of young children. Two lecture hours a week for one semester, and four laboratory hours a week to be arranged as a four-hour block between 8:30 AM and 4:45 PM, Monday through Thursday. Only one of the following may be counted: Human Development and Family Sciences 316, 366, Women’s Studies 301 (Topic 8: Guidance in Adult-Child Relationships), 345 (Topic 4: Guidance in Adult-Child Relationships). 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.

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. Human Development and Family Sciences 371 and 378K (Topic 1: Adolescence into Young Adulthood) 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.

372K. Family Interaction and Development. Analysis of interaction, transitions, and crises over the family life span. Prerequisite: Upper-division standing; Human Development and Family Sciences 304 and 315L with a grade of at least C in each; and three semester hours of upper-division coursework in human development and family sciences, cultural anthropology, education, psychology, sociology, or social work, with a grade of at least C in each course.

375. Economic Issues of the Family. Economic issues experienced by families through the various stages of the life span. Prerequisite: Human Development and Family Sciences 304, and 312 or 322.

378K. Advanced Child and Family Development. Concepts, theories, and issues in human development and family sciences. May be repeated for credit when the topics vary. Prerequisite: Six semester hours of upper-division 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.

378L. Theories of Child and Family Development. Study and analysis of major theories in human and family development. 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.

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

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 311 and 111L, with a grade of at least B in each course.

Upper-Division Courses

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.

355. Problems Course. Intensive study of selected problems of a transdisciplinary nature. The equivalent of three lecture hours a week for one semester. May be repeated for credit when the topics vary. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

361. Consumers and the Markets. Internal and external factors that influence consumer choice-making behavior in the United States economy; analysis of consumer information resources and protective legislation at the federal and state levels. Prerequisite: Upper-division standing and three semester hours of coursework in economics.

NUTRITION: NTR

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 on pages 658–662.

Lower-Division Courses

307. Introductory Food Science. Application of the principles of food chemistry to processing and preparation techniques. Prerequisite: Credit or registration for Nutrition 107L.

107L. Introductory Food Science Laboratory. Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 307.


111L. Introductory Nutrition Laboratory. Nutrient composition of food, computerized dietary analysis, and survey of dietetic practice. Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 311.

315. Nutrition through the Life Cycle. Adapting nutrition recommendations to physiological changes throughout the life span. Nutrition 315 and 328C may not both be counted. Prerequisite: Nutrition 311 with a grade of at least C.

316. Culture and Food. Influence of culture on foodways around the world. Prerequisite: Nutrition 311.

318. 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 and three laboratory hours a week for one semester. Nutrition 318 and 170L may not both be counted. Prerequisite: Nutrition 311 and 111L with a grade of at least C in each.

119F, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Department 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

324. Advanced Food Science. Application of the principles of food chemistry to the development of food products. Offered in the spring semester only. Prerequisite: Nutrition 307, 107L, 326, and Chemistry 310M with a grade of at least C in each, and credit or registration for Nutrition 124L.

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.

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: Biology 311C, Mathematics 408C or 408K, and Nutrition 311, with a grade of at least C in each; and credit or registration for Chemistry 310M.

126L. Nutritional Sciences Laboratory. Basic laboratory techniques in nutritional sciences. Three laboratory hours a week for one semester. Nutrition 126L and 142L may not both be counted. Prerequisite: Credit or registration for Nutrition 326.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Department 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.

330. Nutrition Education and Counseling. Application of counseling and learning theories to the care of individuals and groups in community and clinical settings. Prerequisite: Nutrition 315 with a grade of at least C.

332. Community Nutrition. National and international issues in public health and nutrition programs. Prerequisite: Nutrition 315 with a grade of at least C, or consent of instructor.

334. Foodservice Systems Management. Procurement, production, and service delivery in foodservice systems. Prerequisite: Nutrition 307 and 107L with a grade of at least C in each, and credit or registration for Nutrition 234L.
234L. Laboratory in Foodservice Systems. Six laboratory hours a week for one semester. Prerequisite: Credit or registration for Nutrition 334.

338W. Issues in Nutrition and Health. Identifying, reading, analyzing, writing, and presenting scientific research on selected topics in nutrition and human health. Two lecture hours and two discussion hours a week for one semester. Prerequisite: Biology 416L or 365S, Chemistry 369, or 339K and 339L, and Nutrition 326, with a grade of at least C in each; and Biology 318N, Educational Psychology 371, or Mathematics 316.

342. Advanced Nutrition I. 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: Biology 416L or 365S, Chemistry 369, or 339K and 339L, and Nutrition 326 with a grade of at least C in each.

344. Advanced Nutrition II. Energy, minerals, vitamins, and selected special topics. Offered in the spring semester only. Nutrition 344 and 365 (Topic 1: Vitamins and Minerals) may not both be counted. Prerequisite: Nutrition 342 with a grade of at least C, and credit or registration for Nutrition 144M.

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.

245C. Clinical Practice in Medical Nutrition Therapy. Application of principles of medical nutrition therapy to the care of clients in the practice setting. Six hours of supervised practice a week for one semester. Offered in the fall semester only. Prerequisite: Nutrition 370 with a grade of at least C, credit or registration for 371, and admission to the Coordinated Program in Dietetics.

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.

352C. Applied Normal and Community Nutrition. Current issues in public health and delivery of nutrition care, including consultation. Supervised practice in one or more community agencies. Three lecture hours and ten hours of supervised practice a week for one semester. Offered in the spring semester only. Nutrition 352C and 274C may not both be counted. Prerequisite: Nutrition 355L with a grade of at least C.

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. Prerequisite: Consent of instructor.

355L. Practicum in Dietetics. Problem solving in the practice of administrative and clinical dietetics. Forty hours of supervised practice a week for four weeks. Offered in the fall semester only. Nutrition 355L and 772C may not both be counted. Nutrition 355L and 373S may not both be counted. Prerequisite: Nutrition 668B, 373, and 377K, with a grade of at least C in each.

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.

360. Selected Topics in Applied Nutrition. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

Topic 1: Nutrition and Athletic Performance. Common myths and current dietary practices of athletes, including cardiovascular exercise, marathon and triathlon training, weight training, weight loss, and dietary supplements. Prerequisite: Biology 416L or 365S, Chemistry 369, and Nutrition 326 with a grade of at least C in each.


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 326 and 334.

365. Selected Topics in Nutritional Sciences. 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 416L or 365S, 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 416L or 365S, and Nutrition 342, with a grade of at least C in each.

Topic 3: Epidemiological and Statistical Methods in Nutrition. Basic principles and concepts of epidemiology and statistics in nutritional sciences. Prerequisite: Nutrition 342 with a grade of at least C.

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.

167. Undergraduate Seminar in Nutritional Sciences. One lecture hour a week for one semester. Prerequisite: Upper-division standing.

668. Clinical Nutrition and Dietetics. Rationale for dietary modification in prevention and treatment of disease. For 668A, three lecture hours and six to eight hours of supervised practice a week for one semester; for 668B, sixteen lecture hours and twenty-four hours of supervised practice a week for four weeks, then forty hours of supervised practice a week for two weeks. Nutrition 668A and 370 may not both be counted. Nutrition 668B and 371 may not both be counted; Nutrition 668B and 772C may not both be counted. Prerequisite: For 668A, Applied Learning and Development 320, and Biology 416L, with a grade of at least C in each; for 668B, Nutrition 668A with a grade of at least C.

370. Medical Nutrition Therapy I. The role of nutrition in prevention and treatment of chronic disease such as diabetes and heart disease. Nutrition 668A and 370 may not both be counted. Prerequisite: Biology 416L or 365S, Chemistry 369, and Nutrition 318 and 326, with a grade of at least C in each.
170L. Laboratory in Clinical Nutrition and Dietetics. Assessment, planning, implementation, and evaluation in delivery of nutritional care to individuals and groups. Three laboratory hours a week for one semester. Offered in the spring semester only. Nutrition 318 and 170L may not both be counted. Prerequisite: Concurrent enrollment in Nutrition 370 or consent of instructor.

371. Medical Nutrition Therapy II. Nutritional care of critically ill patients, including techniques of nutrition support. Nutrition 668B and 371 may not both be counted. Prerequisite: Nutrition 342 and 370 with a grade of at least C in each.

772C. Practicum in Clinical Dietetics. Supervised practice in health care facilities. Thirty-six hours of supervised practice a week for ten weeks. Offered in the spring semester only. Nutrition 668B and 772C may not both be counted. Nutrition 355L and 772C may not both be counted. Prerequisite: Nutrition 245C and 371 with a grade of at least C in each, and admission to the Coordinated Program in Dietetics.

572F. Practicum in Food Services Systems Management. Supervised practice in food service facilities. Thirty-six hours of supervised practice a week for six weeks. Offered in the spring semester only. Nutrition 572F and 373 may not both be counted. Nutrition 572F and 377K may not both be counted. Prerequisite: Nutrition 245C and 355M with a grade of at least C in each, and admission to the Coordinated Program in Dietetics.

373. Organization and Management in Food Service Systems. Policies and practices in food service systems. Four lecture hours and sixteen hours of supervised practice a week for six weeks. Offered in the fall semester only. Nutrition 572F and 373 may not both be counted. Prerequisite: The following courses, with a grade of at least C in each: Nutrition 334, 234L, and Management 336.

373S. Integrative Seminar in Dietetics. Integration of theory and practice on the basis of practicum experience. Two lecture hours and three discussion hours a week for one semester. Offered in the spring semester only. Nutrition 355L and 373S may not both be counted. Prerequisite: Concurrent enrollment in Nutrition 772C and 572F, and admission to the Coordinated Program in Dietetics.

274C. Practicum in Community Dietetics. Supervised practice in one or more community agencies. Forty hours of supervised practice a week for four weeks. Offered in the summer session only. Nutrition 352C and 274C may not both be counted. Prerequisite: Nutrition 772C, 572F, and 373S with a grade of at least C in each, and admission to the Coordinated Program in Dietetics.

174P. Advanced Practicum in Dietetics. Culminating experience in the practice of administrative, clinical, or community dietetics. Forty hours of supervised practice a week for two weeks. Offered in the summer session only. Prerequisite: Nutrition 772C, 572F, and 373S with a grade of at least C in each, and admission to the Coordinated Program in Dietetics.

377K. Equipment and Layout in Food Service Systems. Design, safety, and sanitation in food service systems. Four lecture hours and sixteen hours of supervised practice a week for six weeks. Offered in the fall semester only. Nutrition 572F and 377K may not both be counted. Prerequisite: Nutrition 334 and 234L with a grade of at least C in each.

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

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 on pages 658–662.

Lower-Division Courses

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.

105L. Textiles Laboratory. Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Textiles and Apparel 205.

212K. Apparel Design. Introduction to the integrated apparel design industry from the creative and merchandising perspective. Two lecture hours a week for one semester. Prerequisite: Textiles and Apparel 316L or 316Q, and 319 with a grade of at least C, and credit with a grade of at least C or registration for Textiles and Apparel 212L.

212L. Apparel Design Laboratory. Four laboratory hours a week for one semester. Prerequisite: Credit or registration for Textiles and Apparel 212K.

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.

316L. Apparel I Laboratory. Industrial techniques of pattern design and garment construction. Six laboratory hours a week for one semester. Prerequisite: Admission to the textiles and apparel program, 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 319.

316Q. Sewn Products Analysis. Evaluation of soft goods, including materials, quality of work, and costs. Prerequisite: Textiles and Apparel 205 and 105L with a grade of at least C in each.

319. Visual Merchandising and Display Techniques. Techniques of merchandise presentation, including principles and practice in display planning, execution, and coordination. Prerequisite: Admission to the textiles and apparel program.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Department 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

325K. Culture, Gender, and Appearance. Social, economic, aesthetic, and political aspects of historic costume and of the evolution of modern dress. Prerequisite: Textiles and Apparel 319 with a grade of at least C, or Art History 301.

325L. Culture, Gender, and Appearance I. Social, economic, aesthetic, and political aspects of costume evolution from ancient times through the Renaissance. Textiles and Apparel 325K and 325L may not both be counted. Prerequisite: Textiles and Apparel 319 with a grade of at least C, or Art History 301.

513 Courses • Department of Human Ecology
325M. Culture, Gender, and Appearance II. Social, economic, aesthetic, and political aspects of costume evolution from the Baroque period through modern times. Textiles and Apparel 325K and 325M may not both be counted. Prerequisite: Textiles and Apparel 319 with a grade of at least C, or Art History 301.

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.

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.

327. Clothing and Human Behavior. The social significance of clothing and the influence of clothing on behavior. Prerequisite: Six semester hours of upper-division coursework in psychology, sociology, or the Department of Human Ecology.

328. Research in Retail Merchandising. Basic research methodology and academic writing. Prerequisite: Marketing 320F and Textiles and Apparel 205 and 105L with a grade of at least C in each.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad adviser in the Department 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.

352D. Field Experience in Apparel Design. Application of apparel design techniques and principles in a professional environment. At least 45 hours of fieldwork for one semester. Prerequisite: Admission to the Apparel Design Internship Program, Textiles and Apparel 164K (both Topic 1: Flat Pattern and Topic 2: Draping) and 264L (both Topic 1: Flat Pattern and Topic 2: Draping) 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 3: Advanced Apparel Design) and 264L (Topic 3: Advanced Apparel Design).

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.

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. May be repeated for credit when the topics vary. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. Prerequisite: Varies with the topic and is given in the Course Schedule.

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 three 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).

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.

355K. Textile and Apparel Economics. Economic and regulatory aspects of the textile and apparel industries. Prerequisite: Textiles and Apparel 205 and 105L with a grade of at least C in each, and Economics 304K and 304L with a grade of at least C in each.

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. 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.

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.

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 C or registration for Textiles and Apparel 260M.

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.

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.

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.

376. Principles of Retail Merchandising. Retail strategic planning and implementation for soft goods and apparel. Six lecture hours a week for at least nine weeks. Prerequisite: Marketing 320F and six semester hours of upper-division coursework in textiles and apparel, business, studio art, or journalism.
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: Upper-division standing, admission to the Textiles and Apparel Honors Program, Textiles and Apparel 359H with a grade of at least B, and consent of the honors adviser.

DEPARTMENT OF MARINE SCIENCE

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

MARINE SCIENCE: MNS

Lower-Division Courses

307 (TCCN: GEOL 1345). Introduction to Oceanography. Same as Geological Sciences 307. Introduction to the sciences of oceanography: geological, physical, and biological. Two lecture hours and two laboratory hours a week for one semester. May not be counted toward the Bachelor of Arts degree with a major in geological sciences, the Bachelor of Science in Geological Sciences (Option I), the Bachelor of Science in Geological Sciences (Option II), or the Bachelor of Science in Geological Sciences (Option III).

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 be repeated for credit when the topics vary. May not be counted toward a degree in marine science. Prerequisite: Marine Science 307.

Upper-Division Courses

320. Marine Ecology. Study of ecological processes at different levels of integration in marine ecosystems. Prerequisite: Biology 311D, and Chemistry 302 or 302H.

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.

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 325H with a grade of at least C, and Chemistry 302.

344K. Marine Mining and Minerals. Same as Geological Sciences 344K. Overview of seafloor mineral deposits, their exploration and mining. May not be counted toward the Bachelor of Science in Geological Sciences degree. Prerequisite: Geological Sciences 401, 303, or 312K; 416K; and 416M.

148, 348. Training Cruise(s). May be repeated for credit when the topics vary.

Topic 1: Research in Biological Oceanography. Same as Biology 148, 348. 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 postcruise sample processing and analysis. Prerequisite: Biology 325 and Chemistry 302 with a grade of at least C in each, and consent of instructor.

Topic 2: Marine Geophysical Research. Marine Science 348 (Topic 2) is same as Geological Sciences 348K. Multiday cruise to collect seismic, magnetic, gravitational, bathymetric, or other geophysical data. Postcruise data processing and/or analysis and a report are required. Prerequisite: Consent of instructor and one of the following: Marine Science 307, 367K, Geological Sciences 401, 303, 312K. Geological Sciences 416M, 420K or 320L, and 465K are recommended.

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. Marine Science 352 (Topic 12) and 382 (Topic 12: Adaptive Physiology of Marine Organisms) may not both be counted. 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. Marine Science 352 (Topic 13) and 382 (Topic 13: Microclimatology) may not both be counted.

Topic 16: Ocean Engineering. Description of ocean waves and tides, methods of wave forecasting, classroom and field exercises. Marine Science 352 (Topic 16) and 382 (Topic 16: Ocean Engineering) may not both be counted. Prerequisite: Consent of instructor.

Topic 18: Marine Atmospheric Chemistry. Atmospheric particle chemistry; sea-surface films, atmospheric organic matter; air-sea chemical factionation; carbon, nitrogen, sulfur cycles. Marine Science 352 (Topic 18) and 382 (Topic 18: Marine Atmospheric Chemistry) may not both be counted. Prerequisite: Consent of instructor.

Topic 20: General Marine Phycology. Survey of benthic algae and phytoplankton of the Texas coast; systematics, morphology, life history and cultivating techniques. Marine Science 352 (Topic 20) and 382 (Topic 20: General Marine Phycology) may not both be counted.

Topic 21: Ecology of Marine Fungi. Biology of the fungi with emphasis on ecological, morphological, and developmental aspects and cultivating techniques. Marine Science 352 (Topic 21) and 382 (Topic 21: Ecology of Marine Fungi) may not both be counted.


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. Offered on the letter-grade basis only. Only one of the following may be counted: Marine Science 352 (Topic 8: Estuarine Ecology), 352C, 382 (Topic 8: Estuarine Ecology). Prerequisite: Upper-division standing and six semester hours of coursework in biology, chemistry, geological sciences, or physics.
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, 326, Marine Science 352C; and three additional semester hours of coursework in biology.

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. Marine Science 353 (Topic 2) and 383 (Topic 2: Fish Adaptations to Coastal Ecosystems) may not both be counted.

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 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 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.

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. Prerequisite: Six semester hours of biology or consent of instructor.

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.

354E. Aquatic Microbiology. Ecology, physiology, distribution, and growth of heterotrophic and autotrophic bacteria and fungi in waters and sediments. Marine Science 354E and 384E may not both be counted. Prerequisite: Biology 311D, Chemistry 302 or 302H, and consent of instructor.

354F. Marine Geology. Survey of the origin, structure, stratigraphy, and sedimentology of marine basins and continental margins. 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.

354G. 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 xenobiotic materials in the coastal zone. Three lecture hours and eight laboratory hours a week for one semester. Prerequisite: Biology 311D, and Chemistry 302 or 302H.

354K. 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. Prerequisite: Upper-division standing and Biology 311D.

354U. Biology of Sharks, Skates, and Rays. Ecology, anatomy, and physiology of elasmobranch fishes. Marine Science 353 (Topic 16: Biology of Sharks, Skates, and Rays) and 354U may not both be counted. Prerequisite: Upper-division standing; and Biology 354L, 361T, or Marine Science 354C; and three additional upper-division biology or marine science hours or consent of instructor.

355C. Physiology of Fishes. Physiology of major organ systems of both marine and freshwater fishes. Prerequisite: Upper-division standing; and Biology 311D, and Chemistry 302 or 302H, or consent of instructor.

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. Geological Sciences 367K and Marine Science 367K may not both be counted. Prerequisite: Upper-division standing and Marine Science 307 with a grade of at least B.

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 upper-division 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 to serve the needs of mathematics majors planning different careers and to serve the mathematical needs of students in other fields. Students majoring in mathematics should obtain a current copy of the Handbook for Students from the department. For help planning a program of study, students should consult an adviser in the Mathematics, Physics, and Astronomy Advising Center, Robert Lee Moore Hall 4.101.

A concentration in actuarial studies is available to students majoring in mathematics or another area. Typical programs include three hours of actuarial foundations, twenty-eight hours of mathematics, and selected coursework in the Red McCombs School of Business. Detailed information is available from the director of actuarial studies in the Department of Mathematics.

PREREQUISITES

Most entry-level courses in the Department of Mathematics have as a prerequisite a specific minimum score on the SAT Mathematics Level 1 test; therefore, many students planning to take a course in the department must first have taken the Mathematics Level 1 test. See the current Course Schedule or consult the Advising Center for the minimum score required.

Important advice on which entry-level mathematics course to take, based on the student’s score on the Mathematics Level 1 test, is available from the Division of Instructional Innovation and Assessment and the Mathematics, Physics, and Astronomy Advising Center.

In courses that have a minimum test score or course grade as a prerequisite, students will be dropped from the course if University records do not show that they have met the prerequisite. Students for whom the Mathematics Level 1 test score is required must be prepared to present proof of their test score after classes have begun. Students who took the test at a College Board test center must use the official College Board score report as proof; students without the score report can obtain alternate proof from the Division of Instructional Innovation and Assessment. Students who took the test at the University must use the test-result slip as the written proof; information about where to obtain the test-result slip is given at the time of the test.

Students who plan to use transfer credit to meet a prerequisite must submit a complete transcript to the Office of Admissions, so that the credit can be added to University records. In addition to sending a transcript, students are encouraged to bring a grade report to the Advising Center as proof.

Students who wish to enroll in conference courses in the Department of Mathematics must submit consent of instructor forms to the Department of Mathematics before registering. Forms are available in the department office and the Advising Center.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

ACTUARIAL FOUNDATIONS: ACF

Lower-Division Courses

110, 210, 310, 410. Conference Course. Supervised study of selected topics, by individual arrangement with department and instructor. May be repeated for credit when the topics vary. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. Prerequisite: Written consent of instructor.

110T. Conference Course: Texas Department of Insurance Internship. Supervised internship at the Texas Department of Insurance. 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.

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 362K, credit or registration for Mathematics 378K, and consent of the director of the concentration in actuarial studies.

Upper-Division Course

329. Theory of Interest. Measurement of interest, present value, accumulated value, amortization of loans, sinking funds, and bonds. Covers the interest-theory portion of the syllabus for the exams of the Society of Actuaries and the Casualty Actuarial Society. Only one of the following may be counted: Actuarial Foundations 309, 329, Mathematics 389F. Prerequisite: Mathematics 408D or 408L with a grade of at least C.

MATHEMATICS: M

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 on pages 658–662.

Lower-Division Courses

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. 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. In some colleges of the University, Mathematics 301 may not be counted toward the Area C requirement or toward the total number of hours required for a 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).
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. 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 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. May be used to fulfill the Area C requirement for the Bachelor of Arts, Plan I, degree or the mathematics requirement for the Bachelor of Arts, Plan II, degree. Prerequisite: Three units of high school mathematics at the level of Algebra I or higher, and a passing score on the mathematics section of the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test).

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. 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. A student may not earn credit for Mathematics 303D after having received credit for Mathematics 305G or any calculus course. Prerequisite: A score of at least 430 on the SAT Mathematics Level 1 test, or Mathematics 301 with a grade of at least C.

303F. Mathematics of Investment. Simple and compound interest, equivalent rates, equivalent values, annuities, amortization, sinking funds, bonds, depreciation. 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. A student may not earn credit for Mathematics 303D after having received credit for Mathematics 305G or any calculus course. Prerequisite: A score of at least 430 on the SAT Mathematics Level 1 test, or Mathematics 301 with a grade of at least C.

305E. Analytic Geometry. Combines development of methods (including adequate treatment of theory) and acquisition of skills with applications. 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.

305G (TCCN: MATH 2312). Elementary Functions and Coordinate Geometry. Study of elementary functions, their graphs and applications, including polynomial, rational, and algebraic functions, exponential, logarithmic, and trigonometric functions. Mathematics 305G and any college-level trigonometry course may not both be counted. Mathematics 301, 305G, and equivalent courses may not be counted toward the total number of hours required for the Bachelor of Arts, Plan I, degree with a major in mathematics or the Bachelor of Science in Mathematics degree. Credit for Mathematics 305G may not be earned after a student has received credit for any calculus course with a grade of C or better. Prerequisite: A score of at least 480 on the SAT Mathematics Level 1 test, or Mathematics 301 with a grade of at least C.

408C (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. Three lecture hours and discussion hours a week for one semester. Only one of the following may be counted: Mathematics 403K, 480C, 408K (or 308K). Prerequisite: A score of at least 560 on the SAT Mathematics Level 1 test, or Mathematics 305G with a grade of at least C.

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 408C or the equivalent with a grade of at least C.

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 403K, 408C, 408K (or 308K). Prerequisite: A score of at least 520 on the SAT Mathematics Level 1 test, or Mathematics 305G with a grade of at least C.
308L, 408L (TCCN: MATH 2414). 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. Mathematics 403L and 408L (or 308L) may not both be counted. Prerequisite: Mathematics 408C or 408K or the equivalent with a grade of at least C.

308M, 408M (TCCN: MATH 2415). Multivariable Calculus. Each fall a section of this course is designated in the Course Schedule as an engineering honors section, for students who wish to investigate more thoroughly the foundations of calculus. Enrollment in this section is restricted to students in the Engineering Honors Program. 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 308M). Prerequisite: Mathematics 408L or the equivalent with a grade of at least C.

110, 210, 310, 410. Conference Course. Supervised study in mathematics, with hours to be arranged. May be repeated for credit when the topics vary. 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. Prerequisite: Written consent of instructor. Forms are available in the department office or in the Mathematics, Physics, and Astronomy Advising Center.

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 two-hour laboratory sessions a week for one semester. May be repeated for credit. Offered on the pass/fail basis only.

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.

315C. Functions and Modeling. In-depth study of topics in secondary school mathematics. Emphasis is on modeling with linear, exponential, and trigonometric functions; curve fitting; discrete and continuous models. Use of appropriate technology is explored. Prerequisite: Enrollment in a teaching preparation program or consent of instructor.

316 (TCCN: MATH 1342, 2342). Elementary Statistical Methods. Graphical presentation, frequency functions, distribution functions, averages, standard deviation, variance, curve-fitting, and related topics. May not be counted by students with credit for Mathematics 362K. 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: A score of at least 430 on the SAT Mathematics Level 1 test, or Mathematics 301 with a grade of at least C.

316K (TCCN: MATH 1350). Foundations of Arithmetic. An analysis, from an advanced perspective, of the concepts and algorithms of arithmetic, including sets; numbers; numeral systems; definitions, properties, and algorithms of arithmetic operations; and percent, ratio, and proportion. Problem solving is stressed. 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 316 with a grade of at least C.

316L (TCCN: MATH 1351). Foundations of Geometry, Statistics, and Probability. An analysis, from an advanced perspective, of the basic concepts and methods of geometry, statistics, and probability, including representation and analysis of data; discrete probability, random events, and conditional probability; measurement; and geometry as approached through similarity and congruence, through coordinates, and through transformations. Problem solving is stressed. 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 316K with a grade of at least C.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. 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

325K. Discrete Mathematics. Provides a transition from the problem-solving approach of Mathematics 408C and 408D to the rigorous approach of advanced courses. Topics include logic, set theory, relations and functions, combinatorics, and graph theory and graph algorithms. Prerequisite: Mathematics 408D or 408L with a grade of at least C, or consent of instructor.

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. Prerequisite: Mathematics 408D or 408L or the equivalent with a grade of at least C.

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 or 408L with a grade of at least C.
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 with a grade of at least C.

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. Prerequisite: Mathematics 341 with a grade of at least C.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. Credit is recorded as assigned by the study abroad advisor 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 may be awarded for work in an affiliated studies program. May be repeated for credit when the topics vary.

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 or 408L; a grade of at least C in two of the following courses: Mathematics 325K, 427K, 341, 362K, 378K; and consent of the undergraduate adviser.

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. Prerequisite: Mathematics 408D or 408L with a grade of at least C, or upper-division standing and consent of instructor.

339J. Probability Models with Actuarial Applications. Introductory actuarial models for life insurance, property insurance, and annuities. With Mathematics 449P, covers the syllabus for the professional actuarial exam on model construction. Prerequisite: Mathematics 358K or 378K with a grade of at least C.

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 (or 309); Mathematics 339J or 339U 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, 449P.

339U. Actuarial Contingent Payments I. Intermediate actuarial models for life insurance, property insurance, and annuities. Prerequisite: Mathematics 362K with a grade of at least C; credit with a grade of at least C or registration for Actuarial Foundations 329 (or 309); and credit with a grade of at least C or registration for Mathematics 340L or 341.

339V. Actuarial Contingent Payments II. Advanced actuarial models for life insurance, property insurance, and annuities. Prerequisite: Actuarial Foundations 329 and Mathematics 339U with a grade of at least C in each.

340L. Matrices and Matrix Calculations. Techniques of matrix calculations and applications of linear algebra. Mathematics 340L and 341 may not both be counted. Prerequisite: One semester of calculus with a grade of at least C or consent of instructor.

341. Linear Algebra and Matrix Theory. Vector spaces, linear transformations, matrices, linear equations, determinants. Some emphasis on rigor and proofs. Mathematics 340L and 341 may not both be counted. Mathematics majors are expected to take Mathematics 341 immediately after 408D. Prerequisite: Mathematics 408D with a grade of at least C.

343K. Introduction to Algebraic Structures. Elementary properties of groups and rings, including symmetric groups, properties of the integers, polynomial rings, elementary field theory. 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 325K or Philosophy 313K, Mathematics 328K, Mathematics 341.

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. Prerequisite: Mathematics 328K or 343K with a grade of at least C.

344K. Intermediate Symbolic Logic. Same as Philosophy 344K. A second-semester course in symbolic logic: formal syntax and semantics, basic metalanguage (soundness, completeness, compactness, and Löwenheim-Skolem theorems), and further topics in logic. Prerequisite: Philosophy 313, 313K, or 313Q.

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. Prerequisite: Mathematics 341 or 340L with a grade of at least C.

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. Prerequisite: Computer Sciences 303E or the equivalent, and Mathematics 341 or 340L with a grade of at least C.

449P. 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. Four lecture hours a week for one semester. Prerequisite: Mathematics 339J, and 341 or 340L, with a grade of at least C in each.
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. Prerequisite: Consent of the director of the concentration in actuarial studies; students are expected to have a basic knowledge of statistics.

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. Prerequisite: Mathematics 339U, 341 or 340L, and 358K or 378K.

358K. Applied Statistics. Exploratory data analysis, correlation and regression, data collection, sampling distributions, confidence intervals, and hypothesis testing. Prerequisite: Mathematics 362K with a grade of at least C.

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. Prerequisite: Mathematics 408D or 408L with a grade of at least C and written consent of instructor.

361. Theory of Functions of a Complex Variable. Elementary theory and applications of analytic functions, series, contour integration, and conformal mappings. Prerequisite: Mathematics 427K or 427L with a grade of at least C or consent of instructor.

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. Students who have received a grade of C or better in Mathematics 365C may not take Mathematics 361K. 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 361K before attempting 365C. Students planning to take Mathematics 365C and 373K concurrently should consult a mathematics adviser.

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. Students who have received a grade of C or better in Mathematics 365C may not take Mathematics 361K. 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 361K before attempting 365C. Students planning to take Mathematics 365C and 373K concurrently should consult a mathematics adviser.

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. Prerequisite: Mathematics 365C with a grade of at least C.

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. Prerequisite: Credit with a grade of at least C or registration for Mathematics 365C.

367K. Topology I. An introduction to topology, including sets, functions, cardinal numbers, and the topology of metric spaces. Prerequisite: Mathematics 361K or 365C or consent of instructor.

367L. Topology II. Various topics in topology, primarily of a geometric nature. Prerequisite: Mathematics 367K with a grade of at least C or consent of instructor.

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. Only one of the following may be counted: Computer Sciences 367, Mathematics 368K, Physics 329. Prerequisite: Mathematics 348 with a grade of at least C.

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. Prerequisite: Mathematics 427K with a grade of at least C.

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. Prerequisite: Mathematics 427K with a grade of at least C.
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. 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 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 365C and 373K concurrently should consult a mathematics adviser.

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. Prerequisite: Mathematics 373K with a grade of at least C.

374. Fourier and Laplace Transforms. Operational properties and application of Laplace transforms; some properties of Fourier transforms. Prerequisite: Mathematics 427K with a grade of at least C.

374G. Linear Regression Analysis. Fitting of linear models to data by the method of least squares, choosing best subsets of predictors, and related materials. Prerequisite: Mathematics 358K or 378K with grade of at least C, Mathematics 341 or 340L, and consent of instructor.

374K. Fourier and Laplace Transforms. Continuation of Mathematics 374. Introduction to other integral transforms, such as Hankel, Laguerre, Mellin. Prerequisite: Mathematics 374 with a grade of at least C.

474M. Introduction to Mathematical Modeling and Industrial Mathematics. Some of the problems encountered in current industry, and how mathematics can help solve them. Basic material in theory and computation of ordinary and partial differential equations, integral equations, calculus of variations and control theory. Specific industrial applications. Three lecture hours and two laboratory hours a week for one semester. Prerequisite: Mathematics 427K, and 341 or 340L, with a grade of at least C in each.

175, 275, 375, 475. Conference Course. Supervised study in mathematics, with hours to be arranged. May be repeated for credit. Prerequisite: Upper-division standing.

375C. Conference Course (Computer-Assisted). Supervised study in mathematics on material requiring use of computing resources, with hours to be arranged. May be repeated for credit when the topics vary. Prerequisite: Varies with the topic and is given in the Course Schedule.

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.

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. May be repeated for credit when the topics vary. Prerequisite: Computer Sciences 303K or the equivalent, Mathematics 427K, and Mathematics 341 or 340L with a grade of at least C in each.

378K. Introduction to Mathematical Statistics. Sampling distributions of statistics, estimation of parameters (confidence intervals, method of moments, maximum likelihood, comparison of estimators using mean square error and efficiency, sufficient statistics), hypothesis tests (p-values, power, likelihood ratio tests), and other topics. Mathematics 358K, 362K, and 378K form the core sequence for students in statistics. Prerequisite: Mathematics 362K with a grade of at least C.

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 365C, 367K, 373K, or 374G with a grade of A, and another of these courses with a grade of at least B; and consent of the honors adviser.

NATURAL SCIENCES COURSES
See page 491.

NUTRITION
See Department of Human Ecology, page 508.

PHYSICAL SCIENCE
See Department of Physics, below.

DEPARTMENT OF PHYSICS

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

PHYSICAL SCIENCE: P S

Lower-Division Courses

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.

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. Prerequisite: Physical Science 303.

Upper-Division Courses

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.

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.
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

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 on pages 658–662.

Lower-Division Courses

301. Mechanics. Designed for students who intend to major in science or mathematics. Only one of the following may be counted without prior approval of the department: Physics 301, 302K, 303K, 309K, 317K. Prerequisite: High school physics, Physics 306, or consent of the undergraduate adviser; Mathematics 408C, or 408K and concurrent enrollment in 408L; and credit or registration for Physics 101L.

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 or registration for Physics 301.

302K (TCCN: PHYS 1301). General Physics—Technical Course: Mechanics, Heat, and Sound. Noncalculus technical course in physics. 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 306G; and credit or registration for Physics 102M.

302L (TCCN: PHYS 1302). General Physics—Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics. Noncalculus technical course in physics. Only one of the following may be counted without prior approval of the department: Physics 301, 302L, 303L, 316, 317L. Prerequisite: High school trigonometry or Mathematics 306G; and credit or registration for Physics 102M.

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 or registration for Physics 302K.

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 or registration for Physics 302L.

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. In most sections, examinations are given on Wednesday nights; see the Course Schedule for more information. Only one of the following may be counted without prior approval of the department: Physics 301, 302K, 303K, 309K, 317K. Prerequisite: A high school physics course, Physics 306, or consent of the undergraduate adviser; Mathematics 408C, or 408K and concurrent enrollment in 408L; and credit or registration for Physics 103M.

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: Physics 303K and 103M; Mathematics 408D, or 408L and concurrent enrollment in 408M; and credit or registration in Physics 103N.

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 or registration for Physics 303K.

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, 117N. May not be counted toward a degree unless prerequisite is observed. Prerequisite: Credit or registration for Physics 303L.

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.

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. May not be counted toward any degree. Prerequisite: High school trigonometry or Mathematics 305G.

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.

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. Only one of the following may be counted without prior approval of the department: Physics 301, 302K, 303K, 309K, 317K.

309L (TCCN: PHYS 1307). Elementary Physics for Nontechnical Students. Designed for students who do not intend to do further work in natural sciences, engineering, mathematics, or medicine. Electricity and magnetism, light, atomic and nuclear physics. Only one of the following may be counted without prior approval of the department: Physics 302L, 303L, 309L, 316, 317L. Prerequisite: Physics 309K.

110C. Conference Course. Supervised study of selected topics in physics, by individual arrangement with department and instructor. May be repeated for credit when the topics vary. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. Prerequisite: Written consent of instructor.

315. Wave Motion and Optics. Study of general properties of waves; examples include sound, electromagnetic, and mechanical waves; special emphasis on light and optics. Prerequisite: Mathematics 427K, Physics 316 and 116L, and credit or registration for Physics 115L.

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 or registration for Physics 315.

523 Courses ♦ Department of Physics
316. Electricity and Magnetism. Only one of the following may be counted without prior approval of the department: Physics 302L, 303L, 309L, 316, 317L. Prerequisite: Physics 301 and 101L; Mathematics 408D, or 408L and concurrent enrollment in 408M; and credit or registration for Physics 116L.

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 102N, 103N, 116L, 117N. May not be counted toward a degree unless prerequisite is observed. Prerequisite: Credit or registration for Physics 316.

317K. General Physics I. 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. Mechanics, heat, and sound, with biomedical applications. 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 physics requirement for the degree of Bachelor of Science in Physics. Satisfies most medical and dental school requirements for physics. Prerequisite: A high school physics course, Physics 306, or consent of the undergraduate adviser; Mathematics 408C, or 408K and concurrent enrollment in 408L; and credit or registration for Physics 117M.

317L. General Physics II. Designed and recommended primarily for premedical students and others in the biomedical sciences whose professional or preprofessional training includes an introductory course in calculus. Electricity and magnetism, light, atomic and molecular physics, nuclear physics, and their biomedical applications. 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 physics requirement for the degree of Bachelor of Science in Physics. Satisfies most medical and dental school requirements for physics. Prerequisite: Physics 317K and 117M and credit or registration for Physics 117N.

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 or registration for Physics 317K.

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 or registration for Physics 317L.

119S, 219S, 319S, 419S, 519S, 619S, 719S, 819S, 919S. 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 Center for Global Educational Opportunities. May be repeated for credit when the topics vary.

Upper-Division Courses

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. Only one of the following may be counted: Computer Sciences 367, Mathematics 368K, Physics 329. Prerequisite: Physics 315 and 115L, a programming course at the level of Computer Sciences 303E or consent of instructor, and credit or registration for Mathematics 341 or 340L.

129S, 229S, 329S, 429S, 529S, 629S, 729S, 829S, 929S. 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 Center for Global Educational Opportunities. May be repeated for credit when the topics vary.

329W. Cooperative Physics. This course 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: Application to become a member of the Cooperative Physics Program, Physics 316, and consent of the undergraduate adviser.

333. Modern Optics. Review of geometrical optics, polarization, interference, and optical instruments. Topics include Fourier optics, light propagation in fibers, quantum optics, and coherence. Prerequisite: Physics 315 and 115L, Mathematics 427K, and credit or registration for Physics 133L.

133L. Laboratory for Physics 333. Three laboratory hours a week for one semester. Prerequisite: Credit or registration for Physics 333.


336L. Fluid Dynamics. Fundamental concepts of fluid mechanics developed and applied to laminar and turbulent flows. Topics include the Navier-Stokes equations, pipe and channel flow, drag, boundary layers, convection, and rotating fluids. Prerequisite: Physics 336K.

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: Physics 316 and 116L and Mathematics 427K.
341. **Selected Topics in Physics.** An additional one-hour problem session is required for some sections; these are identified in the Course Schedule. May be repeated for credit when the topics vary. May not be counted toward the Bachelor of Science in Physics degree without prior approval of the department. **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.

Topic 2: **Great Men, Moments, and Ideas.** How our views of matter, energy, and the universe developed.

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.

Topic 4: **The Nature of Things.** A qualitative survey of all of physics, from falling bodies to quarks, making heavy use of classroom demonstrations.

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.

Topic 6: **Writing.**

352K. **Classical Electrodynamics.** Electrostatic fields, magnetostatic fields, derivation of Green's theorems and functions and of Maxwell's equations. **Prerequisite:** Physics 315 and 115L, and Mathematics 427L or 364K.

453. **Modern Physics 1: Introduction to Quantum Phenomena.** Breakdown of classical physics for microscopic phenomena; absorption and emission spectra, the photoelectric effect, blackbody radiation, models of the atom, Compton effect, X-ray diffraction; Planck's hypothesis; deBroglie's hypothesis; the probability interpretation; the one-dimensional Schrödinger equation; special relativity; the uncertainty relation. Three lecture hours and three laboratory hours a week for one semester. **Prerequisite:** Physics 315 and 115L, or consent of instructor.

355. **Modern Physics for Engineers.** Modern physics, including relativity, quantum mechanics, and modern optics. **Prerequisite:** Physics 303L, 103N, and Mathematics 427K.

362K. **Modern Physics III: Applications of Quantum Mechanics.** The two-electron atom; spin and statistics; coupling schemes for many-electron atoms; atoms and the radiation field; perturbation methods for decay and collisions; thermal, electrical, and magnetic properties of solids; free-electron metal and band theory; if time permits, selected topics such as superconductivity, Josephson tunneling, and others. **Prerequisite:** Physics 373.

362L. **Modern Physics IV: Subatomic Physics.** 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. **Prerequisite:** Physics 373; Physics 362K is recommended.

369. **Thermodynamics and Statistical Mechanics.** Basic concepts of thermal physics; entropy, enthalpy, free energy, phase transitions, equilibrium distribution functions, applications. **Prerequisite:** Credit or registration for Physics 373.

370C. **Individual Study in Physics.** Supervised reading or research in physics. Hours to be arranged. May be repeated for credit when the topics vary. Some sections are offered on the pass/fail basis only; these are identified in the Course Schedule. **Prerequisite:** Physics 336K, credit or registration for Physics 352K, and consent of the undergraduate adviser.

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.

373. **Modern Physics II: Quantum Mechanics.** 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, spin, and, if time permits, simple scattering theory. **Prerequisite:** Physics 336K and 453, or consent of instructor.

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 338K, 352K, and 453; or consent of the undergraduate adviser.

375P. **Introductory Plasma Physics.** Orbit theory and drifts, introduction to plasma stability and waves, applications to plasma confinement and heating. **Prerequisite:** Physics 352K and 369.

375R. **Introduction to Relativity.** Overview of the special and general theories of relativity, with emphasis on recent developments in gravitation. **Prerequisite:** Physics 352K.

375S. **Introductory Solid-State Physics.** Crystal structure, classification of solids, cohesion, thermal and electrical properties of solids, magnetic properties of solids, imperfections. **Prerequisite:** Physics 369 and 373.

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.

**TEXTILES AND APPAREL**

See Department of Human Ecology, page 513.
UTEACH-NATURAL SCIENCES

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

UTEACH-NATURAL SCIENCES: UTS

Lower-Division Courses

101. Secondary Teacher Education Preparation: STEP 1. Introduction to mathematics, computer sciences, 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: Admission to the UTeach-Natural Sciences program.

110. Secondary Teacher Education Preparation: STEP 2. Topics may include routes to teacher certification in mathematics, computer sciences, 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 or consent of the UTeach adviser in the College of Natural Sciences.

Upper-Division Courses

350. Knowing and Learning in Math and Science. Same as Curriculum and Instruction 365C. Psychological foundations of learning; problem solving in mathematics and science education; classroom management and organization of project-based learning classrooms. Three lecture hours a week for one semester; additional hours may be required. Curriculum and Instruction 371 (Topic 21: Classroom Interactions) and UTeach-Natural Sciences 350 may not both be counted. Prerequisite: Admission to the UTeach-Natural Sciences program, a University grade point average of at least 2.50, UTeach-Natural Sciences 110, and credit or registration for Curriculum and Instruction 365C or UTeach-Natural Sciences 350 (or credit for Curriculum and Instruction 371 [Topic 21: Knowing and Learning in Math and Science]).

355. Classroom Interactions. Same as Curriculum and Instruction 365D. 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. Curriculum and Instruction 371 (Topic 20: Classroom Interactions) and UTeach-Natural Sciences 355 may not both be counted. Prerequisite: Admission to the UTeach-Natural Sciences program, a University grade point average of at least 2.50, UTeach-Natural Sciences 110, and credit or registration for Curriculum and Instruction 365C or UTeach-Natural Sciences 350 (or credit for Curriculum and Instruction 371 [Topic 21: Knowing and Learning in Math and Science]).

360. Project-Based Instruction. Same as Curriculum and Instruction 365E. Foundations of project-based, case-based, and problem-based learning environments; principles of project-based curriculum development in mathematics and science education; classroom management and organization of project-based learning classrooms. Three lecture hours a week for one semester with additional fieldwork hours to be arranged. Curriculum and Instruction 371 (Topic 22: Project-Based Instruction) and UTeach-Natural Sciences 360 may not both be counted. Prerequisite: Admission to the UTeach-Natural Sciences program, a University grade point average of at least 2.50, and Curriculum and Instruction 365D or UTeach-Natural Sciences 355 (or credit for Curriculum and Instruction 371 [Topic 20: Classroom Interactions]).

170. Student Teaching Seminar. Discussions include student teaching experiences, contemporary critical issues in education, and preparation for the state certification exam. One class hour a week for one semester. Chemistry 107 (Topic: Special Topics Seminar) and UTeach-Natural Sciences 170 may not both be counted. Prerequisite: Concurrent enrollment in the appropriate section of Curriculum and Instruction 650S.

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 UTeach-Natural Sciences 170.
GENERAL INFORMATION

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. It was originally organized as an independent school under a Board of Lady Managers. 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. Support for the program was given by the Texas Graduate Nurses Association in the form of a scholarship fund for Texas nurses. 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 September, 1949, a curriculum leading to the degree of Bachelor of Science in Nursing was established for graduates of diploma programs. 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.

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.

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; in Austin, El Paso, or Fort Worth, a student could enroll for four years, taking liberal arts courses prior to being admitted to the nursing curriculum. A program leading to the Doctor of Philosophy degree in nursing was initiated in 1974.
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.

FACILITIES

The 99,815-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 Center for Health Promotion and Disease Prevention Research in Underserved Populations, the Southwest Partnership Center, and the Learning Center, with an audiovisual library and a staff who provide technical assistance for clinical simulation, 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, Brackenridge Hospital, St. David’s Medical Center, Seton Medical Center, and Shoal Creek Hospital. 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.

Nursing faculty conduct research on a wide variety of topics. Since 2003, the School of Nursing has been ranked among the top ten institutions in terms of research funding received from the National Institutes of Health.

FINANCIAL ASSISTANCE AVAILABLE THROUGH THE SCHOOL OF NURSING

Application forms for the following scholarships are available from the University Office of Student Financial Services and from the School of Nursing, The University of Texas at Austin, 1700 Red River Street, Austin TX 78701-1499. The School of Nursing Scholarship Committee selects the recipients for 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 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 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 2.50 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 3.30.

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 3.50.

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 3.00 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 Kathryn Gurley Scholarship Endowment provides scholarships for students at all levels. There is no grade point average requirement.

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 Masey 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 3.30.

The Florence Nightingale Memorial Scholarship provides scholarships to deserving undergraduate students in the School of Nursing.

The Carol Miller Norwood Endowed Presidential Scholarship is awarded to a full-time undergraduate or graduate student pursuing a degree in nursing. The recipient must demonstrate financial need, participation in extracurricular activities, and academic motivation.

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 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 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 3.30 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. The Jennifer Tyson Endowed Presidential Scholarship in Nursing provides support to outstanding future nurses who are committed to promoting the health and well-being of children and adults. Financial need is a priority in the selection of the recipient.

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 3.00.

The Myrtle and Earl E. Walker Fund provides scholarships to a number of students. One scholarship is reserved in even-numbered years for the undergraduate student with the highest grade point average; in odd-numbered years it is awarded to the graduate student with the highest grade point average.

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 full-time undergraduate or graduate student who has a grade point average of at least 2.50. 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.

Other scholarships are frequently available through the generosity of groups such as the University of Texas at Austin School of Nursing Alumni Association and several nursing student organizations. Information is available in the Student Affairs Office each semester.

OTHER FINANCIAL AID PROGRAMS

NONENDOWED SCHOLARSHIPS

The James S. Kemper Foundation provides scholarships to graduate and undergraduate nursing students. Recipients are selected on the basis of accomplishment as well as need.

The Mabel Wandelt Scholarship is awarded to an undergraduate RN student.

The John Murray Hardship Fund is reserved for students experiencing a financial hardship.

ROTC NURSING SCHOLARSHIPS

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.

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.

Vocational rehabilitation. The Texas Rehabilitation Commission offers assistance in payment of tuition and nonrefundable fees to students who have certain disabling conditions, provided their vocational objectives are approved by a commission counselor. Services are also available to help students with disabilities become employable. Application should be made to the Texas Rehabilitation Commission, PO Box 7638, Austin TX 78713-7638.

STUDENT ORGANIZATIONS

Undergraduate students, including prenursing students, are eligible for membership in the Nursing Student 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.

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 TO THE UNIVERSITY

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

PREPROFESSIONAL SEQUENCE

Students who wish to major in nursing begin their studies by taking prerequisite course requirements as prenursing majors. Prenursing majors must also be advised by the School of Nursing every semester. During their final semester of preprofessional sequence coursework, they may apply for admission to the professional sequence in nursing.

ADMISSION TO THE PROFESSIONAL SEQUENCE IN NURSING

Admission to the School of Nursing upper-division professional sequence is competitive. Students may apply for admission when they are enrolled in the last semester of required prerequisite coursework. The student must have a grade of at least C in each prerequisite course and a grade point average of at least 2.50. The grade point average of students admitted to the professional sequence is usually significantly higher than 2.50.

The application includes the application form and personal statement, three letters of reference, a transcript from every other college or university the student has attended, and a high school transcript. Admission decisions are based on (1) the strength of the student’s academic background, with special consideration given to his or her grade point average in the required natural science courses and in courses taken at the University; (2) the number of hours the student has taken at the University; (3) the number of repeated courses; and (4) the student’s achievements and accomplishments, including volunteer work and activities in health care.

STUDENTS FROM OTHER INSTITUTIONS

All students who wish to transfer to the University from another institution must apply to the University Office of Admissions as described in General Information.

PREPROFESSIONAL SEQUENCE

A student who plans to enter the preprofessional sequence in nursing should consult an academic adviser in the School of Nursing as early as possible for advising and transcript review. Students are encouraged to consult an adviser before applying for admission to the University.

PROFESSIONAL SEQUENCE

A student who wishes to transfer into the professional sequence from another nursing school must make an appointment with the School of Nursing Office of Student Affairs for academic advising and transcript review. Students are encouraged to consult an adviser 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, recommendations from faculty members at the previous nursing school, and course information for all completed nursing courses. 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

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 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 World Wide Web and are accessible through the registrar’s Web site, http://www.utexas.edu/student/registrar/. General Information is also sold at campus-area bookstores.

ACADEMIC ADVISING

All prenursing and nursing students must come to the School of Nursing before registration each semester for academic advising. Prenursing students are assigned to academic advisers on staff in the Office of Student Affairs. Appointments are recommended. Nursing students in the professional sequence are advised by faculty members during their regular office hours or by appointment.

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 nonlicensed 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, as well as the University’s Honor Code and the School of Nursing’s Code of Honor. Upon admission to the professional sequence, students are expected to read and sign a pledge to abide by the Code of Honor.

SCHOOL OF NURSING CODE OF HONOR

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-the-counter 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

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 reenroll 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. Calculators may not be used in any medication examination.

Patient safety is a critical element in every clinical course. Clinical errors related to patient care may interfere with a student’s progression in the course and in the program.

MEDICAL CLEARANCE REQUIREMENTS

Clinical experiences for nursing students are provided in hospitals and other health care facilities 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 the School of Nursing with evidence of compliance with immunization requirements before they begin upper-division coursework.
BACKGROUND CHECKS
Students are required to submit to criminal background checks before enrolling in the upper-division sequence. 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 Board of Nurse Examiners at http://www.bne.state.tx.us/.

CPR REQUIREMENT
Current certification in cardiopulmonary resuscitation is required for participation in clinical nursing courses. The CPR course must include training in infant, child, adult, one-person, two-person, and obstructed airway resuscitation. Students must provide the School of Nursing with evidence of current certification before they begin upper-division coursework.

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.

PROFESSIONAL LIABILITY INSURANCE
Professional liability insurance is required of all students enrolled in the professional sequence in the School of Nursing. Each student must pay the insurance premium at the Office of Student Affairs before he or she begins upper-division coursework. All student policies expire on the date of graduation.

UNIFORMS AND OTHER EXPENSES
Students must purchase uniforms, shoes, name pin, identification patch, and other supplies before taking the first clinical nursing course. Specific requirements and information about suggested equipment are distributed before the beginning of the first semester of the professional sequence.

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 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. Criteria for University Honors are given on page 15.

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 on page 16.

DEAN’S HONOR LIST
Each semester the Dean’s Honor List recognizes superior scholastic achievement by students enrolled in nursing prerequisite courses or in the professional sequence of nursing courses. Prenursing students must complete fifteen semester hours in residence on the letter-grade basis and earn at least fifty-two grade points, with no grade below a C for the semester. Students enrolled in the professional sequence of nursing courses are required to earn forty-eight grade points when enrolled in twelve semester hours and sixty grade points when enrolled in fifteen semester hours.

SIGMA THETA TAU
Epsilon Theta Chapter of Sigma Theta Tau, International Honor Society of Nursing, was chartered at the University on May 16, 1980; before that time, membership in Sigma Theta Tau on the Austin campus was conferred through Alpha Delta Chapter, chartered at The University of Texas Medical Branch in Galveston in 1963. Epsilon Theta Chapter presents scholarly programs each semester; program meetings are open to anyone interested in the program topic. An annual meeting, at which new members are inducted, is held in May.

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 significantly higher grade point average. 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.
At the annual meeting 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 has a cumulative grade point average of 3.30 or above. Recognition awards are given to those who have made significant contributions to the promotion of excellence in nursing through outstanding participation in professional organizations, enhancement of the standards of nursing practice or education, noteworthy involvement in community or public areas that affect health, creative delivery of nursing care, or other substantial professional activities. Small research grants are awarded annually to Epsilon Theta Chapter members and/or students enrolled in the graduate program in nursing.

Sigma Theta Tau International has active chapters on more than four hundred campuses with nationally accredited nursing programs granting baccalaureate and higher degrees in nursing. Sigma Theta Tau International offers opportunities for involvement at the chapter, regional, national, and international levels. Programs are offered each year in different parts of the United States under joint sponsorship of chapters and Sigma Theta Tau International. International research congresses are held in cooperation with scholarly nursing organizations in other countries; these programs focus on scholarly topics of relevance to the advancement of nursing knowledge and to the improvement of public health. Research grants are awarded annually by Sigma Theta Tau International as well as by Epsilon Theta and other chapters.

**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*.

**GRADUATION**

**SPECIAL REQUIREMENTS OF THE SCHOOL OF NURSING**

All students must fulfill the general requirements for graduation given in chapter 1. 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 2.00 to graduate. In the School of Nursing, students must also have a grade point average of at least 2.00 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 in the dean’s office 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 on pages 19–20.

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.

**LICENSURE AS A PROFESSIONAL NURSE**

Each student seeking licensure as a professional nurse must pass the National Council Licensure Examination (NCLEX). The Board of Nurse Examiners for the State of Texas, which determines eligibility to take the NCLEX, has identified certain circumstances that may render a candidate ineligible for state licensure as a registered nurse. A student’s 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, cancelled, 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?

Criminal background checks, including fingerprinting, are a required part of the application process for licensure in Texas. Students who have concerns about this requirement are encouraged to seek confirmation of their eligibility for licensure prior to considering a career in nursing. Consult the Board of Nurse Examiners Web site at http://www.bne.state.tx.us/ or call (512) 305-7400 for further information.

DEGREES

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 clinical practice and research in nursing.

The baccalaureate program is accredited by the Commission on Collegiate Nursing Education (CCNE) and the Board of Nurse Examiners for the State of Texas.

PURPOSE OF THE SCHOOL OF NURSING

The purpose of the School of Nursing is to contribute to the teaching, research, and service missions of the University of Texas at Austin through

1. Preparing generalists in professional nursing practice at the baccalaureate level.
2. Preparing specialists at the graduate level in nursing to assume roles in practice, administration, education, and research.
3. Promoting excellence in nursing scholarship.
4. Contributing to the body of nursing knowledge.
5. Offering educational, consultative, and other health care services to the community.

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, coordination, and consultation.
5. Participate in nursing and interdisciplinary efforts to improve the delivery of 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.
## 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 and to 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 preprofessional 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.

## DEGREE REQUIREMENTS FOR THE BACHELOR OF SCIENCE IN NURSING

This program consists of 127 to 128 semester hours of coursework: sixty-six to sixty-seven hours of prerequisite courses (the preprofessional sequence) taken at the University of Texas at Austin or another accredited college or university, followed by sixty-one hours of upper-division nursing courses (the professional sequence) taken at the University of Texas at Austin School of Nursing. 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. 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.

### PREPROFESSIONAL SEQUENCE

Students must complete the sixty-six or sixty-seven semester hours of coursework (preprofessional sequence) listed below. Completion usually requires two and one-half academic years (or four semesters and one summer session). All courses must be completed before the student enrolls in upper-division courses in nursing.

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Sciences</td>
<td></td>
</tr>
<tr>
<td>Physiology and functional anatomy: Biology 416K, 416L</td>
<td>8</td>
</tr>
<tr>
<td>Biology: Biology 311C</td>
<td>3</td>
</tr>
<tr>
<td>Microbiology: Biology 226N</td>
<td>2</td>
</tr>
<tr>
<td>Chemistry (including three hours of biochemistry):</td>
<td></td>
</tr>
<tr>
<td>Chemistry 313N, 314N</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics 301, 302, 303D, or 305G</td>
<td>3</td>
</tr>
<tr>
<td>Nutrition 311</td>
<td>3</td>
</tr>
<tr>
<td>Liberal Arts</td>
<td></td>
</tr>
<tr>
<td>Rhetoric and Writing 306, English 316K</td>
<td>6</td>
</tr>
<tr>
<td>United States government, including Texas government: Government 310L, 312L</td>
<td>6</td>
</tr>
<tr>
<td>Growth and development: Human Development and Family Sciences 313 and 113L, or Psychology 304</td>
<td>3 or 4</td>
</tr>
<tr>
<td>United States history: History 315K, 315L</td>
<td>6</td>
</tr>
<tr>
<td>Introductory psychology: Psychology 301</td>
<td>3</td>
</tr>
<tr>
<td>Fine arts elective</td>
<td>3</td>
</tr>
<tr>
<td>Nursing</td>
<td></td>
</tr>
<tr>
<td>Nursing 310, Communication in Health Care Settings</td>
<td>3</td>
</tr>
<tr>
<td>Nursing 311, Ethics of Health Care</td>
<td>3</td>
</tr>
<tr>
<td>Nursing 264, Nursing Research</td>
<td>2</td>
</tr>
<tr>
<td>Other Courses</td>
<td></td>
</tr>
<tr>
<td>Introductory statistics: Educational Psychology 371, Psychology 317, or Mathematics 316</td>
<td>3</td>
</tr>
<tr>
<td>Introductory pharmacology: Pharmacy 338</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL</td>
<td>66 or 67</td>
</tr>
</tbody>
</table>

1. All students must complete two courses certified as having a substantial writing component; at least one of these courses must be upper-division. Courses with a substantial writing component are identified in the Course Schedule. Courses used to fulfill the writing requirement may be used simultaneously to fulfill other requirements.
PROFESSIONAL SEQUENCE

The final sixty-one semester hours of coursework in nursing are completed after the student has achieved upper-division standing and has been admitted into the School of Nursing professional sequence. These hours consist of the courses listed below and Nursing 347, Specialized Topics in Nursing, which many students choose to take in the summer. In order to meet prerequisites, students must take most of the courses in the professional sequence in the indicated semester. Courses that may be taken at any point in the professional sequence are Nursing 323, Genetics in Health Care, Nursing 347, Specialized Topics in Nursing, and Nursing 354, Spanish for Health Care Professionals.

### Professional Sequence — First Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 224, Health Assessment Skills</td>
<td>2</td>
</tr>
<tr>
<td>N 325, Adult Health Nursing I</td>
<td>3</td>
</tr>
<tr>
<td>N 325P, Adult Health Nursing I (Practicum)</td>
<td>3</td>
</tr>
<tr>
<td>N 226, Mental Health Nursing across the Life Span I</td>
<td>2</td>
</tr>
<tr>
<td>N 227, Conceptual Bases of Aging</td>
<td>2</td>
</tr>
<tr>
<td>N 127P, Clinical Nursing Skills I (Practicum)</td>
<td>1</td>
</tr>
<tr>
<td>N 354, Spanish for Health Care Professionals</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Professional Sequence — Second Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 455, Adult Health Nursing II</td>
<td>4</td>
</tr>
<tr>
<td>N 355P, Adult Health Nursing II (Practicum)</td>
<td>3</td>
</tr>
<tr>
<td>N 356, Mental Health Nursing across the Life Span II</td>
<td>3</td>
</tr>
<tr>
<td>N 356P, Problems in Mental Health Nursing (Practicum)</td>
<td>3</td>
</tr>
<tr>
<td>N 157P, Clinical Nursing Skills II (Practicum)</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

### Professional Sequence — Third Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 323, Genetics in Health Care</td>
<td>3</td>
</tr>
<tr>
<td>N 265, Nursing Care of Childbearing Families</td>
<td>2</td>
</tr>
<tr>
<td>N 365P, Nursing Care of Childbearing Families (Practicum)</td>
<td>3</td>
</tr>
<tr>
<td>N 266, Nursing Care of Children and Their Families</td>
<td>2</td>
</tr>
<tr>
<td>N 366P, Nursing Care of Children and Their Families (Practicum)</td>
<td>3</td>
</tr>
<tr>
<td>N 377, Leadership and Management of Nursing Care</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

### Professional Sequence — Fourth Semester

<table>
<thead>
<tr>
<th>COURSES</th>
<th>SEMESTER HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>N 275, Public Health Nursing</td>
<td>2</td>
</tr>
<tr>
<td>N 375P, Public Health Nursing (Practicum)</td>
<td>3</td>
</tr>
<tr>
<td>N 377P, Clinical Care Management (Practicum)</td>
<td>3</td>
</tr>
</tbody>
</table>
| N 278, Synthesis of Nursing Knowledge

1. All students must complete two courses certified as having a substantial writing component; at least one of these courses must be upper-division. Courses with a substantial writing component are identified in the Course Schedule. Courses used to fulfill the writing requirement may be used simultaneously to fulfill other requirements.

BACHELOR OF SCIENCE IN NURSING DEGREE 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) 232-4780 for an appointment before registering for prerequisite courses for help in planning a program of study.
COURSES

The faculty has approval to offer the following courses in the academic years 2006–2007 and 2007–2008; 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.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

NURSING: N

Lower-Division Courses

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

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.

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. Nursing 307 (Topic 1) is same as Pharmacy 318W and Women’s and Gender Studies 301 (Topic 7: Women’s Reproductive Health for Nonscience Majors). Overview of contemporary women’s reproductive health issues, with emphasis on historical, physiological, psychosocial, and cultural influences that affect the reproductive health of women during adolescence, the childbearing years, and midlife. Two lecture hours and one discussion hour a week for one semester. Offered in the fall semester of odd-numbered years. Prerequisite: One year of high school biology, or Biology 301L or 309D or the equivalent. Topic 1 is offered as Nursing 307 only.

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. Required for nursing majors.

311. Ethics of Health Care. Ethical issues of health care and related legal concerns. Contradictions, inconsistencies, and competing views that lead to dilemmas in health care. Required for nursing majors.

Upper-Division Courses

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.

323. Genetics in Health Care. The integration of genetic information into nursing practice, including ethical, legal, psychological, and social issues. Prerequisite: Upper-division standing or consent of instructor.

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. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing.

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. Prerequisite: Upper-division standing and credit or registration for Nursing 325.

226. Mental Health Nursing across the Life Span I. An introductory course based on the philosophy of mental health as the continuous adaptation to the inevitable stressors of life. Indi-

viduals across the life span are viewed from a holistic perspective that considers integration of the body, mind, and spirit. Focus on the client’s strengths and on the nurse’s role as a model, teacher, and counselor regarding self-care behaviors that promote mental health. Case studies in the role of the nursing process in promoting effective adaptation. Two lecture hours a week for one semester. Prerequisite: Upper-division standing or consent of instructor.

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. Prerequisite: Upper-division standing or consent of instructor.
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 325P (or 425P).

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.

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.

147. Mental Health Nursing across the Life Span I. 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 multidisciplinary 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. Prerequisite: Nursing 224, 325, and 226.

356P. Problems in Mental Health Nursing (Practicum). Application of strategies for the care of individuals, groups, and families experiencing mental health problems. Nine laboratory hours a week for one semester. Prerequisite: Credit or registration for Nursing 356.

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: Concurrent enrollment in Nursing 355P or 356P (or Nursing 455P or 456P).

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. Required for nursing majors. Prerequisite: One of the following courses: Biology 318M, Educational Psychology 371, Mathematics 316, Psychology 317.

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. Prerequisite: Nursing 455, 355P (or 455P), 356, 356P (or 456P), 157P, and concurrent enrollment in Nursing 365P and 377.

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: Concurrent enrollment in Nursing 265 and 377.

266. Nursing Care of Children and Their Families. Two lecture hours a week for one semester. Prerequisite: Nursing 455, 355P (or 455P), 356, 356P (or 456P), 157P, and concurrent enrollment in Nursing 366P and 377.

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: Concurrent enrollment in Nursing 266 and 377.

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. Nursing 160 and 275 may not both be counted; Nursing 170, 270 and 275 may not both be counted. Prerequisite: Nursing 45S, 355P, 356, and 356P; or consent of instructor.

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. Nursing 260P and 375P may not both be counted; Nursing 170P, 270P, 370P and 375P, 475P may not both be counted. Prerequisite: Concurrent enrollment in Nursing 275.

377. Leadership and Management of Nursing Care. Examination of selected concepts and theories of management in the context of the delivery of dynamic nursing care. The use of management concepts in working with a team to provide high-quality patient care. Prerequisite: Concurrent enrollment in Nursing 265, 365P, 266, and 366P; or consent of instructor.
377P. Clinical Care Management (Practicum). Application of selected concepts and theories of management in the planning and delivery of health care. Nine laboratory hours a week for one semester. Prerequisite: Nursing 265, 365P (or 465P), 266, 366P (or 466P), and 377 (or 277).

278. Synthesis of Nursing Knowledge. Discussion of synthesis of the concepts, theories, and principles related to the provision of professional nursing care. Development and articulation of a personal model of clinical nursing practice. Two lecture hours a week for one semester. Prerequisite: Nursing 377P (or 477P).

279P. Capstone Preceptorship. Designed to provide students with clinical experiences similar to those they are likely to confront as newly employed registered nurses. Focus on the role transformation of students and 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 375P (or 270P), 377 (or 277), 377P (or 477P), and 278.
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 PharmD 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 seven 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 ten 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. Sprwol was appointed dean in 1967. William J. Sheffield became acting dean upon the death of Professor Sprwol in 1971. He was succeeded in 1973 by James T. Doluisio, who served the college for twenty-five years. Dean Steven Leslie assumed the leadership of the college in 1998.

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 in Dallas, the Texas Medical Center in Houston, and the University of Texas Medical Branch in Galveston.
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.

AIMS AND CURRICULA

The University offers the six-year program leading to the Doctor of Pharmacy (PharmD) 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 PharmD degree program with the University of Texas Health Science Center at San Antonio since 1974. Students who complete their internship 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 Texas A&M University/Scott and White Hospital and Clinic 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 final-year 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 PharmD degree, the University offers the Master of Science in Pharmacy and the Doctor of Philosophy with a major in pharmacy. Master's degree students who concentrate in pharmacy administration may choose the Option II program, in which classes meet on selected Fridays and Saturdays. These programs are described in the catalog of the Graduate School.

LEGAL REQUIREMENTS FOR PROFESSIONAL PRACTICE

During the first professional year in the College of Pharmacy, each student must complete the Texas State Board of Pharmacy Application for Student Pharmacist-Intern Registration. Upon approval of this application, the student becomes registered as a student pharmacist-intern in the state of Texas. Each student must be registered as a student pharmacist-intern in order to acquire, through pharmacy courses, the internship hours necessary for licensure as a pharmacist upon graduation. The student may register as a student pharmacist-intern with the State Board of Pharmacy and earn internship hours only after successfully completing the first academic year (at least thirty semester hours) of the professional pharmacy curriculum. Any changes in State Board requirements would supersede this statement.
Students should be aware that the process of registration as a student pharmacist-intern includes a criminal history check. The existence of a criminal record may preclude the student from registration as a student pharmacist-intern and 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 internship may mandate an additional background check and/or drug screen. Students assigned to these facilities must comply with all such requirements.

Students registered as student pharmacist-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, however, may not replace any portion of the experimental program required for graduation.

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, William P. Hobby Building, 333 Guadalupe Street. The mailing address is P.O. Box 21, Austin TX 78701-3942. The URL is http://www.tsbp.state.tx.us/, and the telephone number is (512) 305-8000.

THE PHARMACEUTICAL FOUNDATION

In January 1950, the Board of Regents of the University of Texas established the Pharmaceutical Foundation and authorized it to receive funds in the form of gifts, special grants, and bequests to be devoted solely to the promotion of pharmaceutical education and research within the College of Pharmacy. The foundation is governed by an Advisory Council appointed by the president with the approval of the Board of Regents. The foundation solicits contributions in any amount for pharmaceutical research, faculty endowments, scholarships for undergraduate and graduate students, student professional development activities, recruiting, and the furtherance of overall excellence in the programs of the college.

For additional information about the Pharmaceutical Foundation, contact the College of Pharmacy Development and Alumni Affairs Office or visit http://www.utexas.edu/pharmacy/dean/development/.

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.

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, provides a state-of-the-art distance education classroom, a student computer laboratory, research laboratories, and offices for faculty and staff members.

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 provides conference rooms and classrooms equipped for both on-site and distance education, staff and faculty offices, and research laboratories. Other academic and student support services are available in various locations on campus.
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. 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 more than fifty hours of continuing education programming to over eight thousand pharmacists across the US.

LEARNING RESOURCE CENTER

The college's Learning Resource Center (LRC) offers a variety of instructional resources to students and faculty members. The LRC provides state-of-the-art two- and three-way digital video teleconferencing transmission of core curriculum courses among the Austin campus, the Health Science Center in San Antonio, UT El Paso and 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. Many courses are recorded and made available for checkout in the LRC Media Library in both analog and digital formats. The Media Library is open six days a week.

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’s Web site (http://www.utexas.edu/pharmacy/) provides additional information and curriculum support for students and faculty members.

In the Student Computer Laboratory, students have access to desktop computers with removable media and CD drives, professional business software, and Internet client software. The electronic classroom supports desktop computers with projection equipment and a full suite of software. The large distance-learning classroom supports notebook computer ports.

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, pharmacy, biochemistry, nutrition, and medicinal chemistry, with supporting materials in medicine. Biochemistry, nutrition, and medicinal chemistry material is complemented by the collections of the Mallet Chemistry Library.

The Pharmacy Resource Center within the Life Science Library provides a group study area with the complete resources of a drug information center. The center is equipped with computer workstations to access significant electronic resources such as MICROMEDEX, Clinical Pharmacology Online, and the Cochrane Library (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, which offers a full range of databases, access to electronic journals, and links to other digital information sources. Access to print information resources for students on rotation and at College of Pharmacy Cooperative Program campuses is provided through the University's D-Doc distance learning library service.

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 to classes and by individual consultation.

HONORS AND AWARDS

The Lilly Achievement Award is a gold medallion given in recognition of superior scholastic achievement. The recipient is the graduating student with the highest grade point average in required professional courses.

The College of Pharmacy/University of Texas Pharmaceutical Foundation Scholastic Achievement Award is an engraved plaque presented to the graduating student with the second highest grade point average in required professional courses.

The Sheftall Company/John Davis Excellence Award is presented to the graduate who has made the most significant contribution to the College of Pharmacy and the University during his or her college career. The recipient of this award receives a class ring from the Sheftall Company.

The College of Pharmacy Alumni Association Award for the Outstanding Student in Pharmacy Practice is given to a graduating senior who has shown excellence in the area of pharmacy practice. The recipient is chosen by the Honors and Awards Committee from nominations submitted by the preceptor faculty.
The College of Pharmacy Alumni Association Mortar and Pestle Award is given to the graduate who has made the most significant contribution to the College of Pharmacy and the profession of pharmacy during his or her college career.

The College of Pharmacy/University of Texas Pharmaceutical Foundation Award for the Outstanding Student in Pharmacotherapy is given to a graduating senior who has shown excellence in the areas of pharmacy practice and clinical pharmacy. Recipients are selected by faculty members in the pharmacotherapy and pharmacy practice divisions.

The College of Pharmacy/University of Texas Pharmaceutical Foundation Award for the Outstanding Student in the Basic Pharmaceutical Sciences is given to one or more graduating seniors who have shown excellence in pharmaceutics, medicinal chemistry, and pharmacology. Recipients are selected by the basic science faculty of the college.

The College of Pharmacy/University of Texas Pharmaceutical Foundation Award for the Outstanding Student in Pharmacy Administration is given to one or more graduating seniors who have shown excellence in the area of pharmacy administration. Recipients are selected by faculty members in pharmacy administration.

The American Pharmaceutical Association Academy of Students of Pharmacy Mortar and Pestle Professional Award is given to a graduating senior who has demonstrated service and commitment to the profession through involvement in professional organizations and excellence in pharmacy practice.

The American Society of Health-System Pharmacists Outstanding Student Leadership Award is given to a graduating senior who has demonstrated service and commitment through leadership in professional organizations.

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.

FINANCIAL ASSISTANCE AVAILABLE THROUGH THE COLLEGE OF PHARMACY

Students who have completed the first year of the professional curriculum may apply for scholarships and loans offered through the College of Pharmacy. Eligibility and application information is available at http://www.utexas.edu/pharmacy/students/finaid/scholarships.html and in the Office of Student Affairs, Pharmacy Building 5.112.

ENDOWED PRESIDENTIAL SCHOLARSHIPS

To be eligible to receive an Endowed Presidential Scholarship, students must meet the college’s eligibility requirements and must have maintained a 3.25 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, the student must meet the college’s eligibility requirements. For some awards, students must meet additional criteria. The minimum endowed scholarship is $1,000.

OTHER SCHOLARSHIPS

Pharmaceutical Foundation scholarships are funded by various pharmacy associations, auxiliaries, individuals, employers, and organizations. These scholarships are awarded, as they become available, through The University of Texas Pharmaceutical Foundation and at the direction of the Financial Aid Committee.

LOAN FUNDS

The Klinck Family Loan Funds. These loan funds were established by the Klinck family of McAllen, Texas, to benefit students in need of financial assistance. Emergency loans for a maximum of $500 are available; they are normally repayable within thirty days. Long-term loans of up to $1,000 are also available to pharmacy students who demonstrate financial need. The interest rate for these loans is six percent, and interest must be paid while the student is still in school. Repayment begins three months after the student’s graduation from pharmacy school. Monthly payments of at least $100 are required, and the maximum payment period is eighteen months. Students may apply for more than one loan, but except in unusual circumstances the loans will total no more than $2,000. 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 ORGANIZATIONS

American Pharmaceutical Association Academy of Students of Pharmacy. 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. 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. This group is a component of a worldwide interdenominational ministry with the mission of helping pharmacy students grow spiritually and promoting fellowship among pharmacy students and professionals.

Kappa Epsilon. Kappa Epsilon is a national professional fraternity established to promote careers for women in pharmacy. Xi chapter, established in 1943, is one of the largest of the forty-four chapters nationwide. Xi chapter sponsors service and professional projects, including a city-wide Poison Prevention program in elementary schools each February, as well as social events and other extracurricular activities. The chapter awards one scholarship annually to a deserving student.

Mexican American Association of Pharmacy Students. The primary goals of the Mexican American Association of Pharmacy Students 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.

Pharmaceutical Association of Compounding. This organization was established at the University in 1992. PAC's goal is to develop and foster a strong interest in the science and art of compounding. The organization sponsors guest speakers from all areas of pharmacy practice. Membership is open to prepharmacy and pharmacy students.

Pharmacy Council. The Pharmacy Council is composed of officers of the recognized student organizations in the College of Pharmacy and elected student representatives from each of the professional pharmacy classes. The president of the council is also a member of the University Senate of College Councils. 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, Parents’ Day programs, and events that promote student-faculty interaction.

Pharmacy Graduate Students’ Association. 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. 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. 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, 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.
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, health-related 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 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. 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 Student Society of Health-System Pharmacists. 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 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.

Placement Services

The College of Pharmacy, under the supervision of the assistant dean for experiential and professional affairs, conducts a Placement Conference for graduating seniors. The conference gives seniors an opportunity to be interviewed 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 Placement Conference as a part of Senior Conference. A college-wide Career Day each spring, featuring displays by major employers, allows students to interact with numerous pharmacist employers. A limited number of competitive summer 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 on the college’s Web site at http://www.utexas.edu/pharmacy/general/experiential/.

As a complement to the assistance available from the college, the Career Exploration Center 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.

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. The graduate student may specialize in medicinal chemistry, pharmacology and toxicology, pharmaceutics, pharmacotherapy, or pharmacy administration. 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 TO THE UNIVERSITY

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

ADMISSION TO THE PROFESSIONAL CURRICULUM

No student may begin the professional curriculum until he or she has been admitted to the University by the director of admissions according to the normal undergraduate procedures and 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 on this and the following page. All students must meet the admission requirements given in the catalog in effect at the time of application. Admission to the University in no way implies or guarantees admission to the professional curriculum. If the number of eligible applicants for the professional curriculum exceeds the number that available facilities can accommodate, final selection is made by the college Admissions Committee and the dean.

Students should note that the two admission processes are separate and independent and that deadlines for submission of all application materials for admission to the University may differ from those for submission of all application materials for admission to the professional curriculum.

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 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, Dallas/Fort Worth, El Paso, Galveston/Houston, the Rio Grande Valley, and San Antonio. Internship regions may be added or deleted at any time based on the availability of resources. Elective regions, which provide limited internship experiences for a specified period of time (less than four months), may also be available.

Students assigned to San Antonio and Pharmacy Scholars students from UT El Paso and UT Pan American in Edinburg must spend about a year and a half to two years in those regions; students assigned to the other regions spend only the final year of the program (the internship year) in their assigned region.

Students are assigned to internship regions through a computer-generated random lottery number system that takes students’ ranked preferences into account. Since most students relocate to internship regions outside the Austin area, region assignment occurs during the latter part of the second 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 Pharmacy Scholars Program is available to highly qualified high school seniors entering the University of Texas at El Paso or the University of Texas - Pan American. It offers these students conditional admission to the University of Texas at Austin College of Pharmacy once they complete the requirements of the program at the first school. Additional information is available from UT El Paso at (915) 747-8535 or http://academics.utep.edu/pharmacy/, and from UT Pan American at (956) 318-5255 or http://www.panam.edu/programs/pharmacy/.

ADMISSION TO THE FIRST PROFESSIONAL YEAR

Admission to the professional curriculum is competitive.

BASIC ADMISSION CRITERIA

1. Scholarship, as indicated by grade point average and Pharmacy College Admission Test (PCAT) scores. In evaluating the applicant’s academic record, the committee pays particular attention to the courses required for admission.
2. Personal statement
3. Letters of recommendation

ADDITIONAL PERSONAL FACTORS

1. Extracurricular activities that demonstrate community involvement and leadership potential
2. Honors and awards
3. Interview. Applicants are screened for interviews based on academic record, exposure to the profession, special life circumstances, and any other compelling factors. If the student is invited for an interview, then other factors are considered; these include but are not limited to the following:
   a. The essay written on site
   b. Knowledge of and motivation for pharmacy as a career
   c. Lifelong learning strategies
   d. Critical thinking skills
4. 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 with a health professions shortage
f. Race and ethnicity  
g. Cultural background  
h. Other information in the application  

Because the University is a public institution, strong 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 at http://www.utexas.edu/pharmacy/admissions/ad_stats.html and to contact the college's Office of Admissions for advice prior to submitting an application for admission.

**Application deadlines.** The priority application deadline is February 1; the final deadline is March 1. Students are admitted for the fall semester only.

**ADMISSION REQUIREMENTS**

1. The applicant should have completed at least sixty-three semester hours, and must have completed the following forty-five:  
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 hours of mathematics (including 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  

2. The remaining semester hours should include  
a. Six hours of American history  
b. Six hours of American government, including Texas government  
c. Three hours of fine arts or humanities coursework chosen from archaeology, architecture, art (including art education, art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, humanities, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance  
d. Three hours of social and behavioral sciences coursework chosen from anthropology, economics, geography, linguistics, psychology, sociology, and social work  

3. The applicant must fulfill the foreign language requirement given on page 555 before seeking admission to the professional curriculum.

4. 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. Application for admission to the professional curriculum should be made by submitting online application materials at http://www.utexas.edu/pharmacy/admissions/pharmd.html.

2. The following must be submitted to the director of admissions for the College of Pharmacy:  
a. The completed online application for admission to the professional curriculum.  
b. The nonrefundable application processing fee of seventy-five dollars.  
c. The completed personal statement and résumé.  
d. At least two letters of recommendation.  
e. A high school transcript, only if the applicant's foreign language requirement was completed in high school, and an official University transcript, if the applicant is a current or former UT Austin student. All other official transcripts must be sent to the University's Office of Admissions.  
f. Pharmacy College Admission Test (PCAT) score. Scores more than three years old are not accepted.  
g. Score reports for any credit earned by examination.  
h. Scores on the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test), if the student is required by state law to take this test.

3. The applicant may be asked to appear for a personal interview. If invited for an interview, each applicant will be required to write a short essay on the day of the interview.

4. The applicant is considered on the basis of overall academic performance, with emphasis on grades in the required prepharmacy courses. Work done at the University and work done elsewhere are evaluated separately. In accordance with University policy, courses completed at another institution with a grade of D are not transferable; they may not be used to fulfill any degree requirements, even though they are used when the student's admissibility to the professional curriculum is determined. All application materials must be submitted by March 1 for entry the following fall.

5. 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.
6. 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.

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 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 World Wide Web and are accessible through the registrar’s Web site, http://www.utexas.edu/student/registrar/. General Information is also sold at campus-area bookstores.

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 four million dollars in the aggregate per year is provided through the insurance policy. The approximate annual premium is $17.00, payable by the student. The policy covers the period September 1 through August 31.

MEDICAL CLEARANCE REQUIREMENTS

In addition to the measles, mumps, and rubella immunizations required by the University, students must show proof of immunity to tetanus, diphtheria, hepatitis B, varicella, and subject to a PPD (Mantoux) skin test before entering the first professional year. In compliance with Title 25 of the Texas Administrative Code, Rule §97.64 regarding students enrolled in health-related courses that involve direct contact with patients, the following are required:

- Tetanus/diphtheria: One dose of vaccine within the past ten years.
- Hepatitis B: At least two doses of the three-dose series. The third dose must be received before the student completes the first professional semester. Students may also show serologic confirmation of immunity to the hepatitis B virus via appropriate documentation.
- Varicella: One dose, for students who received this vaccine prior to thirteen years of age, or two doses, for students who were not vaccinated before their thirteenth birthday. A history of varicella illness (chicken pox), validated by serologic confirmation of immunity, is acceptable in lieu of vaccination.

Although not required by Title 25, the following is required by the College of Pharmacy:

- PPD: A skin test for tuberculosis (PPD) is required within the two months preceding admission to the professional sequence, and prior to each subsequent year of the professional sequence.

Immunization requirements are subject to change. Every effort is made to notify students promptly of any changes.

REGISTRATION AS A STUDENT PHARMACIST-INTERN

Upon completion of the first professional year, each student must register as a student pharmacist-intern with the Texas State Board of Pharmacy. This is accomplished through completion of the Application for Student Pharmacist-Intern Registration. Each student must be registered as a student pharmacist-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” on pages 542–543. This regulation is subject to change by the Texas State Board of Pharmacy. Every attempt will be made to inform students of new requirements as they occur.

STUDENT HEALTH INSURANCE

Students should procure health insurance to cover treatment for injuries or illness. This is especially important for the senior internship year, when students have frequent contact with patients in a number of different health care facilities. Some health care facilities in which students are placed for internship may require that students procure personal health insurance prior to placement in internship courses.

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.
ACADEMIC POLICIES AND PROCEDURES

ACADEMIC STANDARDS IN THE COLLEGE OF PHARMACY

University regulations on scholastic probation and dismissal are given in General Information. 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 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 given on page 555.

3. The student must earn an average of at least two grade points a semester hour on all courses undertaken at the University, whether passed or failed. The student must also earn an average of at least two grade points a semester hour on all required pharmacy courses undertaken, whether passed or failed.

4. A student may not repeat for credit a course in which he or she has earned a grade of C or better.

5. With the exception of laboratory problems courses, all pharmacy electives must be taken on the letter-grade basis. The student must also take the professional electives described on page 555 on the letter-grade basis.

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 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, 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, 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 or F in required pharmacy courses in one semester. The student is also subject to dismissal if he or she receives a second D or F while on academic probation or conditional academic probation.

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 courses 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 as twelve hours in a long-session semester and six hours in the summer. The new grade replaces 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 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. 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 if and only if he or she has earned no further grades of 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 replaces the grade of 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 internship courses in the final semester. To take the internship courses, the student must have a grade point average of at least 2.00 in required pharmacy courses. If the student earns the symbol CR in each internship 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 and to receive college scholarships for travel to professional meetings. The student remains on conditional academic probation until graduation and is subject to dismissal if he or she receives a second grade of D or F.

CALCULATION OF GRADE POINT AVERAGES

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 CR is recorded. If the student has repeated a course, including those courses for which he or she earned a grade of 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 taken at the University for which a grade or symbol other than Q, W, X, or CR is recorded. When a student repeats a required pharmacy course, the second grade in the repeated course replaces the previous grade when the student’s College of Pharmacy grade point average is calculated.

THE ACADEMIC PERFORMANCE COMMITTEE

This committee of the College of Pharmacy is responsible for monitoring 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 internship courses, the student must have completed all basic education requirements and all required and elective pharmacy courses except those in the internship year.

2. Because internship courses are offered on the pass/fail basis only, students should 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 internship semester(s).

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. The only time this policy is not enforced is in the fall semester of the third professional year.

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 pharmacist-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 Scholarly 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 hon-
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 CLASSES AND LABORATORIES

Students in the College of Pharmacy are expected to attend all meetings of the courses for which they are registered. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors have special attendance requirements that should be made known to the 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.

ACADEMIC ADVISING

Academic and career advising is an ongoing activity 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 prepharmacy students is provided by the College of Natural Sciences Health Professions Office. University students interested in the profession of pharmacy should contact that office early in their college careers. Prepharmacy students from outside the University should seek advice from the Office of Student Affairs of the College of Pharmacy.

CAREER COUNSELING IN THE COLLEGE OF PHARMACY

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 in the required course Pharmacy 249, Introduction to Pharmacy. 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.

HONORS

University-wide honors are described on pages 14–16 and in General Information. In addition, the College of Pharmacy encourages academic excellence through Rho Chi, the national pharmaceutical honor society, described on page 546, and through the Pharmacy Honors Program.

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 051R, 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 graduation. 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 167H at least twice; (4) completion of at least one honors elective; (5) completion of Pharmacy 278H and 479H; and (6) completion of the regular curriculum for the degree.

The statement “Special Honors in Pharmacy” appears on the transcript of each graduate certified to have completed the honors program.
GRADUATION

All students must fulfill the general requirements for graduation given in chapter 1. Students in the College of Pharmacy must also fulfill the following requirements.

1. Students earning the Doctor of Pharmacy must complete in residence the courses prescribed for the third and fourth professional years.
2. All University students must complete in residence at least twenty-four of the last thirty semester hours of the coursework counted toward the degree.

DEGREES

The University offers the PharmD degree as the sole entry-level practice degree. As described in “Aims and Curricula,” page 542, this program emphasizes an integrated and problem-based approach to disease management as the core of the didactic and laboratory program of study.

The capstone of the PharmD program is a series of seven six-week rotations known as the internship. Each internship course requires between forty and fifty on-site, practitioner-faculty–supervised hours of internship experience a week for six weeks.

The college expects but cannot guarantee that internship sites will include Austin/Temple, Dallas/Fort Worth (the University of Texas Southwestern Medical Center and other area health care institutions), El Paso (the University of Texas at El Paso and other area health care institutions), Galveston/Houston (the University of Texas Medical Branch at Galveston, the University of Texas M. D. Anderson Cancer Center, and other area health care institutions), the Rio Grande Valley (primarily Harlingen and McAllen), and San Antonio (the University of Texas Health Science Center and other area health care institutions). Students assigned to El Paso and San Antonio spend about a year and a half to two years in these regions, while students assigned to other regions spend only the final year in the internship region.

College of Pharmacy students who complete their internship courses at the University of Texas Health Science Center at San Antonio are considered part of a joint PharmD degree program and receive a degree awarded jointly by the two institutions.

In completing the Doctor of Pharmacy degree, students also fulfill the internship requirements of the Texas State Board of Pharmacy. The final year of internship courses and several other practice-based courses beginning in the second professional year make up the internship 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 PharmD 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 to be counted toward the minor may not be taken on the pass/fail basis, unless it is offered only on that basis. A course may not be counted both toward the minor and toward the 197 hours of work required for the PharmD 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.

Upon request, verification of a student’s completion of the minor is available in writing through 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 electives and for Government 312L 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 without a bachelor’s degree must complete a total of 197 semester hours, consisting of basic education requirements, professional electives, and required preprofessional and professional coursework.

BASIC EDUCATION REQUIREMENTS

1. Six semester hours of American history.
2. Six semester hours of American government, including Texas government.
3. Three semester hours of coursework in fine arts or humanities, chosen from archaeology, architecture, art (including art history, design, studio art, visual art studies), classics (including classical civilization, Greek, Latin), fine arts, humanities, music (including music, instruments, ensemble), philosophy (excluding courses in logic), or theatre and dance.
4. Three semester hours of coursework in social and behavioral sciences, chosen from anthropology, economics, geography, linguistics, psychology, sociology, and social work.
5. Rhetoric and Writing 306, English 316K, and two courses, one of which must be upper-division, certified as having a substantial writing component. Courses that contain a substantial writing component are identified in the Course Schedule. Two courses within the professional curriculum are normally certified.
6. Students must demonstrate proficiency in a foreign language equivalent to that shown by completion of two semesters of college coursework. Credit used to establish proficiency may not be counted toward the degree. For a student admitted to the University as a freshman, this requirement is fulfilled by the completion of the two high school units in a single foreign language that are required for admission; a student admitted with a deficiency in foreign language must remove it as specified in General Information.

American Sign Language may be used to fulfill the foreign language requirement.

PROFESSIONAL ELECTIVES

The student must complete at least two professional elective courses, for a total of at least four semester hours.

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 sequences of coursework given here show the usual order in which courses are taken to fulfill prerequisite requirements and illustrate the feasibility of completing requirements for the degree within six calendar years. Students who depart significantly from these sequences 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 required course may conflict with the times of other courses not listed here.

First Preprofessional Year

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<tr>
<th>SEMESTER</th>
<th>COURSES</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>Fall</td>
<td>BIO 311C, Introductory Biology I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CH 301, Principles of Chemistry I</td>
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<tr>
<td></td>
<td>M 408C, Differential and Integral Calculus</td>
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</tr>
<tr>
<td></td>
<td>RHE 306, Rhetoric and Writing</td>
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<tr>
<td>Spring</td>
<td>BIO 311D, Introductory Biology II</td>
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<tr>
<td></td>
<td>CH 302, Principles of Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CH 204, Introduction to Chemical Practice</td>
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</tr>
<tr>
<td></td>
<td>M 316, Elementary Statistical Methods</td>
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Second Preprofessional Year

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<tr>
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<td>BIO 325, Genetics</td>
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<tr>
<td></td>
<td>CH 310M, Organic Chemistry I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>E 316K, Masterworks of Literature</td>
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<tr>
<td></td>
<td>PHY 302K, General Physics—Technical Course: Mechanics, Heat, and Sound</td>
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<td>PHY 102M, Laboratory for Physics 302K</td>
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<tr>
<td>Spring</td>
<td>CH 210C, Organic Chemistry Laboratory</td>
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<tr>
<td></td>
<td>CH 310N, Organic Chemistry II</td>
<td>3</td>
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<tr>
<td></td>
<td>General microbiology with laboratory</td>
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First Professional Year

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<tr>
<td>Fall</td>
<td>PHR 341C, Pharmaceutical Biochemistry</td>
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<td>PHR 342C, Physical and Chemical Principles of Drugs</td>
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<td></td>
<td>PHR 142P, Physical and Chemical Principles of Drugs Laboratory</td>
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<tr>
<td></td>
<td>PHR 343C, Function and Anatomy of Human Systems I</td>
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<td></td>
<td>PHR 143M, Basic Medicinal Chemistry Principles</td>
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<td></td>
<td>PHR 143P, Basic Medicinal Chemistry and Pharmacology Laboratory</td>
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<tr>
<td></td>
<td>PHR 244C, Pharmacy Administration</td>
<td>2</td>
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<tr>
<td></td>
<td>PHR 144P, Pharmacy Administration Laboratory</td>
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</tr>
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<td>PHR 249A, Introduction to Pharmacy</td>
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<td>TOTAL, REQUIRED COURSES</td>
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<tr>
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<td>PHR 249B, Introduction to Pharmacy</td>
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<tr>
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<td>PHR 251C, Macromolecular Chemistry and Biotechnology</td>
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<tr>
<td></td>
<td>PHR 352C, Biopharmaceutics and Pharmacokinetics</td>
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<tr>
<td></td>
<td>PHR 152P, Biopharmaceutics and Pharmacokinetics Laboratory</td>
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<tr>
<td></td>
<td>PHR 253C, Function and Anatomy of Human Systems II</td>
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<td></td>
<td>PHR 253D, Principles of General Pathology</td>
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<td></td>
<td>PHR 153M, Basic Pharmacology Principles</td>
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<td></td>
<td>PHR 356C, Pharmacetics I</td>
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<td>PHR 156P, Pharmacetics I Laboratory</td>
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<td>TOTAL, REQUIRED COURSES</td>
<td>16</td>
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1. Because of the intensity and structure of the professional curriculum, it is strongly recommended that students complete all the University's basic education requirements except the substantial writing requirement before enrolling in the College of Pharmacy. The substantial writing requirement is fulfilled by coursework within the professional curriculum.
2. Pharmacy 366P and 364D are interchangeable to allow for space limitations in the Pharmacy 366P laboratory area.

3. The order in which these fourth-year internships are taken is at the discretion of the College of Pharmacy.

<table>
<thead>
<tr>
<th>Second Professional Year</th>
<th>Fall Semester</th>
<th>Semester Hours</th>
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<tbody>
<tr>
<td>COURSES</td>
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<tr>
<td>PHR 163C, Introduction to Drug Information</td>
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<tr>
<td>PHR 365E, Pharmacotherapeutics IA</td>
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<tr>
<td>PHR 565E, Pharmacotherapeutics IB</td>
<td>5</td>
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<tr>
<td>PHR 165P, Pharmacotherapeutics I Laboratory</td>
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</tr>
<tr>
<td>PHR 366P, Pharmacy Ethics and Professional Communications</td>
<td>3</td>
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<tr>
<td><strong>TOTAL, REQUIRED COURSES</strong></td>
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<th>Spring Semester</th>
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<tr>
<td>COURSES</td>
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<tr>
<td>PHR 364D, Pharmacy and the Health Care System</td>
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<td>PHR 375E, Pharmacotherapeutics IIA</td>
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<tr>
<td>PHR 275F, Pharmacotherapeutics IIIB</td>
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<tr>
<td>PHR 375G, Pharmacotherapeutics IIC</td>
<td>3</td>
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</tr>
<tr>
<td>PHR 175P, Pharmacotherapeutics II Laboratory</td>
<td>1</td>
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<tr>
<td>PHR 176P, Experiential Pharmacy Practice and Patient Counseling</td>
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<td><strong>TOTAL, REQUIRED COURSES</strong></td>
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<td>PHR 385E, Pharmacotherapeutics IIIA</td>
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<tr>
<td>PHR 285E, Pharmacotherapeutics IIIIB</td>
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<td>PHR 185P, Pharmacotherapeutics III Laboratory</td>
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<th>Third Professional Year</th>
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<tbody>
<tr>
<td>COURSES</td>
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<tr>
<td>PHR 183F, Basic Intravenous Admixtures</td>
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<tr>
<td>PHR 183G, Basic Intravenous Admixtures Laboratory</td>
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</tr>
<tr>
<td>PHR 284E, Pharmacy Law</td>
<td>2</td>
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<tr>
<td>PHR 386D, Nonprescription Pharmacotherapy</td>
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<td><strong>TOTAL, REQUIRED COURSES</strong></td>
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<tr>
<td>COURSES</td>
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<tr>
<td>PHR 390S, Applied Pharmacokinetics</td>
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<td>PHR 392S, Patient Assessment Skills Laboratory</td>
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<td>PHR 394F, Pharmacoeconomics</td>
<td>3</td>
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<tr>
<td>PHR 394R, Drug Literature Evaluation and Biostatistics</td>
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<td>PHR 396F, Pharmacogenomics</td>
<td>3</td>
<td></td>
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<tr>
<td>PHR 296P, Advanced Pharmacotherapy Laboratory</td>
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<td><strong>TOTAL, REQUIRED COURSES</strong></td>
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<p>| Fourth Professional Year | | |
|--------------------------|--|</p>
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<tr>
<th>Summer Session</th>
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<td>COURSES</td>
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<tr>
<td>PHR 693C, Acute Care Pharmacy Practice I</td>
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<th>Fall Semester</th>
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<tr>
<td>COURSES</td>
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<tr>
<td>PHR 693E, Elective in Pharmacy Practice I</td>
<td>6</td>
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<tr>
<td>PHR 693N, Institutional Pharmacy Practice</td>
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<td>PHR 693P, Ambulatory Care Pharmacy Practice</td>
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<td>COURSES</td>
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<tr>
<td>PHR 693S, Selective in Pharmacy Practice I</td>
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<tr>
<td>PHR 694C, Acute Care Pharmacy Practice II</td>
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<tr>
<td>PHR 694E, Elective in Pharmacy Practice II</td>
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<tr>
<td><strong>total, required courses</strong></td>
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COURSES

The faculty has approval to offer the following courses in the academic years 2006–2007 and 2007–2008; 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.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

PHARMACY: PHR

Preprofessional Courses

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. 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.

318W. Women's Reproductive Health for Nonscience Majors. Same as Nursing 307 (Topic 1: Women's Reproductive Health for Nonscience Majors) and Women's and Gender Studies 301 (Topic 7: Women's Reproductive Health for Nonscience Majors). Overview of contemporary women's reproductive health issues, with emphasis on historical, physiological, psychosocial, and cultural influences that affect the reproductive health of women during adolescence, the childbearing years, and midlife. Two lecture hours and one discussion hour a week for one semester. Offered in the fall semester of odd-numbered years. Prerequisite: One year of high school biology, or Biology 301L or 309D or the equivalent.

Professional Courses

320M. Pharmaceutical Marketing. Concepts of marketing as they apply to the pharmaceutical industry, pharmaceutical products, and the health care environment. Prerequisite: Pharmacy 244C and 144P.

321K. Introduction to Pharmaceutical Chemistry. Current concepts and principles fundamental to the study of the structure of matter and of its relationship to pharmaceutically significant properties. May not be counted toward the professional elective requirement. Prerequisite: Chemistry 310M (or 610A) or the equivalent.

322H. Research Design and Methodology. Concepts and procedures involved in designing and carrying out a research project. Prerequisite: Admission to the Pharmacy Honors Program or consent of instructor.

322P. New Concepts, Topics, and Issues in Pharmacy Practice. New concerns, topics, and issues in pharmacy practice. Prerequisite: Credit or registration for Pharmacy 364D.

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. Prerequisite: Pharmacy 244C.

326M. Applied Pharmacy Management. Organizational structure of the hospital pharmacy; principles of financial systems and personnel management. Prerequisite: Pharmacy 244C and 144P.

329C. Pharmacy Association Management. An introduction to the principles involved in managing pharmacy associations. Pharmacy 329C and 389C may not both be counted. Prerequisite: Pharmacy 244C and 144P and consent of instructor.

629D. Pharmacy Association Management Residency. Experience working in a pharmacy association, including active involvement in some managerial aspect of the association. Eighteen laboratory hours a week for one semester. Pharmacy 629D and 689D may not both be counted. Prerequisite: Pharmacy 364D and consent of instructor.

230S. Pharmacy's Role in Community Education: Substance Abuse Education. A two-semester course involving ten hours in an organized training program followed by a total of twenty hours of field experience in substance abuse education. The target audience is middle school students. Prerequisite: For 230SA, Pharmacy 270C and 275F; for 230SB, Pharmacy 230SA.

231. Pharmacy Practice Ethics. Ethical responsibilities of practicing pharmacists. Two lecture hours a week for one semester. Prerequisite: Pharmacy 244C and 144P.

332C. Chemistry of Natural Products. Chemical and biosynthetic relationships among steroids, terpenoids, and alkaloids. Pharmacy 332C and 382C may not both be counted. Prerequisite: Admission to the Pharmacy Honors Program; Pharmacy 375E, 275F, 375G, and 175P with a grade of at least B in each; or consent of instructor.

338. Introduction to Pharmacology. Survey of basic concepts and principles in pharmacology. Required for all preprofessional students in the School of Nursing and athletic training students in the Department of Kinesiology. May not be counted toward the professional elective requirement in pharmacy. Prerequisite: Credit or registration for Biology 365S, 416K, or Kinesiology 324K.

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.

340D. Structure-Activity Relationships and Mechanisms of Action. Study of structure-activity relationships as the basis for investigation of mechanisms of drug-receptor interactions. Model compounds are selected from enkephalins, morphine-like analgesics, cholinergics, and adrenergics. Pharmacy 340D and 380D may not both be counted. Prerequisite: Admission to the Pharmacy Honors Program; Pharmacy 375E, 275F, 375G, and 175P with a grade of at least B in each; or consent of instructor.
341C. Pharmaceutical Biochemistry. Basic principles of intermediary metabolism, with emphasis on defects in pathways that result in disease and on identification of molecular targets for therapeutic control. Prerequisite: Admission to the professional pharmacy curriculum; Chemistry 310M (or 610A), 310N (or 610B), 210C (or 110K and 110L); and Biology 126L and 226T.

342C. Physical and Chemical Principles of Drugs. Fundamental, introductory principles of pharmaceutics, including thermodynamics, kinetics, and other basic chemical principles related to drugs. Prerequisite: First-professional-year standing in pharmacy, and concurrent enrollment in Pharmacy 142P.

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. Prerequisite: First-professional-year standing in pharmacy, and concurrent enrollment in Pharmacy 342C.

343C. Function and Anatomy of Human Systems I. Human systems that affect or are affected by drug action. Principles of physiology, including central, autonomic, muscle, and cardiovascular systems. Pharmacy 343C and 443C may not both be counted. Prerequisite: First-professional-year standing in pharmacy.

143M. Basic Medicinal Chemistry Principles. Introduction to medicinal chemistry principles. Topics include the transition from organic to medicinal chemistry, drug metabolism, and biopharmaceutical analysis. One lecture hour a week for one semester. Prerequisite: First-professional-year standing in pharmacy, and concurrent enrollment in Pharmacy 143P.

143P. Basic Medicinal Chemistry and Pharmacology Laboratory. Laboratory exercises to support the content of Pharmacy 143M and 153M. One hour of prelaboratory lecture and three laboratory hours a week for one semester. Prerequisite: First-professional-year standing in pharmacy and concurrent enrollment in Pharmacy 143M.

244C. Pharmacy Administration. Concepts and principles of management, and social and behavioral aspects of pharmacy practice. Two lecture hours a week for one semester. Prerequisite: First-professional-year standing in pharmacy.

144P. Pharmacy Administration Laboratory. Issues in pharmacy practice. Students present case studies, conduct role-playing exercises, and work in small groups to enhance their communication skills. Three laboratory hours a week for one semester. Prerequisite: Admission to the professional pharmacy curriculum and credit or registration for Pharmacy 244C.

345L. Clinical Pharmacokinetics. Application of pharmacokinetic principles to the determination of proper dosing regimen. Prerequisite: Pharmacy 352C and 152P.

249. Introduction to Pharmacy. Introduction to the profession of pharmacy, including trends, career paths, and the principle of service. One lecture hour and up to three laboratory hours a week for two semesters; and at least eighteen hours of service learning in one semester and at least eighteen hours of informal observation in various professional pharmacy settings in the other semester. Prerequisite: For 249A, first-professional-year standing in pharmacy; for 249B, Pharmacy 249A.

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 352C, 152P, 356C, and 156P.

350K. Drugs in Our Society. Survey of drug development, drug actions and abuse potential, and sociological aspects of drug use. 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.

251C. Macromolecular Chemistry and Biotechnology. 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. Prerequisite: Admission to the professional pharmacy curriculum and Pharmacy 341C.

051R. 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 a week for one semester. Offered on the pass/fail basis only. Prerequisite: Admission to the professional pharmacy curriculum.

352C. Biopharmaceutics and Pharmacokinetics. Continuation of the basic pharmaceutics principles covered in Pharmacy 342C. Subjects include core concepts in biopharmaceutics and pharmacokinetics of drugs. Prerequisite: Admission to the professional pharmacy curriculum; Pharmacy 342C and 142P; and concurrent enrollment in Pharmacy 152P.

152P. Biopharmaceutics and Pharmacokinetics Laboratory. Problem-based learning exercises to reinforce the material presented in Pharmacy 352C. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Admission to the professional pharmacy curriculum; Pharmacy 342C and 142P; and concurrent enrollment in Pharmacy 352C.

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. Prerequisite: Admission to the professional pharmacy curriculum and Pharmacy 343C.

253D. Principles of General Pathology. Introduction to pathology, surveying disease changes of the various organ systems; taught by television and on-site lectures, supplemented by 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. Prerequisite: Admission to the professional pharmacy curriculum and Pharmacy 253C.

153M. Basic Pharmacology Principles. Introduction to pharmacology principles. Topics include pharmacology at the cellular and subcellular/receptor levels. One lecture hour a week for one semester. Prerequisite: First-professional-year standing in pharmacy.

356C. Pharmaceutics I. General introduction to dosage forms; the technology and pharmaceutical rationale fundamental to their development. Prerequisite: Admission to the professional pharmacy curriculum, and Pharmacy 342C and 142P.
156P. *Pharmaceutics I Laboratory.* Four laboratory hours a week for one semester. **Prerequisite:** Credit or registration for Pharmacy 356C.

356R. *Advanced Pharmaceutical Compounding.* Continuation of related subjects in pharmaceutical dosage forms covered in Pharmacy 356C and 156P, with emphasis on the compounding of drugs into stable delivery systems for oral and topical applications. Two lecture hours and four laboratory hours a week for one semester. **Prerequisite:** Pharmacy 356C and 156P.

358. *Geriatric Pharmacy Practice.* Social, demographic, ethical, and therapeutic issues concerning pharmaceutical products and care of the elderly. **Prerequisite:** Pharmacy 365E, 565F, and 165P.

160K, 260K, 360K. *Basic Study in Pharmaceutical Research.* 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. No more than three semester hours may be counted toward the professional pharmacy elective requirement. **Prerequisite:** Consent of instructor and the dean.

361L. *Biochemical Mechanisms of Drug Action.* Examination of molecular-level events responsible for drug effects in selected therapeutic and experimental drug classes. **Prerequisite:** Pharmacy 375E, 275F, 375G, and 175F, or consent of instructor.

362L. *Clinical Toxicology.* A course in toxicology that focuses on common poisons and their management; designed for pharmacy students planning to enter general practice. Pharmacy 362L and 362M may not both be counted. **Prerequisite:** Pharmacy 352C and 152P.

362M. *Toxicology of Drugs and Chemicals.* Designed for students in basic pharmaceutical sciences. A course in toxicology that focuses on mechanisms of toxic drugs and on toxicology testing. Pharmacy 362L and 362M may not both be counted. **Prerequisite:** Credit or registration for Pharmacy 365E, 565F, and 165P.

163C. *Introduction to Drug Information.* Knowledge and skills needed to access and interpret drug information. One lecture hour a week for one semester. **Prerequisite:** Pharmacy 341C, 141P, 342C, 343C, 251C, 352C, 152P, 253C, 356C, and 156P.

263K. *Veterinary Pharmacy.* Treatment of diseases of domestic 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.

364D. *Pharmacy and the Health Care System.* The United States health care system; principles of managed care; application of pricing policies. **Prerequisite:** Pharmacy 244C and 144P.

365E. *Pharmacotherapeutics IA.* An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to nutrition and the etiology and treatment of adrenergic-based diseases, cholinergic-based diseases, and gastrointestinal disorders. **Prerequisite:** Completion of the first professional year in the College of Pharmacy.

365F. *Pharmacotherapeutics IB.* An integrated approach to the etiology and treatment of hypertension, acute and chronic renal disease, and cardiovascular disease (including hyperlipidemia, circulatory problems, thromboembolic disease, myocardial ischemia, myocardial infarction, congestive heart failure, and arrhythmias). Five lecture hours a week for one semester. **Prerequisite:** Completion of the first professional year in the College of Pharmacy.

365H. *Pathophysiology.* Physiology, pathology, and clinical therapeutics of the human systems not covered in other physiology and pathology courses. **Prerequisite:** Pharmacy 343C, 253C, and 253D with a grade of at least B in each.

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 365E and 565F. One lecture hour and three laboratory hours a week for one semester. **Prerequisite:** Completion of the first professional year in the College of Pharmacy.

366F. *The Organic Chemistry of Drug Design and Drug Action.* Mechanistic organic chemistry of drug design, development, and action: receptors, enzymes, enzyme inhibition and inactivation, and DNA. Study of representative types of drugs that exemplify particular principles and of the chemistry and biochemistry needed for an understanding of drug action. Pharmacy 366F and 365F may not both be counted. **Prerequisite:** For pharmacy students, Pharmacy 251C, 352C, and 152P; students should be familiar with organic structures and basic mechanisms of drug action. For others: eight semester hours of coursework in organic chemistry and one semester of coursework in biochemistry, or consent of instructor.

166H. *Pharmacotherapeutic Case Studies for Honors Students.* Students participate in ongoing pharmacy practice, clinical, pharmacy association, and research activities. Three laboratory hours a week for one semester. May be repeated for credit. **Prerequisite:** Admission to the Pharmacy Honors Program and Pharmacy 356E, 565F, and 165P.

366P. *Pharmacy Ethics and Professional Communications.* Ethical issues relating to the practice of pharmacy; professional communication skills in interacting with patients and other health care professionals. Two lecture hours and three laboratory hours a week for one semester, with additional hours to be arranged. **Prerequisite:** Pharmacy 249.

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 pharmacy therapy. At least seven research hours a week for one semester. May be repeated for credit. **Prerequisite:** Pharmacy 051R and admission to the Pharmacy Honors Program, or consent of the dean.

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 365E, 565F, and 165P.

368P. *Stereochemical Aspects of Synthetic Medicinal Chemistry.* Methods for preparing stereochemically defined compounds for drug development; emphasis on regioselective and stereoselective reactions, use of stereochemically defined compounds from nature, and preparative separation. Pharmacy 368P and 386W may not both be counted. **Prerequisite:** Pharmacy 375E, 275F, 375G, and 175P.

270C. *Communication Skills for Health Professionals.* Designed for pharmacy, premedical, predental, and nursing students. Oral communication skills used by health professionals. Emphasis on developing personal and professional confidence through improving oral communication skills. Small and large group presentations. Two lecture hours a week for one semester.
271C. Drug Interactions. Mechanisms, types, examples, and significance of drug interactions in pharmacy practice. Two lecture hours a week for one semester. Prerequisite: Pharmacy 365E and 565F; and credit or registration for Pharmacy 366P.

372K. Hospital Pharmacy. Basic principles, standards, and procedures involved in providing professional pharmaceutical services in hospitals. Prerequisite: First-professional-year standing in pharmacy.

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 365E, 565F, and 165P.

375E. Pharmacotherapeutics IIA. An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the pathogenesis and treatment of bacterial infections; the basis of microbial resistance; mechanism of action, structure-activity relationships, and chemical properties of antibiotics and synthetic antimiicrobial agents; therapeutic treatment of bacterial infections on an organ basis. Prerequisite: Pharmacy 341C, 251C, 352C, 152P, 253C, 356C, and 156P; and concurrent enrollment in Pharmacy 275F, 375G, and 175P.

275F. Pharmacotherapeutics IIIB. An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to immunizations against bacterial and viral disease; the pathogenesis of fungal, viral, neoplastic, and antineoplastic agents; therapeutic treatment of infectious diseases. Two lecture hours a week for one semester. Prerequisite: Pharmacy 341C, 251C, 352C, 152P, 253C, 356C, and 156P; and concurrent enrollment in Pharmacy 375E, 375G, and 175P.

375G. Pharmacotherapeutics IIC. An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the etiology and treatment of hyperglycemia; inflammatory diseases; problems related to contraception and pregnancy; and diseases involving thyroid hormone, male and female hormones, and growth-related anabolic steroids. Prerequisite: Pharmacy 341C, 251C, 352C, 152P, 253C, 356C, and 156P; and concurrent enrollment in Pharmacy 375E, 275F, and 175P.

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 375E, 275F, and 375G. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Pharmacy 341C, 251C, 352C, 152P, 253C, 356C, and 156P; and concurrent enrollment in Pharmacy 375E, 275F, and 375G.

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: Pharmacy 365E, 565F, 165P, and 366P, and credit or registration for Pharmacy 375E, 275F, 375G, and 175P.

177K, 277K, 377K. Advanced Study in Pharmaceutical Research. For each semester hour of credit earned, three laboratory hours a week for one semester. May be repeated for credit. No more than three semester hours may be counted toward the professional pharmacy elective requirement. Prerequisite: Second-professional-year standing and consent of instructor and the dean.

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 laboratory hours a week for one semester. Prerequisite: Admission to the Pharmacy Honors Program.

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.

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.

280U. Case Studies in Emerging Infections. Case studies in the analysis and therapeutic control of recurring, cycling, and newly emerging infectious diseases. Two lecture hours a week for one semester. Prerequisite: Second-professional-year standing in pharmacy.

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: Pharmacy 375E or consent of instructor.

181Q. Pharmacy Journal Club. Principles of clinical research article preparation, review, publication, and presentation. One lecture hour a week for one semester. Prerequisite: Admission to the PharmD program and completion of the pharmacotherapeutics sequence; or consent of instructor.

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: Pharmacy 375G and consent of instructor.

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: Pharmacy 375G and consent of instructor.

382U. Medicinal Herbs and Phytotherapy. The emerging role of medicinal natural products in pharmacy; the role of the pharmacist in the therapeutic use of herbs as controlled products and for self-medication. Prerequisite: Pharmacy 356C, 156P, and 366P; and concurrent enrollment in Pharmacy 183G.

183F. Basic Intravenous Admixtures. Basic principles of injectable and other sterile dosage forms; methods of preparation and evaluation in the hospital pharmacy. One lecture hour a week for one semester. Prerequisite: Pharmacy 356C, 156P, and 366P; and concurrent enrollment in Pharmacy 183G.
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. Prerequisite: Pharmacy 356C, 156P, and 366P; and concurrent enrollment in Pharmacy 183F.

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.

183U. 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. One lecture hour a week for one semester. Offered in San Antonio only. Offered on the pass/fail basis only. Prerequisite: Admission to the PharmD program.


284E. Pharmacy Law. State and federal pharmacy laws. Two lecture hours a week for one semester. Prerequisite: Pharmacy 364D and third-professional-year standing in pharmacy.

484H. Antimicrobics: Mechanism of Action and Clinical Use for Honors Students. Bacteriostatic and bacteriocidal mechanisms of antimicrobial agents, bacterial mechanisms of resistance, and the critical evaluation of drug therapy in various clinical settings. Designed to give students additional insight into the development of antimicrobial agents and the interactions of these agents with each other, the pathogen, and the patient. Three lecture hours and three laboratory hours a week for one semester. Pharmacy 384D and 484H may not both be counted. Prerequisite: Admission to the Pharmacy Honors Program and Pharmacy 385E, 285F, and 185P.

385E. Pharmacotherapeutics IIIA. An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the etiology and treatment of sleep disorders; epilepsy; depression; psychosis; Alzheimer's disease; bipolar disease; dementia; attention deficit disorder, narcolepsy, and appetite suppression; movement disorder; anxiety disorders; and eating disorders. Prerequisite: Pharmacy 341C, 251C, 352C, 152P, 253C, 356C, and 156P; and concurrent enrollment in Pharmacy 285F and 185P.

285F. Pharmacotherapeutics IIIB. An integrated approach (pathophysiology, medicinal chemistry, pharmacology, and therapeutics) to the etiology and treatment of drug abuse and addiction; preoperative surgical procedures and anesthesia, and pain management medications such as opiates and nonsteroidal anti-inflammatory drugs. Two lecture hours a week for one semester. Prerequisite: Pharmacy 341C, 251C, 352C, 152P, 253C, 356C, and 156P; and concurrent enrollment in Pharmacy 385E and 185P.

185P. Pharmacotherapeutics III Laboratory. Problem-based laboratory that integrates the pathology, medicinal chemistry, pharmacology, and therapeutic aspects of bacterial diseases in order to prepare students to make sound therapeutic decisions. Subjects introduced in Pharmacy 385E and 285F. One lecture hour and three laboratory hours a week for one semester. Prerequisite: Pharmacy 341C, 251C, 352C, 152P, 253C, 356C, and 156P; and concurrent enrollment in Pharmacy 385E and 285F.

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: Admission to the PharmD program and completion of the pharmacotherapeutics sequence.

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: Admission to the PharmD program and completion of the pharmacotherapeutics sequence.

286C. Treatment of Cardiovascular Disease. Further development of topics covered in Pharmacy 565F; discussion of such additional topics as assessment of cardiac function and nonmedical management of cardiovascular diseases. Two lecture hours a week for one semester. Prerequisite: Completion of the pharmacotherapeutics didactic sequence and laboratories.

386D. Nonprescription Pharmacotherapy. Study of nonprescription drugs, with emphasis on the pharmacist's consultant role in product selection. Prerequisite: Credit or registration for Pharmacy 375E, 275F, 375G, and 175P.

386G. Spanish for the Pharmacy Professional. Intermediate communication skills in Spanish. Prerequisite: Admission to the PharmD program and completion of the pharmacotherapeutics sequence; and one year of college-level Spanish or consent of instructor.

286P. Pharmacy Practice Laboratory II. Preparation for clinical pharmacy clerkship experiences. One hour of prelaboratory preparation and three laboratory/discussion hours a week for one semester. Prerequisite: Pharmacy 366P, 375E, 275F, 375G, and 175P.

187D. Case Studies in Cardiovascular Disease. Review of case studies of patients with cardiovascular diseases, with emphasis on development of appropriate treatment and monitoring plans. One lecture hour a week for one semester. Prerequisite: Completion of the pharmacotherapeutics didactic sequence and laboratories.

187J, 287J, 387J. Advanced Problems in Pharmacy Education. Laboratory 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.

289. Community Service-Learning Project. Students participate in community service-learning projects with a focus on border health and related issues. Projects will be developed in consultation with the student's faculty mentor and the selected community site (including organized community service entities), and require critical reflection on health education-related concepts. Includes an academic service-learning component. For the first semester, ten hours of orientation, and one hour of fieldwork a week; for the second semester, at least two hours of fieldwork a week. Prerequisite: For 289A, third-professional-year standing in pharmacy; for 289B, Pharmacy 289A.

190C. Pharmacy-Based Immunization Practice Laboratory. The epidemiology, incidence, and prevalence of vaccine-preventable diseases; vaccines for international travel; developing vaccine services in a pharmacy setting; vaccine administration. Includes certification in CPR and vaccine administration. One prelaboratory lecture hour and one laboratory hour a week for one semester. Prerequisite: Admission to the PharmD program, Pharmacy 183F, and Pharmacy 183G (or 183J).
390S. Applied Pharmacokinetics. Application of pharmacokinetic principles to specific drugs and patient situations. Offered on the letter-grade basis only. Prerequisite: Admission to the PharmD program, and completion of the pharmacotherapeutics sequence or consent of instructor and the dean.

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: Third-professional-year standing in pharmacy.

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: Admission to the PharmD program, and completion of the pharmacotherapeutics sequence or consent of instructor and the dean.

693C. Acute Care Pharmacy Practice I. 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: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

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: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

693F. Elective in Pharmacy Practice I: Academic Practice. Elective experience focusing on academic pharmacy practice, with a special emphasis on teaching in the professional curriculum. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

693N. Institutional Pharmacy Practice. Analysis of pharmacotherapy, evaluation of drug use, and synthesis of rational drug regimens 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: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

693P. 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: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

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: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

694C. Acute Care Pharmacy Practice II. 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: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

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: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

694F. Pharmacoeconomics. Terms, concepts, procedures, methods, problems, and strengths associated with pharmacoeconomics. Offered on the letter-grade basis only. Pharmacy 393T and 394F may not both be counted. Prerequisite: Admission to the PharmD program and completion of the pharmacotherapy sequence, or consent of instructor.

694J. Elective in Pharmacy Practice II: Academic Practice. Elective experience focusing on academic pharmacy practice, with a special emphasis on teaching in the professional curriculum. Forty laboratory hours a week for at least six weeks, with additional hours to be arranged. Offered on the pass/fail basis only. Prerequisite: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

694R. Drug Literature Evaluation and Biostatistics. Application of statistical principles and evaluation of drug literature, with an emphasis on clinical trials. Offered on the letter-grade basis only. Prerequisite: Admission to the PharmD program, and completion of the pharmacotherapeutics sequence or consent of instructor and the dean.

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: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

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: Admission to the PharmD program and completion of all didactic and laboratory coursework prior to the experiential semesters.

396F. Pharmacogenomics. Designed to provide the student with a sound knowledge and comprehension of contemporary therapeutic regimens. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Pharmacy 296P; admission to the PharmD program and completion of the pharmacotherapy sequence; or consent of instructor.

296P. Advanced Pharmacotherapy Laboratory. Designed to provide the student with an opportunity to communicate knowledge and comprehension of contemporary therapeutic regimens. One lecture hour and three laboratory hours a week for one semester. Offered on the letter-grade basis only. Prerequisite: Concurrent enrollment in Pharmacy 396F; admission to the PharmD program and completion of the pharmacotherapy sequence; or consent of instructor.
The Lyndon B. Johnson School of Public Affairs offers the Master of Public Affairs and the Doctor of Philosophy 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 course in the academic years 2006–2007 and 2007–2008; 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.

PUBLIC AFFAIRS: P A

Upper-Division Course

325. Topics in Policy. Three lecture hours a week for one semester. May be repeated for credit when the topics vary.
GENERAL INFORMATION

ACCREDITATION
The Bachelor of Social Work degree program is accredited by the Council on Social Work Education.

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 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. Since the program was established, more than eleven hundred students have received BSW degrees.

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.

PURPOSE
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 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

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.

**FACILITIES**

The School of Social Work Building (1925 San Jacinto Boulevard) provides space for social work classes, including a classroom 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 library 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 skills-based learning assignments. The School of Social Work Building also houses the Center for Social Work Research, the Children’s Protective Services Training Institute, and the Junior League Hispanic Mother-Daughter Program.

**FINANCIAL ASSISTANCE AVAILABLE THROUGH THE SCHOOL OF SOCIAL WORK**

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. For additional information, contact the Academic Affairs Office.

The Charles W. Laughton Memorial Endowed Presidential Scholarship Award was established in October, 1975, with major assistance from the Hogg Foundation for Mental Health, the Social Work Foundation Advisory Council, and alumni of the School of Social Work. The award provides recognition to outstanding undergraduate and graduate students. Students are nominated on the basis of academic excellence and potential contribution to the field. The award, in recognition of excellence, is not made unless there is a candidate who merits it.
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 Anne Wilkens Memorial Scholarship was established through the efforts of her family, with the support of friends and alumni, in memory of this alumna of the school. The award provides recognition to outstanding students in social work.

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.

CAREER SERVICES

Career development services are provided to students preparing to enter the professional job market. Students should inquire in the Office of Career Services, School of Social Work Building 2.208. The office maintains a listserve of employment opportunities and provides information about social work careers, graduate programs, Internet 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 Mental Health and Mental Retardation has established quality control standards that mandate the hiring of holders of BSW degrees in designated positions. The Texas Department of Family Protective Services hires social workers for its child protective service programs, and the Texas Department of Human Services hires BSW graduates for its client support services programs. Large nursing home facilities are also required to have a social work staff. Substance abuse 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 Career Exploration Center, located in Jester Center, 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 the job search or for graduate study. The University makes no promise to secure employment for each graduate.

COLLEGE COUNCIL OF SOCIAL WORK

The College Council of Social Work is an organization open to all students pursuing a social work degree or interested in the social work profession. The council’s purposes 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 Academic Affairs Office. 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 made to the Field Office of the School of Social Work.
ADMISSION AND REGISTRATION

REQUIREMENTS FOR ADMISSION TO THE UNIVERSITY

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

REQUIREMENTS FOR ADMISSION TO THE SCHOOL OF SOCIAL WORK

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 OF SOCIAL WORK AS A PRE–SOCIAL WORK MAJOR

Any student newly admitted to the University may enter the School of Social Work as a pre-social work major. A student who is enrolled in another college or school of the University may transfer to the School of Social Work as a pre-social work major in accordance with the University’s rules on transfer from one division to another; these rules are given in General Information.

ADMISSION TO THE MAJOR IN SOCIAL WORK

No student may enter the professional curriculum (the required upper-division 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 dean, following recommendation by the Undergraduate 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 available from the Academic Affairs Office. The application allows the student to outline 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 to 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.

REQUIREMENTS

1. The applicant must have completed at least forty-five semester hours of coursework, including at least thirty hours chosen from the following area requirements:
   a. Rhetoric and Writing 306 and English 316K
   b. A course with a substantial writing component
   c. Two semesters of coursework in a single foreign language
   d. Sociology 302
   e. Psychology 301
   f. A three-semester-hour course in economics
   g. Six semester hours in American government, including Texas government
   h. Six semester hours in American history
   i. Twelve semester hours of coursework to fulfill the Area C requirement. To fulfill the mathematics requirement, Mathematics 302, 303D, 316, or an equivalent course is recommended. A course in human or environmental biology is part of the major requirements.
   j. Six semester hours of coursework in fine arts or humanities, including at least three hours of coursework with content related to cultural diversity
2. The applicant must have completed the following courses with a grade of at least C in each course: Social Work 310, 312, 313, and 318. The applicant must also have passed Human Development and Family Sciences 313 or Psychology 304 and must have 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.

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 Academic Affairs Office 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 volunteer experience 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, 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.

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 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 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 BSW program director 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 BSW program director 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 Office of Admissions and a syllabus, course assignments, and information about textbooks to the School of Social Work BSW program director.

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 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 World Wide Web and are accessible through the registrar’s Web site, http://www.utexas.edu/student/registrar/. General Information is also sold at campus-area bookstores.
ACADEMIC ADVISING

The Academic Affairs Office of 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 postgraduation planning, whether for employment or for further study. The Academic Affairs Office 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 Academic Affairs Office.

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 postgraduation plans. Social work majors are also assigned a faculty mentor, who is available to guide the student's professional development.

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 Academic Affairs Office 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 school's Office of Career Services, described on page 569.

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 Career Exploration Center and Volunteer Center. 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.

HONORS

UNIVERSITY HONORS

The designation University Honors, awarded 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. Criteria for University Honors are given on page 15.

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 on page 16.

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 or the student may be counseled to change majors/degree programs and/or discontinued 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. Students who wish to appeal other decisions made by the social work program may do so, first to the BSW program director and then to an appeal panel convened by the dean of the School of Social Work. The panel will consist of three faculty members who have no direct knowledge of or experience with the student. Students must appeal in writing to the appropriate person or committee within ten calendar days of receiving the letter of notification on the decision being appealed. Advisers are available in the Academic Affairs Office to assist students with the appeal process.
GRADUATION

SPECIAL REQUIREMENTS
OF THE SCHOOL OF SOCIAL WORK

All students must fulfill the general requirements for graduation given in chapter 1. 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 A DEGREE

The Academic Affairs Office provides each student with a computer-generated 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 entitled to graduate and for registering so as to fulfill those requirements. The student should seek an official ruling in the Academic Affairs Office 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 Academic Affairs Office. 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 Academic Affairs Office.

DEGREES

APPLICABILITY OF CERTAIN COURSES

No more than thirty-six semester hours in any one subject other than social work may be counted toward the Bachelor of Social Work degree. No more than fifty-four 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 degree. 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. For more information, consult the BSW program director.

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 201N, 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 Academic Affairs Office. 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 the major subject. A completed degree program must include at least forty-six semester hours of upper-division coursework, of which twenty-four semester hours must have been taken in residence. No more than fifty-four 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 is divided into four areas that provide 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.

AREA A
English composition and literature, and writing: Rhetoric and Writing 306 and English 316K; and a three-semester-hour course that emphasizes written communication. The third course must be certified as having a substantial writing component.
In addition, the student must complete two courses certified as having a substantial writing component. (These courses are identified in the Course Schedule; two of the required courses in social work generally contain a substantial writing component.) One of these courses must be upper-division. Courses used to fulfill the writing requirement may be used to fulfill other area requirements or major requirements.

Foreign language: Students must complete two semesters of college coursework in a single foreign language. Coursework in American Sign Language may be used to fulfill this requirement. Credit by examination may be used to fulfill all or part of this requirement. Coursework taken on the pass/fail basis may not be used to fulfill this requirement, but credit by examination earned on the pass/fail basis may be used. Courses used toward fulfillment of the foreign language requirement must be language courses; literature-in-translation courses, for example, may not be used.

If a student did not complete two high school units in a single foreign language, the first two semesters of coursework may not be counted toward the 125 semester hours required for the Bachelor of Social Work. However, they may be used to fulfill the foreign language requirement.

AREA B
Twenty-four semester hours, distributed among at least five of the fields of study listed below. None of these courses may be taken on the pass/fail basis.

1. Six hours in each of the following fields of study:
   a. American government, including Texas government
   b. American history
2. Twelve hours, including coursework in three of the following fields of study:
   a. Anthropology
   b. Economics
   c. Geography
   d. Linguistics
   e. Psychology or human development and family sciences
   f. Sociology

AREA C

Mathematics: Three semester hours of mathematics other than Mathematics 301, 316K, and 316L.
Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward
the Area C requirement or toward the total number of hours required for the degree. 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 without degree credit to remove their deficiency.

Natural sciences: Nine additional semester hours,
chosen from the fields listed below, with at least six semester hours in one subject. These nine semester
hours may include no more than three semester hours of mathematics and no more than three semester
hours of computer sciences. In addition to courses in the following fields, Nutrition 311 may be
counted toward the Area C requirement. Students, counselors, and advisers are urged to make careful
selection of Area C courses in order to develop a meaningful pattern and a coherent sequence.

A course listed in two or more fields of study may be
used as a course in only one field of study in fulfilling
requirements under Area C.

1. Astronomy
2. Biology
3. Chemistry
4. Computer sciences
5. Geological sciences
6. Marine science
7. Mathematics
8. Physical science
9. Physics

AREA D

Six semester hours from the fields of study listed
below. Three of these six hours must include content
in cultural diversity. A student who uses Greek or
Latin to meet the foreign language requirement may
use additional coursework in the same language to
meet the Area D requirement, but only upper-division
courses may be used.

1. Students must complete three semester hours of economics
2. Students must complete Psychology 301, Sociology 302,
and either Human Development and Family Sciences 313 or
Psychology 304 as part of Area B requirements.
3. Students must complete at least three semester hours in
human/environmental biology (Biology 301M, 309D, 309E,
or the equivalent) as part of the major requirements.

1. Architecture
2. Classics, including classical civilization, Greek,
and Latin
3. Fine arts, including art history, design, ensemble, fine arts, instruments, music, studio art,
teatre and dance, and visual art studies
4. Philosophy
5. Approved interdisciplinary courses in such fields as African and African American studies,
American studies, Asian American studies, Asian studies, Mexican American studies,
and women’s and gender studies.

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 will be advised to take all lower-
division courses in Areas A, B, C, and D 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
BSW program director. The director 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.
2. Students must complete a three-semester-hour introductory course in psychology.
3. Students must complete a three-semester-hour introductory course in sociology.
4. Students must complete a three-semester-hour course in child development or child psychology.
5. Students must complete a three-semester-hour course in human/environmental biology: Biology 301M, 309D, 309E, or the equivalent.
6. Students must complete three semester hours in economics.
7. Students must complete at least nine semester hours of upper-division coursework in the social and behavioral sciences (anthropology, economics, educational psychology, government, history, psychology, and sociology) 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 45 clock hours of supervised volunteer experience 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 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 all other degree requirements; 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 subject 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 requirements given on pages 18–19 and the requirements of the School of Social Work given on page 573.

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, and 318. 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” on pages 570–571.

3. Following the student’s admission to the major, the student’s coursework is reviewed periodically by the student and the faculty 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 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 dean.

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 dean. 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

Thirty-one semester hours:
- Biology 301M, Ecology, Evolution, and Society
- Foreign language 506 and 507, or an equivalent sequence; or American Sign Language 506 and 507
- Psychology 301, Introduction to Psychology
- Rhetoric and Writing 306, Rhetoric and Writing
- Sociology 302, Introduction to the Study of Society
- A three-hour fine arts/humanities course with a focus on cultural diversity, to be counted toward the Area D requirement
- A three-hour mathematics course to be counted toward the Area C requirement
- A three-hour elective course

Second Year

Thirty semester hours:
- English 316K, Masterworks of Literature
- Psychology 304, Introduction to Child Psychology, or Human Development and Family Sciences 313, Child Development
- Social Work 312, Generalist Social Work Practice: Knowledge, Values, and Skills
- Social Work 313, Social Work Research Methods
- Social Work 318, Social Work Statistics
- Six hours of American government, including Texas government
- Six hours of American history

SUGGESTED SCHEDULE FOR SOCIAL WORK MAJORS

Third Year

Thirty-three semester hours:
- 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

A three-hour economics course
- A three-hour fine arts/humanities course to be counted toward the Area D requirement
- A three-hour course with a substantial writing component to be counted toward the Area A requirement
- Six hours of coursework in science to be counted toward the Area C requirement
- Six hours of upper-division social and behavioral science coursework
- A three-hour upper-division elective course
- The student must also take any remaining courses needed to fulfill the Area A, B, C, and D requirements, since this coursework is prerequisite to the field practicum.

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 elective course
- 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 2006–2007 and 2007–2008; 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.

Unless otherwise stated below, each course meets for three lecture hours a week for one semester.

SOCIAL WORK: SW

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 on pages 658–662.

Lower-Division Courses

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

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.

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.

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 non-profit 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.

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.

311. Selected Topics in Social Welfare. Analysis of selected policy and program implications in the human services. May be repeated for credit when the topics vary.

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.

313. Social Work Research Methods. Introduction to the logic, design, and use of research, with emphasis on research designs appropriate to social work. Prerequisite: Social Work 318.

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. Prerequisite: Completion of the Area C mathematics requirement for the Bachelor of Social Work.

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

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.

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. Prerequisite: Government 310L, 312L, History 315K, 315L, three semester hours of coursework in economics, and admission to the major in social work.

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. 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.

327. Human Behavior and Social Environment. 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. Prerequisite: Admission to the major in social work.
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 328C, 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: Upper-division standing. Additional prerequisites may vary with the topic and are given in the Course Schedule.

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.

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.

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.

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.

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.

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.

350. Special Topics in Generalist Social Work. Conference course. May be repeated for credit. Prerequisite: Upper-division standing.

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. Social Work 360K (Topic 2) is same as African and African American Studies 374 (Topic 1: African American Family) and Women’s and Gender Studies 340 (Topic 3: African American Family).
PROFESSORS EMERITUS

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DEPARTMENT OF SPECIAL EDUCATION

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UNIVERSITY COLLEAGUE OF THE COLLEGE OF EDUCATION

The following faculty member of the College of Natural Sciences has a special interest in the preparation of teachers and has been extended voting privileges in the College of Education faculty.

J. David Gavenda, Professor Emeritus, Department of Physics; Professor of Education  
BSPhy, Texas, 1954; MA, 1956; PhD, Brown, 1959

COLLEGE OF ENGINEERING

DEPARTMENT OF AEROSPACE ENGINEERING AND ENGINEERING MECHANICS

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BTechME, Calicut, 1992; MEAsE, Indian Institute of Science (Bangalore), 1994; PhD, Texas A&M (College Station), 1998

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DiplIng, Ceské vysoké učení technické v Praze, 1949; Dr, 1951; CSc, Czechoslovak Academy of Sciences, 1955; DSc, 1960

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<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Education</th>
</tr>
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<tbody>
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<td>John P. Stark, PE, <strong>Professor Emeritus</strong></td>
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<tr>
<td>George B. Thurston, PE, <strong>Professor Emeritus</strong></td>
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<tr>
<td>William F. Weldon, PE, <strong>Professor Emeritus</strong></td>
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<td>Theodore A. Aanstoos, <strong>Senior Lecturer</strong></td>
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BS, Indiana University of Pennsylvania, 1976; MMusEd, Missouri (Kansas City), 1986; PhD, Wisconsin (Madison), 1994

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BFA, Salem State College, 1996; MFA, Northwestern, 1999

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BS, MacMurray College, 1977; MA, Northwestern, 1978; PhD, New York, 1993

David Justin, Assistant Professor  
MA, Birmingham, 2000

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BA, State University of New York (Buffalo), 1972; MA, Wyoming, 1974; MFA, Arizona State, 1982

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BA, New Mexico, 1970; MFA, Southern Methodist, 1976

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BA, North Dakota, 1973; MA, Northwestern, 1974; PhD, Southern California, 1980

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BA, Trinity, 1993; PhD, Northwestern, 2002

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BA, Wisconsin (Madison), 1976; MFA, 1979

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BA, Texas (Austin), 1996; MFA, Texas Woman’s, 2001

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BA, Yale, 1983; MA, Virginia, 1989; PhD, Wisconsin (Madison), 1994

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Milo M. Backus, Professor Emeritus  
BS, Massachusetts Institute of Technology, 1952; PhD, 1956

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BA, Princeton, 1961; PhD, Texas (Austin), 1968

Peter Green, Professor Emeritus
BA, Cambridge, 1950; MA, PhD, 1954; FRSL

James Alfred Hitt, Associate Professor Emeritus
BA, Southern Methodist, 1949; PhD, Princeton, 1954

616 The Faculty
PROFESSORS, INSTRUCTORS, AND SENIOR LECTURERS

Joseph Coleman Carter, Professor  
BA, Amherst College, 1963; PhD, Princeton, 1971

Lesley Ann Dean-Jones, Associate Professor  

George Doig, Assistant Professor  
MA, St. Andrews, 1961

Jennifer V. Ebbeler, Assistant Professor  
BA, Brigham Young, 1994; MA, Pennsylvania State, 1996; MA, Pennsylvania, 1999; PhD, 2001

Ingrid E. M. Edlund-Berry, Professor  
PhilKand, PhilMag, Lunds Universitet, 1965; PhilLic, 1969; MA, Bryn Mawr College, 1969; PhD, 1971

Steven J. Friesen, Professor  
BA, Fresno Pacific College, 1976; MDiv, Fuller Theological Seminary, 1979; AM, Harvard, 1986; PhD, 1990

Michael Gagarin, Professor  
BA, Stanford, 1963; MA, Harvard, 1965; PhD, Yale, 1968

Karl Galinsky, Distinguished Teaching Professor  
BA, Bowdoin College, 1963; MA, Princeton, 1965; PhD, 1966

Jim Hankinson, Professor  
BA, Oxford, 1980; PhD, Cambridge, 1986

Thomas K. Hubbard, Professor  
BA, Santa Clara, 1975; MA, California (Berkeley), 1977; PhD, Yale, 1980

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BA, Brown, 1992; PhD, Princeton, 2001

John H. Kroll, Professor  
BA, Oberlin College, 1959; MAT, Harvard, 1961; MA, 1962; PhD, 1968

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BA, Millersville State College, 1981; PhD, North Carolina (Chapel Hill), 1989

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BA, Exeter, 1959; PhD, 1962

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The center's interdisciplinary courses are taught by faculty members from several divisions of the University, such as the Department of Anthropology, the Department of English, and the School of Music.

DEPARTMENT OF ECONOMICS

Russell W. Cooper, Chair

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BA, Texas, 1941; MA, 1946; PhD, Columbia, 1950

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Licenciatura en Ciencias Empresariales, Universidad de Málaga, 1989; Master en Economica, Centro de Estudios Monetarios y Financieros, 1991; PhD, Massachusetts Institute of Technology, 1996

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DEPARTMENT OF MIDDLE EASTERN STUDIES

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BS, London, 1956; MA, The American University in Cairo, 1960; PhD, Texas, 1964

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DEPARTMENT OF MILITARY SCIENCE

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PROFESSORS, INSTRUCTORS, AND SENIOR LECTURERS

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DEPARTMENT OF NAVAL SCIENCE

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Troy D. Roberts, Lieutenant, United States Navy; Assistant Professor
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Interdisciplinary courses in Russian, East European, and Eurasian studies are taught by faculty members from several departments, primarily in the College of Liberal Arts.

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BA, George Washington, 1968; MA, California (Los Angeles), 1969; PhD, 1973

W. Parker Frisbie, Professor
BA, Southwest Texas State College, 1969; MA, North Carolina (Chapel Hill), 1971; PhD, 1972
Norval D. Glenn, Professor
BA, New Mexico, 1954; PhD, Texas, 1962

Gloria González-López, Assistant Professor
BA, Universidad Regiomontana, 1981; MA, Houston (Clear Lake), 1991; MA, Southern California, 1997; PhD, 2000

Nell H. Gottlieb, Professor
BA, Emory, 1966; MA, 1968; PhD, Boston, 1980

Mark D. Hayward, Professor
BA, Washington State, 1975; AM, Indiana (Bloomington), 1978; PhD, 1981

John C. Higley, Professor
BA, Norwich, 1960; MA, Connecticut, 1964; PhD, 1968

Robert A. Hummer, Professor
BA, Adrian College, 1985; MA, Florida State, 1990; PhD, 1993

William R. Kelly, Professor
BA, Indiana (Bloomington), 1972; MA, 1977; PhD, 1978

Lester R. Kurtz, Professor
BA, Westmar College, 1972; MAR, Yale, 1974; PhD, Chicago, 1980

Susan E. Marshall, Distinguished Teaching Professor
BA, Denver, 1972; MA, Massachusetts (Amherst), 1977; PhD, 1980

John Mirowsky, Professor
BA, South Florida, 1975; MA, Yale, 1978; PhD, 1981

Chandra Muller, Associate Professor
BA, California (Santa Barbara), 1975; MEd, Stanford, 1976; MA, Chicago, 1983; PhD, 1991

Marc Musick, Associate Professor
BA, Texas (Austin), 1992; MA, Duke, 1994; PhD, 1997

Joseph E. Potter, Professor
BA, Yale, 1968; MPA, Princeton, 1973; PhD, 1975

Daniel A. Powers, Associate Professor
BA, Wisconsin (Madison), 1976; MS, 1984; PhD, 1991

Thomas W. Pullum, Professor
BA, Stanford, 1964; MA, Chicago, 1967; MS, 1968; PhD, 1971

Ruthine K. Raley, Associate Professor
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Mark Regnerus, Assistant Professor
BA, Trinity Christian College, 1993; MA, North Carolina (Chapel Hill), 1997; PhD, 2000

Bryan R. Roberts, Professor
BA, Oxford, 1961; MA, Chicago, 1963; PhD, 1964

Mary Rose, Assistant Professor
BA, Stanford, 1991; MA, Duke, 1996; PhD, 1998

Catherine Ross, Professor
BA, Carleton College, 1975; MA, Yale, 1977; PhM, 1977; PhD, 1980

Sharmila Rudrappa, Assistant Professor
BS, Agricultural Sciences (Bangalore), 1989; MS, Wisconsin (Madison), 1996; PhD, 2001

Arthur Sakamoto, Associate Professor
BA, Harvard, 1981; MS, Wisconsin (Madison), 1985; PhD, 1988

Gideon A. Sjoberg, Professor
BA, New Mexico, 1946; MA, 1947; PhD, Washington State, 1949

Mark C. Stafford, Professor
BA, Southern Methodist, 1971; MA, Arizona, 1974; PhD, 1979

Teresa A. Sullivan, Professor
BA, Michigan State, 1970; MA, Chicago, 1972; PhD, 1975

Debra Umberson, Professor
BA, Arkansas (Little Rock), 1980; MSW, 1981; MA, Vanderbultz, 1983; PhD, 1985

Andres Villarreal, Assistant Professor
BS, Massachusetts Institute of Technology, 1989; MS, 1991; MA, California (San Diego), 1994; PhD, Chicago, 2002

Peter Ward, Professor
BA, Hull, 1973; PhD, Liverpool, 1976

E. Mark Warr, Professor
BA, Pacific Lutheran, 1974; MA, Arizona, 1976; PhD, 1979

Christine L. Williams, Professor
BA, Oklahoma, 1980; MA, California (Berkeley), 1982; PhD, 1986

Robert D. Woodberry, Assistant Professor
BA, Wheaton College, 1987; MA, Fuller Seminary, 1993; MA, Notre Dame, 1997; PhD, North Carolina (Chapel Hill), 2003

Michael Young, Assistant Professor
BA, Columbia, 1989; PhD, New York, 2000

Wei-Hsin Yu, Assistant Professor
BBA, National Taiwan University, 1992; MA, Chicago, 1995; PhD, 1999

DEPARTMENT OF SPANISH AND PORTUGUESE

Leopoldo M. Bernucci, Chair

PROFESSORS EMERITUS

P. Beltrán de Heredia, Associate Professor Emeritus
Bach, Instituto de San Isidro, 1941; Lic, Universidad Complutense de Madrid, 1941

Mildred Vinson Boyer, Professor Emeritus
BA, Baylor, 1947; MA, 1949; PhD, Texas, 1956

Robert Brody, Professor Emeritus
BA, Rutgers (New Brunswick), 1962; MA, Illinois, 1963; PhD, Harvard, 1971
Fred P. Ellison, Professor Emeritus
BA, Texas, 1941; MA, California (Berkeley), 1948; PhD, 1952

Miguel Ergio González-Gerth, Professor Emeritus
BA, Texas, 1950; MA, 1955; MA, Princeton, 1960; PhD, 1973

Joseph H. Matluck, Professor Emeritus
BA, Brooklyn College, 1940; MA, Mexico City College, 1949; Doctor en Filosofía y Letras, Universidad Nacional Autónoma de México, 1951

Douglass M. Rogers, Associate Professor Emeritus
BA, Oberlin College, 1951; MA, Wisconsin, 1953; PhD, 1964

George D. Schade Jr., Professor Emeritus
BA, Oregon, 1945; MA, 1947; PhD, California (Berkeley), 1953

Yolanda Solé, Professor Emeritus
BS, Georgetown, 1961; MA, 1962; PhD, 1966

K. Carter Wheelock, Professor Emeritus
BA, Texas Technological College, 1949; MA, 1950; PhD, Texas, 1966

PROFESSORS, INSTRUCTORS, AND SENIOR LECTURERS

Jossianna Arroyo Martínez, Associate Professor
BA, Universidad de Puerto Rico, Recinto de Rio Pedras, 1989; PhD, California (Berkeley), 1998

Matthew Bailey, Associate Professor
BA, Maine (Orono), 1977; MA, Tulane, 1984; PhD, 1989

Leopoldo M. Bernucci, Professor
BA, Universidade de São Paulo, 1977; MA, Michigan (Ann Arbor), 1980; PhD, 1986

Héctor Domínguez, Assistant Professor
BA, Universidad Veracruzana, 1984; MA, New Mexico State, 1995; PhD, Colorado (Boulder), 1999

Enrique Fierro, Associate Professor
Bachiller, Instituto Vasquez Acevedo, 1959; Profesor, Instituto de Profesores, Acevedo, 1966; Licenciado, Universidad de la República (Uruguay), 1967; Profesor Agregado, 1973

Michael Paul Harney, Associate Professor
BA, California (Los Angeles), 1971; MA, California (Berkeley), 1975; PhD, 1983

Frederick G. Hensey, Professor
BA, Mexico City College, 1956; PhD, Texas (Austin), 1967

Virginia Higginbotham, Associate Professor
BA, Southern Methodist, 1957; MA, 1962; PhD, Tulane, 1966

R. Rolando Hinojosa-Smith, Professor
BS, Texas, 1953; MA, New Mexico Highlands, 1963; PhD, Illinois, 1969

Vance R. Holloway, Associate Professor
BA, California (Berkeley), 1979; MA, 1985; PhD, 1990

Orlando Rene Kelm, Associate Professor
BA, Brigham Young, 1983; MA, 1985; PhD, California (Berkeley), 1989

Dale April Koike, Professor
BA, California State (Los Angeles), 1972; MA, New Mexico, 1974; PhD, 1981

Naomi Lindstrom, Professor
BA, Chicago, 1971; MA, Arizona State, 1972; PhD, 1974

Lily Litvak, Professor
BS, Universidad Nacional Autónoma de México, 1967; MA, Tufts, 1969; PhD, California (Berkeley), 1972

Marta Luján, Professor
PhD, Texas (Austin), 1972

James R. Nicolopoulos, Associate Professor
BA, California (Berkeley), 1985; MA, 1987; PhD, 1992

Chiyo Nishida, Associate Professor
BA, Jochi Daigaku, 1971; MA, 1979; MA, Arizona, 1984; PhD, 1987

Marta Ortega-Llebaria, Assistant Professor
BA, Universitat de Barcelona, 1990; MA, Indiana (Bloomington), 1992; MA, 1993; PhD, 1998

José Manuel Pereiro-Otero, Assistant Professor
Licenciatura, Universidad de Santiago de Compostela, 1993; MA, Colorado (Boulder), 1995; PhD, 2002

Cory A. Reed, Associate Professor
BA, Dartmouth College, 1984; MA, Princeton, 1987; PhD, 1989

Sonia Roncador, Assistant Professor
Licenciatura, Universidade de Brasilia, 1989; MA, 1992; PhD, New York, 1999

César Augusto Salgado, Associate Professor
BA, Harvard, 1984; PhM, Yale, 1988; PhD, 1993

Nicolás Shumway, Professor
BA, Brigham Young, 1969; MA, California (Los Angeles), 1971; PhD, 1976

Carlos A. Solé, Professor
BSL, Georgetown, 1960; PhD, 1966

Madeline Sutherland-Meier, Associate Professor
BA, MA, Stanford, 1974; PhD, California (San Diego), 1983

Arnold C. Vento, Associate Professor
BA, Texas, 1961; MA, New Mexico Highlands, 1962; PhD, Missouri (Columbia), 1972

Stanislav Zimic, Professor
Diploma B-Italijanscina, Univerza “Edvarda Kardelja” v Ljubljani, 1955; MA, Miami (Florida), 1958; PhD, Duke, 1964

CENTER FOR WOMEN’S AND GENDER STUDIES

Gretchen Ritter, Director

Interdisciplinary courses in women’s and gender studies are taught by faculty members from several departments, primarily in the Colleges of Communication, Liberal Arts, and Natural Sciences.

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COLLEGE OF NATURAL SCIENCES

DEPARTMENT OF ASTRONOMY

Donald E. Winget, Chair

PROFESSORS EMERITUS

James N. Douglas, Professor Emeritus
BS, Yale, 1956; MS, 1958; PhD, 1961

William H. Jefferys III, Professor Emeritus
BA, Wesleyan, 1962; MS, Yale, 1964; PhD, 1965

R. Edward Nather, Professor Emeritus
BA, Whitman College, 1947; PhD, Cape Town, 1972

PROFESSORS, INSTRUCTORS, AND SENIOR LECTURERS

Frank N. Bash, Professor
BA, Willamette, 1959; MA, Harvard, 1962; PhD, Virginia, 1967

Volker Bromm, Assistant Professor
BS, Christian-Albrechts-Universität zu Kiel, 1989; MS, Ruprecht-Karls-Universität Heidelberg, 1993; PhD, Yale, 2000

Harriet L. Dinerstein, Professor
BS, Yale, 1975; PhD, California (Santa Cruz), 1980

Neal J. Evans II, Professor
BA, California (Berkeley), 1968; PhD, 1973

Karl Gebhardt, Associate Professor
BS, Rochester, 1986; MS, Michigan State (East Lansing), 1990; PhD, Rutgers (New Brunswick), 1994

Paul M. Harvey, Professor
BA, Wesleyan, 1968; PhD, California Institute of Technology, 1973

Mary M. Hemenway, Senior Lecturer
BS, Notre Dame College (Ohio), 1965; MA, Virginia, 1967; PhD, 1971

Daniel T. Jaffe, Professor
BA, Harvard, 1975; MA, 1978; PhD, 1981

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BA, Cambridge, 1992; MPhil, MS, Yale, 1994; MA, Cambridge, 1995; PhD, Yale, 1999

Eiichiro Komatsu, Assistant Professor
BS, Tohoku Daigaku, 1997; MS, 1999; PhD, 2001

John Kormendy, Professor
BS, Toronto, 1970; PhD, California Institute of Technology, 1976

Pawan Kumar, Professor
BS, Gorakhpur, 1976; MTech, Indian Institute of Technology (Kanpur), 1980; PhD, California Institute of Technology, 1988

John H. Lacy, Professor
BS, Massachusetts Institute of Technology, 1972; PhD, California (Berkeley), 1979

David L. Lambert, Professor
BA, Oxford, 1960; PhD, 1965

Edward L. Robinson, Professor
BA, Arizona, 1969; PhD, Texas (Austin), 1973

John M. Scalo, Professor
BS, Southern California, 1969; MA, California (Los Angeles), 1972; PhD, 1973

Paul R. Shapiro, Professor
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Gregory Alan Shields, Professor
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ADJUNCT PROFESSORS

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SCHOOL OF BIOLOGICAL SCIENCES

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PROFESSORS EMERITUS

John Julius Biese, Professor Emeritus
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Theodore Delevoryas, Professor Emeritus
BS, Massachusetts, 1950; MS, Illinois, 1951; PhD, 1954

Hugh S. Forrest, Professor Emeritus
BS, Glasgow, 1944; PhD, London, 1947; PhD, Cambridge, 1951; DSc, London, 1971

Gary Freeman, Professor Emeritus
BS, Chicago, 1960; PhD, 1964

Verne E. Grant, Professor Emeritus
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Clark Hubbs, Professor Emeritus
BA, Michigan, 1942; PhD, Stanford, 1951

Antone G. Jacobson, Professor Emeritus
BA, Harvard, 1951; PhD, Stanford, 1955

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BS, Texas, 1951; MA, 1952; PhD, 1955

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BS, East Tennessee State College, 1953; MA, Virginia, 1954; PhD, Duke, 1959

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BS, MS, East Texas State, 1953; PhD, Rice Institute, 1960
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Jack Edgar Myers, Professor Emeritus
BS, Juniata College, 1934; MS, Montana State College, 1935; PhD, Minnesota, 1939

Edward L. Powers, Professor Emeritus
BS, College of Charleston, 1938; PhD, Johns Hopkins, 1941

H. Eldon Sutton, Ashbel Smith Professor Emeritus
BSCh, Texas, 1948; MA, 1949; PhD, 1953

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BS, Mississippi State, 1953; PhD, California Institute of Technology, 1959

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BS, Sul Ross State College, 1949; MS, Southern Methodist, 1950; PhD, State College of Washington, 1953

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PROFESSORS, INSTRUCTORS, AND SENIOR LECTURERS

John J. Abbott, Senior Lecturer
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BA, Williams College, 1996; PhD, California (Davis), 2003

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BS, Elmhurst College, 1962; MS, Indiana, 1965; PhD, 1967

Jerry J. Brand, Professor
BS, Manchester College, 1963; PhD, Purdue, 1971

Creagh Breuner, Assistant Professor
BA, Washington (Seattle), 1991; PhD, 1998

Frank H. Bronson, Professor
BS, Kansas State, 1956; MS, 1957; PhD, Pennsylvania State, 1961

R. Malcolm Brown Jr., Professor
BA, Texas, 1961; PhD, 1964

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BS, Texas Tech, 1971; PhD, Utah, 1977

Ruth E. Buskirk, Senior Lecturer
BA, Earlham College, 1965; MAT, Harvard, 1966; PhD, California (Davis), 1972

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BS, West Virginia, 1973; PhD, Baylor College of Medicine, 1978

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BS, Maryland (Baltimore), 1996; PhD, Duke, 2002

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BSc, Banaras Hindu, 1970; MSc, Nagpur, 1972; PhD, Indian Institute of Science, 1977

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Philosophicum, Universität Hamburg, 1964; Staatsexamen, Albert-Ludwigs-Universität Freiburg im. Breisgau, 1967; Dr. rer. nat., 1971

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MA, Harvard, 1961; PhD, Rockefeller, 1966

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AB, Barnard College, 1977; AM, Duke, 1979; PhD, Texas (Southwestern Medical Center at Dallas), 1988
<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Education Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanya T. Paull</td>
<td>Assistant Professor</td>
<td>BS, MS, Stanford, 1991; PhD, California (Los Angeles), 1996</td>
</tr>
<tr>
<td>Shelley M. Payne</td>
<td>Distinguished Teaching Professor</td>
<td>BA, Rice, 1972; PhD, Texas Health Science Center (Dallas), 1977</td>
</tr>
<tr>
<td>Eric R. Pianka</td>
<td>Professor</td>
<td>BA, Carleton College, 1960; PhD, Washington (Seattle), 1965</td>
</tr>
<tr>
<td>Martin Poenie</td>
<td>Associate Professor</td>
<td>BA, California State (Northridge), 1973; MA, California State (Fullerton), 1979; PhD, Stanford, 1986</td>
</tr>
<tr>
<td>George D. Pollak</td>
<td>Professor</td>
<td>BS, American, 1964; PhD, Maryland, 1970</td>
</tr>
<tr>
<td>Mary Ann Rankin</td>
<td>Professor</td>
<td>BS, Louisiana State (New Orleans), 1966; PhD, Iowa, 1972</td>
</tr>
<tr>
<td>R. H. (Dick) Richardson</td>
<td>Professor</td>
<td>BS, Agricultural and Mechanical College of Texas, 1959; MS, North Carolina State, 1962; PhD, 1965</td>
</tr>
<tr>
<td>Austen Fox Riggs II</td>
<td>Professor</td>
<td>BA, Harvard, 1948; MA, 1949; PhD, 1951</td>
</tr>
<tr>
<td>Mendell Rimer</td>
<td>Assistant Professor</td>
<td>Lic, Universidad de Los Andes, 1986; PhD, Maryland (Baltimore), 1993</td>
</tr>
<tr>
<td>Stanley Roux Jr.</td>
<td>Distinguished Teaching Professor</td>
<td>BS, Spring Hill College, 1966; MS, Loyola (New Orleans), 1968; PhD, Yale, 1971</td>
</tr>
<tr>
<td>Michael J. Ryan</td>
<td>Professor</td>
<td>BA, Glassboro State College, 1975; MS, Rutgers (Newark), 1977; PhD, Cornell, 1982</td>
</tr>
<tr>
<td>Bob G. Sanders</td>
<td>Professor</td>
<td>BS, Concord College, 1954; MA, Pennsylvania State, 1958; PhD, 1961</td>
</tr>
<tr>
<td>Sakhora Sarkar</td>
<td>Professor</td>
<td>BA, Columbia, 1981; MA, Chicago, 1984; PhD, 1989</td>
</tr>
<tr>
<td>K. Sathasivan</td>
<td>Senior Lecturer</td>
<td>BS, Tamil Nadu Agricultural, 1978; MS, 1980; PhD, Louisiana State (Baton Rouge), 1991</td>
</tr>
<tr>
<td>Martin Shankland</td>
<td>Distinguished Teaching Professor</td>
<td>AB, Cornell, 1975; PhD, California (Berkeley), 1981</td>
</tr>
<tr>
<td>Dee U. Silverthorn</td>
<td>Senior Lecturer</td>
<td>BS, Tulane, 1970; PhD, South Carolina (Columbia), 1973</td>
</tr>
<tr>
<td>Beryl B. Simpson</td>
<td>Professor</td>
<td>BA, Radcliffe College, 1964; MA, PhD, Harvard, 1967</td>
</tr>
<tr>
<td>Michael C. Singer</td>
<td>Professor</td>
<td>BA, Oxford, 1967; PhD, Stanford, 1971</td>
</tr>
<tr>
<td>John C. Sisson</td>
<td>Assistant Professor</td>
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</tr>
<tr>
<td>James K. Skipper</td>
<td>Senior Lecturer</td>
<td>BS, Georgia, 1966; MS, 1969; PhD, 1972</td>
</tr>
<tr>
<td>David Stein</td>
<td>Associate Professor</td>
<td>BS, Winnipeg, 1982; PhD, Stanford, 1989</td>
</tr>
<tr>
<td>Scott W. Stevens</td>
<td>Assistant Professor</td>
<td>BS, Illinois (Urbana-Champaign), 1991; PhD, North Carolina (Chapel Hill), 1996</td>
</tr>
<tr>
<td>Paul J. Szaniszlo</td>
<td>Professor</td>
<td>BA, Ohio Wesleyan, 1961; MA, North Carolina (Chapel Hill), 1964; PhD, 1967</td>
</tr>
<tr>
<td>Edward C. Theriot</td>
<td>Professor</td>
<td>MS, Louisiana State, 1978; PhD, Michigan (Ann Arbor), 1983</td>
</tr>
<tr>
<td>Peter Thomas</td>
<td>Professor</td>
<td>BS, Hull, 1970; PhD, Leicester, 1977</td>
</tr>
<tr>
<td>Wesley J. Thompson</td>
<td>Professor</td>
<td>BS, North Texas State, 1970; PhD, California (Berkeley), 1975</td>
</tr>
<tr>
<td>Ming Tian</td>
<td>Assistant Professor</td>
<td>BS, Peking, 1987; PhD, Harvard, 1994</td>
</tr>
<tr>
<td>Philip W. Tucker</td>
<td>Professor</td>
<td>BA, Texas (Austin), 1966; MA, 1969; PhD, Texas A&amp;M, 1974</td>
</tr>
<tr>
<td>James R. Walker</td>
<td>Professor</td>
<td>BS, Northwestern State College, 1960; PhD, Texas, 1963</td>
</tr>
<tr>
<td>John B. Wallingford</td>
<td>Assistant Professor</td>
<td>BA, Wesleyan, 1992; PhD, Texas (Austin), 1998</td>
</tr>
<tr>
<td>Claus O. Wilke</td>
<td>Assistant Professor</td>
<td>Diploma, Ruhr-Universität Bochum, 1996; PhD, 1999</td>
</tr>
<tr>
<td>Harold H. Zakon</td>
<td>Professor</td>
<td>BS, Marlboro College, 1972; PhD, Cornell, 1981</td>
</tr>
<tr>
<td>Bing Zhang</td>
<td>Assistant Professor</td>
<td>BS, Northwestern University of Agriculture (China), 1983; PhD, Cornell, 1995</td>
</tr>
</tbody>
</table>

**ADJUNCT PROFESSORS**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Education Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suzanne S. Barth</td>
<td>Adjunct Associate Professor</td>
<td>BA, Texas (Austin), 1969; PhD, 1983</td>
</tr>
<tr>
<td>Ernest Arthur Bell</td>
<td>Adjunct Professor</td>
<td>BS, King's College (Newcastle upon Tyne), 1946; MA, Trinity College (Dublin), 1950; PhD, 1953</td>
</tr>
<tr>
<td>Guy L. Bush</td>
<td>Adjunct Professor</td>
<td>BS, Iowa State, 1953; MS, Virginia Polytechnic Institute, 1960; PhD, Harvard, 1964</td>
</tr>
<tr>
<td>Richard A. Dixon</td>
<td>Adjunct Professor</td>
<td>BA, Oxford, 1973; PhD, 1976</td>
</tr>
<tr>
<td>Janet Duben-Engelkirk</td>
<td>Adjunct Associate Professor</td>
<td>BS, Akron, 1974; BS, 1975; MS, 1979; EdD, Baylor College of Medicine/Houston (University Park), 1988</td>
</tr>
<tr>
<td>Greta A. Fryxell</td>
<td>Adjunct Professor</td>
<td>BA, Augustana College (Illinois), 1948; MEd, Texas A&amp;M, 1969; PhD, 1975</td>
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<tr>
<td>Paul A. Fryxell</td>
<td>Adjunct Professor</td>
<td>BA, Augustana College (Illinois), 1949; MS, Iowa State, 1951; PhD, 1955</td>
</tr>
<tr>
<td>Carl Gans</td>
<td>Adjunct Professor</td>
<td>BME, New York, 1944; MS, Columbia, 1950; PhD, Harvard, 1957</td>
</tr>
<tr>
<td>James L. Harris</td>
<td>Adjunct Associate Professor</td>
<td>BA, Texas, 1965; MS, Texas A&amp;M, 1968; PhD, 1972</td>
</tr>
<tr>
<td>Robert Jackson</td>
<td>Adjunct Professor</td>
<td>BS, Rice, 1983; MS, Utah State, 1989; MS, PhD, 1992</td>
</tr>
</tbody>
</table>
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PROFESSORS, INSTRUCTORS, AND SENIOR LECTURERS

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BSMath, BSPhy, Texas (Austin), 1991; PhD, California (Berkeley), 1996

Todd Arbogast, Professor
BS, Minnesota (Minneapolis-St. Paul), 1981; SM, Chicago, 1983; PhD, 1987

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BA, Agricultural and Mechanical College of Texas, 1960; MS, 1962; PhD, Nebraska (Lincoln), 1966

Ivo M. Babuska, Professor
Dipling, Ceské Vysoké ucení technické v Praze, 1949; Dr, 1951; CSc, Czechoslovak Academy of Sciences, 1955; DrSc, 1960

Robert E. Barnhill, Professor
BA, Kansas, 1961; MA, Wisconsin, 1962; PhD, 1964

William Beckner, Professor
BS, Missouri (Columbia), 1963; PhD, Princeton, 1975

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BA, Princeton, 1994; MA, Harvard, 1996; PhD, 1999

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Licenciatura en Ciencias Matemáticas, Universidad de Buenos Aires, 1968; Doctor en Matemáticas, 1972
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BS, Universitatea din Bucuresti, 1997; PhD, Massachusetts Institute of Technology, 2002

Thomas C. Cecil, Instructor
BA, Notre Dame, 1997; MS, California (Los Angeles), 1999; PhD, 2003

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BS, Michigan (Ann Arbor), 1967; MA, 1968; PhD, 1970

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BA, Cornell, 1970; PhD, 1974

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Licenciado en Ciencias Físicas, Universidad Complutense de Madrid, 1979; PhD, Princeton, 1983

John D. Dollard, Professor
BA, Yale, 1958; MA, Princeton, 1960; PhD, 1963

John R. Durbin, Professor
BA, Wichita, 1956; MA, 1958; PhD, Kansas, 1964

Bjorn Engquist, Professor
BS, Uppsala Universitet, 1966; PhD, 1969

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BS, Universitatea “Babes Bolyai” din Cluj-Napoca, 1995; MS, Rijksuniversiteit te Utrecht, 1996; PhD, Universiteit van Amsterdam, 2000

Daniel Freed, Professor
BA, MA, Harvard, 1981; PhD, California (Berkeley), 1985

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BA, Cornell, 1968; PhD, Princeton, 1971

Irene Martinez Gamba, Professor
MS, Chicago, 1985; PhD, 1989

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BA, Oxford, 1960; MA, DPhil, 1963

Robert E. Gompf, Professor
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BA, Cambridge, 1966; PhD, 1971; MA, 1973

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Physikdiplom, Eidgenössische Technische Hochschule Zürich, 1974; Thèse en physique, Université de Genève, 1978

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Licenciatura en Ciencias Matemáticas, Universidad de Buenos Aires, 1985; PhD, Ohio State, 1990

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BA, MS, Chicago, 1972; PhD, Yale, 1976

Richard W. Sharp, **Instructor**  
BA, Northwestern, 2001; PhD, Princeton, 2005

Martha K. Smith, **Professor**  
BA, Michigan, 1965; MS, Chicago, 1967; PhD, 1970

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Ptychion, Ethnikon kai Kapodistriakon Panepistimion Athinon, 1981; MA, Wisconsin (Madison), 1981; PhD, 1983

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BA, Pomona College, 1970; MA, Wisconsin (Madison), 1973; PhD, 1974

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AB, Harvard, 1946; PhD, Princeton, 1950

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BA, California (Los Angeles), 1969; MA, California (Berkeley), 1983; PhD, 1985

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BS, Michigan, 1964; MA, Brandeis, 1966; PhD, 1968

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BS, Lawrence, 1970; MS, Illinois (Urbana-Champaign), 1971; PhD, 1974

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AM, École Normale Supérieure, 1995; PhD, Université de Jus- steu, 1999

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Kandidat nauk, matematika, Moskovskij Gosudarstvennyj Universitet im. M.V. Lomonosova, 1976; PhD, 1980

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Mestrado, Instituto de Matemática Pura e Aplicada, 1982; PhD, Cambridge, 1985

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BA, Oberlin, 1994; MS, Auburn, 1997; PhD, California (Davis), 2003

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BA, BSEd, Texas, 1960; MA, 1963; PhD, Rice, 1971

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BS, Nankai, 1999; MA, 2000; PhD, California (Berkeley) 2005

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Psychion, Ethnikon Metsovion Polytechnion Athinon, 1984; MS, Brown, 1985; PhD, 1989

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BS, Sveuciliste u Zagrebu, 1997; MS, Technische Universität Wien, 1999; PhD, Columbia, 2002

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BS, Université de Rennes I, 1963; MS, 1967; PhD, Université Louis Pasteur (Strasbourg I), 1975

Ali R. Naddaf, **Adjunct Assistant Professor**  
BS, Sharif University of Technology Tehran, 1991; PhD, New York, 1995

Michael D. Pore, **Adjunct Associate Professor**  
BA, Texas, 1965; MS, Texas Tech, 1969; PhD, 1973

**DEPARTMENT OF PHYSICS**

John T. Markert, Chair

**PROFESSORS EMERITUS**

Frederik W. de Wette, **Professor Emeritus**  
Cand, Rijksuniversiteit Utrecht, 1947; Drs, 1950; Dr, 1959

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Licence ès sciences, Université de Caen, 1943; Doctorat d'Etat, Université de Paris, 1947

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BSPhy, Texas, 1954; MA, 1956; PhD, Brown, 1959

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BA, Rice, 1959; MA, 1960; PhD, 1961

F. Albert Matsen, **Professor Emeritus**  
BS, Wisconsin, 1937; PhD, Princeton, 1940

William D. McCormick, **Professor Emeritus**  
BS, California Institute of Technology, 1953; PhD, Duke, 1959

Yuval Ne'eman, **Professor Emeritus**  
BS, Technion—Machon Technology L’Israel, 1945; Diploma in Engineering, 1946; DEM, Ecole supérieure de Guerre, 1952; DIC, PhD, London, 1961; DSc (hon), Technion—Machon Technology L’Israel, 1966

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BA, Southwest Texas State Teachers College, 1938; MA, Texas, 1939; PhD, Massachusetts Institute of Technology, 1947

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BS, Louisiana State (Baton Rouge), 1958; PhD, Florida State, 1964

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BA, Texas Christian, 1952; MA, Rice Institute, 1954; PhD, 1956

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PhD, Johns Hopkins, 1933; DSc (hon), Princeton, 1986
PROFESSORS, INSTRUCTORS, AND SENIOR LECTURERS

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BS, New York, 1960; MA, Princeton, 1962; PhD, 1964

Arno Bohm, Professor
Dipl-Phys, Freie Universität Berlin, 1962; Dr.rer.nat., Philipps-Universität Marburg, 1966

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BA, Hendrix College, 1956; PhD, Texas, 1960

James R. Chelikowsky, Professor
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AB, Harvard, 1982; PhD, 1987

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Michael Downer, Professor

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BS, Stanford, 1951; PhD, 1958

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Licence en sciences physiques, Université libre de Bruxelles, 1972; Docteur en sciences physiques, 1976

Richard Fitzpatrick, Associate Professor
MA, Cambridge, 1984; PhD, Sussex, 1988

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Diplom, Technische Universität München, 1990; PhD, 1995

Lothar W. Frommhold, Professor
Dr, Universität Hamburg, 1961; Dr.habil., 1964

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BSc, ha’Universita ha’Tizrith bi’Yerushalayim, 1978; PhD, Universitat Tel-Aviv, 1983

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BS, Michigan, 1968; PhD, Wisconsin, 1972

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BA, Cornell, 1988; MA, Princeton, 1990; PhD, 1994

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BA, California (Los Angeles), 1955; MS, 1956; PhD, California (Berkeley), 1960

Sacha E. Kopp, Assistant Professor
BA, Chicago, 1990; MS, 1992; PhD, 1994

Karol Lang, Professor
MS, Uniwersytet Warszawski, 1979; PhD, Rochester, 1985

Allan MacDonald, Professor
BA, St. Francis Xavier, 1973; MS, Toronto, 1974; PhD, 1978

Michael P. Marder, Professor
AB, Cornell, 1982; PhD, California (Santa Barbara), 1986

John T. Markert, Professor
BA, Bowdoin College, 1979; MS, Cornell, 1984; PhD, 1987

Richard A. Matzner, Professor
BS, Notre Dame, 1963; PhD, Maryland, 1967

C. Fred Moore, Professor
BS, Notre Dame, 1959; MS, Louisville, 1961; PhD, Florida State, 1964

Philip J. Morrison, Professor
BS, California (San Diego), 1972; MS, 1974; PhD, 1979

Qian Niu, Professor
BS, Peking, 1981; MS, Washington (Seattle), 1983; PhD, 1985

Sonia Paban, Assistant Professor
BSPhy, Universitat de Barcelona, 1984; PhD, 1988
Mark G. Raizen, **Professor**  
BS, Universitat Tel Aviv, 1980; PhD, Texas (Austin), 1989

Linda E. Reichl, **Professor**  
BS, Denver, 1964; MS, 1967; PhD, 1969

Peter J. Riley, **Professor**  
BApplS, British Columbia, 1956; MApplS, 1958; PhD, Alberta, 1983

Jack L. Ritchie, **Professor**  
BSPhy, Texas (Austin), 1977; MA, Rochester, 1979; PhD, 1983

William C. Schieve, **Professor**  
BS, Reed College, 1951; MS, Lehigh, 1957; PhD, 1959

Roy F. Schwitters, **Professor**  
BS, Massachusetts Institute of Technology, 1966; PhD, 1971

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BS, National Tsing Hua, 1977; MS, Oregon, 1981; PhD, Stanford, 1988

Gennady Shvets, **Assistant Professor**  
BS, Moscow Institute of Physics and Technology, 1989; PhD, Massachusetts Institute of Technology, 1995

Greg O. Sitz, **Professor**  
BA, Rice, 1981; PhD, Stanford, 1987

E. C. G. Sudarshan, **Professor**  
BS, Madras, 1951; MA, 1952; PhD, Rochester, 1958; DSc, Wisconsin, 1969

Jack B. Swift, **Professor**  
BS, Arkansas, 1963; MS, Illinois, 1965; PhD, 1968

Harry L. Swinney, **Professor**  
BS, Southwestern at Memphis, 1961; PhD, Johns Hopkins, 1968

Maxim Tsoi, **Assistant Professor**  
BS, Moscow Institute of Physics and Technology, 1993; MS, 1995; PhD, Universität Konstanz, 1998

Jack S. Turner, **Associate Professor**  
BS, Duke, 1964; PhD, Indiana, 1969

Takeshi Udagawa, **Professor**  
Rigakushi, Tokyo Rika Daigaku, 1957; Rigakushushi, Tokyo Kyoku Daigaku, 1959; Rigaku Shikushiki, 1962

Steven Weinberg, **Regental Professor**  
BA, Cornell, 1954; PhD, Princeton, 1957

Robert E. Wyatt, **Professor**  
BS, Illinois Institute of Technology, 1961; MA, Johns Hopkins, 1963; PhD, 1965

Zhen Yao, **Assistant Professor**  
BSPhy, University of Science and Technology of China (Hefei), 1992; MS, Harvard, 1993; PhD, 1997

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**SCHOOL OF NURSING**

**PROFESSORS EMERITUS**

Bilye J. Brown, RN, **Professor Emeritus**  
BSNEd, Texas, 1953; MSN, Saint Louis, 1958; EdD, Baylor, 1975

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BSNEd, Texas, 1949; MEd, 1957; PhD, Texas (Austin), 1970

R. LaVerne Gallman, RN, **Professor Emeritus**  
BSNEd, Texas, 1949; MS, 1976; PhD, 1984

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BS, Texas Christian, 1957; MA, New York, 1961; PhD, Colorado (Boulder), 1974

Mabel Wandelt, RN, **Professor Emeritus**  
BS, Wayne State 1944; MPH, Michigan, 1948; PhD, 1954

**PROFESSORS, INSTRUCTORS, AND SENIOR LECTURERS**

P. Elizabeth Abel, RN, **Associate Professor**  
BSN, Iowa, 1975; MAN, 1978; PhD, Emory, 1987

Gayle J. Acton, RN, **Associate Professor**  
BSN, Central State, 1974; MSN, Oklahoma State (Oklahoma City), 1980; PhD, Texas (Austin), 1993

Sharon A. Brown, RN, **Professor**  
BSN, Missouri, 1974; MN, Kansas Health Sciences Center, 1980; PhD, Texas (Austin), 1987

Patricia A. Carter, RN, **Associate Professor**  
BSN, California State (Fullerton), 1992; MN, California (Los Angeles), 1994; PhD, 1999

Angela P. Clark, RN, **Associate Professor**  
BSN, Spalding College, 1970; MSN, Texas Woman’s, 1973; PhD, 1983

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BSN, Indiana University of Pennsylvania, 1982; MSN, Virginia Commonwealth, 1986; PhD, Florida, 1992

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BSN, Notre Dame, 1990; MSN, Maryland (Baltimore), 1995; PhD, Texas (Austin), 2002

Susan Grobe, RN, **Professor**  
BSEd, State University of New York (Plattsburgh), 1963; MSN, Wayne State, 1967; PhD, Texas (Austin), 1977

Tracie Harrison, RN, **Assistant Professor**  
BSN, Texas (Austin), 1993; MSN, Texas A&M (Corpus Christi), 1999; PhD, Texas (Austin), 2004

Sharon D. Horner, RN, **Associate Professor**  
BSN, Armstrong State College, 1980; MSN, Medical College of Georgia, 1984; PhD, 1992

Linda S. Houston, RN, **Professor**  
BSN, Southern Mississippi, 1976; MSN, Medical College of Georgia, 1977; PhD, Texas Woman’s, 1990
Eun-Ok Im, RN, Associate Professor
BSN, Seoul National, 1989; MPH, 1993; MSN, California (San Francisco), 1995; PhD, 1997

Regina Johnson, RN, Assistant Professor
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BSN, Hawaii, 1968; MSN, Northern Illinois, 1975; EdD, 1979

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BSN, Florida, 1983; MSN, Ohio State, 1986; PhD, 1994

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COLLEGE OF PHARMACY

PROFESSORS EMERITUS
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PROFESSORS, INSTRUCTORS, AND SENIOR LECTURERS
Creed W. Abell, Professor
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BSPhr, Texas (Austin), 1991; MS, Purdue, 1994; PhD, 1998

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BS, Georgia, 1971; PharmD, Texas (Austin)/Texas Health Science Center (San Antonio), 1978

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Walter Fast, Assistant Professor  
BS, Wheaton College, 1992; PhD, Northwestern, 1998

Jerry Fineg, Professor  
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Christopher R. Frei, Assistant Professor  
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Rueben A. Gonzales, Professor  
BSPhr, Texas (Austin), 1977; PhD, 1983

Francisco Gonzalez-Lima, Professor  
BS, Tulane, 1976; BA, 1977; PhD, Puerto Rico (Medical Sciences Campus), 1980

Andrea Gore, Associate Professor  
BA, Princeton, 1985; PhD, Wisconsin (Madison), 1990

Jodi L. Grabinski, Assistant Professor  
PharmD, Drake, 2001; MS, Texas (Health Science Center at San Antonio), 2005

Adron Harris, Professor  
BS, New Mexico State, 1967; MS, Arizona, 1970; PhD, North Carolina (Chapel Hill), 1973

John L. Ivy, Professor  
BS, Old Dominion, 1970; MA, Maryland (College Park), 1974; PhD, 1976

Sean M. Kerwin, Associate Professor  
BS, Notre Dame, 1984; PhD, California (Berkeley), 1989

Kimberly Kline, Professor  
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W. Arlyn Kloesel, Senior Lecturer  
BSPhr, Texas, 1962

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Steven W. Leslie, Professor  
BSPhr, Purdue, 1969; MS, 1972; PhD, 1974

Louis C. Littlefield, Professor  
BA, California State (Northridge), 1963; PharmD, Southern California, 1967

Hung-Wen (Ben) Liu, Professor  
BSCh, Tunghai, 1974; MA, Columbia, 1977; MPhil, PhD, 1981

James W. McGinity, Professor  
BPhr, Queensland, 1967; PhD, Iowa, 1972

Edward M. Mills, Assistant Professor  
BA, Franklin College, 1991; PhD, Purdue, 1997

Richard A. Morrisett, Associate Professor  
BS, Hampden-Sydney College, 1982; PhD, Alabama (Birmingham), 1987

Robert S. Pearlman, Professor  
BS, Illinois (Urbana-Champaign), 1970; PhD, Michigan (Ann Arbor), 1975

Nicholas Peppas, Professor  
Diploma, National Technical University of Athens, 1971; DSc, Massachusetts Institute of Technology, 1973

Karen L. Rascati, Professor  
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BA, Wisconsin, 1966; MS, Iowa State, 1973; PhD, 1975

John H. Richburg, Associate Professor  
BS, Northeastern, 1987; PhD, Rutgers, 1993

Bob G. Sanders, Professor  
BS, Concord College, 1954; MA, Pennsylvania State, 1958; PhD, 1961

Marvin D. Shepherd, Professor  
BSPhr, Ferris State College, 1975; MS, Rhode Island, 1978; PhD, Purdue, 1980

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BSPhEd, Texas, 1957; MEd, North Carolina (Greensboro), 1958; EdD, Texas, 1966

Joseph W. Starnes, Professor  
BS, Georgia Institute of Technology, 1972; PhD, Massachusetts (Amherst), 1978

Salomon A. Stavchansky, Professor  
Lic, Universidad Nacional Autónoma de México, 1969; PhD, Kentucky, 1974

Scott A. Strassels, Assistant Professor  
BS, Arizona, 1988; PharmD, 1989; PhD, Washington (Seattle), 2005

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BS, Colorado (Boulder), 1989; PharmD, Texas (Austin), 1991

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BS, Texas A&M, 1979; BSPhr, Texas (Austin), 1981; PhD, 1986

James P. Wilson, Associate Professor
BSPhr, Philadelphia College of Pharmacy and Science, 1970; PharmD, 1971; MS, Purdue, 1985; PhD, 1986

Zhiwen Zhang, Assistant Professor
BS, Nanjing, 1989; MS, Toronto, 1994; PhD, Texas (Austin), 2001

ADJUNCT PROFESSORS

Roland A. Bodmeier, Adjunct Associate Professor
Apotheker, Ludwig-Maximilians-Universität München, 1981; PhD, Texas (Austin), 1986

Phillip D. Bowman, Adjunct Assistant Professor
BA, Stanford, 1969; PhD, California (Santa Cruz), 1976

Lane J. Brunner, Adjunct Associate Professor
BSPhr, Washington (Seattle), 1987; MS, Houston (University Park), 1991; PhD, Georgia, 1995

Claudio J. Conti, Adjunct Professor
DVM, Universidad de Buenos Aires, 1968; PhD, 1983

John DiGiovanni, Adjunct Professor
BS, Washington (Seattle), 1974; PhD, 1978

Susan M. Fischer, Adjunct Professor
BS, High Point College, 1969; MS, Wyoming, 1971; PhD, 1974

Alan Frazer, Adjunct Professor
BS, Philadelphia College of Pharmacy and Science, 1964; PhD, Pennsylvania, 1969

David B. Garcia, Adjunct Professor
BSPhr, Texas (Austin), 1972; PhD, 1977

Robert S. Hinson, Adjunct Assistant Professor
BSEE, Pennsylvania State, 1975; MA, Webster, 1979

Martin A. Javors, Adjunct Professor
BSPhr, Texas (Austin), 1967; PhD, Colorado (Boulder), 1979

David G. Johnson, Adjunct Associate Professor
BA, Texas (Austin), 1985; PhD, Texas (Southwestern Medical Center at Dallas), 1991

Terrell M. Kashner, Adjunct Associate Professor
BA, Northwestern, 1973; MPH, Oklahoma, 1974; MA, Michigan, 1979; PhD, 1981; JD, Oklahoma City, 1987

James P. Kehrer, Adjunct Professor
BS, Queens College, City University of New York, 1976; MS, Michigan, 1978; PhD, 1983

Michael C. Macleod, Adjunct Professor
BS, California Institute of Technology, 1969; PhD, Oregon, 1974

Brian Masek, Adjunct Assistant Professor
BA, Kearney State, 1980; PhD, California Institute of Technology, 1986

John T. O’Neill, Adjunct Assistant Professor
LCDC, Texas Commission on Alcohol and Drug Abuse; NCAC, National Association of Alcohol and Drug Abuse

Augustus J. Rush, Adjunct Professor

James E. Smeeding, Adjunct Assistant Professor
BSPhr, State University of New York (Buffalo), 1973; MBA, Texas (Austin), 1989

Dean G. Tang, Adjunct Associate Professor
MS, Wuhan University School of Medicine, 1989; PhD, Wayne State, 1994

John F. Villanacci, Adjunct Associate Professor
BA, Queens College, City University of New York, 1976; MS, Michigan, 1978; PhD, 1983

Cheryl L. Walker, Adjunct Professor
BA, Colorado (Boulder), 1977; PhD, Texas Health Science Center (Dallas), 1984

Paul K. Y. Wong, Adjunct Professor
BSc(Hons), Manitoba, 1968; MSc, 1969; PhD, 1972

SCHOOL OF SOCIAL WORK

PROFESSORS EMERITUS

David M. Austin, Professor Emeritus
BA, Lawrence College, 1943; MS, Western Reserve, 1948; PhD, Brandeis, 1969

Ronald C. Bounous, Professor Emeritus
BA, Minnesota (Minneapolis-St. Paul), 1956; MSW, 1958; PhD, 1965

W. Joseph Heffernan Jr., Professor Emeritus
BS, Virginia Polytechnic Institute, 1953; MA, Duke, 1955; MSSW, Michigan, 1959; PhD, North Carolina (Chapel Hill), 1964

George K. Herbert, Professor Emeritus
BA, Louisville, 1949; MA, Chicago, 1951; JD, Cleveland State, 1957; PhD, Tulane, 1970

John McNeel, Professor Emeritus
BA, Storer College, 1948; MSW, Atlanta, 1951; DSW, Southern California, 1964

Ruth G. McRoy, Distinguished Teaching Professor Emeritus
BA, Kansas, 1968; MSW, 1970; PhD, Texas (Austin), 1981

Jack Otis, Professor Emeritus
BA, Brooklyn College, 1946; MSW, Illinois, 1948; MEd, 1955; PhD, 1957

Guy E. Shuttlesworth, Professor Emeritus
BS, Stephen F. Austin State College, 1957; MS, Texas College of Arts and Industries, 1962; MSW, Worden School of Social Service, 1962; PhD, Pittsburgh (Main Campus), 1970

Martha S. Williams, Professor Emeritus
BA, Texas, 1957; MA, 1962; PhD, 1963
PROFESSORS, INSTRUCTORS, AND SENIOR LECTURERS

Marilyn P. Armour, Assistant Professor
BA, Bard College, 1965; MSW, Minnesota (Minneapolis-St. Paul), 1968; PhD, 2000

Noel B. Busch, Assistant Professor
BA, High Point, 1988; MSW, South Carolina (Columbia), 1993; MPA, 1996; PhD, 2000

Namkee G. Choi, Professor
BA, Ewha Women's, 1976; MA, 1979; MSW, Minnesota (Minneapolis-St. Paul), 1983; PhD, California (Berkeley), 1987

King E. Davis, Professor
BSW, California State, 1964; MSW, 1966; PhD, Brandeis, 1971

Diana M. DiNitto, Distinguished Teaching Professor
BA, Barry College, 1971; MSW, Florida State, 1974; PhD, 1980

Michael J. Ferguson, Associate Professor
BS, Arizona, 1987; MA, 1990; MSW, PhD, Washington (Seattle), 1999

Rowena Fong, Professor
BA, Wellesley College, 1974; MSW, California (Berkeley), 1977; EdD, Harvard, 1990

Dawnovise N. Fowler, Assistant Professor
BA, Spelman College, 1993; AM, Chicago, 1998; PhD, Howard, 2003

Cynthia G. Franklin, Professor
BSW, Texas Woman's, 1980; MSSW, Texas (Arlington), 1981; MA, Spalding, 1986; PhD, Texas (Arlington), 1989

Dorie J. Gilbert, Associate Professor
BBA, Texas (Austin), 1983; MSSW, 1992; PhD, 1996

Darlene Grant, Associate Professor
BA, Wittenberg, 1982; MSSA, Case Western Reserve, 1984; PhD, Tennessee (Knoxville), 1993

Robert Greene, Professor
BA, Michigan State, 1960; MSW, 1962; PhD, Maryland (College Park), 1980

Lori Kay Holleran, Assistant Professor
BA, Duke, 1987; MSW, Pennsylvania, 1989; PhD, Arizona State (Tempe), 2000

Barbara L. Jones, Assistant Professor
BA, Albany, 1989; MSW, 1993; PhD, 2004

Michael L. Lauderdale, Professor
BA, Oklahoma, 1963; MS, 1964; PhD, 1967

Laura Lein, Professor
BS, Swarthmore College, 1969; MA, Harvard, 1970; PhD, 1973

Yolanda C. Padilla, Professor
BA, BS, Texas (Austin), 1979; MSSW, 1980; MA, Michigan, 1990; PhD, 1992

Elizabeth Pomeroy, Associate Professor
BA, North Carolina (Asheville), 1980; MSW, North Carolina (Chapel Hill), 1984; PhD, Texas (Austin), 1994

Michele A. Rountree, Assistant Professor
BA, Arizona, 1989; MSW, Boston, 1992; PhD, Arizona State, 2005

Allen Rubin, Professor
BS, Pennsylvania State, 1965; MSW, Pittsburgh (Main Campus), 1969; PhD, 1976

A. James Schwab Jr., Professor
BA, North Texas State, 1969; MSSW, Texas (Austin), 1971; PhD, 1981

Clayton T. Shorkey, Professor
BA, Michigan, 1964; MSW, 1966; PhD, 1968

David W. Springer, Distinguished Teaching Professor
BA, Florida State, 1990; MSW, 1992; PhD, 1997

Calvin L. Streeter, Professor
BS, Kearney State College, 1982; MSW, Washington (St. Louis), 1983; PhD, 1989

Barbara W. White, Professor
BS, Florida Agricultural and Mechanical, 1964; BS, Florida State, 1974; MSW, 1975; PhD, 1986

ADJUNCT PROFESSORS

Allison H. Benesch, Adjunct Professor
BA, George Washington, 1975; MSW, Maryland (Baltimore), 1980; JD, Southern Methodist, 1985

Buford E. Farris Jr., Adjunct Professor
BA, Texas, 1948; MA, 1949; MSSW, Tennessee (Knoxville), 1956; PhD, 1972
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, and some private, universities 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.

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<tr>
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<tr>
<td>PHYS 1401</td>
<td>PHY 302K + 102M</td>
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<tr>
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<td>PHY 302L + 102N</td>
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<tr>
<td>PHYS 1405</td>
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<td>PHYS 2126</td>
<td>PHY 103N⁶</td>
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<td>PHY 303K⁶</td>
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<td>PHY 303L⁶</td>
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<td>PHYS 2425</td>
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<td>PHYS 2426</td>
<td>PHY 303L + 103N⁶</td>
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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.

2. 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 lecture and laboratory credit; "FRMN" and "SOPH," freshman- and sophomore-level lecture credit; and "LAB," lower-division laboratory credit. This generic credit is sufficient to fulfill a natural science requirement in most nontechnical degrees. 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.

Major-track biology sequences (TCCN BIOL 1406, 1407, 1306, or 1307) in some cases transfer directly as BIO 311C, 311D, or other courses applicable toward degrees in biology. Major-track laboratory courses (TCCN BIOL 1106, 1107, or the lab components of 1406 and 1407) in some cases transfer with the modified course numbers BIO 105L, 106L, or 108L to reflect a lower credit value than is normally offered at the University.

Nonmajor biology sequences (TCCN BIOL 1408, 1409, 1308, or 1309) in most cases transfer directly as BIO 301C, 301D, 301I, 301M, 309D, 309E, or 309F. Nonmajor laboratory courses (TCCN BIOL 1108, 1109, or the lab components of 1408 and 1409) transfer as generic credit because the University does not offer nonmajor lab coursework.

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.

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 GOV 310L and 312L; 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 transfers to the University as PHY 315 and 116L; PHYS 2426 transfers as PHY 316 and 116L; and PHYS 2427 transfers either as PHY 315 and 115L or as generic physics credit.
Appendix B

Degree and Course Abbreviations

DEGREES

The University uses the following abbreviations for undergraduate degrees. The majors that lead to each degree are listed on pages 3–8 and described in chapters 2 through 15.

Bachelor of Architecture .......................................................... BArch
Bachelor of Arts ................................................................. BA
Bachelor of Arts in Art ........................................................... BAArt
Bachelor of Arts in Music ....................................................... BAMusic
Bachelor of Arts in Geological Sciences ......................... BAGeoSci
Bachelor of Arts in Theatre and Dance ............................... BATD
Bachelor of Business Administration ............................... BBA
Bachelor of Fine Arts .......................................................... BFA
Bachelor of Journalism ......................................................... BJ
Bachelor of Music ............................................................... BMusic
Bachelor of Science in Advertising .................................. BSAdv
Bachelor of Science in Aerospace Engineering ............... BSAsE
Bachelor of Science in Applied Learning and Development .... BSALD
Bachelor of Science in Architectural Engineering .......... BSArchE
Bachelor of Science in Architectural Studies ..................... BSArchSt
Bachelor of Science in Astronomy .................................... BSAst
Bachelor of Science in Biochemistry ............................... BSBioCh
Bachelor of Science in Biology ......................................... BSBio
Bachelor of Science in Biomedical Engineering ............... BS BiomE
Bachelor of Science in Chemical Engineering ................. BSChemE
Bachelor of Science in Chemistry .................................... BSCh
Bachelor of Science in Civil Engineering ......................... BSCE
Bachelor of Science in Clinical Laboratory Science .......... BS ClinLabSci
Bachelor of Science in Communication Sciences and Disorders .... BS CSD
Bachelor of Science in Communication Studies .............. BSCommStds
Bachelor of Science in Computer Sciences ....................... BSCS
Bachelor of Science in Electrical Engineering ................... BSEE
Bachelor of Science in Geological Sciences ..................... BSGeoSci
Bachelor of Science in Geosystems Engineering and Hydrogeology .... BSGEH
Bachelor of Science in Human Development and Family Sciences .... BSHDFS
Bachelor of Science in Interdisciplinary Science ............... BS InterdisSci
Bachelor of Science in Interior Design ............................... BSID
Bachelor of Science in Kinesiology ................................. BSKin
<table>
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<tr>
<td>Bachelor of Science in Mathematics</td>
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<tr>
<td>Bachelor of Science in Mechanical Engineering</td>
<td>BSME</td>
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<tr>
<td>Bachelor of Science in Nursing</td>
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<tr>
<td>Bachelor of Science in Nutrition</td>
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<tr>
<td>Bachelor of Science in Petroleum Engineering</td>
<td>BSPE</td>
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<tr>
<td>Bachelor of Science in Physics</td>
<td>BSpHy</td>
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<tr>
<td>Bachelor of Science in Psychology</td>
<td>BSpPsy</td>
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<tr>
<td>Bachelor of Science in Public Relations</td>
<td>BSpPR</td>
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<tr>
<td>Bachelor of Science in Radio-Television-Film</td>
<td>BSRTF</td>
</tr>
<tr>
<td>Bachelor of Science in Textiles and Apparel</td>
<td>BSTA</td>
</tr>
<tr>
<td>Bachelor of Social Work</td>
<td>BSW</td>
</tr>
<tr>
<td>Doctor of Pharmacy</td>
<td>PharmD</td>
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</table>

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. Fields marked with a diamond are offered only at the graduate level.

- Accounting ... ACC
- Actuarial foundations ... ACF
- Advertising ... ADV
- Aerospace engineering ... ASE
- African and African American 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
- Archaeology ... ARY
- 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
- Business administration ... B A
- 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 ... CL
- Computational and applied mathematics ... CAM
- Computer sciences ... CS
- Conducting ... CON
- Connexus ... CXS
- 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 mineral resources ... EMR
- Engineering management ... ENM
- Engineering mechanics ... E M
- English ... E
- Ensemble ... ENS
- Euphonium ... EUP
- European studies ... EUS
- Finance ... FIN
- Fine arts ... FA
- Flute ... FLU
- Foreign language education ... FLE
- French ... FR
- French civilization ... FC
French horn ..........................  F H
Freshman seminar .......................  F S
General engineering .....................  G E
Geography ..............................  G R E
Geological sciences ....................  G E O
German .................................  G E R
Germanic civilization ...................  G R C
Government .............................  G O V
Graduate school ........................  G R S
Greek ....................................  G K
Guitar ....................................  G U I
Harp ......................................  H A R
Harpischord ..............................  H S C
Health education ........................  H E D
Hebrew ...................................  H E B
Hindi ......................................  H I N
History ...................................  H I S
Human development and family sciences ................................  H D F
Human ecology ...........................  H E
Humanities ................................  H M N
Information studies ........................  I N F
International business ....................  I B
Islamic studies ...........................  I S L
Italian .....................................  I T L
Italian civilization ......................  I T C
Japanese ...................................  J P N
Jewish studies ............................  J S
Journalism ................................  J
Kinesiology ................................  K I N
Korean .....................................  K O R
Landscape architecture ...................  L A R
Latin .......................................  L A T
Latin American studies ..................  L A S
Law .........................................  L A W
Legal environment of business ..........  L E B
Liberal arts ...............................  L A
Liberal arts honors .......................  L A H
Linguistics ................................  L I N
Malayalam ..................................  M A L
Management ..............................  M A N
Management information systems ......  M I S
Manufacturing systems engineering ................................  M F G
Marine science ...........................  M N S
Marketing ..................................  M K T
Materials science and engineering ....  M S E
Mathematical statistics ..................  M S T
Mathematics ................................  M
Mechanical engineering ...................  M E
Medieval studies ..........................  M D V
Mexican American studies ..............  M A S
Middle Eastern studies ..................  M E S
Military science ...........................  M S
Molecular biology ..........................  M O L
Music ......................................  M U S
Natural sciences ........................  N S C
Naval science ................................  N S
Neuroscience ..............................  N E U
Norwegian ..................................  N O R
Nursing .....................................  N
Nutrition ....................................  N T R
Oboe .......................................  O B O
Opera .......................................  O P R
Operations management ..................  O M
Operations research and industrial engineering ................................  O R I
Organ ........................................  O R G
Percussion ..................................  P E R
Persian .......................................  P R S
Petroleum and geosystems engineering ................................  P G E
Pharmacy ...................................  P H R
Philosophy ................................  P H L
Physical education .......................  P E D
Physical science ...........................  P S
Physics ......................................  P H Y
Piano ........................................  P I A
Polish .......................................  P O L
Portuguese ................................  P O R
Portuguese civilization ....................  P R C
Psychology ................................  P S Y
Public affairs ..............................  P A
Public relations ...........................  P R
Radio-television-film .....................  R T F
Real estate ..................................  R E
Recorder ....................................  R E C
Religious studies ..........................  R S
Rhetoric and writing ......................  R H E
Risk management ..........................  R M
Russian .....................................  R U S
Russian, East European, and Eurasian studies ................................  R E E
Sanskrit .....................................  S A N
Saxophone ..................................  S A X
Scandinavian ................................  S C A
Science ......................................  S C I
Science and technology commercialization ................................  S T C
Science, technology, and society ........  S T S
Science-mathematics education .........  S M E
Serbian/Croatian .........................  S C
Slavic ........................................  S L A
Social science .............................  S S
Social work ..................................  S W
Sociology ...................................  S O C
Spanish ......................................  S P N
Spanish civilization ......................  S P C
Special education ..........................  S E D
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