# The University of Texas at Austin 

 WHAT STARTS HERE CHANGES THE WORLD
## The University of Texas at Austin

## Undergraduate Catalog 2020-2022

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## Introduction

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

## Sam Houston

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

Where liberty has arisen, learning must be cherished-or liberty itself becomes a fragile thing.
Lyndon B. Johnson

## Mission of the University

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

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

## Officers of the Administration

## The University of Texas at Austin

Jay C. Hartzell, PhD, President*<br>Daniel T. Jaffe, PhD, Interim Executive Vice President and Provost<br>Darrell L. Bazzell, BA, Senior Vice President and Chief Financial Officer<br>Scott Rabenold, MBA, Vice President for Development<br>Leonard N. Moore, PhD, Vice President for Diversity and Community Engagement<br>James Davis, JD, Vice President for Legal Affairs<br>S. Claiborne Johnston, MD, PhD, Vice President for Medical Affairs and Dean, Dell Medical School<br>Alison R. Preston, PhD, Interim Vice President for Research<br>Soncia Reagins-Lilly, EdD, Vice President for Student Affairs and Dean of Students<br>Christopher M. Del Conte, MEd, Vice President and Athletics Director<br>Nancy A. Brazzil, BS, Deputy to the President<br>Jay Dyer, JD, Deputy to the President for Governmental Relations<br>Carlos E. Martinez, JD, Chief of Staff<br>Gary J. Susswein, MA, Chief Communications Officer

## Administrative Officers of the Colleges and Schools

Mark J.T. Smith, PhD, Senior Vice Provost for Academic Affairs and Dean, Graduate School
D. Michelle Addington, DDes, Dean, School of Architecture

Lillian F. Mills, PhD, Interim Dean, Red McCombs School of Business
Jay M. Bernhardt, PhD, MPH, Dean, Moody College of Communication
Charles R. Martinez, Jr., PhD, Dean, College of Education
Sharon L. Wood, PhD, PE, Dean, Cockrell School of Engineering
Douglas Dempster, PhD, Dean, College of Fine Arts
Claudia I. Mora, PhD, Dean, John A. and Katherine G. Jackson School of Geosciences
Eric T. Meyer, PhD, Dean, School of Information
Ward Farnsworth, JD, Dean, School of Law
Ann Huff Stevens, PhD, Dean, College of Liberal Arts
S. Claiborne Johnston, MD, PhD, Vice President for Medical Affairs and Dean, Dell Medical School

Paul M. Goldbart, PhD, Dean, College of Natural Sciences
Alexa K. Stuifbergen, PhD, RN, FAAN, Dean, School of Nursing
M. Lynn Crismon, PharmD, Dean, College of Pharmacy

Samuel M. Poloyac, PharmD, PhD, Dean Designate, College of Pharmacy
Angela Evans, MA, Dean, Lyndon B. Johnson School of Public Affairs
Luis H. Zayas, PhD, Dean, Steve Hicks School of Social Work
Brent L. Iverson, PhD, Dean, School of Undergraduate Studies

## The University of Texas System

James B. Milliken, JD, Chancellor
Steven W. Leslie, PhD, Executive Vice Chancellor for Academic Affairs
Archie L. Holmes Jr., PhD, Executive Vice Chancellor for Academic Affairs Designate
Scott C. Kelley, EdD, Executive Vice Chancellor for Business Affairs
John M. Zerwas, MD, Executive Vice Chancellor for Health Affairs
Daniel H. Sharphorn, JD, Vice Chancellor and General Counsel
Stacey Napier, JD, Vice Chancellor for Governmental Relations
Randa S. Safady, PhD, Vice Chancellor for External Relations, Communications, and Advancement Services
Amy Shaw Thomas, JD, Senior Vice Chancellor for Health Affairs
David L. Lakey, MD, Vice Chancellor for Health Affairs and Chief Medical Officer

* Interim President Jay Hartzell selected as President of the University by the University of Texas System Board of Regents on September 23, 2020.


## Board of Regents

## Officers

Kevin P. Eltife, Chairman
Janiece M. Longoria, Vice Chairman
James C. "Rad" Weaver, Vice Chairman
Francie A. Frederick, General Counsel to the Board of Regents

## Members

Terms scheduled to expire February 1, 2021
David J. Beck, Houston
R. Steven Hicks, Austin

Nolan E. Perez, Harlingen
Terms scheduled to expire February 1, 2023
Kevin P. Eltife, Tyler
Janiece M. Longoria, Houston
James C. "Rad" Weaver, San Antonio
Terms scheduled to expire February 1, 2025
Christina Melton Crain, Dallas
Jodie Lee Jiles, Houston
Kelcy L. Warren, Dallas
Student Regent with term to expire May 31, 2021
Patrick O. Ojeaga, II, The University of Texas Rio Grande Valley School of Medicine
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 https:// www.utexas.edu/offices.

## Academic Calendar

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

Austin TX 78713-7216

## Admission

Admissions Welcome Center at Perry-Castañeda Library, (512) 471-1000 The University of Texas at Austin, Office of Admissions, PO Box 8058, http://admissions.utexas.edu Austin TX 78713-8058

## Catalogs and Course Schedules

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

## Housing

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

## International Students

Texas Global, 2400 Nueces Street Suite B, (512) 471-1211; https:// global.utexas.edu/

## Medical Services

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

## Orientation

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

## Placement Tests

Student Testing Services, George I. Sanchez (SZB) Building,
1912 Speedway, Suite 547, (512) 232-2662, e-mail ctl-
testing@utlists.utexas.edu; https://testingservices.utexas.edu/sts

## Registration Information

Registration, (512) 475-7656, fax (512) 475-7515, e-mail
registration@austin.utexas.edu; https://onestop.utexas.edu/registration- Box 7216, Austin TX 78713-7216
and-degree-planning/registering-for-classes/

## Services for Students with Disabilities

Services for Students with Disabilities, Student Services Building 4.206, (512) 471-6259, video phone (512) 410-6644, fax (512) 475-7730, e-mail ssd@austin.utexas.edu; http://diversity.utexas.edu/disability/

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

## Texas One Stop

Texas One Stop, 512-232-6988 (myUT), e-mail onestop@utexas.edu, https://onestop.utexas.edu/

## Transcripts

Office of the Registrar, (512) 475-7689, fax (512) 475-7515, e-mail transcripts@austin.utexas.edu; https://onestop.utexas.edu/student-records/transcripts-other-records/

The University of Texas at Austin, University Housing and Dining, PO Box 7666, Austin TX 78713-7666

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

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

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

## TSI

Texas Success Initiative, Buford H. Jester Center A332, (512) 232-7146, fax The University of Texas at Austin, Texas Success Initiative, JES A332, 201 (512) 475-6838, e-mail tsi@austin.utexas.edu; https://ugs.utexas.edu/tsi E. 21 st St. Austin TX 78705

## The University

## Statement on Equal Educational Opportunity

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

## Accreditation

The University of Texas at Austin is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, and doctoral degrees. Contact the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of The University of Texas at Austin.

## The University of Texas at Austin

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

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

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

For further historical and current information about the University, see General Information.

## 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 Dallas
- The University of Texas at El Paso
- The University of Texas of the Permian Basin
- The University of Texas Rio Grande Valley
- The University of Texas at San Antonio
- The University of Texas at Tyler
- The University of Texas Southwestern Medical Center at Dallas
- The University of Texas Medical Branch at Galveston
- The University of Texas Health Science Center at Houston
- The University of Texas Health Science Center at San Antonio
- The University of Texas M. D. Anderson Cancer Center
- The University of Texas Health Science Center at Tyler


## Student Honor Code

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

## University Code of Conduct

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

## Organization of the University

## 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 media. The services of these units are described in General Information. Services provided by the colleges and schools are described in the college/school sections of this catalog.

## Undergraduate Degrees

The University offers the following undergraduate degrees.

| Bachelor of Architecture | BArch |
| :--- | :--- |
| Bachelor of Arts | BA |


| Bachelor of Arts in Geological Sciences | BAGeoSci |
| :---: | :---: |
| Bachelor of Arts in Music | BAMusic |
| 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 and Arts | BSA |
| 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 | BSAS |
| Bachelor of Science in Arts and Entertainment Technologies | BSAET |
| Bachelor of Science in Astronomy | BSAst |
| Bachelor of Science in Athletic Training | BSAthTrng |
| Bachelor of Science in Biochemistry | BSBioch |
| Bachelor of Science in Biology | BSBio |
| Bachelor of Science in Biomedical Engineering | BSBiomedE |
| Bachelor of Science in Chemical Engineering | BSChE |
| Bachelor of Science in Chemistry | BSCh |
| Bachelor of Science in Civil Engineering | BSCE |
| Bachelor of Science in Communication and Leadership | BSComm\&Lead |
| Bachelor of Science in Communication Studies | BSCommStds |
| Bachelor of Science in Computational Engineering | BSCompE |
| Bachelor of Science in Computer Science | BSCompSci |
| Bachelor of Science in Electrical Engineering | BSEE |
| Bachelor of Science in Environmental Engineering | BSEnvE |
| Bachelor of Science in Environmental Science | BSEnvirSci |
| 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 Informatics* | BSI* |
| Bachelor of Science in Interior Design | BSID |
| Bachelor of Science in Kinesiology and Health | BSKin\&Health |
| Bachelor of Science in Mathematics | BSMath |
| Bachelor of Science in Mechanical Engineering | BSME |
| Bachelor of Science in Medical Laboratory Science | BSMedLabSci |
| Bachelor of Science in Neuroscience | BSNeurosci |
| Bachelor of Science in Nursing | BSN |
| Bachelor of Science in Nutrition | BSNtr |
| Bachelor of Science in Petroleum Engineering | BSPE |
| Bachelor of Science in Physics | BSPhy |
| Bachelor of Science in Psychology | BSPsy |
| Bachelor of Science in Public Health | BSPublichealth |
| Bachelor of Science in Public Relations | BSPR |
| Bachelor of Science in Radio-Television-Film | BSRTF |
| Bachelor of Science in Speech, Language, and Hearing Sciences | BSSLH |
| Bachelor of Science in Textiles and Apparel | BSTA |

## Bachelor of Social Work Doctor of Pharmacy effective with the fall 2021 semester. <br> Degree Programs

 PharmD* Bachelor of Science in Informatics (BSI) degree was approved by the Texas Higher Education Coordinating Board October 22, 2020 and is


## SCHOOL OF ARCHITECTURE (p. 32)

| Architectural studies | BSAS |
| :--- | :--- |
| Architecture | BArch |
| Interior design | BSID |

## RED MCCOMBS SCHOOL OF BUSINESS (p. 46)

| Business administration | BBA |
| :--- | :--- |
| Department of Accounting | BBA |
| Accounting | BBA |
| Department of Business, Government, and Society |  |
| International business | BBA |
| Department of Finance | BBA |
| Finance | BBA |
| Department of Information, Risk, and Operations <br> Management | BBA |
| Management information systems <br> Science and technology management | BBA |
| Supply chain management |  |
| Department of Management | BBA |
| Management |  |
| Department of Marketing |  |
| Marketing |  |

## MOODY COLLEGE OF COMMUNICATION (p. 76)

## Department of Advertising

| Advertising | BSAdv |
| :--- | :--- |
| Public relations | BSPR |
| Department of Communication Studies | BSComm\&Lead |
| Communication and leadership | BSCommStds |
| Communication studies | BJ |
| School of Journalism and Media | BSRTF |
| Jeurnalism |  |
| Radio-television-film <br> Department of Speech, Language, and Hearing <br> Sciences <br> Speech, language, and hearing sciences | BSSLH |

## COLLEGE OF EDUCATION (p. 93)

Applied Learning and Development BSALD
Youth and community studies BSALD

Department of Kinesiology and Health Education
Applied movement science BSKin\&Health
Athletic training
BSAthTrng

| Exercise science | BSKin\&Health |
| :--- | :--- |
| Health promotion and behavioral science | BSKin\&Health |
| Physical culture and sports | BSKin\&Health |
| Sport management | BSKin\&Health |

## COCKRELL SCHOOL OF ENGINEERING

 (p. 109)| Department of Aerospace Engineering and Engineering Mechanics |  |
| :---: | :---: |
| Aerospace engineering | BSAsE |
| Computational engineering | BSCompE |
| Department of Biomedical Engineering |  |
| Biomedical engineering | BSBiomedE |
| John J. McKetta Jr. Department of Chemical Engineering |  |
| Chemical engineering | BSChE |
| Department of Civil, Architectural, and Environmental Engineering |  |
| Architectural engineering | BSArchE |
| Environmental engineering | BSEnvE |
| Civil engineering | BSCE |
| Department of Electrical and Computer Engineering |  |
| Electrical engineering | BSEE |
| J. Mike Walker Department of Mechanical Engineering |  |
| Mechanical engineering | BSME |
| Hildebrand Department of Petroleum Engineering |  |
| Petroleum engineering | BSPE |
| Geosystems engineering and hydrogeology (offered jointly by the Hildebrand Department of Petroleum and Geosystems Engineering and the Jackson School of Geosciences) | BSGEH |

## COLLEGE OF FINE ARTS (p. 155)

| Department of Art and Art History |  |
| :---: | :---: |
| Art history | BA |
| Studio art | BA, BFA |
| Art education | BFA |
| School of Design and Creative Technologies |  |
| Arts and entertainment technologies | BSAET |
| Design | BA, BFA |
| Sarah and Ernest Butler School of Music |  |
| Composition | BMusic |
| Jazz (emphasis in composition or performance: double bass, drum set, guitar, piano, saxophone, trombone, and trumpet) | BMusic |
| Music | BAMusic |
| Music Composition | BMusic |
| Music Performance (Students may major in voice, piano, organ, harpsichord, harp, or one of the orchestral instruments, including euphonium, guitar, and saxophone) | BMusic |
| Music studies | BMusic |
| Department of Theatre and Dance |  |
| Acting | BFA |


| Dance | BFA |
| :--- | :--- |
| Theatre and dance | BATD |
| Theatre education | BFA |

## JOHN A. AND KATHERINE G. JACKSON SCHOOL OF GEOSCIENCES (p. 174)

| Department of Geological Sciences |  |
| :--- | :--- |
| Geological sciences | BAGeoSci, <br> BSEnvirSci |
| Geological Sciences |  |
| General geology | BSGeoSci |
| Geophysics | BSGeoSci |
| Hydrogeology | BSGeoSci |
| Teaching | BSGEH |

(offered jointly with the Cockrell School of
Engineering)

# SCHOOL OF INFORMATION (p. 190) 

Informatics*
BA, BSI*
*Informatics degree programs were approved by the Texas Higher Education Coordinating Board October 22, 2020 and are effective with the fall 2021 semester.

## COLLEGE OF LIBERAL ARTS (p. 204)

| Health and society | BA |
| :---: | :---: |
| Human Dimensions of Organizations | BA |
| Humanities | BA |
| International relations and global studies | BA |
| Plan II Honors Program | BA |
| Department of African and African Diaspora Studies |  |
| African and African diaspora studies | BA |
| Race, indigeneity, and migration | BA |
| Department of American Studies |  |
| American studies | BA |
| Department of Anthropology |  |
| Anthropology | BA |
| Center for Asian American Studies |  |
| Ethnic studies (Students majoring in ethnic studies concentrate in Asian American studies.) | BA |
| Department of Asian Studies |  |
| Asian cultures and languages (Students specialize in Chinese, Hindi/Urdu, Japanese, Korean, Malayalam, Sanskrit, or Tamil.) |  |
| Asian studies | BA |
| Department of Classics |  |
| Classical languages (Students specialize in classics, Greek, or Latin) | BA |
| Classical studies (Students specialize in ancient history or classical archaeology) | BA |
| Department of Economics |  |
| Economics | BA |
| Department of English |  |
| English | BA |


| Center for European Studies |  |
| :---: | :---: |
| European studies | BA |
| Department of French and Italian |  |
| French studies | BA |
| Italian studies | BA |
| Department of Geography and the Environment |  |
| Geographical sciences | BSEnvirSci |
| Geography | BA |
| Urban studies | BA |
| Department of Germanic Studies |  |
| German | BA |
| Department of Government |  |
| Government | BA |
| Department of History |  |
| History | BA |
| Schusterman Center for Jewish Studies |  |
| Jewish studies | BA |
| Teresa Lozano Long Institute of Latin American Studies |  |
| Latin American studies | BA |
| Department of Linguistics |  |
| Linguistics | BA |
| Department for Mexican American and Latina/o Studies |  |
| Mexican American and Latina/o studies | BA |
| Center for Middle Eastern Studies |  |
| Middle Eastern studies | BA |
| Department of Philosophy |  |
| Philosophy | BA |
| Department of Psychology |  |
| Psychology | BA, BSPsy |
| Department of Religious Studies |  |
| Religious studies | BA |
| Department of Rhetoric and Writing |  |
| Rhetoric and writing | BA |
| Center for Russian, East European, and Eurasian Studies |  |
| Russian, East European, and Eurasian studies | BA |
| Department of Sociology |  |
| Sociology | BA |
| Department of Spanish and Portuguese |  |
| Portuguese | BA |
| Spanish | BA |
| Center for Women's and Gender Studies |  |
| Women's and gender studies | BA |
| COLLEGE OF NATURAL SCIENCES |  |
| (p. 254) |  |
| Department of Astronomy |  |
| Astronomy | BA, BSA, BSAst |
| Biology Instruction Office |  |
| Biology | BSA, BSBio |
| Department of Chemistry |  |
| Chemistry | BA, BSA, BSCh |
| Department of Computer Science |  |


| Computer science | BA, BSA, BSCompSci |
| :--- | :--- |
| School of Human Ecology |  |
| Human development and family sciences | BSA, BSHDFS |
| Human ecology | BSA |
| Nutrition | BSPublichealth |
| Public health | BSTA |
| Textiles and apparel | BSEnvirSci |
| Department of Integrative Biology | BA, BSA, BSMath |
| Biological sciences |  |
| Department of Mathematics | BSA, BSBioch |
| Mathematics | BSMedLabSci |
| Department of Molecular Biosciences | BSA, BSNeurosci |
| Biochemistry | Medical laboratory science |
| Department of Neuroscience | BA, BSA, BSPhy |
| Neuroscience |  |

## SCHOOL OF NURSING (p. 308)

Nursing BSN
COLLEGE OF PHARMACY (p. 320)
Pharmacy ..... PharmD
STEVE HICKS SCHOOL OF SOCIAL WORK (p. 329)
Social workBSW

## Dual Degree Programs

A dual degree program allows for academically outstanding students to pursue two separate degree programs through a structured arrangement that may reduce time to degree completion. Separate degrees are awarded within one university or inter-institutionally when students pursue and complete simultaneous majors leading to two, separate degrees at the same level based on a formal agreement. Separate academic awards for each distinct degree are conferred bearing the university's name, seal, and signature.

| Architecture/Architectural engineering | BArch and BSArchE |
| :--- | :--- |
| Architecture/Plan II | BArch and BA |
| Business/Computer science | BBA and BSCompSci |

## Programs with other institutions.

The dual degree programs listed above lead to two University degrees; in other programs, students pursue degrees from the University and from another school at the same time. The University's School of Pharmacy offers a coordinated program with the University of Texas Health Science Center at Houston School of Public Health leading to the Doctor of Pharmacy (PharmD) professional degree from the University and the Master of Public Health from the center.

## Integrated Degree Programs

A degree program, typically five years long, based on a formal agreement within one university or that is inter-institutional intentionally designed to serve as a bridge between undergraduate and graduate programs. Integrated degree programs allow undergraduate students to complete
master's coursework as an undergraduate student and use those courses toward a master's program. Graduate-level courses taken by undergraduates may be used to satisfy their undergraduate degree requirements or they may be reserved for graduate credit towards the graduate degree. Such arrangements may reduce time to degree completion. After completing undergraduate degree requirements, students transition to the graduate program and complete their master's degree as a graduate student.

| Accounting | BBA and MPA |
| :--- | :--- |
| Biomedical engineering | BSBME and MSE |
| Computer science | BSCompSci and <br> MSCompSci |
| Computer science and Information studies | BSCompSci and <br> MSIS |
| Computer science and Computational science, | BSCompSci and |
| engineering, and mathematics | MSCSEM |
| Electrical engineering | BSEE and MSE |
| Mechanical engineering | BSME and MSE |
| Women's and gender studies | BA and MA |

## Programs with other institutions.

The integrated degree programs listed above lead to two University degrees; in other programs, students pursue degrees from the University and from another school at the same time. The University's College of Natural Sciences offers an integrated degree program with the University of Texas Health Science Center at Houston School of Public Health leading to the Bachelor of Science in Public Health (BSPublichealth) degree from the University and the Master of Public Health degree from the center.

## Other programs. ${ }^{1}$

## Bridge Programs

Bridge programs offer undergraduate students an opportunity to prepare for future graduate study by providing access to courses and program resources that normally require graduate standing. Undergraduate students may apply for admission through the graduate academic unit sponsoring the bridge program. Admission to a bridge program is highly competitive and does not guarantee admission to a graduate degree program. For more information, each of the following bridge programs is described in the Graduate catalog section for the graduate program that sponsors it.

## Graduate academic units sponsoring bridge programs for undergraduates.

Red McCombs School of Business

| Business analytics | MSBA |
| :--- | :--- |
| Finance | MSF |
| Information technology and management | MSITM |
| Marketing | MSM |

1 Added October 22, 2020.

## 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.

Students are admitted to the University with a single major. They may choose a second major after completing 30 semester hours of coursework in residence at the University. A student must follow any application procedures and meet any admission requirements that have been established for the second major; information about these and other relevant college policies is available from the dean. Approval of the student's application for simultaneous major will take into account the student's ability to graduate within four years ${ }^{1}$ of entering the University.

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

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

## Interdisciplinary Opportunities

Several of the majors listed in the section "Degree Programs" are interdisciplinary in nature. The Bachelor of Science in Biomedical Engineering, for example, is offered by the Cockrell School of Engineering but involves substantial coursework in the life and physical sciences; in the various area studies programs in the College of Liberal Arts, such as Latin American studies and Middle Eastern studies, students examine a geographic area from the viewpoints of several traditional disciplines.

In addition to interdisciplinary majors, the simultaneous major option (p. 13), and the formal dual degree programs described later in this catalog, the University provides various ways for students to add breadth and diversity to their studies. These include the minor and transcriptrecognized certificate programs (p. 13); other concentrations, not reflected on the graduate's transcript, are described in the later chapters of this catalog. The Education 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 the School of Undergraduate Studies help students traverse the traditional boundaries between colleges and disciplines.

Cross-disciplinary initiatives of the colleges and schools are often described on their websites, which may be reached via http:// www.utexas.edu/academics/areas-of-study.

## Minor and Certificate Programs

## Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin; students pursuing an integrated undergraduate/graduate program must complete the requirements for the minor within one year after completing the undergraduate requirements of their program.

Minors in all areas except foreign languages. Transcript-recognized undergraduate minors require a minimum of 15 hours of coursework in the minor area, but may not require more than 18 hours. None of the specified coursework from the minor can include unnumbered topics courses. Minors must include a minimum of six hours of upper division coursework.

Minors in foreign languages. Transcript-recognized undergraduate minors in foreign languages require a minimum of 15 hours of coursework in the minor area, but may not require more than 21 hours. None of the specified coursework from the minor can include unnumbered topics courses. Minors must include a minimum of nine hours beyond first year competence in the language, including at least three hours of upper division coursework.

At least half of the required course work in the minor must be completed in residence at The University of Texas at Austin.

A student may not earn a minor in the same field of study as his or her major, and at least nine of the hours required for the minor must include coursework not used to satisfy the requirements of the student's major. However, courses in the minor may fulfill other degree requirements such as general education requirements or required elective hours.

Transcript recognition is awarded at the time of undergraduate degree completion.

Each of the following transcript-recognized minor programs is described in the catalog section for the college that sponsors it.

## School of Architecture (p. 39)

- Architectural History Minor
- Architectural Studies Minor
- Interior Design Minor
- Landscape Studies Minor


## McCombs School of Business (p. 59)

- Accounting Minor
- Accounting Minor for Business Economics Option Program
- Business Analytics Minor
- Business and Public Policy Minor
- Business Minor
- Energy Management Minor
- Entrepreneurship Minor
- Finance Minor
- Finance Minor for Business Economics Option Program
- Global Management Minor
- Healthcare Industry Reform and Innovation Minor
- International Business Minor
- Management Minor
- Management Information Systems Minor
- Marketing Minor
- Professional Sales and Business Development Minor
- Real Estate Minor
- Risk Management Minor
- Supply Chain Management Minor
- Wealth Management Minor

Moody College of Communication (p. 84)

- Communicating for Development and Philanthropy Minor
- Communication and Social Change Minor
- Communication Studies Minor
- Global Communication Minor
- Health Communication Minor
- Journalism and Media Minor
- Latino Media Arts and Studies Minor
- Media and Entertainment Industries Minor
- Media Studies Minor
- Professional Sales and Business Development Minor
- Science Communication Minor
- Sports Media Minor

College of Education (p. 99)

- Educational Psychology Minor
- Kinesiology and Health Education Minor
- Urban Teachers Minor

Cockrell School of Engineering (p. 145)

- Materials Science and Engineering Minor

College of Fine Arts (p. 168)

- Art History Minor
- Arts Management and Administration Minor
- Minor in Studio Art


## Jackson School of Geosciences (p. 185)

- Computational Geosciences Minor
- Geosciences Minor
- Hydrology Minor
- Sedimentology and Earth Surface Processes Minor

School of Information (p. 193)

- Informatics Minor

College of Liberal Arts (p. 227)

- African and African Diaspora Studies Minor
- American Sign Language Studies Minor
- American Studies Minor
- Anthropology Minor
- Arabic Minor
- Archaeology Minor
- Asian American Studies Minor
- Asian Religions Minor
- Chinese Minor
- Classical Studies Minor
- Comparative Literature Minor
- Core Texts and Ideas Minor
- Cultural Anthropology Minor
- Cultural Expression, Human Experience, and Thought Minor
- Economics Minor
- English Minor
- European Studies Minor
- Evolutionary and Functional Anatomy Minor
- French Studies Minor
- Geography Minor
- German, Scandinavian, and Dutch Studies Minor
- Global Interreligious Dynamics Minor
- Government Minor
- Greek Minor
- Hebrew Minor
- History Minor
- Holocaust and Genocide Studies Minor
- Italian Studies Minor
- Jewish Studies Minor
- Korean Minor
- Language, Culture, and Communication Minor
- Latin Minor
- Law, Justice, and Society Minor
- Lesbian, Gay, Bisexual, Transgender, and Queer/Sexualities Studies Minor
- Medieval Studies Minor
- Mexican American and Latina/o Studies Minor
- Middle Eastern Studies Minor
- Military Leadership Minor
- Persian Minor
- Philosophy Minor
- Philosophy of Law Minor
- Philosophy of the Mind and Language Minor
- Portuguese Minor
- Primatology Minor
- Religious Studies Minor
- Rhetoric and Writing Minor
- Russian Minor
- Russian, East European, and Eurasian Studies Minor
- Slavic and Eurasian Languages Minor
- Social and Behavioral Sciences Minor
- Sociology Minor
- Spanish Minor
- Turkish Minor
- UTeach-Liberal Arts Minor
- Women's and Gender Studies Minor

School of Social Work (p. 332)

- Disability Studies Minor
- Social Work Minor


## Transcript-Recognized Certificate Programs

Transcript-recognized certificate programs offer interdisciplinary curricula that support and extend a student's major or curricula in a specific academic or technical field that support a student's educational goals. Undergraduates who complete certificate requirements in conjunction with their degree requirements or within one year after earning the degree receive recognition on the University transcript; students in integrated undergraduate/graduate programs must complete certificate requirements within one year after they complete their undergraduate degree requirements. Transcript-recognized undergraduate academic certificate programs require a minimum of 18 hours of certificate course work but may not require more than 24 hours. A maximum of nine hours of certificate coursework may be taken after the student has earned the undergraduate degree. At least half of the required certificate coursework must be completed in residence at the University.

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

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

The above requirements do not apply to Extended Campus students who are not seeking a degree from The University of Texas at Austin. For Extended Campus students, all of the required course work in a certificate program must be University of Texas at Austin credit, unless otherwise specified for a specific program. Extended Campus students apply for transcript recognition at the time of certificate completion and transcript recognition is awarded at that time.

Not all transcript-recognized certificate programs are available to Extended Campus students. More information about certificate programs available through TEXAS Extended Campus (TEC), including related policies, is on the TEC website.

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

School of Undergraduate Studies (p. 24)

- Children and Society Certificate
- Conflict Resolution and Peace Studies Certificate
- Design Strategies Certificate
- Digital Arts and Media Certificate
- Environment and Sustainability Certificate
- Ethics and Leadership in Business Certificate
- Ethics and Leadership in Health Care Certificate
- Ethics and Leadership in Law, Politics, and Government Certificate
- Ethics and Leadership in the Technology and the Media Certificate
- Human Rights and Social Justice Certificate
- Innovation, Creativity, and Entrepreneurship Certificate
- Media, Culture, and Identities Certificate
- Museum Studies Certificate
- Patients, Practitioners, and Cultures of Care Certificate
- Public Policy Certificate
- Smart Cities Certificate
- Social Entrepreneurship and Nonprofits Certificate
- Social Inequality, Health, and Policy Certificate

McCombs School of Business (p. 72)

- Wealth Management Certificate

School of Engineering (p. 145)

- Computational Science and Engineering Certificate
- Humanitarian Engineering Certificate
- National Academy of Engineering Grand Challenges Scholars Program Certificate

Jackson School of Geosciences (p. 185)

- Computational Science and Engineering Certificate

School of Information (p. 193)

- Digital Humanities Certificate

College of Liberal Arts (p. 236)

- African Studies Certificate
- Business Spanish Certificate
- Computational Science and Engineering Certificate
- Core Texts and Ideas Certificate
- Creative Writing Certificate
- Digital Humanities Certificate
- German Certificate
- History and Philosophy of Science Certificate
- Ibero-American Cultural Diversity Certificate
- Indigenous Studies Certificate
- Japanese Certificate
- Lesbian, Gay, Bisexual, Transgender, and Queer/Sexualities Studies Certificate
- Security Studies Certificate
- Spanish for Medical Professions Certificate

College of Natural Sciences (p. 291)

- Applied Statistical Modeling Certificate
- Computational Science and Engineering Certificate
- Elements of Computing Certificate
- Evidence and Inquiry Certificate
- Food and Society Certificate
- Forensic Science Certificate
- Marine Science Certificate
- Pre-Health Professions Certificate
- Quantum Information Science Certificate
- Scientific Computation and Data Sciences Certificate
- Textile Conservation and Museum Studies Certificate
- UTeach-Natural Sciences Secondary Teaching Option Certificate
- UTeach-Natural Sciences Secondary Teaching Option Accelerated Track Certificate
- UTeach Teacher Certification

School of Social Work (p. 332)

- Public Safety Certificate


## Preparation for Health Professions

The rapid expansion and diversification of services designed to meet the health needs of society provide students with a variety of career opportunities in health care. Competition for admission to professional school programs is keen. It is important to explore and determine fitness for a health profession career path by becoming academically wellprepared and by participating in extra-curricular activities that develop knowledge of healthcare and the profession, leadership and collaboration with others, and community involvement.

## Advisory Services

Students interested in health careers should contact the Health Professions Office, PAI 5.03, for coaching designed to prepare them for admission to professional schools. The Health Professions
Office maintains a website, including resource information on health
careers. The HPO communicates with students via various social media platforms and their e-mail distribution list. The office sponsors a lecture series, an annual Health Professions Fair, and other programs.

In general, professional schools do not indicate a preferred undergraduate major, leaving the student free to choose a degree program suited to his or her interests and abilities. The student should complete at least the minimum professional school course requirements before taking a nationally standardized admission test such as the Dental Admission Test, Medical College Admission Test, Pharmacy College Admission Test, or Graduate Record Examinations. Health Professions Office provides information on courses that meet professional school admission requirements. Academic advisors in the student's major department provide guidance to incorporate pre-health professions courses into their degree plan.

## Completion of an Undergraduate Degree and Admission to Professional Schools

It is rare for a student to be admitted to graduate health professions schools without a bachelor's degree. A notable exception is that most professional pharmacy programs, including those in Texas, do not require a bachelor's degree for admission. However, many who are admitted to PharmD programs complete a bachelor's degree before starting Pharmacy school.

The Health Professions Office encourages students in all pre-health professions areas to complete a bachelor's degree in an area of interest that supports flexibility in career options.

## Applying to Professional School

The Health Professions Office provides a variety of application resources and tools to assist students in the application process.

All applicants to health professions programs should consult the schools' websites and catalogs, as well as the most recent online editions of admissions guides such as ADEA Official Guide to Dental Schools, the AAMC Medical School Admission Requirements, the AAVMC Veterinary Medical School Admission Requirements, and the AACP Pharmacy School Admission Requirements.

## Preparation for Law

Per the American Bar Association, there are no specific course prerequisites for admission to law school. Aspiring law students are encouraged to pursue an area of study that interests and challenges them, while engaging in a diverse range of coursework designed to develop strong analytical, critical thinking, and writing skills, within their chosen area of study.

For answers to specific questions about a pre-law program, currently enrolled students of any major may schedule an appointment with the Pre-Law Advisor in the College of Liberal Arts in the Liberal Arts Career Services (LACS). The Pre-Law Advisor can provide students with resources on how to research the legal profession, law schools, and financing a legal education; help applicants plan, strategize, and maximize timing of their application materials; discuss LSAT preparation, scholarship reconsideration, wait list protocol, and other related topics as they pertain to the law school application process. Additional information about preparation for law is available at Pre-Law Planning.

Like most professional schools, the University's law school has a number of specific requirements. For example, prior to matriculation at law school, candidates must have completed their bachelor's degree from an accredited college or university, earned a GPA of at least 2.20 on all undergraduate work as calculated by LSAC, and obtained a reportable
score on the LSAT. An applicant's law school admission test (LSAT) score and undergraduate GPA are two of the factors considered, along with their resume, personal statement, letters of recommendation, and other supporting documents; no single factor by itself will guarantee admission or denial. Information about admission to The University of Texas at Austin School of Law is given in the General Information Catalog and in the Law School Catalog.

## Preparation for Teacher Certification

Students seeking certification to teach in Texas public schools for elementary (early childhood through grade six) must earn the Bachelor of Science in Applied Learning and Development in the College of Education and must meet the appropriate state certification requirements.

Students seeking certification to teach in Texas public schools for elementary (early childhood through grade six), middle school (grades four through eight), secondary (grades six through 12, seven through 12, and eight through 12), or all-level (early childhood through grade 12) must earn a bachelor's degree in the field they intend to teach and must meet the requirements for teacher certification. Students seeking teacher certification for either middle school or secondary math or science must follow the curriculum prescribed by the UTeach-Natural Sciences (p. 17) program. Students seeking teacher certification for middle school or secondary in English for language arts, social studies, or languages other than English must follow the curriculum prescribed by the UTeach-Urban Teachers (p. 17) or UTeach-Liberal Arts (p.17) programs. Students seeking teacher certification for all-level in art, music, or theatre arts or secondary in dance must follow curriculum prescribed by the UTeach-Fine Arts (p. 17) program. Students seeking teacher certification for other areas should consult an advisor in the major department about degree requirements and a teacher certification advisor in the College of Education about certification requirements.

## Middle School, Secondary, and All-Level Teacher Certification

All teacher certification programs for middle school, secondary, and alllevel are based on degrees with academic majors in the student's chosen teaching field. Requirements for students seeking teacher certification for middle school, secondary, and all-level include all courses required for the student's major in the College of Education, College of Fine Arts, Jackson School of Geosciences, College of Liberal Arts, or the College of Natural Sciences, as well as the preprofessional and professional education courses.

## UTeach-Urban Teachers

UTeach-Urban Teachers is a teacher preparation program for students seeking teacher certification for secondary in English or social studies. Information is available on the UTeach-Urban Teachers website and from the College of Education advising office.

## UTeach-Fine Arts

Program advising for students seeking teacher certification for all-level in art, music, and theatre arts or secondary in dance is provided in the College of Fine Arts. Information is available at https:// finearts.utexas.edu/students.

## UTeach-Liberal Arts

UTeach-Liberal Arts is a professional teacher preparation program for liberal arts students pursuing academic majors in Arabic, Chinese, economics, English, French, history, geography, German, government,

Japanese, Latin, Middle Eastern Studies, Russian, and Spanish. Students may seek certification to teach middle school or secondary.

UTeach-Liberal Arts offers a four-semester program for undergraduate students and a three-semester program for postbaccalaureate students. Admission into the program is required. Undergraduate students may enter the program as early as the second semester of their freshman year. More information about UTeach-Liberal Arts and the admission process is available at https://liberalarts.utexas.edu/uteach/.

## UTeach-Natural Sciences

Students seeking teacher certification for middle school or secondary in mathematics, computer science, science, or engineering must follow the curriculum prescribed by the UTeach-Natural Sciences program, a collaborative partnership between the College of Education and the College of Natural Sciences. Program advising is housed in the College of Natural Sciences.

## Certification Requirements

Information about legal requirements for certification to teach is available from the College of Education certification officer, George I. Sánchez Building 216, or from the Texas Education Agency.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

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 teacher certification must also achieve a passing level of performance on the required state certification examinations and complete fingerprinting requirements. See State Board for Educator Certification (SBEC) at http://www.tea.texas.gov for details. In addition, students seeking bilingual education certification or certification to teach French or Spanish in elementary, middle school, or secondary must earn a passing score at the advanced level on the appropriate language test. Field observations and practical classroom teaching in community and school environments are required of all students seeking teacher certification. Accountability information for the teacher preparation program is given in the General Information Catalog.

## Minimum Scholastic Requirements

In addition to meeting the minimum coursework and scholastic requirements for the degree, students seeking teacher certification for middle school, secondary, and all-level must meet other requirements to take the prescribed work in professional development. Students seeking teacher certification must be approved by the College of Education for the Professional Development Sequence. Admission to the Professional Development Sequence (p.17) is restricted; information about admission requirements is available in the College of Education, Office of the Dean, George I. Sánchez Building 216.

## Teaching Fields

All teacher certification candidates for middle school, secondary, and all-level must earn a degree in their primary teaching field by meeting all of the requirements for the appropriate major. While completing these requirements, the student seeking teacher certification must take a core set of courses in the major that fulfill certification requirements. This certification core includes at least 24 semester hours in a single
teaching field or 48 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 24 semester hours, but the certification core in the major field must be taken.

Students seeking teacher certification for middle school may choose from the following teaching fields:

- English language arts and reading
- social studies
- mathematics
- science

Students seeking teacher certification for secondary may choose from the following teaching fields:

- dance
- English language arts and reading
- history
- social studies
- computer science
- mathematics
- science

Students seeking teacher certification for all-level may choose from the following teaching fields:

- art
- Ianguages other than English (Arabic, Chinese, French, German, Japanese, Latin, Russian, or Spanish)
- music
- physical education
- special education
- theatre arts


## Areas for Teacher Certification recommendation:

College of Education

- UTeach-Urban Teachers Program (p. 93)
- Bachelor of Science in Applied Learning and Development (p. 94)
- Bachelor of Science in Kinesiology and Health (p. 97)


## College of Fine Arts

- UTeach-Fine Arts Program (p. 155)
- Bachelor of Fine Arts (p. 159)
- Bachelor of Music (p. 162)


## College of Liberal Arts

- UTeach-Liberal Arts Programs (p. 204)
- UTeach-Liberal Arts Minor (p. 227)


## College of Natural Sciences

- UTeach-Natural Sciences Program (p. 254)
- Bachelor of Science in Biology (p. 265)
- Bachelor of Science in Chemistry (p. 268)
- Bachelor of Science in Computer Science (p. 270)
- Bachelor of Science in Mathematics (p. 278)
- Bachelor of Science in Physics (p. 286)
- UTeach-Natural Sciences Certificate (p. 291)


## Education Career Services

Education Career Services provides career services such as resume writing workshops and critiques, interview preparation workshops, individual mock interviews, school district panels, networking opportunities, and job fairs. Additional information is available on the Education Career Services website at https://education.utexas.edu/ about/college-offices/career-services.

## Criminal History Acknowledgement

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

- In order to earn a State of Texas teacher certification, you must pass a criminal history background check.
- If you have been convicted of an offense that is considered not appropriate for an educator, you could be ineligible to earn a teacher certification from the State of Texas.
- You may request a Preliminary Criminal History Evaluation from the Texas Education Agency. More information about the Preliminary Criminal History Evaluation is online at https://tea.texas.gov/Texas_Educators/Investigations/ Preliminary_Criminal_History_Evaluation-FAQs/.


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

## Graduate Work for Undergraduate Credit

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

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

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

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

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

## Reservation of Work by Undergraduates for Graduate Credit

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

1. The student must have a University grade point average of at least 3.00 .
2. The student must have completed at least 90 semester hours of coursework toward an undergraduate degree.
3. The student may not register for more than 15 semester hours in the semester or for more than 12 semester hours in the summer session in which the course is reserved.
4. No more than 12 semester hours may be reserved for graduate credit.
5. All courses reserved for graduate credit must be approved by the twelfth class day of the semester or the fourth class day of the summer session by the course instructor, the student's undergraduate adviser, the graduate adviser in the student's proposed graduate major area, the dean of the student's undergraduate college, and the graduate dean. A form for this purpose is available in the Office of Graduate Studies.

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

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

## Courses in the School of Law

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

## Honors

Honors programs and organizations are described in college/school sections of this catalog. General Information gives the requirements for recognition as a College Scholar or Distinguished College Scholar, inclusion on the University Honors list, and graduation with University honors.

## Academic Advising

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

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

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

## Student Responsibility

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

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

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

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

## The University Catalog

Information about the University catalog is found in General Information.

## The Course Schedule

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

## Dean's Offices

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

## Graduation

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

No degree will be conferred except on publicly announced dates.

## Multiple Degrees

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

## General Requirements

To receive an undergraduate degree from The University of Texas at Austin, a student must fulfill the Core Curriculum (p. 23) requirements
and all requirements for the degree as set forth in a catalog under which he or she is eligible to graduate and any special requirements of the college or school and department offering the degree, as well as the following minimum general requirements:

1. The student must have a grade point average of at least 2.00 on all courses undertaken at the University (including credit by examination, correspondence, and extension) for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded. Additional requirements imposed by a college or school, if any, are given in the college's section 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 requirement 2a below. However, coursework in Universityapproved affiliated study abroad programs may not be used to fulfill requirement 2 b .
a. The student must complete in-residence at least 60 semester hours of coursework counted toward the degree. (This requirement is waived for students in the Associate Degree in Nursing to Bachelor of Science in Nursing (ADNBSN), a degree program for registered nurses who hold associate's degrees or diplomas in nursing.)
b. At least six semester hours of advanced coursework in the major must be completed in residence.

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

The six hours of coursework used to fulfill the requirement must cover both the United States and the Texas constitutions. Texas colleges and universities differ in the way they include this material in the courses they offer. As a result, some combinations of government courses taken at different institutions do not fulfill the requirement, even though they provide six hours of credit. The following combinations of coursework, some of which include transferred work, fulfill the government requirement at the University:
i. Government 310 L and 312 L or 312 P
ii. Government 310L and three hours of transfer credit in United States government (entered into the student's University record as "GOV 3 US")
iii. Government 310L and three hours of transfer credit in Texas government (Government 306C)
iv. Three hours of transfer credit in United States government ("GOV 3 US") and three hours of transfer credit in Texas government (Government 306C)

A number of sections of Government 312L are offered each semester. Because some of these sections deal with state government and some deal with federal government, credit for Government 312L in combination with transfer credit in United States government ("GOV 3 US") or in Texas government (Government 306C) may fail to fulfill the legislative requirement. If a student has such a combination of credit, the School of Undergraduate Studies will evaluate the coursework to determine whether both the state and the federal components of the requirement have been met.
b. Each student must complete six semester hours of coursework in American history. Up to three hours in Texas history may be counted toward this requirement. Because these courses are not electives, they may not be taken on the pass/fail basis at the University. Credit by examination may be counted toward the requirement.

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

## Graduation Under a Particular Catalog

To receive a bachelor's degree, a student must fulfill all the degree requirements in a catalog under which they are 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 the student 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 as would have been available if the dates of attendance at the University had been the same as the dates of attendance at the other institution.

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

## Catalog Choices

The catalog choices open to business, engineering, and pharmacy students are described below. In all other divisions, a student may graduate under the catalog covering any academic year in which the student 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 2020-2022 catalog must do so by the end of the summer session 2028 (2029 for the Bachelor of Architecture).

## McCombs School of Business

A business student may graduate under the catalog covering any academic year in which the student 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 2020-2022 catalog must do so by the end of the summer session 2028.

## Cockrell School of Engineering

An engineering student may graduate under the catalog covering any academic year in which the student was enrolled in the school. Whichever catalog the student chooses, all degree requirements must be completed within six years of the end of the two-year period covered by that catalog. For example, a student who chooses to graduate according to the requirements in the 2020-2022 catalog must do so by the end of the summer session 2028.

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

## College of Pharmacy

A pharmacy student may graduate under the catalog in effect immediately preceding the student's admission to the college or the catalog covering any academic year in which the student 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 2020-2022 catalog must do so by the end of the summer session 2029.

## School of <br> Undergraduate Studies

Brent Iverson, PhD, Dean<br>Lori Holleran Steiker, PhD, Associate Dean<br>Jeanette M. Herman, PhD, Assistant Dean, Academic Initiatives Patty Moran Micks, Assistant Dean<br>http://ugs.utexas.edu/

## General Information

## Mission

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

## Common Curriculum

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


## Strategic Advising \& Career Counseling

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


## Academic Assistance

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


## Learning Communities

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


## Interdisciplinary Programs

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


## Undergraduate Research

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


## Admission and Registration

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

Detailed information about the admission process is provided in the General Information Catalog, which also includes information about registration, adding and dropping courses, transferring from one division of the University to another, and the academic calendar. The Course Schedule, published before registration each semester, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and General Information Catalog are available through the registrar's website.

## Academic Policies and Procedures

## Basic Education Requirements

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

All graduates of the University are expected to:

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

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

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

## Core Curriculum

All students pursuing an undergraduate degree at the University must complete the 42-hour statewide core curriculum. The component area requirements are consistent with statewide core curriculum guidelines; the area of the statewide core that each requirement meets is given in parentheses in the table below. A single course may not be counted toward more than one core area.

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

Core Component Area | Semester |
| ---: |
| Credit Hours |

First-Year Signature Course (Texas Core Code 090)
Course should be taken during the student's first year enrolled at the University.
English Composition and Core Writing Flag (Texas Core 6
Code 010)
Humanities (Texas Core Code 040)
American and Texas Government (Texas Core Code 070) 6
U.S. History (Texas Core Code 060) 6

Social and Behavioral Sciences (Texas Core Code 080) 3
Mathematics (Texas Core Code (020) 3
Natural Science and Technology, Part I (Texas Core Code 6
030)

Natural Science and Technology, Part II (Texas Core Code
093)

Visual and Performing Arts (Texas Core Code 050)
Total number of semester credit hours42

The School of Undergraduate Studies monitors core courses to ensure that they meet the guidelines set by the general faculty and the Texas Higher Education Coordinating Board. For the complete list of courses that have been approved to count for each core component area for all students at The University of Texas at Austin, students should consult the current General Information Catalog or see the Undergraduate Studies website. Students should consult the Course Schedule in order to see the core offerings in any given semester.

State law requires that courses fulfilling a core component area (including the institutionally designated option) at one Texas public institution must transfer and substitute for the receiving institution's requirements. However, this only applies to courses taken when a student does not hold degree-seeking status at The University of Texas at Austin, typically before first enrolling at the University. While a student
holds degree-seeking status at the University, courses taken to fulfill core curriculum requirements must be chosen from The University of Texas at Austin's core course list published in the General Information Catalog for the current academic year, regardless of where they are taken.

## Signature Courses

The Signature Courses at The University of Texas at Austin (Undergraduate Studies 302 and 303) introduce students to new ways of learning through a myriad of subjects and topics by connecting students with distinguished faculty members in unique learning environments. In this rigorous intellectual experience, students develop advanced collegelevel skills in research, writing, speaking, and discussion through an approach that is both interdisciplinary and contemporary. These classes range from the arts and humanities to the hard sciences, but every class has unique components that help students throughout their college career and beyond. All students are required to take a Signature Course to fulfill university core requirements. Transfer students have the option to register for Transfer Signature Courses.

The Signature Courses:

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

More information about Signature Courses is available at http:// ugs.utexas.edu/sig.

## Additional Basic Education Requirements Skills and Experience Flags

The Skills and Experience Flags are a unique and innovative feature of all undergraduate degrees at The University of Texas at Austin. The flags are specifically designed to provide the enriched education that all students will need to become effective future leaders in our society and a constantly evolving workplace. To this end, in the process of fulfilling the core curriculum, major, and other degree requirements, all undergraduate students are required to complete courses with content in the following six flag areas:

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

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

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

While all undergraduate degree programs require the flags, some are still in the process of implementing the third writing flag requirement. Students who choose to graduate according to the requirements of the 2020-2022 Undergraduate Catalog should consult their advisors and the degree requirements listed in the schools/colleges sections of this catalog to determine which of the flag requirements apply to them and how to integrate them into their degree plans.

Because flags are a unique feature of a University of Texas at Austin degree, they are designed to be completed in residence. Students may submit substitution petitions through the School of Undergraduate Studies for the following types of courses to satisfy flag requirements once they have been accepted for University of Texas at Austin credit:

- courses taken for a letter grade as part of a study abroad program
- courses taken for a letter grade through Texas Extended Campus
- in-residence courses taken for a letter grade
- transfer courses from other colleges or universities taken for a letter grade prior to the student's first semester enrolled at The University of Texas at Austin

The following types of courses or credit are rarely eligible for flag substitution:

- dual credit courses, or courses taken prior to high school graduation
- credit-by-exam courses, including courses for which Advanced

Placement, A levels, or International Baccalaureate credit is earned

- any course of less than three weeks (fewer than 21 days)
- transfer courses from other colleges or universities taken during or after the student's first semester enrolled at The University of Texas at Austin (with the exception of study abroad courses)

In all cases, flag substitution petitions will be evaluated to determine whether the course taken satisfies the flag criteria and interpretation at a level of rigor expected for courses at The University of Texas at Austin.

## Foreign Language

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

## Minor and Certificate Programs

## Bridging Disciplines Programs

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

- Children and Society
- Conflict Resolution and Peace Studies
- Design Strategies
- Digital Arts and Media
- Environment and Sustainability
- Ethics and Leadership in Business
- Ethics and Leadership in Health Care
- Ethics and Leadership in Law, Politics, and Government
- Ethics and Leadership in Technology and the Media
- Human Rights and Social Justice
- Innovation, Creativity, and Entrepreneurship
- Media, Culture, and Identities
- Museum Studies
- Patients, Practitioners, and Cultures of Care
- Public Policy
- Smart Cities
- Social Entrepreneurship and Nonprofits
- Social Inequality, Health, and Policy

Each BDP is overseen by an interdisciplinary faculty panel that sets policy, approves courses, and selects students. Within each broad area, students choose a strand of specialized courses drawn from disciplines across the University. Students are encouraged to use the BDP theme to select courses and integrate degree requirements; to this end, courses taken to fulfill core curriculum requirements, courses fulfilling major requirements, and electives may also be counted toward a BDP. In order to provide students with an interdisciplinary set of perspectives on their BDP topics, the BDP certificate may include no more than one strand course from a student's major(s), and students will be required to work with a BDP advisor to ensure that the certificate as a whole is interdisciplinary. Participation in undergraduate research, internships and creative projects is also central to the design of the BDPs.

All degree-seeking undergraduates at the University are eligible to apply for the BDPs. With careful planning, a BDP can complement most degree plans. However, because the BDPs build on core requirements and electives, students are encouraged to start early in their University careers. Students using a BDP certificate to satisfy a specific degree requirement should consult their major and BDP advisors about possible restrictions on what courses may simultaneously satisfy BDP and other degree requirements. Because there is significant overlap in program focus and course work, the following majors and BDP certificates may not be combined:

- Students majoring in Arts and Entertainment Technology may not pursue the Digital Arts and Media BDP.
- Students majoring in Environmental Science or Sustainability Studies may not pursue the Environment and Sustainability BDP.
- Students majoring in Communication and Leadership may not pursue the Ethics and Leadership in Technology and the Media BDP.
- Students majoring in Public Health or Health and Society may not pursue the Public Health strand of the Social Inequality, Health, and Policy BDP; they may, however, pursue other strands within that program.

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

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

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

## Requirements

## Hours

At least 19 semester hours of coursework. The distribution of coursework varies by specialization, and students should consult the BDP office for the requirements of each program.
For all specializations, the coursework requirements consist of the following:

Foundation Courses: One to 10 hours in foundation courses that introduce key concepts and methodologies related to the interdisciplinary concentration.
Connecting Experiences: Three to nine hours in undergraduate research, internships, and/or creative project courses that connect students' interdisciplinary concentration to their major.
Courses in a Strand: Six to 12 hours in courses in a strand, which allows students to focus their remaining BDP coursework. ${ }^{1}$

A three- to four-page integration essay in which students reflect on what they have learned and accomplished through their BDP experience. ${ }^{2}$
Completion of the requirements of a major.
Please Note:
Students must earn a grade of at least C- in each of the courses taken to fulfill BDP requirements and the cumulative grade point average in all courses counting toward a student's BDP certificate must be at least 2.00. All but one of the courses taken to fulfill BDP requirements must be taken on the letter-grade basis.
At least half of the required course work in the BDP certificate must be completed in residence at The University of Texas at Austin.
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1. Course listings for BDP strands are located on the BDP website at http://ugs.utexas.edu/bdp.
2. These essays will be reviewed by members of a BDP faculty panel. Additional guidelines are available from the BDP advisors.

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

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the School of Undergraduate Studies: Bridging Disciplines (BDP), Developmental Studies (DEV), and Undergraduate Studies (UGS).

## Programs and Centers

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

The James W. Vick Center for Strategic Advising \& Career Counseling integrates learning-centered academic advising with career counseling to assist students enrolled in the School of Undergraduate Studies and all students interested in changing majors at The University of Texas at Austin.

Vick Center advisers and counselors serve on cross-functional teams, bringing knowledge and expertise about major and career exploration together to help students plan their educational and career paths.

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

## Sanger Learning Center

The Sanger Learning Center is a university-wide learning resource dedicated to students' mastery of course content and development of transferable academic and professional skills. Services are free to currently enrolled students in all schools and colleges (some restrictions may apply).

## Summary of Services

- Appointment Tutoring provides one-to-one tutoring sessions for many challenging undergraduate courses.
- Drop-in Tutoring offers informal, group-based content support for many lower-division math, physics, and chemistry courses.
- Learning Specialist Appointments are private academic counseling appointments. Students can explore time management, study skills, test anxiety and more with SLC professional staff.
- Math Refreshers are workshops to refresh students' algebra, trigonometry, and calculus skills.
- Math Reviews help calculus and pre-calculus students prepare for exams.
- Peer Academic Coaching offers students the opportunity to develop effective study skills by meeting one-on-one with a trained peer academic coach.
- Peer-led Undergraduate Studying supports student performance and motivation with weekly study groups in historically difficult upperdivision courses.
- The Public Speaking Center provides one-to-one consultation services to undergraduate and graduate students who are working on oral communication assignments.
- Supplemental Instruction offers guided study sessions to support students in historically difficult, lower-division courses.

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

## 360 Connections

The 360 Connections initiative was developed so all first-year students have the opportunity to connect with a small peer group during their first semester on campus. By participating in a 360 Connection (which may be a cohort, program, community, group, or class), students receive a holistic, $360^{\circ}$ view of life as a Longhorn. More information about the 360 Connections is available at http://ugs.utexas.edu/360.

## First-year Interest Groups

A First-year Interest Group (FIG) is comprised of 18-25 new students who take two to four classes together during their first semester at the University. FIGs help students integrate socially, academically, and developmentally to ensure a smooth transition to college life, leading to academic success and on-time graduation. Each group attends a weekly seminar led by a peer mentor and a staff facilitator. Each FIG student attends classes, studies, and participates in various activities with their mentor and fellow first-years. More information about FIGs is available at http://ugs.utexas.edu/fig.

## Transfer-year Interest Groups

Transfer-year Interest Groups (TrIGs) provide a unique opportunity for new transfer students to build a peer academic community, gain the skills to meet the University's level of academic rigor, and register for their first-choice courses. Each TrIG includes a peer mentor and staff facilitator who meet with students in regular seminars, small group meetings, and one-on-one discussions. More information about TrIGs is available at http://ugs.utexas.edu/tye/trig.

## Bridging Disciplines Programs

The Bridging Disciplines Programs (BDPs) are designed to complement a student's major with an individualized plan of study leading to an interdisciplinary certificate in one of the following areas:

- Children and Society
- Conflict Resolution and Peace Studies
- Design Strategies
- Digital Arts and Media
- Environment and Sustainability
- Ethics and Leadership in Business
- Ethics and Leadership in Health Care
- Ethics and Leadership in Law, Politics, and Government
- Ethics and Leadership in Technology and the Media
- Human Rights and Social Justice
- Innovation, Creativity, and Entrepreneurship
- Media, Culture, and Identities
- Museum Studies
- Patients, Practitioners, and Cultures of Care
- Public Policy
- Smart Cities
- Social Entrepreneurship and Nonprofits
- Social Inequality, Health, and Policy

All degree-seeking undergraduates at the University are eligible to apply. More information about BDPs is available at http:// ugs.utexas.edu/bdp.

## Office of Undergraduate Research

The Office of Undergraduate Research (OUR) fosters undergraduate participation in research and creative activity across the disciplines by raising the visibility of undergraduate research on campus, facilitating students' pursuit of research related to their interests and goals, and helping students share their work with others.

Services offered include weekly sessions on how to get involved in research, individual advising, and workshops on a variety of topics like designing and presenting a research poster. The office coordinates

Research Week, the University's annual celebration of undergraduate research and creative activity.

Undergraduate Research also oversees Eureka, an online database devoted to undergraduate research projects and opportunities at the University. More information on the Office of Undergraduate Research is available at http://ugs.utexas.edu/our.

## Discovery Scholars Program

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

## Texas Success Initiative

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

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

All non-exempt students are required by law to take the TSI Assessment (TSIA), which is the only college-readiness assessment approved by the Texas Higher Education Coordinating Board. More information about the Texas Success Initiative, including a list of exemptions, is available in the General Information Catalog and at http://ugs.utexas.edu/tsi.
D. Michelle Addington, DDes, Dean Allan W. Shearer, PhD, Associate Dean for Research and Technology Francisco H. Gomes, M Arch, Associate Dean for Academic Affairs Charlton N. Lewis, M Arch, Assistant Dean for Student Affairs

Jeff S. Evelyn, BA, Assistant Dean, Administration http://soa.utexas.edu/

## General Information

## Accreditation

The School of Architecture is a member of the Association of Collegiate Schools of Architecture and the Association of Collegiate Schools of Planning.

In the United States, most registration boards require a degree from an accredited professional degree program as a prerequisite for licensure. The National Architectural Accrediting Board (NAAB), which is the sole agency authorized to accredit professional degree programs in architecture offered by institutions with U.S. regional accreditation, recognizes three types of degrees: the Bachelor of Architecture, the Master of Architecture, and the Doctor of Architecture. A program may be granted an eight-year, three-year, or two-year term of accreditation, depending on the extent of its conformance with established institutional standards.

Doctor of Architecture and Master of Architecture degree programs may require a preprofessional undergraduate degree in architecture for admission. However, the preprofessional degree is not, by itself, recognized as an accredited degree.

The University of Texas at Austin School of Architecture offers the following NAAB-accredited degree programs:

- B. Arch. (161 undergraduate credits)
- M. Arch (preprofessional degree +60 credits)
- M. Arch. (non-preprofessional degree + 96 credits)

Most recent accreditation visit for all programs: 2018. Next accreditation visit for all programs: 2026.

The Bachelor of Architecture and Master of Architecture satisfy the registration requirements of the Texas Board of Architectural Examiners.

The Council for Interior Design Accreditation (CIDA) is an independent, non-profit accrediting organization for interior design education programs at colleges and universities in the United States and internationally. Founded in 1970, this knowledge-driven organization has been passionately committed to the ongoing enrichment of the interior design profession through identifying, developing and promoting quality standards for the education of entry-level interior designers, and then encouraging, accrediting and supporting educational programs to aspire to those standards.

Through a process of program self-evaluation and peer review, accreditation promotes achievement of high academic standards, while making education more responsive to student and societal needs. More than 150 interior design programs are currently accredited by the Council, serving an estimated 20,000 students.

The University of Texas at Austin School of Architecture offers the following CIDA-accredited degree program:

Next accreditation visit for Interior Design: Fall 2020
The Bachelor of Science in Interior Design satisfies the interior design registration requirements of the Texas Board of Architectural Examiners, and is also accredited by the National Association of Schools of Art and Design.

The Master of Science in Community and Regional Planning is accredited by the American Planning Association.

## Mission

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

## History

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

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

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

## Facilities

The School of Architecture is housed in four adjacent buildings at the heart of the campus: Battle Hall(1911) and Sutton Hall (1918, renovated in 1982), designed by the American architect Cass Gilbert; Goldsmith Hall (1933, expanded and renovated in 1988), designed by the French architect Paul Philippe Cret; and the West Mall Building (1961) by the Texas firm Jessen, Jessen, Millhouse, and Greeven.

The Architecture and Planning Library, a branch of The University of Texas Libraries, supports the School of Architecture by directly enhancing the value, relevance, and effectiveness of its teaching, research, and public service goals. The library, located in historic Battle Hall, also serves the public with ongoing exhibitions displayed in the grand reading room.

All students, faculty, and staff have convenient access to literature, information, and visual and digital resources that support education and research. While the library is located in close proximity to the school, its catalog, instructional guides, and digital content are web-based, allowing virtual discovery and access via the Internet. Staff provide expert information services that teach and develop research, as well as evaluative and critical thinking skills necessary for professional practice and lifelong learning. The Architecture and Planning Library is home to a large circulating collection, subject-specific journals, special collections of rare or unique publications, and the Alexander Architectural Archives, one of the largest such repositories in the country. Materials currently collected by the library and archive meet the curricular needs of the school's programs and enable faculty and graduate students to undertake original research projects.

The Center for Sustainable Development, located in the West Mall Building, supports School of Architecture based disciplinary, interdisciplinary, and trans-disciplinary research on the built environment through complementary programs of research, education, and community outreach. The center is unique in its integration of diverse interests to develop creative, balanced, and achievable solutions to the physical and social challenges facing the planning, construction, and preservation of buildings, neighborhoods, landscapes, and regions.

The Center for American Architecture and Design provides support and resources for the scholarly study of American architecture. Through lectures, exhibitions, seminars, symposia, fellowship support, and the collection of research materials, the center encourages architects, landscape architects, and others to collaborate. Regular scholarly publications of the center include CENTER, Centerline, and theO'Neil Ford Monographand Duograph book series.

The Lady Bird Johnson Wildflower Center, located south of the main campus, conducts applied research on sustainable landscapes and ecosystem services, develops comprehensive educational materials, and consults on landscape development projects of all sizes to capitalize on the ability of sustainable landscapes to improve communities. The site consists of 284 acres, including nine acres of cultivated gardens. In partnership with the American Society of Landscape Architects and the United States Botanic Garden, contributed to the Sustainable Sites Initiative (SITES) rating system, which is now administered through the United States Green Building Council (USGBC).

Comparative Mobility for Competitive Megaregions, located in West Mall Building, leads consortium of universities to provide research that supports legal and analytical frameworks for megaregion transportation planning. It is a United States Department of Transportation Tier 1 University Transportation Center.

The Technology Lab and Service Desk, located in Sutton Hall provide students with access to scanning, printing, and plotting systems as well as spaces for project assembly, collaboration, and presentation. In addition, students can check out digital cameras, digital video cameras, laptops, projectors, light meters, Hobo data recorders, or other useful digital tools. Students can also get help with their advanced design and analysis applications on their required personal computers at the Service Desk. The Digital Fabrication Lab, also in Sutton Hall, provides access to a variety of digital fabrication tools for 3D scanning, 3D printing, laser cutting, and CNC routing. These tools provide the necessary capability for students to iterate their designs and analyses between physical and digital spaces and modeling processes. In addition, the Creative Robotics Lab next to the Digital Fabrication Lab provides access and support to students and faculty who wish to pursue advanced digital workflows that produce physical results. Our robotics and programming capabilities are wide reaching and can help bring most any idea to life. The computer classrooms in the West Mall Building double as open
computer lab space when not in use for direct instruction, providing 56 dedicated workstations with the latest production, design, planning, and analysis software to accommodate the many disciplines of the school.

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

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

The Materials Lab, located in the remodeled third floor of the West Mall Building, offers an inspirational environment to explore material systems, technologies, and preservation. It is dedicated to material investigation in design and maintains a circulating library of over 28,000 material samples. The collection consists of traditional building construction materials as well as emerging, innovative, and sustainable materials and technologies. Material education is further supported through exhibitions, workshops, field trips, and in-house research.

The Architectural Conservation Lab located in West Mall Building, is home to the Materials Conservation course series and provides a space for faculty and students to work on their own projects. Additionally, the space allows the Historic Preservation Program to establish affiliations with related facilities on the University campus, including the School of Information Book and Paper Conservation Labs and the Conservation Department at the Harry Ransom Center. The Architectural Conservation Lab was funded in part by a significant grant from the University Co-op.

The Lighting Studio, located in the basement of Sutton Hall, provides an area with photographic backdrops and controlled lighting to photograph architectural models and other objects.

A variety of other facilities support students in their coursework and professional development. The school's Career Services office, located in Sutton Hall, assists students with finding internships, identifying employment prospects, and preparing for interviews and negotiations with potential employers. The School of Architecture also provides access to a range of facilities and institutes across The University of Texas at Austin campus.

The study of architecture, landscape architecture, and interior design draws upon the collections of the nearby Harry Ransom Center, which include china, clothing, decorative arts, furniture, silver, and textiles that contribute to the study of the interior; as well as original maps, texts, and drawings that supplement the teaching of landscape history. Historic rooms and suites on campus include the Willoughby-Blake Room, the John Foster and Janet Dulles Suite, the Republic of Texas Suite, the Office of the President, and the Esther Hoblitzelle Parlor. Other collections on campus include the 15,000 pieces of art, furniture, and accessories in the Elton and Martha Hyder collection and the collection of approximately 40 chairs dating from the 17th through 20th centuries that are housed in the Blanton Museum of Art.

The resources of the Teresa Lozano Long Institute of Latin American Studies and the Benson Latin American Collection, and the proximity of Austin to Latin America, provide exceptional opportunities for the study of Latin American architecture and planning. School of Architecture faculty and students also collaborate with the Environmental Science Institute, the School of Social Work, the Center for Transportation Research, the Population Research Center, the Center for Research in

Water Resources, the Bureau of Economic Geology, and other allied institutes.

## Financial Assistance Available through the School

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

## Scholarships

Yvette Atkinson Memorial Scholarship in Architecture
Marvin E. and Anne Price Beck Endowed Scholarship
Carl O. Bergquist Endowed Scholarship
Myron Geer Blalock Endowed Presidential Scholarship
Hal Box Endowed Scholarship in Architecture
George W. Brackenridge Scholarship Fund
C. William Brubaker/Perkins+Will Endowed Presidential Scholarship John Buck Company and First Chicago Investment Advisors for Fund F Endowed Scholarship in Architecture
Matt Casey Memorial Scholarship in Architecture
John S. Chase Endowed Presidential Scholarship
Dick Clark Student Travel Fund
Fred W. and Laura Weir Clarke Endowed Presidential Scholarship in Architecture honoring Carl Bergquist
Fred W. and Laura Weir Clarke Endowed Presidential Scholarship in Architecture honoring Alan Y. Taniguchi
Peter O. Coltman Book Prize in Architecture and Planning Fred Winfield Day, Jr. Endowed Scholarship in Architecture Jorge Luis Divino Centennial Scholarship in Architecture Amy Dryden Endowed Scholarship
Snøhetta Endowed Scholarship in Architecture established by Craig Dykers and Elaine Molinar
William H. Emis III Traveling Scholarship in Architecture
Ford, Powell and Carson Endowed Scholarship
Ted Freedman Endowed Scholarship
Suzie Friedkin Endowed Scholarship in Interior Design
Adam Conrad Grote Memorial Scholarship in Architecture
The HDR Architecture Endowed Scholarship
Humphreys \& Partners Endowed Scholarship in Architecture
The Janet C. and Wolf E. Jessen Endowed Presidential Scholarship
Henrietta Chamberlain King Endowed Scholarship
Lake/Flato Endowed Scholarship
Lynne Brundrett Maddox Scholarship in Interior Design
Harvey V. Marmon, Jr. FAIA/Marmon Mok Scholarship in Architecture
Mike and Maxine Mebane Endowed Traveling Scholarship in
Architecture
Jack H. Morgan Endowed Scholarship
Charles M. Nettles Endowed Presidential Scholarship
Oglesby Prize Endowment
Overland Partners Endowed Presidential Scholarship
Barbara and Donald Pender Endowed Scholarship
Edward J. Perrault Endowed Presidential Scholarship in Interior Design
Alma Piner Scholarship in Architecture
Boone Powell Family Prize in Urban Design
Debbie Ann Rock Scholarship in Interior Design
School of Architecture Scholarship and Fellowship Award Endowment

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

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

## Student Services

## Academic Advising

In the School of Architecture, the Student Affairs dean's office, located in Goldsmith Hall 2.116, and the Undergraduate Office, located in Sutton Hall 2.126, are responsible for providing information and advice to undergraduate students. An important aspect of the advising system is the portfolio requirement described in the section Portfolio Review Requirement (p. 31) later in Admission and Registration. The student should also consult Degree Audit in the Graduation (p. 32) section.

## Career Services

The Career Services office, located in Sutton Hall 3.128, serves the students and alumni of the School of Architecture by offering career development and job search resources, connecting them to employers and key professionals.

## Student Organizations

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

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

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

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

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

The Society of Engineering and Architecture Students (SEAS) focuses on providing academic and social support to students in the Bachelor of Architecture/Bachelor of Science in Architectural Engineering dual degree program.

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

## Study Abroad and Internship Opportunities

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

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

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

The Professional Residency Program provides upper-level architecture students with a unique opportunity to expand their education through work experience in the architectural profession. The program has provided work experience to honors students in the school since 1974, and over the past decades our students have been linked with over 300 firms in 30 countries.

## Admission and Registration

## Admission

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

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

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

## Freshman Admission

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

To be considered for admission to the School of Architecture, applicants should select the appropriate degree program on the ApplyTexas application: architecture, interior design, the architecture/architectural engineering dual degree program, the architecture/Plan II dual degree program, architectural studies, or architectural studies with an emphasis on architectural history. All application materials must be submitted to the Office of Admissions by the deadline to apply for admission to the University for the fall semester; this date is given in General Information Catalog. Applicants to the dual degree program offered with the Plan II Honors Program must submit an additional application; more information about Plan II (p. 220) is provided within the Liberal Arts section of the Undergraduate Catalog.

## Transfer

## Internal Transfer

Students currently or formerly enrolled in other University degree programs who wish to enroll in a degree program in the School of Architecture must complete an online Internal Transfer Application by the spring semester deadline to be considered for admission for the following fall semester. To be eligible to apply for internal transfer, students must have completed a minimum of 24 semester hours of credit in residence (excluding credit-by-exam) by the end of a spring semester, with a University grade point average of at least 3.25. Emphasis is given to strong performance in University courses, especially courses relevant to the degree program to which the applicant is applying. Meeting these requirements is no guarantee for admission.

## External Transfer

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

Students applying to transfer from another university to the School of Architecture should select the appropriate degree program on the ApplyTexas application. All application materials must be submitted to the Office of Admissions by the deadline to apply for admission to
the University for the fall semester; this date is given in the General Information Catalog. To be considered for transfer admission to the School of Architecture, the applicant must have completed at least 30 semester hours of transferable college coursework with a grade point average of at least 3.25 , and must submit a portfolio which includes architecture or interior design studio work from another university; information about the portfolio is given on the University's transfer admission website. All admission decisions are made before the end of the spring semester; the Office of Admissions cannot consider spring coursework in progress.

## Transfer Credit

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

## Registration

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

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

## Minimum Number of Hours in the Long Session

Students must register each semester for at least 12 semester hours of coursework prescribed for the degree. Registration for fewer hours must be approved by the Undergraduate Office.

## Portfolio Review Requirement

## Architecture:

As a requirement to enter the advanced studio sequence, all students pursuing architecture degrees must satisfactorily complete the Portfolio Review process and submit a portfolio that summarizes all previous design and visual communication coursework. Guidelines for the Portfolio Review process, including timeline and deadlines, are available from the Undergraduate Office.

The Portfolio Review process provides critical information to the faculty reviewing committee in evaluating the student's progress toward the degree. The faculty reviewing committee, at its discretion, may require the student to retake an intermediate design studio and participate in a final Portfolio Review at the end of the following semester in order to determine eligibility to enter advanced studios.

A student is limited to three Portfolio Review attempts. Students who do not have a satisfactory Portfolio Review by the third attempt are advised to switch to the Bachelor of Science in Architectural Studies degree.

## Interior Design:

On the first day of class in the second semester of the third year, students entering Architectural Interior Design 530T, Design VI--

Interiors are required to submit a portfolio that summarizes the work completed in all the previous design and visual communication courses. Guidelines for submission of the portfolio, including deadline, are available from the Undergraduate Office.

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

## Academic Policies and Procedures

## Equipment and Supplies

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

## Academic Standards

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

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

## Honors

## University Honors

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

## Graduation with University Honors

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

## School of Architecture Recognition Awards

| Award | Alpha Rho Chi Medal |
| :--- | :--- |
| Donor | Alpha Rho Chi, professional <br> architectural fraternity |


| Eligibility | Graduating student who has <br> shown an ability for leadership, <br> has performed willing service to <br> the school, and gives promise of <br> professional merit through attitude <br> and personality. |
| :--- | :--- |
| Award | American Institute of Architects' <br> Medal |
| Donor | American Institute of Architects |
| Eligibility | Graduating student, in recognition <br> of scholastic achievement, <br> character, and promise of <br> professional ability. |
| Award | Boone Powell Family Prize in Urban <br> Design |
| Donor | Boone Powell, Leilah Powell, and <br> the Catherine H. Powell Family <br> Trust |
| Eligibility | Non-graduating undergraduate or <br> graduate student pursuing a degree <br> in architecture or planning from The |
|  | University of Texas at Austin; based <br> on merit in urban design. |
| The Oglesby Prize |  |

## Graduation

All students must fulfill the general requirements (p. 19) for graduation given in The University section. Students in the School of Architecture must also fulfill the following requirements.

1. The University requires that the student complete in residence at least 60 semester hours of the coursework counted toward the degree. In the School of Architecture, 30 of these 60 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. Students are encouraged to contact their academic adviser to indicate their intent to graduate at the beginning of the semester or summer session in which they intend to graduate.

## Degree Audit

The Undergraduate 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 (IDA) system at any time. It is the student's responsibility to know the requirements for the degree as stated in a catalog under which he or she is eligible to graduate and to register so as to fulfill those requirements.

## Degrees and Programs

## Degrees Offered

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

## Applicability of Certain Courses Extension Courses

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

## Courses Taken on the Pass/Fail Basis

An undergraduate may count toward the degree up to 15 hours of coursework in electives completed on the pass/fail basis; credit earned by examination is not counted toward the 15 hours. If a student chooses to major in a subject in which he or she has taken a course pass/fail, the major department decides whether the course may be counted toward the student's major requirements. Complete rules on registration on the pass/fail basis are given in the General Information Catalog.

## Physical Activity Courses

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

## ROTC Courses

No more than six semester hours of air force science, military science, or naval science coursework may be counted toward any degree in the School of Architecture. These courses may be used only as lowerdivision 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 the General Information Catalog. Course credit used to remove deficiencies may not be counted toward the student's degree.

## Bachelor of Science in Interior Design

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

## Curriculum

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

All students must complete the University's Core Curriculum (p. 23) as well as the courses listed in the following table. In some cases, a course that is required for the BSID degree may also be counted toward the core curriculum; these courses are identified below.

## Requirements

Hours

| Architectural Interior Design, Architecture |  |  |
| :--- | :--- | ---: |
| Design |  |  |
| ARI 310K | Design I | 3 |
| ARI 310L | Design II | 3 |
| ARI 320K | Design III--Interiors | 3 |
| ARI 520L | Design IV--Interiors | 5 |
| ARI 530K | Design V--Interiors | 5 |
| ARI 530T | Design VI--Interiors | 5 |
| ARI 560R | Advanced Interior Design (taken | 10 |
| Visual communication |  |  |


| ARI 311 K | Visual Communication I | 3 |
| :--- | :--- | :--- |
| ARI 311 L | Visual Communication II | 3 |
| ARI 221 K | Visual Communication III | 2 |
| Design theory |  | 3 |
| ARI 350R | Topics in Interior Design Theory | 3 |

$\begin{array}{ll}\text { Interior building systems and construction } \\ \text { ARC } 415 \mathrm{~K} & \text { Construction I }\end{array}$

| ARI 434 K | Construction II--Interior Materials <br> and Assemblies | 4 |
| :--- | :--- | :--- |


| Professional practice |  |  |
| :--- | :--- | :--- |
| ARI 362 | Interior Design Practice | 3 |
| History |  | 3 |
| ARI 318K | Interiors and Society | 3 |
| ARI 318M | Interior Design History | 3 |
| ARI 368R | Interior Design History II | 3 |
| ARC 342R | Topics in the History of Architecture | 3 |
|  | (All ARC 342 courses in the series |  |
|  | ARC 342C-W may count) |  |


| Environmental controls |  |  |
| :---: | :---: | :---: |
| ARI 324K | Environmental Controls I | 3 |
| ARC 334L | Environmental Controls II | 3 |
| Human behavior |  |  |
| ARI 338 | Designing for Human Behavior | 3 |
| Professional internship |  |  |
| ARI 130 | Interior Design Internship | 1 |
| Core Curriculum Requirements |  |  |
| PHY 309K | Elementary Physics for Nontechnical Students (physics sequence meets part I of the science and technology requirement of the core curriculum) | 3 |
| PHY 309L | Elementary Physics for Nontechnical Students | 3 |
| PSY 301 | Introduction to Psychology (meets the social and behavioral sciences requirement of the core curriculum) | 3 | Revolution to the Present (meets the visual and performing arts requirement of the core curriculum)

Other Requirements

| Art history | 3 |
| :--- | ---: |
| Electives | 6 |
| Additional coursework to satisfy the core curriculum | 27 |
| Total Hours | 126 |

## Suggested Arrangement of Courses



Total credit hours: 126

## Bachelor of Architecture

## Curriculum

As a five-year professional degree program, the Bachelor of Architecture features a rigorous design-oriented curriculum with a solid foundation in technology and the history and theory of architecture. The curriculum
prepares students for the challenges and demands of professional practice.

A total of at least 161 hours of coursework is required for the Bachelor of Architecture. All students must complete the University's Core Curriculum (p. 23) as well as the courses listed in the following table. In some cases, a course that is required for the BArch may also be counted toward the core curriculum; these courses are identified below.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Major Sequenc |  |  |
| Design |  |  |
| ARC 310K | Design I | 3 |
| ARC 310L | Design II | 3 |
| ARC 561C | Comprehensive Studio | 5 |
| ARC 321D | Design III Intermediate | 3 |
| ARC 521E | Design IV Intermediate | 5 |
| ARC 521F | Design V Intermediate | 5 |
| ARC 521G | Design VI Intermediate | 5 |
| ARC 561R | Advanced Design (taken three times) | 15 |
| Visual communication |  |  |
| ARC 311 K | Visual Communication I | 3 |
| ARC 311L | Visual Communication II | 3 |
| ARC 221 K | Visual Communication III | 2 |
| ARC 361T | Technical Communication | 3 |
| Professional experience |  |  |
| ARC 362 | Professional Practice | 3 |
| Site design |  |  |
| ARC 333 | Site Design | 3 |
| Environmental controls |  |  |
| ARC 334 K | Environmental Controls I | 3 |
| ARC 334L | Environmental Controls II | 3 |
| Construction |  |  |
| ARC 415K | Construction I | 4 |
| ARC 415 L | Construction II | 4 |
| ARC 435 K | Construction III | 4 |
| ARC 435L | Construction IV | 4 |
| ARC 335M | Construction V | 3 |
| History |  |  |
| ARC 308 | Architecture and Society (visual and performing arts) | 3 |
| ARC 318 K | World Architecture: Origins to 1750 | 3 |
| ARC 318L | World Architecture: The Industrial Revolution to the Present | 3 |
| ARC 342R | Topics in the History of Architecture (taken 3 times. All ARC 342 courses in the series ARC 342C-W may count) | 9 |
| Community and regional planning |  |  |
| CRP 369K | Principles of Physical Planning | 3 |
| Other required courses |  |  |
| M 408C | Differential and Integral Calculus (mathematics) | 4 |
| PHY 302K | General Physics Technical Course: Mechanics, Heat, and Sound (physics sequence meets part I science and technology) | 3 |


| PHY 102M | Laboratory for Physics 302K | 1 |
| :--- | :--- | :--- |
| PHY 302L | General Physics Technical Course: | 3 |
|  | Electricity and Magnetism, Light, |  |
|  | Atomic and Nuclear Physics <br> (physics sequence meets part I <br> science and technology) |  |
|  |  |  |

PHY 102N Laboratory for Physics 302L 1
Electives approved by the Undergraduate Office. 15

Core curriculum
Additional coursework to satisfy the core curriculum 27
Total Hours 161

## Suggested Arrangement of Courses


First Yea

| First Term | Hours | Second Term |
| :--- | :---: | ---: |
| ARC 310 K | 3 ARC 310L | Hours |
| ARC 311 K | 3 ARC 311L | 3 |
| ARC 308 | 3 ARC 318K | 3 |
| M 408C | 4 PHY 302K | 3 |
| UGS 302 or 303 | 3 PHY 102M | 3 |
|  | RHE 306 | 1 |
|  | 16 | 3 |

## Second Year

| First Term | Hours $\quad$Second Term | Hours |
| :--- | :--- | ---: |
| ARC 321D | 3 ARC 521E | 5 |
| ARC 221 K | 2 ARC 415L | 4 |
| ARC 415 K | 4 ARC 333 | 3 |
| ARC 318L | 3 US history core course | 3 |
| PHY 302L | 3 | 15 |
| PHY 102N | 1 | 16 |


| Third Year |  |  |
| :--- | :--- | ---: |
| First Term | Hours | Second Term |
| ARC 521F | 5 ARC 521G | Hours |
| ARC 435K | 4 ARC 435L | 5 |
| ARC 334K | 3 ARC 334L | 4 |
| ARC 342R (All ARC 342 courses in the | 3 Social and behavioral science core | 3 |
| series ARC 342C-W may count.) | course | 3 |
|  | 15 | Hours |
| Fourth Year |  |  |
| First Term | Hours | Second Term |
| ARC 561R | 5 ARC 561C | 5 |
| ARC 342R (All ARC 342 courses in the | 3 ARC 335M | 3 |
| series ARC 342C-W may count.) |  | 3 ARC 361T |
| GOV 310L | 6 CRP 369K | 3 |
| Electives | GOV 312L | 3 |

Fifth Year

| First Term | Hours | Second Term |
| :--- | :--- | ---: |
| ARC 561R | 5 ARC 561R | Hours |
| ARC 342R (All ARC 342 courses in the | 3 ARC 362 | 5 |
| series ARC 342C-W may count.) |  | 3 |
| Science and technology, part II, core <br> course | 3 US history core course | 3 |
| E 316L, 316M, 316N, or 316P | 3 Electives | 6 |
| Elective | 3 | 17 |

Total credit hours: 161

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

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

For admission to the dual degree program, a student must meet the Admission Requirements (p. 30) of the School of Architecture and the requirements given in Admission and Registration (p. 104) for the Cockrell School of Engineering. Students are advised to contact both the School of Architecture and the Cockrell School of Engineering for specific information about the dual degree program.

Students in the dual degree program complete the requirements of the Bachelor of Architecture and the Bachelor of Science in Architectural Engineering degrees. See the descriptions for the five-year Bachelor of Architecture ( p .33 ) degree program and the Bachelor of Science in Architectural Engineering (p. 114) for more information.

The following outline of courses is the suggested method for completing the requirements for both degrees simultaneously. Dual degree students must also consult the additional requirements of the Bachelor of Science in Architectural Engineering (p. 114) degree. Dual degree students are responsible for fulfilling the requirements of both degrees.

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

## Curriculum

A total of at least 195 hours of coursework is required for this dual degree program.

All students must complete the University's Core Curriculum (p. 23) as well as the courses listed in the following table. In some cases, a course that is required for the dual degree program may also be counted toward the core curriculum; these courses are identified below.

| Requirements |  | Hours |
| :--- | :--- | ---: |
| Architecture |  |  |
| Design | Design I | 3 |
| ARC 310K | Design II | 3 |
| ARC 310L | Design III Intermediate | 3 |
| ARC 321D | Design IV Intermediate | 5 |
| ARC 521E | Design V Intermediate | 5 |
| ARC 521F | Design VI Intermediate | 5 |
| ARC 521G | Comprehensive Studio | 5 |
| ARC 561C | Advanced Design (taken twice) | 10 |
| ARC 561R | Visual Communication I |  |
| Visual communication | Visual Communication II | 3 |
| ARC 311K | Visual Communication III | 3 |
| ARC 311L | Technical Communication | 2 |
| ARC 221K |  | 3 |
| ARC 361T | Professional Practice | 3 |
| Professional practice |  | 3 |
| ARC 362 | Site Design |  |
| ARC 333 |  |  |


| Construction | Construction V | 3 |
| :--- | :--- | :--- |
| ARC 335M | History | Architecture and Society (visual <br> and performing arts) |
| ARC 308 | World Architecture: Origins to 1750 | 3 |
| ARC 318K | World Architecture: The Industrial <br> Revolution to the Present | 3 |
| ARC 318L | Topics in the History of Architecture <br> (taken 3 times. All ARC 342 courses <br> in the series ARC 342C-W may <br> count.) | 9 |
| ARC 342R |  |  |

Community and Regional Planning
CRP 369K Principles of Physical Planning 3

Engineering and Other Degree Requirements

| ARE 102 | Introduction to Architectural <br> Engineering | 1 |
| :--- | :--- | :--- |
| ARE 323K | Project Management and <br> Economics | 3 |
| ARE 335 | Materials and Methods of Building <br> Construction | 3 |
| ARE 346N | Building Environmental Systems | 3 |
| ARE 346P | HVAC Design | 3 |
| or ARE 371 | Energy Simulation in Building Design | 4 |
| ARE 465 | Integrated Design Project | 4 |
| ARE 366 | Contracts, Liability, and Ethics | 3 |
| CH 301 | Principles of Chemistry I (part II <br> science and technology) | 3 |
| CE 311K | Introduction to Computer Methods | 3 |


| CE 311S | Probability and Statistics for Civil <br>  <br> Engineers | 3 |
| :--- | :--- | :--- |
| CE 324P | Properties and Behavior of | 3 |

Properties and Behavior of 3 Engineering Materials
Elementary Mechanics of Fluids 3
Structural Analysis 3
Reinforced Concrete Design 3
Elements of Steel Design
Engineering Communication 3
Geotechnical Engineering 3
Statics 3
Mechanics of Solids 3
Introduction to Geology 3
Differential and Integral Calculus 4
(mathematics)
Sequences, Series, and 4
Multivariable Calculus
Differential Equations with Linear 4
Algebra
Applied Thermodynamics 3
Engineering Physics I (physics 3
sequence meets part I science and technology)
PHY 103M Laboratory for Physics 303K 1
PHY 303L Engineering Physics II 3
PHY 103N Laboratory for Physics 303L 1
Approved mathematics or science elective 3
Approved technical electives 9

Additional coursework to satisfy the core curriculum

## Total Hours

## Suggested Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| ARC 310K |  | 3 ARC 310L | 3 |
| ARC 311 K |  | 3 ARC 311L | 3 |
| ARC 308 |  | 3 ARC 318K | 3 |
| ARE 102 |  | 1 M 408D | 4 |
| M 408C |  | 4 PHY 303K | 3 |
| UGS 302 or 303 |  | 3 PHY 103M | 1 |
|  |  | 17 | 17 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ARC 321D |  | 3 ARC 521E | 5 |
| ARC 221 K |  | 2 ARC 333 | 3 |
| ARC 318L |  | 3 CE311K | 3 |
| E M 306 |  | 3 E M 319 | 3 |
| PHY 303L |  | 3 CH 301 | 3 |
| PHY 103N |  | 1 |  |
| RHE 306 |  | 3 |  |
|  |  | 8 | 17 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ARC 521F |  | 5 ARC 521G | 5 |
| C E 311S |  | 3 ARE 335 | 3 |
| C E 329 |  | 3 ARE 346N | 3 |
| C E 324P |  | 3 M 427 J | 4 |
| M E 310T |  | 3 |  |
|  |  | 17 | 15 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ARC 342R (All ARC 342 courses in the series ARC 342C-W may count.) |  | 3 ARE 323K | 3 |
| C E 319F |  | 3 C E 331 or 335 | 3 |
| E 316L, 316M, 316N, or 316P |  | 3 C E 357 | 3 |
| Approved mathematics or science elective |  | 3 CRP 369K | 3 |
| Social and behavioral sciences core |  | 3 GOV 310 L | 3 |
|  |  | 5 | 15 |
| Fifth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ARC 561C |  | 5 ARE 366 | 3 |
| ARC 335M |  | 3 ARE 465 | 4 |
| ARE 346P or 371 |  | 3 Approved techn | 6 |
| C E 333T |  | 3 US history core | 3 |
| Approved technical elective |  | 3 |  |
|  |  | 17 | 16 |
| Sixth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ARC 561R |  | 5 ARC 561R | 5 |
| ARC 361T |  | 3 ARC 362 | 3 |
| ARC 342R (All ARC 342 courses in the series ARC 342C-W may count.) |  | 3 ARC 342R (All series ARC 342 | 3 |
| GEO 303 |  | 3 GOV 312 L | 3 |
| US history core course |  | 3 |  |
|  |  | 17 | 14 |

Total credit hours: 195

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

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

Students interested in this program should consult the Plan II Program (p. 220) description given in the College of Liberal Arts.

The following outline of courses is a suggested method for simultaneously completing the requirements for both degree programs. Students should consult their advisers, the lists below, and the Bachelor of Arts, Plan II (p. 220) degree program given in the College of Liberal Arts to ensure that their coursework plans will fulfill all requirements of both degrees.

## Curriculum

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

All students must complete the University's Core Curriculum (p. 23) as well as the courses listed in the following table. In some cases, a course that is required for the dual degree program may also be counted toward the core curriculum; these courses are identified below.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Architecture |  |  |
| Design |  |  |
| ARC 310K | Design I | 3 |
| ARC 310L | Design II | 3 |
| ARC 321D | Design III Intermediate | 3 |
| ARC 521E | Design IV Intermediate | 5 |
| ARC 521F | Design V Intermediate | 5 |
| ARC 521G | Design VI Intermediate | 5 |
| ARC 561C | Comprehensive Studio | 5 |
| ARC 561R | Advanced Design (taken three times) | 15 |
| Visual communication |  |  |
| ARC 311K | Visual Communication I | 3 |
| ARC 311L | Visual Communication II | 3 |
| ARC 221 K | Visual Communication III | 2 |
| ARC 361T | Technical Communication | 3 |
| Professional practice |  |  |
| ARC 362 | Professional Practice | 3 |
| Site design |  |  |
| ARC 333 | Site Design | 3 |
| Environmental controls |  |  |
| ARC 334K | Environmental Controls I | 3 |
| ARC 334L | Environmental Controls II | 3 |
| Construction |  |  |
| ARC 415 K | Construction I | 4 |
| ARC 415L | Construction II | 4 |
| ARC 435 K | Construction III | 4 |
| ARC 435L | Construction IV | 4 |
| ARC 335M | Construction V | 3 |



| Additional natural | 3 CRP 369 K | 3 |
| :--- | :---: | :---: |
| science course |  |  |
| prescribed by the |  |  |
| College of Liberal |  |  |
| Arts |  |  |
| Elective | 3 T C 660 HB | 3 |
|  | 17 | 17 |

Total credit hours: 186-188

## Bachelor of Science in Architectural Studies

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

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

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

## Curriculum

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

All students must complete the University's Core Curriculum (p. 23) as well as the courses listed in the following table. In some cases, a course that is required for the BSAS may also be counted toward the core curriculum; these courses are identified below.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Architecture |  |  |
| Design |  |  |
| ARC 310K | Design I | 3 |
| ARC 310L | Design II | 3 |
| ARC 321D | Design III Intermediate | 3 |
| ARC 521E | Design IV Intermediate | 5 |
| ARC 521F | Design V Intermediate | 5 |
| Visual communication |  |  |
| ARC 311 K | Visual Communication I | 3 |
| ARC 311 L | Visual Communication II | 3 |
| ARC 221 K | Visual Communication III | 2 |
| Design theory |  |  |
| ARC 327R | Topics in Architectural Theory (All courses in the series ARC 327C-W may count.) | 3 |
| Site design |  |  |
| ARC 333 | Site Design | 3 |
| Environmental controls |  |  |
| ARC 334K | Environmental Controls I | 3 |
| Construction |  |  |
| ARC 415 K | Construction I | 4 |
| ARC 415 L | Construction II | 4 |
| ARC 435K | Construction III | 4 |
| History |  |  |


| ARC 308 | Architecture and Society (visual <br> and performing arts) | 3 |
| :--- | :--- | :--- |
| ARC 318K | World Architecture: Origins to 1750 | 3 |
| ARC 318L | World Architecture: The Industrial <br> Revolution to the Present | 3 |
| ARC 342R | Topics in the History of Architecture <br> (All courses in the series ARC 342C- | 3 |
| W may count.) |  |  |

## Other Degree Requirements

| M 408C | Differential and Integral Calculus (meets the mathematics requirement of the core curriculum) |
| :---: | :---: |
| PHY 302K | General Physics Technical Course: Mechanics, Heat, and Sound (physics sequence meets part I science and technology) |
| or PHY 303K | Engineering Physics I |
| PHY 102M | Laboratory for Physics 302K |
| or PHY 103M | Laboratory for Physics 303K |
| PHY 302L | General Physics Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics |
| or PHY 303L | Engineering Physics II |
| PHY 102N | Laboratory for Physics 302L |
| or PHY 103N | Laboratory for Physics 303L |

Upper-division humanities course in literature, foreign
language, philosophy, or another field approved by the
Undergraduate Office
Philosophy course
Electives (foreign language courses that are used to remove 20
an admission deficiency may not be used to fulfill this
requirement and may not be counted toward the degree)
Additional coursework to satisfy the core curriculum
Total Hours

## Electives

Twenty-six semester hours of electives are required for the completion of the Bachelor of Science in Architectural Studies degree program.
These electives consist of three hours of upper-division coursework in humanities, three hours in philosophy, and 20 additional open elective hours, generally completed outside the School of Architecture. Students pursuing the architectural history track must take 18 of their 20 hours of open electives in architectural history. Up to six hours of related coursework taken at the University, and approved by the program director, may be used to fulfill the elective requirement.

## Suggested Arrangement of Courses

First Year
First Term
ARC 310K
ARC 311 K
ARC 308
M 408C
UGS 302 or 303

| Hours | Second Term |
| :---: | ---: |
| 3 ARC 310L | Hours |
| 3 ARC 311L | 3 |
| 3 ARC 318K | 3 |
| 4 PHY 302K | 3 |
| 3 PHY 102M | 3 |
| RHE 306 | 1 |
| 16 | 3 |


| Second Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| ARC 321D |  | 3 ARC 521E | 5 |
| ARC 221 K |  | 2 ARC 415L | 4 |
| ARC 415K |  | 4 ARC 333 | 3 |
| ARC 318L |  | 3 US history core course | 3 |
| PHY 302L |  | 3 |  |
| PHY 102N |  | 1 |  |
|  |  | 6 | 15 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ARC 521F |  | 5 ARC 327R (All ARC 327 courses in the series ARC 327C-W may count.) | 3 |
| ARC 435K |  | 4 Electives | 12 |
| ARC 334K |  | 3 |  |
| ARC 342R (All ARC 342 courses in the series ARC 342C-W may count.) |  | 3 |  |
|  |  | 5 | 15 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| GOV 310L |  | 3 E 316L, 316M, 316N, or 316P | 3 |
| Philosophy course |  | 3 GOV 312L | 3 |
| US history core course |  | 3 Approved upper-division humanities course | 3 |
| Science and technology, part II, core course |  | 3 Electives | 8 |
| Social and behavioral sciences core course |  | 3 |  |
|  |  | 5 | 17 |

Total credit hours: 125

## Minor and Certificate Programs

Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minor and Certificate Programs (p. 13) section of the Undergraduate Catalog.

## The Architectural History Minor

The Architectural History Minor is designed to provide a foundation in architectural history concepts for students outside of the School of Architecture. Any undergraduate outside of the School of Architecture with a University grade point average of at least 2.50 may take any course listed below, whether pursuing the Architectural History Minor or not. Students may obtain only one minor from the School of Architecture.

Students who know they intend to complete the Architectural History minor should apply online at the earliest possible date; deadlines are March 1 for fall or summer, and October 1 for spring.

To fulfill the Architectural History Minor students must complete 15 semester hours of coursework as described below. At least half of the coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis, and completed in conjunction with the students' major requirements. Six hours must be upper-division.

Registration for upper-division courses will require successful completion of 60 semester hours of coursework.

Students pursuing the Architectural History Minor may choose from among the following courses:

| Requirements <br> Lower-division | Hours |  |
| :--- | :--- | ---: |
| ARC 308 | Architecture and Society | 3 |
| ARC 318 K | World Architecture: Origins to 1750 | 3 |
| ARC 318L | World Architecture: The Industrial <br> Revolution to the Present | 3 |
| Upper-division  |  |  |
| All Architecture 342 courses (Architecture 342C through  <br> Architecture 342W)  |  |  | Architecture 342W)

In addition to the above courses students also may count any unnumbered advanced architectural history topics courses (Architecture 368R) completed prior to Fall 2016. Appropriate architecture theory courses, such as Architecture 327C through Architecture 327U or Architecture 350R topics courses, may count toward the minor by petition.

## The Architectural Studies Minor

The Architectural Studies Minor is designed to provide a foundation in architecture concepts for students in majors outside of the School of Architecture. Any undergraduate outside of the School of Architecture with a University grade point average of at least 2.50 may take any course listed below, whether pursuing the Architectural Studies Minor or not. Students may obtain only one minor from the School of Architecture. Students who know they intend to complete the Architectural Studies Minor should apply online at the earliest possible date; deadlines are March 1 for fall or summer, and October 1 for spring.

To fulfill the Architectural Studies Minor, students must complete 15 semester hours of coursework as described below. At least half of the coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis, and completed in conjunction with the students' major requirements. Six hours must be upper-division.

Registration for upper-division courses will require successful completion of 60 semester hours of coursework. Please see the Course Schedule to determine if instructor permission is required.

Students pursuing the Architectural Studies Minor may choose from among the following courses:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Lower-division |  |  |
| ARC 308 | Architecture and Society | 3 |
| ARC 318K | World Architecture: Origins to 1750 | 3 |
| ARC 318L | World Architecture: The Industrial Revolution to the Present | 3 |
| Upper-division |  |  |
| Architecture 327C through 327W courses |  |  |
| Architecture 342C through 342W courses |  |  |
| ARC 350R | Topics in Design Theory (Topic 1, 2, 3 OR 4) | 3 |
| CRP 369K | Principles of Physical Planning | 3 |

In addition to the above courses, former architecture majors may use other architecture courses completed while in the School of Architecture toward their coursework for the Architectural Studies Minor. Unnumbered architecture topics courses (Architecture 350R and 368R) completed prior to Fall 2016 also may count.

## The Interior Design Minor

The Interior Design Minor is designed to provide a foundation in interior design and architecture concepts for students outside of the School of Architecture. Any undergraduate outside of the School of Architecture with a University grade point average of at least 2.50 may take any course listed below, whether pursuing the Interior Design Minor or not. Students may obtain only one minor from the School of Architecture. Please see the Course Schedule to determine if instructor permission is required.

Students who know they intend to complete the Interior Design minor should apply online at the earliest possible date; deadlines are March 1 for fall or summer, and October 1 for spring.

To fulfill the Interior Design Minor students must complete 15 semester hours of coursework as described below. At least half of the coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis, and completed in conjunction with the students' major requirements. Six hours must be upper-division.

Registration for upper-division courses will require successful completion of 60 semester hours of coursework.

Students pursuing the Interior Design Minor may choose from among the following courses:

| Requirements <br> Lower-division |  | Hours |
| :--- | :--- | :--- |
| ARI 318K | Interiors and Society | 3 |
| ARI 318M | Interior Design History | 3 |
| ARC 308 | Architecture and Society | 3 |
| ARC 318K | World Architecture: Origins to 1750 | 3 |
| ARC 318L | World Architecture: The Industrial | 3 |
| Revolution to the Present |  |  |
| Upper-division | Designing for Human Behavior |  |
| ARI 338 | Interior Design History II | 3 |
| ARI 368R |  | 3 |

Architectural Interior Design 342C through 342W courses
Architecture 342C through 342W courses
In addition to the above courses, former interior design majors may use other interior design and architecture courses completed while in the School of Architecture toward their coursework for the Interior Design Minor. Unnumbered interior design or architecture topics courses (Architectural Interior Design 350R or Architecture 350R) completed prior to Fall 2016 also may count.

## The Landscape Studies Minor

The Landscape Studies Minor is designed to provide a foundation in landscape studies concepts for students outside of the School of Architecture. Any undergraduate outside of the School of Architecture with a University grade point average of at least 2.5 may take any course listed below, whether pursuing the Landscape Studies Minor or not. Students may obtain only one minor from the School of Architecture.

Students who know they intend to complete the Landscape Studies minor should apply online at the earliest possible date; deadlines are March 1 for fall or summer, and October 1 for spring.

To fulfill the Landscape Studies Minor students must complete 15 semester hours of coursework as described below. At least half of the coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis, and
completed in conjunction with the students' major requirements. Six hours must be upper-division.

Registration for upper-division courses will require successful completion of 60 semester hours of coursework.

Students pursuing the Landscape Studies Minor may choose from among the following courses:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Lower-division |  |  |
| ARC 318 K | World Architecture: Origins to 1750 | 3 |
| ARC 318L | World Architecture: The Industrial Revolution to the Present | 3 |
| Upper-division |  |  |
| ARC 327C | Urban Design History, Theory, and Criticism | 3 |
| ARC 327R | Topics in Architectural Theory (All ARC 327 courses in the series ARC 327C-W.) | 3 |
| ARC 327R | Topics in Architectural Theory (Topic 6) | 3 |
| ARC 328Q | Rendering and Animation for the Built Environment | 3 |
| ARC 342C | Mexican Architecture and Urbanism: From Pre-Columbian to Contemporary | 3 |
| ARC 342R | Topics in the History of Architecture (All ARC 342 courses in the series ARC 342C-W.) | 3 |
| LAR 341R | Topics in Visual Communication (Topic 1: Rendering and Animation for the Built Environment) | 3 |
| LAR 342K | History and Theories of Landscape Architecture I | 3 |
| LAR 342L | History and Theories of Landscape Architecture II | 3 |
| LAR 342R | Topics in Landscape Architectural History (Topic 1: Romes Gardens and Landscapes) | 3 |
| LAR 342R | Topics in Landscape Architectural History (Topic 2: Professional Design Practice: Baroque Rome) | 3 |
| LAR 342R | Topics in Landscape Architectural History (Topic 3: Representing Landscape and Architecture, 1500-2015) | 3 |
| LAR 346R | Topics in Landscape Architectural Theory | 3 |
| LAR 347K | Living Systems Design I | 3 |
| LAR 347L | Living Systems Design II | 3 |

In addition to the above courses students also may count any unnumbered advanced architectural history topics courses (Architecture 368R) and architectural theory courses (Architecture 350R) completed prior to Fall 2016.

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the School of Architecture:

Architectural Interior Design (ARI), Architecture (ARC), Community and Regional Planning (CRP), and Landscape Architecture (LAR).

# Red McCombs School of Business 

Lillian Mills, PhD, Interim Dean<br>D. Eric Hirst, PhD, Senior Associate Dean, Academic Affairs Douglas Morrice, PhD, Associate Dean, Undergraduate Program Arthur T. Allert, BBS, Assistant Dean, Undergraduate Program http://www.mccombs.utexas.edu/bba

## General Information

## Mission

The core purpose of the Bachelor of Business (BBA) degree program is to produce well-rounded and ethical graduates who are valued for their mastery of the basic tenets and techniques of their declared major(s), their broad understanding of the greater context in which businesses operate, and their potential to become leaders who create value for society.

## History

In April 1912 the first professor of the new "business training" program was hired and business classes were first offered in the fall of 1912 with a total of nine courses and two faculty. The School of Business Training was originally started as a part of the College of Arts and Sciences and by 1916 the program name had changed to Business Administration. With the continued growth of the program a new Bachelor of Business Administration degree was approved by the Regents in 1916 and the first BBA degrees were awarded to nine graduates in spring 1917. The business program at The University of Texas at Austin became a charter member in 1916 of the American Association of Collegiate Schools of Business, the accrediting agency for business schools, where it has remained fully accredited for both business and accounting. The Masters of Business Administration degree was approved in 1917 and graduate courses were started shortly thereafter. The first woman on the business faculty was hired in 1919 and the first women graduates in business received their degrees in 1920.

With increasing student interest in business education and continued growth of the program the Regents approved a new and separate School of Business Administration in 1922. In 1925 a research division of the school was established with the Bureau of Business Research which published the "Texas Business Review" in spring 1927, the first of its kind in Texas. A Ph.D in Business Administration was approved by the Regents in 1930 and was the first to be offered in the Southwest.

Given the growth of academic offerings and continuing increases in enrollment Waggener Hall was built in 1932 as a dedicated building for the business school. In 1945 the school was reorganized as the College of Business Administration with five academic departments: accounting; finance, real estate and insurance; general business; management; and marketing. In 1962 a new building for the College of Business was created with the Business-Economics Building. In 2000 the College of Business Administration and the Graduate School of Business were renamed the McCombs School of Business in honor of University alumnus and benefactor Red McCombs.

## Facilities

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

## 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. Students selected to receive an award are selected based on their academic performance, leadership and donor specific criteria which may include financial need.

Most scholarships are for continuing students who have declared a business major. Generally, scholarships are awarded annually with some being 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. The deadline for submission is the end of the spring semester for scholarships in the following academic year. Recipients are selected by the BBA Program Office of the school and are usually notified during the summer.

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

## Student Services

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

## Academic Advising

Academic advisors in the BBA Program Office provide individualized, comprehensive advising and serve as a referral resource for students to ensure timely progress toward degree completion. Every McCombs undergraduate student is assigned to a professional academic adviser prior to their first semester enrolled in school. Faculty advisors are also available in each academic department to help students explore their educational and career goals.

All McCombs students are required to meet with an academic advisor before their first semester, which is part of new student orientation. After that, all students are encouraged to meet with their assigned advisor regularly. Students who elect to self-advise are responsible for knowing the requirements of the degree program they have chosen, enrolling in courses appropriate to that degree program, meeting the prerequisites of the courses selected, and taking courses in the proper sequence to ensure timely progress towards their degree. See Student Responsibility (p. 19) in The University section for more information.

## Career Management

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

To help students prepare for their career search, BBA Career Management offers BBA students individualized career coaching, specialized programming, and a variety of events and workshops that provide exposure to diverse industries and potential career paths. BBA Career Services offers assistance with conducting a job search, résumé and cover letter writing, interviewing, evaluating offers, and other recruiting topics. The department maintains additional career resources and general business publications in their office.

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

Most students obtain an internship, which can satisfy the undergraduate business curriculum experiential learning course requirement, at the end of their junior year. However, BBA Career Management encourages freshmen and sophomores to attend its recruiting activities and events, which can help them obtain other internships that may provide valuable experience but don't count for the required experiential learning course. These experiences can help students develop their résumés and job search skills.

About 800 individual interviews for internships and full-time opportunities are arranged annually with employers in business, industry, government, and not-for-profit organizations. Over 200 firms conduct oncampus interviews at the McCombs School of Business each year.

Another resource for employers and students is the online job board, RecruitMcCombs. RecruitMcCombs helps recruiters reach current students, and the McCombs Alumni Job Board connects employers to McCombs Alumni. These job boards complement the on-campus recruiting program by allowing companies to recruit candidates for a wide variety of roles in their organizations throughout the calendar year.

More information about BBA Career Management is provided on the McCombs School of Business website.

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

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

## Student Organizations

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

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

Business student organizations sponsor professional activities such as guest lectures, field trips, and faculty chats; many offer social activities as well.

## Study Abroad

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

## McCombs Leadership Development Program

The McCombs Leadership Program (LP) provides students the opportunity to gain valuable skills in leadership to complement academic requirements. Students work on developing their leadership skills through the lenses of social change on an individual, group, and community level through unique programming, activities, and reflection. All business majors who are not in the Canfield Business Honors Program and are freshmen, sophomores, or transfer students may apply. The LP requires a two-year commitment. The primary goal of the Leadership Program is to enhance student learning and development as it relates to self-knowledge and socially responsible leadership competence, and to expand the student's leadership portfolio during his or her time at the McCombs School of Business.

Admission to the Leadership Program is limited to a small number of students who are chosen on a competitive basis each year. More information and an online application form are available at the Leadership Program's website.

## McCombs Success Scholars

McCombs Success Scholars is a two-year academic support program. Participants represent a diverse body of students within McCombs School of Business who bring a demonstrated record of academic achievement. The curriculum gives participants the opportunity to take many of their core courses with the same cohort of students, with additional programming focused on leadership development, career discovery, and social networking. For more information, see: https:// www.mccombs.utexas.edu/BBA/Academics/Success-Scholars.

## Admission and Registration

## Admission

## Admission Policies of the School

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

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

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

## Freshman Admission Requirements for Texas Residents

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

## Freshman Admission Requirements for Nonresidents

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

## Application Procedures for Freshman Admission

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

## Admission with Deficiencies

Students who were admitted to the University with deficiencies in high school units must remove them by the means prescribed in the General Information Catalog. Credit used to remove a deficiency may not be counted toward the degree. It may be earned on the pass/fail basis. Students may not declare a major until high school unit deficiencies have been removed.

## Foreign Language Proficiency

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

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

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

A former student who was most recently classified as a pre-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 Internal Transfer.

## Transfer

## Internal Transfer

Students enrolled in other programs at the University who wish to enter a degree program described in this catalog must submit an application for a change of major to the BBA Program Office by May 15 to be considered for admission in the following fall semester. The following minimum requirements for consideration are in addition to the requirements to transfer from one division to another that are given in the General Information Catalog.

1. Completion of 24 semester hours of coursework in residence on the letter-grade basis by the end of the preceding spring semester; these hours must count towards the BBA degree (p. 45)
2. Completion of Mathematics 408 Q or 408 R when taken in residence, or Mathematics 408 K and 408 L , or Mathematics 408 N and 408 S , or Mathematics 408C and 408D, or the equivalent
3. Completion of Economics 304 K and 304 L
4. Students must meet the admission standards for foreign language proficiency, requiring two years of a single foreign language in high school or one year of a single foreign language in college
5. A grade point average of at least 3.25 on University in-residence coursework

Students are strongly encouraged to complete Rhetoric and Writing 306 or its equivalent before starting classes in the McCombs School of Business.

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

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

## External Transfer

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

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

Students are strongly encouraged to complete Rhetoric and Writing 306 or its equivalent before starting classes in the McCombs School of Business.

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

## Declaring a Major

Each student is admitted to the McCombs School with an unspecified major. The student may declare a specific business major when he or she has completed 30 semester hours of coursework, including:

1. Economics 304 K and 304 L ,
2. Mathematics 408 Q or 408 R when taken in residence, or Mathematics 408D, or 408L, or 408S.
3. Credit or registration for Business Administration 101H, 101S, or 101T,
4. Credit or registration for Management $101 \mathrm{H}, 101 \mathrm{~S}$, or 101 T ,
5. Fulfillment of the foreign language proficiency requirement for the Bachelor of Business Administration degree.

All students are required to declare a major before completing 75 semester hours. Students may declare their majors online at https:// utdirect.utexas.edu/business/bba/. A student seeking admission to the integrated MPA or the Canfield Business Honors Program must complete a separate application; requirements for admission to these programs are given in the Accounting (p. 48) and Canfield Business Honors Program (p. 50) sections, respectively.

## Registration

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

## Academic Policies and Procedures

## Academic Standards

Students are expected to make continuous progress toward the degree while maintaining the University minimum scholastic requirements. A student is placed on academic probation if his or her grade point average falls below 2.00. University regulations on scholastic probation and dismissal are given in the General Information Catalog.

Students in the Integrated MPA or the Canfield Business Honors Program must maintain the scholastic requirements of those respective programs. Please refer to the Academic Standards sections for iMPA and BHP.

Any student having academic difficulty should discuss his or her status with an academic advisor in the BBA Program Office, CBA 2.400. Call (512) 471-0690 to set up an appointment with an academic advisor.

Students on academic probation attempting to register after the fourth class day in a fall or spring semester, or the second class day in a summer term, will not be approved to register late.

## Portable Computing Devices

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

## Repetition of a Course

A student pursuing a Bachelors of Business Administration (BBA) may not enroll in any course in the McCombs School of Business more than twice, even if the course is needed to meet degree requirements, without first obtaining consent of his or her academic adviser in the BBA Program Office. Enrolling in a course more than three times requires approval from the dean. The symbol $Q$ or $W$ counts as an enrollment.

To request to enroll in a course for a third time or beyond a student must submit an online petition. Supporting documentation may be required.

The official grade in a course is the last one made; however, if a student repeats a course and has two or more grades, all grades and all semester hours are used to calculate the University grade point average and to determine the student's scholastic eligibility to remain in the University and his or her academic standing in the McCombs School of Business.

A student may not repeat for credit or grade points any course in which he or she has earned a grade of $C$ - or higher (or the symbol $C R$, if the course was taken on the pass/fail basis).

## 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 12 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 or free 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 onesemester courses in elective subjects outside the major taken on the pass/fail basis; only free electives (any level/subject), non-business electives, and upper-division non-business electives may be taken on the pass/fail basis. Business courses taken on the pass/fail basis cannot be counted toward the major, unless they are offered only on the pass/ fail basis. Credit earned by examination is not counted toward the total number of courses that the student may take pass/fail.

Complete rules on registration on the pass/fail basis are given in the General Information Catalog.

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

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

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

## Concurrent Enrollment

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

## Honors

## University Honors

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

## Graduation with University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors. Criteria for graduation with University Honors are given in the General Information Catalog. Historical honors information for the McCombs School of Business BBA Program can be found on the college website.

## School Honors Program

The Canfield Business Honors Program is available to outstanding students who have distinguished themselves inside the classroom and
out by superior performance during high school or in their first year at the University. The program is described in the Canfield Business Honors Program (p. 50).

## Graduation

## Special Requirements of the School

All students must fulfill the minimum General Requirements (p. 19) for graduation given in The University section. Business students must also fulfill the following requirements:

1. All students must have a University grade point average of at least 2.00 to graduate. Business students must also have a grade point average of at least 2.00 in business courses counted toward the BBA degree.
a. Students in the Canfield Business Honors Program who wish to continue in the program or graduate with the Business Honors major must have a University grade point average of at least 3.25 and a grade point average in business courses of at least 3.25.
2. The University requires that at least six semester hours of advanced coursework in the major field of study be completed in residence. The McCombs School of Business requires that at least 12 semester hours of upper-division coursework in the major must be completed in residence at the University on the letter-grade basis.
3. A candidate for a degree must be registered in the McCombs School of Business either in residence or in absentia during the semester or summer session the degree is to be awarded. Students must apply for the degree no later than the date specified in the official academic calendar.

## Degree Audit

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

## Applying for Graduation

A degree candidate must apply for the degree no later than the date given in the official academic calendar. No degree will be conferred unless the diploma application form has been properly filed. Further information, resources, and a link to the graduation application are available at https://my.mccombs.utexas.edu/My/BBA/Graduation. Freshmen are expected to complete their degree within four years, and transfer students are expected to complete their degree in a timely manner.

## Degrees and Programs

Degree requirements are listed below under BBA Degree Requirements and under individual major degree requirements. For a complete list of requirements for a degree, the student should combine the degree requirements in these two sections with the University's minimum General Requirements (p. 19) for graduation.

## Core Curriculum

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

## Flags

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

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

One quantitative reasoning flag: flag requirement typically satisfied by Accounting 311 or 311 H , Accounting 312 or 312 H , Statistics 301 or 301 H or 235 when taken in residence.

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

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

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

One independent inquiry flag: typically satisfied by the capstone class or a class required for the degree; Finance 370, Management $374,374 \mathrm{H}$, Management Information Systems 375, Marketing 370, and Operations Management 337 (Topic 3: Procurement and Supplier Management), when taken in residence.

Flags may be added to courses periodically; courses with flags are identified in the Course Schedule. More information is available in the section on Skills and Experience Flags.

## BBA Degree Requirements

1. A grade point average of at least 2.00 is required on all work undertaken at the University for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded. In addition, a grade point average of at least 2.00 in business courses is required. For more information about grade requirements and restrictions on repetition of courses, please see Academic Policies and Procedures (p. 45).
2. A candidate for the BBA degree must be enrolled in the McCombs School in the semester or summer session in which the degree is awarded.
3. Each student is expected to complete the courses required for his or her major and to meet the curriculum requirements described in items 4 through 7 below in the year specified.
4. During their freshman and sophomore years, students are expected to complete the University's Core Curriculum (p. 23) requirements.
5. Students are expected to complete the following BBA degree requirements during the freshman year:
a. Mathematics 408Q (may fulfill the quantitative reasoning flag); Mathematics 408R will also be accepted when taken in residence at the University of Texas at Austin only. For the CSB major and the Science and Technology Management major, 408C (may fulfill the quantitative reasoning flag) and 408D are required. This coursework may also be used to fulfill the mathematics requirement of the core curriculum. Any successfully completed two-course calculus sequence will also be accepted.
b. Economics 304 K and 304L. Economics 304 K may also be used to fulfill the social and behavioral sciences requirement of the Core Curriculum.
c. Management Information Systems 301, a business core course.
d. Three semester hours of coursework in anthropology, psychology, educational psychology, or sociology, chosen from approved courses; courses dealing primarily with statistics or data processing may not be used to fulfill this requirement. Social Science 302C, 302D, 302E, and 302F (for Plan II dual majors only), are also accepted.
e. Business Administration $101 \mathrm{H}, 101 \mathrm{~S}$, or 101 T ; and Management $101 \mathrm{H}, 101 \mathrm{~S}$ or 101T. Entering freshmen take Business Administration 101S and Management 101S, entering transfer students take Business Administration 101T and Management 101T, and entering business honors students take Business Administration 101 H and Management 101H. Because each course is offered only once a year, failure to take the course in the proper semester will prevent the student from declaring a major and progressing toward the degree.
6. In addition to the courses above, students must complete the following business core courses by the end of their sophomore year.
a. Accounting 311 and 312 (both courses may fulfill the quantitative reasoning flag)
b. Statistics 301 (may fulfill the quantitative reasoning flag)
c. Business Administration 324 or Communication 324 M (may fulfill the writing flag)
d. Operations Management 235 or 334 M
e. Decision Science 235
f. Statistics 235
7. Fifteen semester hours beyond the first two years are specified as follows:
a. Business core courses:
i. Legal Environment of Business 323 (may fulfill the ethics flag)
ii. Finance 357
iii. Marketing 337
iv. Management 336 (may fulfill the ethics flag)
b. A professional, business-related experiential learning course chosen from the following: Accounting 366P, Business Administration 353, 653, Finance 366P, Management 347P, 366P, 367P, 369P, Management Information Systems 366P,

Marketing 366P, Operations Management 366P; only one of the following courses may be counted toward the degree: Business Administration 353, and Business Administration 653.
8. The following requirements apply in addition to those in items 4 through 7 above:
a. Additional coursework to earn a total of at least six semester hours at the upper-division level outside the McCombs School of Business. Students should consult the requirements of their major department for information about additional coursework to be taken outside the school.
b. Completion of the requirements of one of the BBA majors listed in the Undergraduate Catalog. At least 24 semester hours in business must be completed in residence on the letter-grade basis at the University, of which at least 12 semester hours must be in upper-division coursework in the student's major. For additional in residence requirements, see the University's minimum General Requirements (p. 19) for graduation given in The University section. Please also see footnote below.

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

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

| Accounting (BBA) | ACC 326, ACC 327, ACC 329, |
| :--- | :--- |
|  | ACC 362, and ACC 364. |, | ACC 151, ACC 152, ACC 355, |
| :--- |
| Accounting (Integrated BBA/MPA) |
|  |
| ACC 356, ACC 358C, and ACC 359. |,

Management (Entrepreneurship Track)

MAN 336, MAN 327, MAN 327E, MAN 374, and six additional semester hours required for the entrepreneurship track in requirements 5 and 6 of the major.
Management Information Systems
MIS 304, MIS 325, MIS 333K, MIS 374, MIS 375, and six additional semester hours in requirement 3 of the major.
Marketing

Science and Technology
Management
MKT 337, MKT 360, MKT 370, and 12 additional semester hours in requirement 3 of the major. O M 235 or O M 334M, O M 337 (Topic 5: Project Management), MAN 374 or MIS 375, and nine additional semester hours required for the student's business block.
Supply Chain Management O M 235 or O M 334M, O M 337 (Topic 3: Procurement and Supplier Management), O M 338, O M 367, O M 368, and six additional semester hours in requirement 3 of the major.

## Bachelor of Business Administration

## Accounting

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

## Bachelor of Business Administration

The requirements of this program are:

1. The Core Curriculum (p. 23) requirements and the BBA Degree Requirements (p. 47)
2. Accounting 326, 327 (may fulfill the quantitative reasoning flag), 329, 362 , and 364
3. Economics 420 K or 421 K
4. Management 374 (may fulfill the writing and independent inquiry flags)
5. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours

## BBA/MPA: Integrated Approach

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

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

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

## Admission

Students are admitted to the integrated approach according to the following requirements. Admission is granted only for the fall semester. Application materials and information about deadlines are available at www.mccombs.utexas.edu/MPA/iMPA/Admissions. Students interested in this program must have met the following requirements by the application deadline: the foreign language proficiency requirement for the BBA degree; and completion of at least 54 semester hours of coursework, including

- Accounting 311 and 312;
- Business Administration 101H, 101S, or 101T;
- Management 101H, 101S, or 101T;
- Economics 304 K and 304 L with a grade of $C$ - or better;
- Mathematics 408Q, 408R when taken in residence, 408D, 408L, or $408 S$ with a grade of $C$ - or better.

The MPA Program Office highly recommends that students complete Economics 420K, Microeconomic Theory or 421K, Microeconomic Theory for Business before entering the MPA program. If students are unable to take this course prior to admission into the MPA program, this course must be completed by the end of the spring semester of the first year in the program.

It is highly recommended that students complete Finance 357, Business Finance prior to admissions into the MPA program, but it must be completed before taking Accounting 380K (Topic 1: Financial Accounting Standards and Analysis I) (usually done by the fall semester of the second year in the MPA program).

As stated in the BBA Degree Requirements, "A student may not repeat for credit or grade points any course in which he or she has earned a grade of $C$ - or higher."

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

Admission is based on the applicant's University grade point average, as well as other relevant examples of academic ability. An applicant with a

University grade point average of less than 3.00 is unlikely to be admitted to this program. Admission may be restricted by the availability of instructional resources. An applicant's disciplinary record, as maintained by the Office of the Dean of Students, will be reviewed for academic dishonesty or other violations of University policy. Violations will be reported to the Admissions Committee and taken into account as part of the application process. Violations may exclude a student from admission depending on the nature and severity of the offense(s).

Before beginning the fifth year, integrated approach students must be admitted to the MPA program. Students must complete at least two longsession semesters in residence in the MPA program. Application forms must be submitted by February 1 of the student's fourth year. Students must have completed the following BBA degree requirements before the application deadline: the University Core Curriculum, courses needed to declare a major, the human behavior requirement, the lower-division business core, and Business Administration 324 or Communication 324 M .

## Academic Standards

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

## Experiential Learning

Integrated MPA students are able to satisfy the BBA degree experiential learning requirement by completing either an undergraduate or a graduate internship or practicum course. A graduate internship or practicum course will simultaneously satisfy a graduate elective for the MPA degree.

## Dismissal

The student is dismissed from the integrated approach if he or she will not achieve a grade point average of at least 2.8 in the core undergraduate accounting courses. Exceptions are granted only by the Master in Professional Accounting Program Committee.

Violations of the University's policies on academic integrity or nonacademic conduct can lead to dismissal from the Integrated BBA/MPA program.

## Graduation

Students pursuing the integrated approach to the MPA degree are expected to complete their BBA accounting degrees within four years as a milestone towards their MPA degree. The additional requirements for graduation pertaining to the BBA degree are given in Graduation (p. 46). To receive an MPA degree, a student must have a grade point average of at least 3.00 in all coursework taken as part of the minimum 35 hour MPA degree. He or she must also have a grade point average in graduate accounting coursework of at least 3.00 .

## Degree Requirements

The requirements for the BBA/MPA program are:

1. Undergraduate coursework
a. The Core Curriculum requirements and the BBA Degree Requirements. Because the integrated approach includes a graduate-level internship course, students may forgo the undergraduate experiential learning course described in requirement 7.b of the BBA Degree Requirements
b. Economics 420 K or 421 K
c. Management 374 (may fulfill the writing and independent inquiry flags)
d. Accounting 151, 152, 355, 356, 358C, and 359
e. For students in the auditing/financial reporting, managerial accounting/control, or generalist concentration, Finance 367 and a business elective; for students in the taxation concentration, Finance 367 and three semester hours of coursework in legal environment of business or business, government, and society approved by the student's academic advisor
f. Additional elective work, if necessary, to provide a total of at least 120 semester hours of undergraduate coursework.
2. Graduate coursework
a. Accounting 380K (Topic 1: Financial Accounting Standards and Analysis I) and 380K (Topic 13: Information Technology for Accounting and Contro)
b. Twenty-nine additional semester hours of graduate coursework, including at least 12 hours in accounting and no more than six hours outside business. The student's academic advisor must approve coursework in the student's concentration in advance.

More information is available at http://my.mccombs.utexas.edu/MPA.

## Accounting Suggested Arrangement of Courses



Total credit hours: 120

Note: Schedule to be adjusted depending on student's plans, incoming credits, and course availability.

Note: Students should check their Interactive Degree Audit and with their academic advisor about number and type of electives required.

## Canfield Business Honors Program

The Canfield Business Honors Program is designed to provide an intellectual challenge for students who have distinguished themselves academically and in leadership roles outside the classroom. The student may choose a general program of study or choose to combine the general program of study with an additional major. Canfield Business Honors Program students take 14 business courses in special sections open only to them. Additional information is available from the Canfield Business Honors Program Office.

## Admission

Admission to the Canfield 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 Canfield 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 Canfield Business Honors Program by completing a separate online application available through The University of Texas at Austin Office of Admissions. The Canfield 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 Canfield Business Honors Program during the spring semester of their freshman year to begin taking courses as a sophomore. To be considered for admission, the student must have completed in the fall and spring semesters of the freshman year at least 24 semester hours of college-level coursework; this coursework must include Economics 304 K and 304L or equivalent, Mathematics 408Q, or Mathematics 408R when taken in residence, or Mathematics 408 K and 408 L , or Mathematics 408 N and 408 S or Mathematics 408C and 408D, or the equivalent. The Canfield Business Honors Program Committee considers the student's grade point average in courses taken in residence at the University and the number, type, and rigor of the courses the student has taken at the University. Students will also be evaluated based upon evidence of their extracurricular activities and leadership abilities. An applicant's disciplinary record, as maintained by the Office of the Dean of Students, will be reviewed for academic dishonesty or other violations of University policy. Violations will be reported to the Admissions Committee and taken into account as part of the application process. Violations may exclude a student from admission depending on the nature and severity of the offense(s).

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

Application materials and information about deadlines are available at https://www.mccombs.utexas.edu/CBHP.

## Academic Standards

A student who enters the Canfield Business Honors Program as a freshman must have a grade point average of at least 3.25 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 12 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 Canfield Business Honors Program Committee.

Violations of the University's policies on academic integrity or nonacademic conduct can lead to dismissal from the Canfield Business Honors Program.

## Graduation

To graduate under the Canfield 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

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

1. The Core Curriculum (p. 23) requirements and the BBA Degree Requirements (p. 47)
2. Completion of the following business core courses and other business courses in special Honors Program sections:
a. Accounting 311 H (may fulfill the quantitative reasoning flag)
b. Accounting 312 H (may fulfill the quantitative reasoning flag)
c. Business Administration 101H
d. Business Administration 151H
e. Business Administration 324H or Communication 324H (may fulfill the writing flag)
f. Decision Science 235 H
g. Finance 357H
h. Legal Environment of Business 323H (may fulfill the ethics flag)
i. Management 101 H
j. Management 336H(may fulfill the ethics flag)
k. Management 327H
I. Management 374 H (may fufill the writing and independent inquiry flags)
m. Management Information Systems 301H
n. Marketing 337H
o. Operations Management 235H
p. Statistics 301H
q. Statistics 235 H (may fulfill the quantitative reasoning flag)
3. Six semester hours of upper-division business electives
4. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours

## Honors Computer Science and Business

## Admission

Admission to Computer Science and Business (CSB) is limited to a small number of high performing students who are chosen on a competitive basis. Students selected for the program will have demonstrated exceptional potential for success in both computer science and business. Admission decisions are made by the CSB Committee. Students enter the program as freshmen.

Students entering the University as freshmen may apply to the CSB by completing a separate online application available through the UT Office of Admissions. The CSB 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.

## Academic Standards

A student who enters CSB as a freshman must have a grade point average of at least 3.25 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 12 semester hours in residence on the letter-grade basis during each of those two semesters. After the freshman year, each student is dismissed from the program if his or her overall, computer science, or business grade point average drops below 3.25. In addition to this grade point average requirement, students must know and abide by the academic and disciplinary policies given in this catalog and in the General Information Catalog. Those who fail to do so will be considered for academic dismissal from the program. Under special circumstances and at the discretion of the CSB Program Committee, a student will be allowed to continue in the program under academic review. Students in scholastic difficulty should discuss their problems with the CSB Honors Program director(s) and their academic advisor(s).

## Graduation

To graduate under the CSB 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 and a grade point of average of at least 3.25 in computer science courses. A candidate for any degree must be enrolled at The University of Texas at Austin in the semester or summer session in which the degree is awarded.

Students in CSB must satisfy the University's Core Curriculum and degree requirements for a B.S. in Computer Science and for a B.B.A.; combined degree requirements below. If students later elect to complete only one degree, they must consult their academic advisor(s) and fulfill all degree requirements.

## Degree Requirements

1. Mathematics 408C and 408D, or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M ; either 340 L or 341 or Statistics and Data Sciences 329C; and Statistics and Data Sciences 321
2. One of the following sequences of coursework, also fulfills all of part I of the core curriculum science and technology requirement:
a. Either Biology 311C and 311D, or 315 H and 325 H
b. Chemistry 301 or 301 H , and 302 or 302 H
c. Physics 303 K and $103 \mathrm{M}, 301$ and 101 L or 317 K and 117 M ; and 303 L and $103 \mathrm{~N}, 316$ and 116 L , or 317 L and 117 N .
3. Economics 304 K and 304L
4. Three semester hours of coursework in anthropology, psychology, educational psychology, or sociology, chosen from approved courses; courses dealing primarily with statistics or data processing may not be used to fulfill this requirement. Social Science 302C, 302D, 302E, and 302 F (for Plan II dual majors only), are also accepted. A list of coursework can be found in the Canfield Business Honors academic advising office.
5. The following courses in computer science:
a. Theory: Computer Science $311 \mathrm{H}, 331 \mathrm{H}$
b. Programming: Computer Science 314 H
c. Systems: Computer Science $429 \mathrm{H}, 439 \mathrm{H}$
d. Twelve additional hours of upper-division courses in computer science of which six hours must carry the honors designation.
6. Completion of the following business core courses and other business courses in special Honors Program sections:
a. Accounting 311 H (may fulfill the quantitative reasoning flag)
b. Accounting 312 H (may fulfill the quantitative reasoning flag)
c. Business Administration 101 H
d. Business Administration 151H
e. Business Administration 353
f. Business Administration 324 or Communication 324H (may fulfill the writing flag)
g. Decision Science 235H
h. Finance 357H
i. Legal Environment of Business 323H
j. Management 101H
k. Management 336 H (may fulfill the ethics flag)
I. Management 327 H
m. Management 374 H (may fulfill the writing and independent inquiry flags)
n. Management Information Systems 301H
o. Marketing 337H
p. Operations Management 235 H
q. Statistics 235 H (may fulfill the quantitative reasoning flag)

This dual major requires 124 hours for completion of both degrees

## Canfield Business Honors

 Program Suggested Arrangement of Courses| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| B A 101H ${ }^{1}$ |  | 1 MIS 301H ${ }^{1}$ | 3 |
| M 408Q |  | 4 STA 301H | 3 |
| ECO 304K |  | 3 ECO 304L | 3 |
| MAN 101H |  | 1 UGS 302 or 303 | 3 |
| B A 324 H |  | 3 Visual and performing arts | 3 |
| RHE 306 |  | 3 |  |
|  |  | 5 | 15 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ACC 311H ${ }^{1}$ |  | 3 ACC 312H ${ }^{1}$ | 3 |
| B A 151H ${ }^{1}$ |  | 1 OM 235H | 2 |
| STA 235 H |  | 2 D S 235 H | 2 |
| MAN $327{ }^{1}$ |  | 3 GOV 312 L | 3 |
| GOV 310L |  | 3 Nonbusiness elective | 3 |
| Approved PSY/SOC/ANT/EDP |  | 3 Science and technology part I | 3 |
|  |  | 5 | 16 |

Third Year
First Term
Hours Second Term
Hours

FIN 357H
3 MKT 337H
3
MAN 336H
3 Upper-division business elective 3
3 E 316L, 316M, 316N, or 316P 3
3 Science and technology part II 3
3 Free elective 3
15
Fourth Year
First Term Hours Second Term Hours
LEB 323H
Upper-division business elective
MAN 374 Her
3 MAN 374H 3
3 Upper-division nonbusiness elective 3
3 Free elective 3
3 Free elective 3
3 Free elective 2
15
14
Total credit hours: 120
1 This course must be taken within the year and semester it is listed under.

Note: Schedule to be adjusted depending on major selection, incoming credits, and course availability

Note: Students should check their Interactive Degree Audit and with their academic adviser about number and type of electives required

## Finance

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

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

Corporate finance and investment banking courses are designed to prepare students for careers as associates of corporate treasury departments, as corporate financial analysts, and as management consultants. Energy finance courses are designed to prepare students for positions in project financing, valuation, and risk management in the energy sector. Investment management and banking courses are designed to give students a background suitable for starting positions as financial analysts with investment funds, investment banks, commercial banks, and other financial institutions. Quantitative finance courses are designed to prepare students for financial analyst positions in research departments of financial institutions and for graduate study in finance. Real estate courses are designed to give students a broad background in valuing and managing real estate; the track is intended to prepare students for positions in real estate commercial brokerage and appraisal, mortgage banking, loan underwriting, real estate development and investment, and property management. The finance track with a required accounting minor is appropriate for students who wish to enhance their understanding of auditing/financial reporting, managerial accounting/ control and taxation, and students whose careers will interact with the Controller function of their organization.

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

The requirements of this program are:

1. The Core Curriculum (p. 23) and the BBA Degree Requirements (p. 47)
2. Accounting 326 (with the exception of the finance track with required accounting minor), Finance 367, and 370 (may fulfill writing and independent inquiry flags)
3. Only one independent study may be counted toward the finance major with the exception of the general finance track, the finance track with required accounting minor, and the real estate track, which do not allow independent study, as noted below
4. One of the following tracks:
a. Corporate Finance and Investment Banking
i. Finance 374C
ii. One of the following courses: Accounting 327 (may fulfill the quantitative reasoning flag), 329,362 , or 364
iii. Two of the following courses: Finance 366P, 371M, 372, 373, 374S, 376, 377 (Topic 1: Portfolio Analysis and Management), either 377 (Topic 2: Financial Risk Management) or 377 (Topic 5: Energy Financial Risk Management), 377 (Topic 3: Security Analysis), 377 (Topic 4: Financial Analysis)
b. Energy Finance, Law and Science
i. Finance 374C
ii. Finance 377 (Topic 5: Energy Financial Risk Management)
iii. Two of the following courses: Finance 366P, 371M, 372, 373, 374S, 375F, 376, 377 (Topic 1: Portfolio Analysis and Management), 377 (Topic 3: Security Analysis), 377 (Topic 4: Financial Analysis)
iv. Geological Sciences 303 or 401; also fulfills one class of the part I sequence of the core curriculum science and technology requirement, or all of part II
v. Business, Government, and Society 370 (Topic 10: Nontechnical Exploration and Production)
vi. Legal Environment of Business 370 (Topic 14: Oil and Gas Law)
vii. Geological Sciences 316P; this class cannot satisfy any core curriculum science and technology requirements
viii. Note: Students in this track do not take 9 hours of free electives; those are fulfilled by Business, Government, and Society 370 (Topic 10: Nontechnical Exploration and Production), Legal Environment of Business 370 (Topic 14: Oil and Gas Law), and Geological Sciences 316P
ix. Note: Finance majors who select the Energy Finance, Law and Science track cannot pursue the Energy Management minor; however, they may select any other finance track in order to complete the Energy Management Minor.
c. Investment Management and Banking
i. Finance 377 (Topic 1: Portfolio Analysis and Management)
ii. Finance 371M
iii. Two of the following courses: Finance 366P, 372, 373, 374C, 374S, 375F, 376, either 377 (Topic 2: Financial Risk Management) or 377 (Topic 5: Energy Financial Risk Management), 377 (Topic 3: Security Analysis), 377 (Topic 4: Financial Analysis), Real Estate 378K
d. General Finance
i. Twelve semester hours of upper-division coursework in finance; up to six hours may be taken in real estate. The following courses may not be used to fulfill this requirement: Finance 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) is open only to students in the Financial Analyst Program.
ii. An independent research course may not be counted toward the general finance option
e. Quantitative Finance
i. Finance 374C
ii. Finance 377 (Topic 2: Financial Risk Management) or 377 (Topic 5: Energy Financial Risk Management)
iii. One of the following courses: Finance $371 \mathrm{M}, 372,373,374 \mathrm{~S}$, 376, 377 (Topic 1: Portfolio Analysis and Management), 377
(Topic 3: Security Analysis), 377 (Topic 4: Financial Analysis)
iv. One of the following courses: Finance 366P, Statistics 372
(Topic 5: Financial and Econometric Time Series Modeling), Decision Science 372 (Topic 6: Optimization Methods in Finance), 372 (Topic 7: Computational Finance), Management Information Systems 373 (Topic 17: Predictive Analytics and Data Mining), 373 (Topic 11: Advanced Analytics Programming), 373 (Topic 26: Healthcare Analytics), Operations Management 337 (Topic 6: Supply Chain Analytics)
f. Real Estate
i. Finance 371 M
ii. One of the following courses: Finance 377 (Topic 3: Security Analysis), 377 (Topic 4: Financial Analysis), 374S, 374C
iii. Six semester hours of coursework in real estate
iv. An independent research course may not be counted toward the real estate option
v. Note: Finance majors who select the Real Estate track cannot pursue the Real Estate minor; however, they may select any other finance track in order to complete the Real Estate Minor.
g. Finance with Required Accounting Minor
i. Twelve semester hours of upper-division coursework in finance; up to six hours may be taken in real estate. The following courses may not be used to fulfill this requirement: Finance 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) is open only to students in the Financial Analyst Program.

- Students may choose to complete this requirement with the finance course requirements for any one of tracks a-f
ii. Accounting Minor for Business Majors (p. 59), completed in full
iii. An independent research course may not be counted toward the finance with accounting minor option

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

## Finance Suggested Arrangement of Courses

First Year

| First Term | Hours | Second Term |
| :--- | :--- | :--- |
| MAN 101S | 1 B A 101S | Hours |
| M 408Q | 4 STA 301 | 1 |



Total credit hours: 120
Note: Schedule to be adjusted depending on student's plans, incoming credits, and course availability.

Note: Students should check their Interactive Degree Audit and with their academic adviser about number and type of electives required.

## International Business

Technological advances have connected the world's countries, societies, economies, and individuals in ways that were unimaginable not long ago. What happens outside U.S. borders is of paramount concern to American businesses and citizens. This major provides students with detailed knowledge about the global aspects of the U.S economy and specific, functional skills useful to a career in the global economy.

The requirements of this program, which has two tracks, are:

1. The Core Curriculum (p. 23) requirements and the BBA Degree Requirements (p. 47)
2. International Business 350 or 350 S
3. International Business 378 (may fulfill the writing, independent inquiry, and global cultures flags)
4. The additional requirements of one of the following tracks:
a. Language Skills track
i. Three semester hours approved international experience, either a study abroad program of at least five weeks in length, or an international internship of at least six weeks in length, and at least 160 hours work.
ii. Six hours from the list of International Business elective courses in \#5 below.
iii. Twelve semester hours of coursework in a foreign language associated with the area studies used to fulfill requirement
4.a. 4 below. A minimum of six of the 12 required hours must be at the upper-division level.
iv. Nine semester hours of upper-division coursework focused on a specific geographic region. Examples of acceptable fields of study are Latin American studies; Middle Eastern studies; Asian studies; Russian, East European, and Eurasian studies; and specific countries within western Europe (e.g., France, Spain, Germany and others) or other areas related to the student's geographic region. All area coursework must be approved by the international business faculty advisor.

## b. Global Business Skills track

i. Six semester hours approved international experience, either a study abroad program of at least five weeks in length, or an international internship of at least six weeks in length, and at least 160 hours work.
ii. Nine hours from the list of International Business elective courses in \#5 below.
iii. Additional elective coursework necessary to provide a total of at least 120 semester hours.
5. International Business Major Elective Courses:

- International Business 362 Global Regulatory Strategy,
- Business, Government, and Society 374, Global Political Economy
- Finance 376, International Finance/International Business 376 International Finance,
- International Business 365 Finance \& Global Business,
- Operations Management 367/International Business 367 Strategic Supply Chain Management,
- International Business 366/Accounting 366C International Transfer Pricing,
- International Business 368 Global Value Chains,
- Management 337 (Topic 3: Intercultural Management),
- International Business 372 (Topic 11: Global Entrepreneurship).


## International Business Suggested Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| MAN 101S |  | 1 B A 101 S | 1 |
| M 408Q |  | 4 STA 301 | 3 |
| ECO 304K |  | 3 ECO 304L | 3 |
| RHE 306 |  | 3 MIS 301 | 3 |
| UGS 302 or 303 |  | 3 Visual and performing arts | 3 |
|  |  | Approved PSY/SOC/ANT/EDP | 3 |
|  | 14 |  | 16 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ACC 311 |  | 31 B 350 | 3 |
| STA 235 |  | 2 MKT 337 | 3 |
| D S 235 |  | 20 M 235 | 2 |
| B A 324 |  | 31 B track course (language or skills) | 3 |
| I B track course (language or skills) |  | 31 B track course (language or skills) | 3 |
| I B track course (language or skills) | 3 |  |  |
|  | 16 |  | 14 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ACC 312 |  | 3 FIN 357 | 3 |
| LEB 323 |  | 3 MAN 336 | 3 |
| GOV 310L |  | 31 B track course (language or skills) | 3 |
| Science and technology part I |  | 31 B track course (language or skills) | 3 |
| American history |  | 31 B track course (language or skills) | 3 |

Fourth Year

| First Term | Hours | Second Term |
| :--- | :--- | ---: |
| I B track course (language or skills) | 3 I B 378 (offered in spring only) | Hours |
| B A 353 | 3 I B track course (language or skills) | 3 |
| GOV 312L | 3 I B track course (language or skills) | 3 |
| E 316L, $316 \mathrm{M}, 316 \mathrm{~N}$, or 316P | 3 Science and technology part II | 3 |
| Science and technology part I | 3 American history | 3 |
|  | 15 | 15 |

Total credit hours: 120
Note: Schedule to be adjusted depending on student's plans, incoming credits, and course availability

Note: Students should check their Interactive Degree Audit and with their academic adviser about number and type of electives required

## Management

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

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

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

The Entrepreneurship track is designed to equip students with the perspectives, knowledge, and skills necessary to engage in entrepreneurship, broadly defined to include the launch and development of new businesses as well as the growth and renewal of existing enterprises. The program will equip students with entrepreneurial thinking and talents to propel their success in a knowledge-based, innovation-driven economy, across a broad range of industries and settings.

## General Management Track

The requirements of the general management track are:

1. The Core Curriculum (p. 23) requirements and the BBA Degree Requirements (p. 47)
2. Management 374 (may fulfill the writing and independent inquiry flags)
3. Twelve semester hours of upper-division coursework in management
4. Six semester hours of upper-division coursework in social science (anthropology, economics, government, history, linguistics, geography, psychology, sociology)
5. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours

Practicum courses (Management 347P, Management
366P, Management 367P, Management 369P) may be used to satisfy a management elective or the BBA experiential learning requirement, but one class may not be used to satisfy both.

## Consulting and Change Management Track

The requirements of the consulting and change management track are:

1. The Core Curriculum (p. 23) requirements and the BBA Degree Requirements (p. 47)
2. Management 328
3. Management 337 (Topic 7: People Analytics)
4. Management 374 (may fulfill the writing and independent inquiry flags)
5. Six semester hours chosen from the following courses: any upperdivision course in management, Accounting 329, Operations Management 337 (Topic 1: Total Quality Management).
6. Six semester hours of upper-division coursework in social science (anthropology, economics, government, history, linguistics, geography, psychology, sociology)
7. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours

Practicum courses (Management 347P, Management 366P, Management 367P, Management 369P) may be used to satisfy a management elective or the BBA experiential learning requirement, but one class may not be used to satisfy both.

## Entrepreneurship Track

The requirements of the entrepreneurship track are:

1. The Core Curriculum (p. 23) requirements and the BBA Degree Requirements (p. 47)
2. Management 374 (may fulfill the writing and independent inquiry flags)
3. Management 327 or 327 H
4. Management 327 E
5. Three semester hours upper-division management
6. Three semester hours chosen from the following courses: Management 347P, 366P, 367P, 369P
7. Six semester hours of upper-division coursework in social science (anthropology, economics, government, history, linguistics, geography, psychology, sociology)
8. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours

Practicum courses (Management 347P, Management 366P, Management 367P, Management 369P) may be used to satisfy a management elective or the BBA experiential learning requirement, but one class may not be used to satisfy both.

Management majors are ineligible to participate in the Entrepreneurship Minor, but instead should select the Entrepreneurship track of the Management major.

## Management Suggested <br> Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| MAN 101S |  | 1 B A 101S | 1 |
| M 408Q |  | 4 STA 301 | 3 |
| ECO 304K |  | 3 ECO 304L | 3 |
| RHE 306 |  | 3 MIS 301 | 3 |
| UGS 302 or 303 |  | 3 Approved PSY/SOC/ANT/EDP | 3 |
|  |  | Visual and performing arts | 3 |
|  |  | 4 | 16 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ACC 311 |  | 3 ACC 312 | 3 |
| STA 235 |  | 2 MAN 336 | 3 |
| D S 235 |  | 2 OM 235 | 2 |
| B A 324 |  | 3 E 316L, 316M, 316N, or 316P | 3 |
| Science and technology part I |  | 3 Science and technology part I | 3 |
| Free elective |  | 3 |  |
|  |  | 6 | 14 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| Management elective |  | 3 Management elective | 3 |
| MKT 337 |  | 3 FIN 357 | 3 |
| GOV 310L |  | 3 GOV 312L | 3 |
| American history |  | 3 American history | 3 |
| Science and technology part II |  | 3 Upper-division social science | 3 |
|  |  | 5 | 15 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| Management elective |  | 3 MAN 374 | 3 |
| B A 353 |  | 3 Management elective | 3 |
| Upper-division social science |  | 3 LEB 323 | 3 |
| Free elective |  | 3 Free elective | 3 |
| Free elective |  | 3 Free elective | 3 |
|  |  | 5 | 15 |

Total credit hours: 120
Note: Schedule to be adjusted depending on student's plans, incoming credits, and course availability

Note: Students should check their Interactive Degree Audit and with their academic advisor about number and type of electives required

## Management Information Systems

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

The requirements of this program are:

[^0]3. Six additional semester hours of upper-division coursework in management information systems
4. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours

## Management Information Systems Suggested Arrangement of Courses



Fourth Year
First Term
Hours Second Term
Hours
MIS 375
3 MIS 3743
MIS upper-division elective 3 LEB 323 3
B A 353 3 Upper-division nonbusiness elective 3
Upper-division nonbusiness elective 3 Free elective 3
Free elective 3 Free elective
3
15
15
Total credit hours: 120
Note: Schedule to be adjusted depending on student's plans, incoming credits, and course availability.

Note: Students should check their Interactive Degree Audit and with their academic advisor about number and type of electives required.

## Marketing

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

The requirements of this program are:

1. The Core Curriculum (p. 23) requirements and the BBA Degree Requirements (p. 47)
2. Marketing 360 (may fulfill the quantitative reasoning flag), and 370 (may fulfill the writing and independent inquiry flags)
3. Twelve semester hours of upper-division coursework in marketing, or International Business 350
4. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours

Practicum course Marketing 366P may be used to satisfy a marketing elective or the BBA experiential learning requirement, but not both.

A maximum of three hours Marketing 178/278/378 can be counted towards marketing electives for a Marketing major.

For course planning, Marketing majors should carefully consider the prerequisites for Marketing 370: 90 semester hours of college coursework, including Marketing 360; credit or registration for an approved experiential learning course; and three additional semester hours of elective coursework in marketing.

## Marketing Suggested <br> Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| MAN 101S |  | 1 B A 101 S | 1 |
| M 408Q |  | 4 STA 301 | 3 |
| ECO 304K |  | 3 ECO 304L | 3 |
| RHE 306 |  | 3 MIS 301 | 3 |
| UGS 302 or 303 |  | 3 Science and technology part I | 3 |
|  |  | Approved PSY/SOC/ANT/EDP | 3 |
|  |  | 14 | 16 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ACC 311 |  | 3 ACC 312 | 3 |
| STA 235 |  | 2 MKT 337 | 3 |
| D S 235 |  | 20 M 235 | 2 |
| B A 324 |  | 3 Science and technology part II | 3 |
| Science and technology part I |  | 3 American history | 3 |
| Visual and performing arts |  | 3 |  |
|  |  | 16 | 14 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| MKT 360 |  | 3 Marketing elective | 3 |
| Marketing elective |  | 3 Marketing elective | 3 |
| FIN 357 |  | 3 MAN 336 | 3 |
| American history |  | $3 \mathrm{E} 316 \mathrm{~L}, 316 \mathrm{M}, 316 \mathrm{~N}$, or 316P | 3 |
| GOV 310L |  | 3 GOV 312 L | 3 |
|  |  | 15 | 15 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| Marketing elective |  | 3 MKT 370 | 3 |
| LEB 323 |  | 3 Upper-division nonbusiness elective | 3 |
| B A 353 |  | 3 Free elective | 3 |
| Upper-division nonbusiness elective |  | 3 Free elective | 3 |
| Free elective |  | 3 Free elective | 3 |
|  |  | 15 | 15 |

[^1]Note: Schedule to be adjusted depending on student's plans, incoming credits, and course availability

Note: Students should check their Interactive Degree Audit and with their academic advisor about number and type of electives required

## Science and Technology Management

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

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

All students must take the courses listed below, with a minimum of 48 semester hours in the McCombs School of Business. Prerequisites for all courses are given in this catalog. Other requirements of the Cockrell School of Engineering must also be fulfilled.

The requirements of this program are:

1. The Core Curriculum (p. 23) requirements and the BBA Degree Requirements (p. 47), with the specification that:
a. Students in this program must complete Mathematics 408C (may fulfill the quantitative reasoning flag) and 408D; or 408K (may fulfill the quantitative reasoning flag), 408L, and 408M.
2. Operations Management 337 (Topic 5: Project Management);
3. One of the following four business blocks:
a. General Business Block: Accounting 329, either Finance 374C or Finance 374 , and either Management 374 or Management Information Systems 375 (both may fulfill the writing and independent inquiry flags), whichever course is not used to fulfill requirement 4 below;
b. Finance Business Block: Finance 367, Finance 374C or Finance 374S, and one other upper-division Finance course;
c. Supply Chain Management Business Block: Operations Management 368, 338, and one other upper-division Operations Management course;
d. Management Information Systems Business Block: Three upper-division Management Information Systems courses; or Management Information Systems 304 and two upper-division Management Information Systems courses.
4. Either Management 374 (may fulfill the writing and independent inquiry flags) or Management Information Systems 375 (may fulfill the writing and independent inquiry flags);

## 5. Nonbusiness courses:

a. Chemistry 301 (may fulfill the quantitative reasoning flag); Chemistry 301 also fulfills part II of the core curriculum science and technology requirement;
b. Physics $303 \mathrm{~K}, 303 \mathrm{~L}$ (both may fulfill the quantitative reasoning flag), 103 M , and 103 N ; the physics sequence also fulfills part I of the core curriculum science and technology requirement;
c. Mathematics 427J (may fulfill the quantitative reasoning flag).
6. Engineering courses:
a. Engineering Mechanics 306, or Mechanical Engineering 320 or 310T;
b. Electrical Engineering 302 and 306;
c. One of the following courses: Aerospace Engineering 374K, Operations Research and Industrial Engineering 374, or Engineering Studies 377E.
7. This major requires 121 hours for degree completion.

## Science and Technology Management Suggested Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| MAN 101 S |  | 1 B A 101 S | 1 |
| M 408C |  | $4 \mathrm{M} \mathrm{408D}$ | 4 |
| ECO 304K |  | 3 ECO 304L | 3 |
| RHE 306 |  | 3 STA 301 | 3 |
| UGS 302 or 303 |  | 3 Visual and performing arts | 3 |
|  |  | 4 | 14 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ACC 311 |  | 3 ACC 312 | 3 |
| B A 324 |  | 3 STA 235 | 2 |
| MIS 301 |  | 3 D S 235 | 2 |
| PHY 303K |  | 3 OM 235 | 2 |
| PHY 103M |  | 1 PHY 303L | 3 |
| E 316L, 316M, 316N, or 316P |  | 3 PHY 103N | 1 |
|  |  | Approved PSY/SOC/ANT/EDP | 3 |
|  |  | 6 | 16 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| E E 306 |  | 3 E E 302 | 3 |
| CH 301 |  | 3 M 427 J | 4 |
| GOV 310L |  | 3 GOV 312L | 3 |
| MAN 336 |  | 3 LEB 323 | 3 |
| American history |  | 3 American history | 3 |
|  |  | 5 | 16 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| M E 310T or E M 306 |  | 3 ASE 374K or E S 377E | 3 |
| Management) |  |  |  |
| Business block course |  | 3 Business block course | 3 |
| FIN 357 |  | 3 Business block course | 3 |
| B A 353 |  | 3 MKT 337 | 3 |
|  |  | 5 | 15 |

Total credit hours: 121
Note: Schedule to be adjusted depending on student's plans, incoming credits, and course availability

Note: Students should check their Interactive Degree Audit and with their academic advisor about number and type of electives required

## Supply Chain Management

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

The requirements of this program are:

1. The Core Curriculum (p. 23) requirements and the BBA Degree Requirements (p. 47)
2. Operations Management 337 (Topic 3: Procurement and Supplier Management) (may fulfill the writing and independent inquiry flags), 338 (may fulfill the quantitative reasoning flag), 367 , and 368
3. Six additional semester hours of upper-division coursework in Operations Management or Management 337 (Topic 21: The Art and Science of Negotiation)
4. Additional elective coursework, if necessary, to provide a total of at least 120 semester hours

## Supply Chain Management Suggested Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| MAN 1015 |  | 1 B A 101 S | 1 |
| M 408Q |  | 4 STA 301 | 3 |
| ECO 304K |  | 3 ECO 304L | 3 |
| RHE 306 |  | 3 MIS 301 | 3 |
| UGS 302 or 303 |  | 3 Science and technology part I | 3 |
|  |  | Approved PSY/SOC/ANT/EDP | 3 |
|  | 14 |  | 16 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ACC 311 |  | 3 ACC 312 | 3 |
| OM 235 |  | 2 STA 235 | 2 |
| B A 324 |  | 3 D S 235 | 2 |
| GOV 310L |  | 3 GOV 312L | 3 |
| Science and technology part I |  | 3 Visual and performing arts | 3 |
|  |  | Science and technology part II | 3 |
|  | 14 |  | 16 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| OM 338 |  | 3 OM 368 | 3 |
| MKT 337 |  | 3 FIN 357 | 3 |
| E 316L, 316M, 316N, or 316P |  | 3 MAN 336 | 3 |
| American history |  | 3 American history | 3 |
| Free elective |  | 3 Upper-division nonbusiness elective | 3 |
|  | 15 |  | 15 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| O M 337 (Topic 3) |  | 30 M 367 | 3 |
| Operations management elective |  | 3 Operations management elective | 3 |
| B A 353 |  | 3 LEB 323 | 3 |
| Upper-division nonbusiness elective |  | 3 Free elective | 3 |
| Free elective |  | 3 Free elective | 3 |
|  |  | 5 | 15 |

Total credit hours: 120
Note: Schedule to be adjusted depending on student's plans, incoming credits, and course availability

Note: Students should check their Interactive Degree Audit and with their academic advisor about number and type of electives required

## Minor and Certificate Programs

## Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin; students pursuing an integrated undergraduate/graduate program must complete the requirements for the minor within one year after completing the undergraduate requirements of their program. For more information regarding the requirements for achieving a minor, including a comprehensive list of all minors offered on The University of Texas at Austin campus, please visit the Minor and Certificate Programs (p.13) section of the Undergraduate Catalog.

Students admitted to transcript-recognized minors must contact their academic advisers to have approved minors added to their degree audit profiles. This allows progress toward the credential to be tracked and ensures that minors are added to official transcripts upon graduation, if all requirements are met.

The McCombs School of Business offers minors for different undergraduate student populations:

1. Minors for Business Majors - discipline-specific minors available only to degree-seeking McCombs School of Business students, in six individual business fields of study, and two innovative, demanddriven areas
2. The comprehensive Business Minor - restricted to degree-seeking non-business students, a multidisciplinary exposure to the primary fields of study in business
3. Accounting Minor for Business Economics Option Program, and Finance Minor for Business Economics Option Program - available only to degree-seeking Economics majors who have been admitted to the BEOP
4. Specialized Business Minors - available to all undergraduate students

## Minors for Business Majors

While a minor is not required as part of the BBA degree program, a degree-seeking BBA student may choose to complete a minor in conjunction with the degree, in either a second business field or a field outside the school which offers a minor and for which the student is eligible. A BBA student may complete only one minor, which must be in a different field of study from his or her major.

The business school offers several minors that are available only to students enrolled in the McCombs School of Business. Six of these are offered in academic disciplines in which undergraduate majors are also available: Accounting, Finance, Management, Management Information Systems, Marketing, and Supply Chain Management. In addition, all degree-seeking students in the McCombs School of Business may pursue a minor in Business Analytics, while students majoring in Accounting or Finance may acquire a minor in Wealth Management.

To fulfill a minor for business majors, students must complete 15 to 18 semester hours of coursework as described below in the requirements of the selected minor. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major. This means that only Business Administration $324 / 324 \mathrm{H}$ or Communication $324 \mathrm{M} / 324 \mathrm{H}$ and the business/specific major course(s) required for the minor (i.e. Accounting 312/312H, Finance 357/357H,

Management 336/336H, Management Information Systems 301/ 301H, Marketing 337/337H, Operations Management $235 / 235 \mathrm{H}_{2}$ Management 101H/101S/101T; Statistics 235/235H, Decision Science 235/235H, Management Information Systems 304; Accounting 364, 378 (Topic 3: Financial Planning for Wealth Management), Finance 367) can satisfy both BBA degree requirements and business minor requirements simultaneously; the remaining nine hours for each business minor cannot be coursework used to satisfy other BBA degree requirements, except free or non-business electives. At least half of the coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis, and completed in conjunction with the students' major requirements at the time of graduation.

Students admitted to a business minor must contact their BBA academic advisor to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

Registration for any of these courses will require that existing prerequisite course requirements are adequately met at the time of graduation.

## Accounting Minor for Business Majors

The Accounting Minor for Business Majors requirements are:

| Requirements | Hours |  |
| :---: | :---: | :---: |
| B A 324 | Business Communication: Oral and Written | 3 |
| or B A 324 H | Business Communication: Oral and Honors |  |
| or COM 324H | Introduction to Business Communic Honors |  |
| or COM 324M | Introduction to Business Communic |  |
| ACC 312 | Fundamentals of Managerial Accounting | 3 |
| or ACC 312 H | Fundamentals of Managerial Accoun Honors |  |
| ACC 326 | Financial Accounting--Intermediate | 3 |
| Six additional semester hours of upper-division coursework in accounting |  |  |
| Please Note: |  |  |
| All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses. |  |  |
| Finance majors who wish to pursue an Accounting Minor may only do so by selecting the Finance Track with Required Accounting Minor. |  |  |

## Finance Minor for Business Majors

The Finance Minor for Business Majors requirements are:

| Requirements | Hours |  |
| :--- | :--- | :--- |
| B A 324 | Business Communication: Oral and <br> Written | 3 |
| or B A 324H | Business Communication: Oral and Written: <br> Honors |  |
| or COM 324M | Introduction to Business Communication |  |
| or COM 324H | Introduction to Business Communication: |  |
| FIN 357 | Honors | 3 |
| or FIN 357H | Business Finance <br> Business Finance: Honors |  |



## Supply Chain Management Minor for Business Majors

The Supply Chain Management Minor for Business Majors requirements are:

| Requirements | Hours |
| :---: | :---: |
| B A 324 | Business Communication: Oral and Written |
| or B A 324H | Business Communication: Oral and Written: Honors |
| or COM 324M | Introduction to Business Communication |
| or COM 324H | Introduction to Business Communication: Honors |
| O M 235 | Operations Management 2 or 3 |
| or O M 235H | Operations Management: Honors |
| or OM 334M | Healthcare Operations Management |
| MAN 101S | Leadership Challenges and Innovation |
| or MAN 101H | Leadership Challenges and Innovation: Honors |
| or MAN 101T | Leadership Challenges and Innovation |
| Nine additional semester hours of upper-division coursework in operations management |  |
| Please Note: |  |
| All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses. |  |

## Business Analytics Minor

The Business Analytics Minor will provide BBA students with skills in collecting, cleaning, and analyzing data as well as modeling and optimizing data-driven decisions in practical business contexts. Students will acquire fundamental skills in programming, statistics, machine learning, and decision science and be able to apply these to predict, model, and optimize. As business analytics has become increasingly important in all fields, this minor will be a valuable complement to any McCombs major.

Admission to the minor is based on students' overall academic record, including but not limited to hours and rigor of courses taken in residence, demonstrated interest, and The University of Texas at Austin grade point average, particularly in statistics and decision science courses. To apply for the minor students must:

- have a cumulative University grade point average of at least 3.00;
- have a GPA of at least 3.333 in Statistics 301, Statistics 235, and Decision Science 235.

Students may apply to the minor in the spring of either their Sophomore or Junior year. No more than 40 students will be admitted per year and there will be no more than 120 in the minor at any time. Admissions decisions will be based upon GPA in statistics and decision science courses and cumulative University GPA.

To fulfill the Business Analytics Minor, students must complete 16 semester hours of coursework as described below. Students admitted to the Business Analytics Minor must contact their BBA academic advisor to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis and completed in conjunction with the students'
major requirements at the time of graduation. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major.

Registration for any of these course will require that existing prerequisite course requirements are adequately met.

The Business Analytics Minor requirements are:

| Requirements | Hours |
| :---: | :---: |
| STA 235 | Data Science for Business Applications |
| or STA 235 H | Data Science for Business Applications: Honors |
| D S 235 | Introduction to Decision Science |
| or D S 235H | Introduction to Decision Science: Honors |
| BAX 304 | Introduction to Problem Solving and Programming |
| or MIS 304 | Introduction to Problem Solving and Programming |
| or C S 303E | Elements of Computers and Programming |
| Nine additional semester hours selected from the following ${ }^{1}$ |  |
| BAX 362 | Auditing and Control |
| or ACC 362 | Auditing and Control |
| BAX 372 | Topics in Business Analytics (Topic 6: Optimization Methods in Finance) |

or

| D S 372 | Topics in Decision Science (Topic 6: <br> Optimization Methods in Finance) | 3 |
| :--- | :--- | :--- |
| FIN 372 | Advanced Topics in Finance (Topic <br> 5: Financial Technology) | 3 |
| BAX 372 | Topics in Business Analytics (Topic <br> 7: People Analytics) | 3 |

or

| MAN 337 | Special Topics in Management <br> (Topic 7: People Analytics) | 3 |
| :---: | :--- | :---: |
| BAX 325 | Database Management <br> or MIS 325 | Database Management |
| BAX 372 | Topics in Business Analytics <br> (Topic 1: Advanced Analytics <br> Programming) | 3 |

or

| MIS 373 | Topics in Management Information <br> Systems (Topic 11: Advanced <br> Analytics Programming) | 3 |
| :--- | :--- | :---: |
| BAX 372 | Topics in Business Analytics (Topic <br> 2: Predictive Analytics and Data <br> Mining) | 3 |


| or |  |  |
| :--- | :--- | :--- |
| MIS 373 | Topics in Management Information <br> Systems (Topic 17: Predictive <br> Analytics and Data Mining) | 3 |
| or | Marketing Seminar (Topic 22: <br> Predictive Analytics and Data <br> Mining) | 3 |
| MKT 372 | Topics in Business Analytics (Topic <br> BAX 37: Social Media Analytics) | 3 |

or


| or |  |
| :--- | :--- |
| MKT 372 | Marketing Seminar (Topic 21: <br> Strategic Product Management) |
| R M 377 | Property-Liability Risk Management <br> and Planning |

Please Note:
Other courses may be considered for substitution, as approved by the Wealth Management Minor Committee.
All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses.
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1. The nine elective hours must be different from courses taken for the students' major; these nine hours cannot simultaneously satisfy any degree requirements except free electives only. Students should carefully choose electives from a field of study different than their major, and should consult their academic advisor.

## Minors for Non-Business Majors

## The Business Minor

The Business Minor is designed to provide a foundation in business concepts and practice for students in non-business majors. Any nonbusiness student with a University grade point average of at least 2.00 may take any of the business foundations course listed below, whether pursuing the Business Minor or not. Students who intend to complete the Business Minor must apply online for admission and be admitted.

To fulfill the Business Minor, students must complete 18 semester hours of coursework as described below. Students admitted to the Business Minor must contact their home college to have the approved minor added to their degree audit profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the coursework must be completed in residence at the University. All coursework must be taken on the letter-grade basis and completed in conjunction with the student's major requirements. It is recommended, but not required, that students also complete a course in economics. While not assumed in the business foundations courses, knowledge of economics can be helpful for understanding business concepts.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Accounting Requirement |  | 3 or 6 |
| ACC 310F | Foundations of Accounting |  |
| or |  |  |
| ACC 311 <br> \& ACC 312 | Fundamentals of Financial <br> Accounting <br> and Fundamentals of Managerial Accounting ${ }^{1}$ |  |
| Management Information Systems Requirement |  | 3 |
| MIS 302F | Foundations of Information Technology Management (or equivalent) ${ }^{2}$ |  |
| Finance Requirement |  | 3 |
| FIN 320F | Foundations of Finance |  |
| or |  |  |
| FIN 357 | Business Finance ${ }^{1}$ |  |

Management Requirement

| MAN 320 F | Foundations of Management and Organizational Behavior ${ }^{3}$ |  |
| :---: | :---: | :---: |
| or |  |  |
| MAN 336 | Organizational Behavior ${ }^{1}$ |  |
| Legal Environment of Business Requirement |  | 3 |
| LEB 320F | Foundations of Business Law and Ethics ${ }^{3}$ |  |
| or |  |  |
| LEB 323 | Business Law and Ethics ${ }^{1}$ |  |
| Marketing Requirement |  | 3 |
| MKT 320F | Foundations of Marketing ${ }^{3}$ |  |
| or |  |  |
| MKT 337 | Principles of Marketing ${ }^{1}$ |  |

Please Note:
No more than nine of the required 18 hours may be taken on an approved study abroad program. A list of approved programs is available in the University Study Abroad Office. LEB 320 F or LEB 323 cannot be taken abroad.
The student must satisfy the courses used to fulfill minor requirements on the letter-grade basis, except for credit by exam. The student must earn a combined grade point average of at least 2.00 in these courses.

## --

1. Available to non-business students only in the summer; restricted to business majors during fall and spring.
2. For a full list of pre-approved equivalents, please see the Business Minor website.
3. One course only of I B 320F Foundations of International Business, B A 320F Foundations of Entrepreneurship, or ECO 304K Introduction to Microeconomics, may substitute for one of LEB 320F, MAN 320F, or MKT 320F.

## Accounting Minor for Business Economics Option Program

The Accounting Minor for the Business Economics Option Program (BEOP ACC) allows economics majors to take a set of accounting courses and a finance course at the McCombs School of Business for completion of a Minor in Accounting. BEOP ACC students take upperdivision accounting and finance courses to explore how accounting systems utilize economic concepts and how accounting systems solve economic problems; to strengthen the quantitative and analytical skills they acquire as economics majors; and to acquire knowledge and skills in business and accounting.

To participate in the BEOP ACC Minor, students must apply and be admitted to the Accounting Track of the BEOP through the Department of Economics. To be eligible for the Accounting Track of the BEOP, a student must:

- be a declared economics major;
- have a cumulative University GPA of at least 3.00;
- have an economics GPA of at least 3.00 (based on economics coursework taken at The University of Texas at Austin); and
- have earned a grade of at least $C$ - in Economics 420K.

Students must contact the Department of Economics to apply, and for all questions about the Business Economics Option Program.

To obtain the BEOP ACC Minor, a student must complete 15 semester hours of coursework as described below. At least half of the coursework must be completed in residence at the University. All coursework must be taken on the letter-grade basis. The student must fulfill the
requirements for an economics major and apply to graduate with an economics major, in addition to fulfilling the BEOP ACC Minor requirements, in order to receive the BEOP ACC transcript-recognized minor.

Registration for any of these courses will require that existing prerequisite course requirements are adequately met.

## Requirements

| ACC 311 | Fundamentals of Financial <br> Accounting |
| :--- | :--- |
| ACC 312 | Fundamentals of Managerial <br> Accounting |
| FIN 357 | Business Finance |
| Six additional semester hours of upper-division coursework in |  |
| accounting |  |
| Please Note: |  |
| All courses must be taken on the letter-grade basis. |  |
| Finance Minor for Business Economics |  |
| Option Program |  |

The Finance Minor for the Business Economics Option Program (BEOP FIN) allows economics majors to take a set of accounting courses and finance courses at the McCombs School of Business for completion of a Minor in Finance. BEOP FIN students take lower-division accounting and upper-division finance courses to explore the application of economic concepts and models to finance and financial markets; to strengthen the quantitative and analytical skills they acquire as economics majors; and to acquire knowledge and skills in business and finance.

To participate in the BEOP FIN Minor, students must apply and be admitted to the Finance Track of the BEOP through the Department of Economics. To be eligible for the Finance Track of the BEOP, a student must:

- be a declared economics major;
- have a cumulative University GPA of at least 3.00;
- have an economics GPA of at least 3.00 (based on economics coursework taken at The University of Texas at Austin); and
- have earned a grade of at least $C$ in Economics 329.

Students must contact the Department of Economics to apply, and for all questions about the Business Economics Option Program.

To obtain the BEOP FIN Minor, a student must complete 15 semester hours of coursework as described below. At least half of the coursework must be completed in residence at the University. All coursework must be taken on the letter-grade basis. The student must fulfill the requirements for an economics major and apply to graduate with an economics major, in addition to fulfilling the BEOP FIN Minor requirements, in order to receive the BEOP FIN transcript-recognized minor.

Registration for any of these courses will require that existing prerequisite course requirements are adequately met.

## Requirements

| ACC 311 | Fundamentals of Financial | 3 |
| :--- | :--- | :---: |
| ACC 312 | Accounting |  |
|  | Fundamentals of Managerial |  |
| FIN 357 | Business Finance | 3 |
| FIN 367 | Investment Management | 3 |

Three additional semester hours of upper-division

All courses must be taken on the letter-grade basis.

## Specialized Minors for All Majors Business and Public Policy Minor

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

Students who have completed 24 hours in residence with upper-division standing may formally apply to the minor. Admission to the program is based on a student's overall academic record. To gain admission the following semester, students must apply by March 10 for fall and by October 10 for spring.

To fulfill the Business and Public Policy Minor, students must complete 15 semester hours of coursework as described below. Students admitted to the BPP Minor must contact their home college to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis and completed in conjunction with the student's major requirements at the time of graduation. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major.

Due to course availability, two long semesters are typically required to complete the BPP Minor classes. Some required BGS courses are offered only once a year during either the fall or spring semester.

Registration for any of these courses will require that existing prerequisite course requirements are adequately met.

The Business and Public Policy Minor requirements are:

## Requirements

## Hours

GOV 312L Issues and Policies in American Government
May include the Washington Campus section of this course.
Any of the acceptable combinations approved to satisfy the Texas Legislative requirement for government may be used.
One example combination is:
GOV 310L American Government
\& GOV 306C and Politics and Government in Contemporary Texas
Three or four of the following courses: ${ }^{1}$

BGS $371 \quad$ Corporate Political Strategy

| BGS 372 | Strategic Corporate Social Responsibility |  |
| :---: | :---: | :---: |
| BGS 373 | Strategic Corporate Communication |  |
| BGS 374 | Global Political Economy |  |
| BGS 375 | Business and Policy in the Age of Inequality |  |
| Zero or one of the following courses: ${ }^{1}$ |  | 0-3 |
| ADV/P R 353 | Advertising and Public Relations Law and Ethics |  |
| AMS 310 | Introduction to American Studies |  |
| BGS 325 | Social and Ethical Responsibility of Business |  |
| BGS 370 | Topics in Business, Government, and Society (Topic 1: Energy Technology and Policy) |  |
| BGS 370 | Topics in Business, Government, and Society (Topic 2: Ethics, CSR, and Service Learning) |  |
| CLD 371 | Capstone Course in Communication and Leadership |  |
| CMS 306M | Professional Communication Skills |  |
| CMS 342K | Political Communication |  |
| CMS 345 | Media Effects and Politics |  |
| ECO 321 | Public Economics |  |
| ECO 333K | Development Economics |  |
| ECO 334K | Urban Economics |  |
| ECO 339K | International Trade and Investment |  |
| EUS 348 | Topics in European Economics, Government, Business, and Policy (Topic 2: International Trade) |  |
| FIN 372 | Advanced Topics in Finance (Topic <br> 1: Environmental, Social, and <br> Governance Investing ) |  |
| GOV 325 | Political Parties |  |
| GOV 358 | Introduction to Public Policy |  |
| GOV 360F | Global Governance |  |
| GOV 366F | Issues in Third World Development |  |
| GOV 370R | Money in United States Politics |  |
| I B 320F | Foundations of International Business |  |
| I B 350 | International Trade |  |
| LEB 320F | Foundations of Business Law and Ethics |  |
| LEB 323 or LEB 323H | Business Law and Ethics <br> Business Law and Ethics: Honors |  |
| LEB 334M | Healthcare Law and Policy |  |
| LEB 363 | Real Estate Law |  |
| LEB 370 | Topics in the Legal Environment of Business (Topic 13: Contracts and Real Property) |  |
| LEB 370 | Topics in the Legal Environment of Business (Topic 14: Oil and Gas Law) |  |
| PHL 325L | Business, Ethics, and Public Policy |  |
| PR 305 | Fundamentals of Public Relations |  |
| PR 352 | Strategies in Public Relations |  |
| PR 367 | Integrated Communications Management |  |

Please Note:
Other courses may be considered for substitution, as approved by the BGS Department.
All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses.

1. If a student has taken Government 312 L and only nine hours from: BGS $371,372,373,374$, and 375 , they choose one course from the list of electives to satisfy the fifteen hour requirement. If a student has taken GOV 312 L and twelve hours from: BGS $371,372,373,374$, and 375 , then they need not take any of the electives to satisfy the fifteen hour requirement

## Energy Management Minor

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

Admission to the minor is based on students' overall academic record. All students must have completed at least one semester at The University of Texas at Austin before applying to the minor program, and have a University grade point average of at least 2.0. Freshmen who wish to participate in the program their first semester must wait until the spring to apply. Applications are accepted on a rolling basis for admission to the program. Students must have completed Geological Sciences 303,401 , or 420 H before the program start in the summer.

To fulfill the Energy Management Minor, students must complete 18 semester hours of coursework as described below. Students admitted to the Energy Management Minor must contact their home college to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the required minor coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis and completed in conjunction with the student's major requirements at the time of graduation. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major.

Registration for any of these courses will require that existing prerequisite course requirements are adequately met.

The Energy Management Minor requirements are:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| GEO 303 | Introduction to Geology | 3 or 4 |
| or GEO 401 | Physical Geology |  |
| or GEO 420H | Honors Introductory Geology |  |
| GEO 316P | Sedimentary Rocks (for nongeology students) | 3 or 4 |
| or GEO 416M | Sedimentary Rocks |  |
| BGS 370 | Topics in Business, Government, and Society (Topic 10: Nontechnical Exploration and Production) | 3 |
| BGS 370 | Topics in Business, Government, and Society (Topic 1: Energy Technology and Policy) | 3 |
| LEB 370 | Topics in the Legal Environment of Business (Topic 13: Contracts and Real Property) | 3 |

## LEB 370

Topics in the Legal Environment
of Business (Topic 14: Oil and Gas
Law) Law)
Please note:
Other courses may be considered for substitution, as approved by the Energy Management Minor Committee. All classes must be taken on the letter-grade basis. The student must earn a grade of at least C - in these courses.
Finance majors who select the Energy Finance, Law and Science track cannot pursue the Energy Management Minor; however, they may select any other finance track to complete the Energy Management Minor.

## Entrepreneurship Minor

The Entrepreneurship Minor aims to provide students with the perspectives, knowledge, and skills necessary to engage in entrepreneurship, broadly defined to include the launch and development of new businesses as well as the growth and renewal of existing enterprises. The broader objectives of the program include equipping students with talents that will propel their success in a knowledge-based, innovation-driven economy, stimulating entrepreneurship and innovation across a broad range of industries and settings, and transforming students' lives by developing in them a passion for entrepreneurship.

The Entrepreneurship Minor is designed for undergraduate students interested in starting their own business ventures, creating and managing new ventures or products within existing businesses, or generating and implementing new ideas in any role that they hold during their careers. This minor is also well suited for undergraduate students interested in careers in consulting, new product development, technology commercialization, product management, event management, strategy, and business development.

Admission to the minor is based on students' overall academic record, including but not limited to hours and rigor of courses taken in residence, demonstrated interest, and University grade point average.

To fulfill the Entrepreneurship Minor, students must complete 15 semester hours of coursework as described below. Students admitted to the Entrepreneurship Minor must contact their home college to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the coursework must be completed in residence at the University. All coursework must be taken on the letter-grade basis, and completed in conjunction with the students' major requirements. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major.

Registration for any of these courses will require that existing prerequisite course requirements are adequately met.

The Entrepreneurship Minor requirements are:

## Requirements

## Hours

One of the following courses:
\(\left.\begin{array}{ll}ACC 310 F <br>
or ACC 311 <br>
or ACC 311 \mathrm{H} \& Foundations of Accounting <br>
Fundamentals of Financial Accounting <br>

Honors\end{array}\right]\)| Any three hours of lower- or upper-division economics |  |
| :--- | :--- |
| (ECO) |  |
| HDO 301 | Introduction to the Human <br> Dimensions of Organizations |



| MAN 347P <br> MAN 366P | Management Practicum: Social <br> Entrepreneurship I |
| :--- | :--- |
| MAN 367P Social Entrepreneurship II <br> MAN 369P Social Innovation Practicum <br> M E 365E Engineering Entrepreneurship |  |
| Please Note: <br> Other courses may be considered for substitution, as <br> approved by the Entrepreneurship Minor Committee. |  |
| All classes must be taken on the letter-grade basis. The <br> student must earn a combined grade point average of at least <br> 2.00 in these courses. |  |
| Management majors cannot pursue the Entrepreneurship <br> Minor, but instead may select the Entrepreneurship Track <br> within the major. |  |

## Global Management Minor

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

Admission to the Global Management Minor, which resides in the Business, Government \& Society Department, is open to undergraduates across the The University of Texas at Austin campus, and is based on students' overall academic record. To gain admission the following semester, students must apply by March 1 for fall and by October 1 for spring.

To fulfill the Global Management Minor, students must complete 15 semester hours of coursework which must include three hours of international experience, as described below. Students admitted to the Global Management Minor must contact their home college to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on a letter-grade basis and completed in conjunction with the student's major requirements at the time of graduation. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major.

Registration for any of these courses will require that existing prerequisite course requirements be satisfied with the following exceptions: Prerequisites for Management 336 are waived for nonbusiness majors and prerequisites for International Relations and Global Studies 320F are waived for non-IRG majors.

The Global Management Minor requirements are:

## Requirements

Hours

## Required Courses

| IRG 320F | Foundations of International <br> Relations and Global Studies | 3 |
| :---: | :--- | :---: |
| MAN 336 | Organizational Behavior | 3 |
| or MAN 320F | Foundations of Management and <br> MAN 137C | Organizational Behavior |
|  | Introduction to Management in a <br> Global Environment | 1 |

MAN 237D
Elective Courses
Three hours of upper division coursework selected from any of the following:

| I B 350 |  |
| :--- | :--- |
| or I B 320F | International Trade |
| or I B 350S | Foundations of International Business |
| or | International Commerce Analysis |
| EUS 348 | Topics in European Economics, <br> Government, Business, and Policy <br> (Topic 2: International Trade) |
| I B 362 | Global Regulatory Strategy |
| BGS 374 | Global Political Economy |

International Experience
Study abroad or international internship; three hours of "international experience" credit must be earned on an approved study abroad program and/or pre-approved international internship of at least five weeks in length.
Please note:
Other courses may be considered for substitution, as approved by the Global Management Minor Committee.
All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses.

Students who have declared an International Business major are ineligible to pursue the Global Management Minor.
Students can pursue either the Global Management Minor or the International Business Minor, but not both.
Up to three hours of the courses above completed abroad can satisfy minor requirements for both coursework and the international experience. Study abroad and internship programs must be pre-approved by the Global Management Minor Committee.

## Health Care Reform and Innovation Minor

Healthcare in the U.S. accounts for nearly $20 \%$ of the nation's gross domestic product (more than manufacturing). It is also one of the fastest growing sources of employment; over 12 million Americans work in the industry. The Health Care Reform and Innovation Minor provides students interested in a clinical, academic, or business career in this industry an overview and opportunity to understand the complexities of the US healthcare system, the goals and barriers for reform, and the opportunities for innovation.

The Health Care Reform and Innovation Minor is designed for two groups of students: business majors and non-business majors. Business majors from the McCombs school will be students who plan to pursue an entrylevel job in supply chain, marketing, management information systems, or other business function in healthcare industry companies in the areas of pharmaceutics, medical devices, and healthcare informatics. Nonbusiness majors from other schools will be students in a healthcarerelated major, including pre-med, pharmacy, nursing, public health and others, who want to understand the business aspects of the industry that they will enter upon graduation.

Admission to the program is based on students' overall academic record, including but not limited to hours and rigor of courses taken in residence, demonstrated interest, and University grade point average. To gain admission the following semester, students must apply by March 1 for fall and by October 1 for spring.

To fulfill the Health Care Reform and Innovation Minor, students must complete 18 semester hours of coursework as described below. Students admitted to the Healthcare Minor must contact their home college to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the coursework must be completed in residence at the University of Texas at Austin. All coursework must be taken on the letter-grade basis and completed in conjunction with the student's major requirements at the time of graduation. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major.

Registration for any of these courses will require that existing prerequisite course requirements are adequately met.

The Health Care Reform and Innovation Minor requirements are:


1. This class satisfies the OM 235 degree requirement for business students. Please note that students interested in pursuing the Business of Healthcare Minor must take OM 334M; OM 235 will not be accepted towards the minor.
2. Business Honors Program students must take OM 235 H and OM 179 Independent Research completed under the supervision of the minor faculty director, which will satisfy the $O$ M 334M requirement for this minor.

## International Business Minor

The International Business Minor will provide the University of Texas at Austin undergraduate students with a broad knowledge of the workings of the global economy and the opportunity to learn specific functional skills in areas such as finance, accounting, and value chain management that are particularly useful to companies and organizations operating in the international environment.

Admission to the minor, which is open to undergraduates across campus, is based on students' overall academic records and statements of interest. To gain admission the following semester, students must apply by March 1 for fall and by October 1 for spring.

To fulfill the International Business Minor, students must complete either 12 semester hours of coursework and three hours of international experience, or 15 hours of coursework, as explained below. Students admitted to the International Business Minor must contact their home college to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the coursework must be completed in residence at the University. All coursework must be taken on a letter-grade basis and completed in conjunction with the student's major requirements. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major.

Registration for any courses required for the International Business Minor will require that existing prerequisite course requirements are adequately met.

The International Business Minor requirements are:

| Requirements <br> Required Courses <br> I B 350 <br> or I B 320F <br> or I B 350S | International Trade |
| :--- | :--- | ---: |
| or | Foundations of International Business |
| EUS 348 | International Commerce Analysis | | Topics in European Economics, |
| :--- |
| Government, Business, and Policy |
| (Topic 2: International Trade) |

Elective Courses

| Any four or three of the following courses: |
| :--- | :--- |
| BGS 374 Global Political Economy <br> I B 362 Global Regulatory Strategy 9 <br> I B 365 Finance and Global Business <br> I B 366 International Accounting and <br>  Transfer Pricing <br> or ACC 366C International Accounting and Transfer Pricing <br> I B 368 Global Value Chains <br> I B 376 International Finance <br> or FIN 376 International Finance |


| I B 367 | Strategic Supply Chain <br> Management |
| ---: | :--- |
| or O M 367 | Strategic Supply Chain Management |
| IB 372 | Seminar in International Business <br> (Topic 11: Global Entrepreneurship) |
| MAN 337 | Special Topics in Management <br> (Topic 3: Intercultural Management) |

International Experience, Optional
0 or 3
Three hours International Experience, study abroad or internship, which can replace three hours of the Electives. ${ }^{1}$
Please note:
Other courses may be considered for substitution, as approved by the International Business Minor Committee.
All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses.

Students who have declared an international business major are ineligible to pursue the International Business Minor.
Students can pursue either the International Business Minor or the Global Management Minor, but not both.
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1. Up to three hours of the elective courses can be satisfied by successful completion of at least three credit hours earned on a study abroad program, an international internship, or an internship which has global content. Study abroad and internship programs must be pre-approved by the International Business Minor Committee.

## Professional Sales and Business Development Minor

The Professional Sales and Business Development Minor is open to students of all majors and is offered as a collaboration between McCombs School of Business and the Moody College of Communication. This minor provides theory, frameworks, and tools to help students a) develop skills in analysis, communication, presentation, and persuasion to allow them to effectively sell ideas, products, and services in any professional environment; b) develop resources and academic credentials to pursue sales-related careers; c) understand the role of professional selling in marketing, business, and related organizations.

Admission to the minor is based on a student's overall academic record, including but not limited to hours and rigor of courses taken in residence, demonstrated interest, and The University of Texas grade point average. To apply for the minor students must have a cumulative University GPA of at least 3.00.

Students may apply to the minor in the spring of either their sophomore or junior years. No more than 40 students will be admitted per year and there will be no more than 120 in the minor at any time. Admission decisions will be based upon cumulative University GPA and participation across university majors, with priority to McCombs and Moody students.

To fulfill the Professional Sales and Business Development Minor, students must complete 16 semester hours of coursework as described below. Students admitted to the Professional Sales and Business Development Minor must contact their home college to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the required minor coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis (unless the course is only offered
on a pass/fail basis) and completed in conjunction with the student's major requirements at the time of graduation. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major.

Registration for any of these courses will require that existing prerequisite course requirements are adequately met.

The Professional Sales and Business Development Minor requirements are:


Sales-Related Elective Courses (can be taken to meet 16 hour requirement as needed):

| ADV 369 | Social Media |
| :--- | :--- |
| CMS 344K | Lying and Deception |
| CMS 370K | Internship in Communication |
| MKT 372 | Marketing Seminar (Topic 2: |
|  | Consumer Behavior) |
| MKT 372 | Marketing Seminar (Topic 16: <br>  <br> MKT 372 |
|  | Marketing Seminar (Topic 17: <br> Consumer Behavior in a Digital <br> World) |
| CMS 137C | Selling in Healthcare Industries |
| MKT 178 | Marketing Micro-topics (Topic 1: |
| Mata Storytelling/Visualization) |  |
| MKT 178 | Marketing Micro-topics (Topic 2: |
|  | Negotiating Sales Solutions) |
| MKT 178 | Marketing Micro-topics (Topic 3: |
|  | International Selling) |


| MKT 178 | Marketing Micro-topics (Topic 4: <br> Sales Technology and Artificial <br> Intelligence) |
| :--- | :--- |
| MKT 178 | Marketing Micro-topics (Topic <br> 5: Selling in High Technology <br> Industries) |
| MKT 178 | Marketing Micro-topics (Topic 6: <br> Predictive Modeling in Sales) |

Please Note:
Other courses may be considered for substitution, as approved by the Professional Sales and Business
Development Minor Committee.
All classes must be taken on the letter-grade basis unless they are only offered on a pass/fail basis. The student must earn a combined grade point average of at least 2.00 in these courses.
For students majoring in marketing, nine hours for the Professional Sales and Business Development minor must be taken in addition to and different from the marketing electives taken for the major. Marketing majors are encouraged to take the CMS and ADV course options for the Foundational Sales courses and Sales-Related elective courses.

## Real Estate Minor

The Real Estate Minor offers degree-seeking undergraduate students from any major the opportunity to explore the commercial real estate industry, learn the basics of real estate financial analysis, and supplement their primary degree with an officially recognized minor in real estate.

After earning credit for Accounting 310F or 311, a student with upperdivision standing may apply for admission to the minor. Admission is based on a student's overall academic record, including, but not limited to, hours and number of courses taken in residence, demonstrated interest in real estate, and the overall University grade point average.

To fulfill the Real Estate Minor, students must complete 18 semester hours of coursework as described below. Students admitted to the Real Estate Minor must contact their home college to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis and completed in conjunction with the student's major requirements at the time of graduation. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major.

The courses necessary to complete the Real Estate Minor may have additional prerequisites, and admission to the program and instructor approval are required as conditions of enrollment in some courses. Registration for any of these courses will require that existing prerequisite course requirements are adequately met.

The Real Estate Minor requirements are:

| Requirements <br> Required Courses | Hours |
| :--- | :--- |
| ACC 310 F | Foundations of Accounting |
| or ACC 311 | Fundamentals of Financial Accounting |
| or ACC 311 H | Fundamentals of Financial Accounting: <br>  |
| Honors |  |


| FIN 357 $\quad$ or FIN 357 H | Business Finance <br> Business Finance: Honors | 3 |
| :---: | :---: | :---: |
| R E 358 | Introduction to Real Estate and Urban Land Development | 3 |
| R E 376G | Real Estate Investment | 3 |
| Elective Courses |  |  |
| Two elective courses from the following list: ${ }^{1}$ |  | 6 |
| ACC 378 | Contemporary Accounting Topics (Topic 5: Taxation of Real Estate Investments) |  |
| or ACC 326 | Financial Accounting-Intermediate |  |
| or |  |  |
| R E 360 | Special Topics in Real Estate (Topic 1: Taxation of Real Estate Investments) |  |
| ARC 308 | Architecture and Society (may fulfill the global cultures flag) |  |
| ARC 318K | World Architecture: Origins to 1750 (may fulfill the global cultures and writing flags) |  |
| ARC 318L | World Architecture: The Industrial Revolution to the Present (may fulfill the global cultures and writing flags) |  |
| ARC 327C | Urban Design History, Theory, and Criticism |  |
| or URB 337 | The Modern American City |  |
| ARC 327G | Regenerative Architecture |  |
| ARC 327P | Productions |  |
| ARC 327R | Topics in Architectural Theory (Topic 5: Design Firm Leadership) |  |
| ARC 327R | Topics in Architectural Theory <br> (Topic 6: Design of New Communities) |  |
| ARC 342E | History and Theories of Landscape Architecture I |  |
| ARC 342F | History and Theories of Landscape Architecture II |  |
| ARC 350R | Topics in Design Theory (preapproved topics only) |  |
| ARE 323K | Project Management and Economics |  |
| ARE 358 | Cost Estimating in Building Construction |  |
| ARE 366 | Contracts, Liability, and Ethics (may fulfill the ethics flag) |  |
| ARE 376 | Building Information Modeling for Capital Projects |  |
| CRP 369K | Principles of Physical Planning (may fulfill the writing flag) |  |
| ECO 334K | Urban Economics |  |
| ECO 334L | Regional Economics |  |
| FIN 377 | Advanced Investment Analysis (Topic 3: Security Analysis) |  |
| GRG 326 | Regions and Cultures of Europe |  |
| GRG 410C | Spatial Data and Analysis |  |
| GRG 337 | The Modern American City |  |
| GRG 460G | Environmental Geographic Information Systems |  |


| GRG 356T | Topics in Geography (Topic 1: The Culture of Cities (may fulfill the cultural diversity in the United States flag)) |
| :---: | :---: |
| GRG 356T | Topics in Geography (Topic <br> 3: Geographical Information Systems and Remote Sensing for Archaeology and Paleontology) |
| GRG 356T | Topics in Geography (Topic 5: Urban Publics) |
| LEB 320F | Foundations of Business Law and Ethics |
| LEB 363 | Real Estate Law |
| LEB 370 | Topics in the Legal Environment of Business (Topic 13: Contracts and Real Property) |
| R E 364 | Real Estate Development |
| R E 378K | Real Estate Finance and Syndication |
| URB 301 <br> or GRG 307C | Introduction to Urban Studies (may fulfill the cultural diversity in the United States flag) Introduction to Urban Studies |
| ARC 327F | American Dream: Status Quo and Alternatives |
| URB 322C | Vienna: Memory and the City |

Please Note:
Other courses may be considered for substitution, as approved by the Real Estate Minor Committee.
All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses.

Finance majors who select the Real Estate track cannot pursue the Real Estate Minor; however, they may select any other finance track to complete the Real Estate Minor.

## Risk Management Minor

The business world is increasingly faced with risks from cyber-risk to health care fraud to terrorism, identity theft and financial risks from longevity of life. These risks all have financial consequences. The management of risk is increasingly important in the USA and worldwide. For-profit and not-for-profit enterprises (from charities to government) find themselves confronting risks and the resulting financial consequences daily. Business managers from all areas of expertise need to be prepared to prevent and address risks in order to survive-the ultimate goal of most enterprises.

The Risk Management Minor provides a student with a tool kit for contemplating, identifying, prioritizing, and formulating approaches to manage varying types of risks inevitably faced. The Risk Management Minor allows for six hours of free electives (inside or outside of McCombs) as there are many types of risk a particular student might be faced with (e.g., financial crisis risk, natural disasters (from hurricanes, tsunami to volcanoes and fires), cyber risk (from identify theft, fraud, mobile commerce risks to phishing and hacking, etc.), risk of political and other crises disrupting supply chains, terrorism and the reality that all enterprises operate in an increasingly vulnerable and connected infrastructure). For example, over $90 \%$ of the Fortune 500 companies have created an insurance company subsidiary designed to help them manage their risks internally (a captive insurer). This allows for some degree of managerial control and risk transfer to protect the firm.

Companies need increasingly active risk management expertise to survive.

## Who Should Consider The Risk Management Minor?

The Risk Management Minor is designed for both business and nonbusiness majors who expect to someday work in a management position, including entrepreneurs. Examples include all Business majors who plan to pursue an entry-level job in supply chain, finance, manufacturing, insurance, management information systems, marketing or other business functions. Non-business majors can be students in liberal arts, economics, actuarial science, petroleum engineering, retailing, communications, health care, or students from any other discipline who want to understand the impact of risk and the management of risk for their future employer.

## Risk Management Minor Application and Coursework Requirements

The Risk Management Minor is both structured and flexible to allow the student to pursue interests in discipline-specific risks as well as general risks that any enterprise might face.

Admission to the program requires upper-division standing and a University grade point average of at least 2.5, and is based on students' overall academic record. Students must apply to the Risk Management Minor at least one full semester prior to anticipated graduation; by April 1 for fall, by November 1 for spring or summer. This timing facilitates the student's ability to have a semester prior to graduation to complete necessary coursework.

In order to receive the Risk Management Minor students must comply with University Rules and Regulations and program requirements regarding satisfactorily completed coursework and degree completion.

To fulfill the Risk Management Minor, students must complete 18 semester hours of coursework as described below; 12 hours are business coursework: six hours of risk management, three hours of accounting and three hours of finance. An additional six elective hours relevant to risk management are selected by the student, with a maximum of three hours allowed from the McCombs School of Business. Students admitted to the Risk Management Minor must contact their home college to have the approved minor added to their degree profile, otherwise they cannot receive transcript recognition upon completion of the requirements.

At least half of the coursework (nine hours) must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis and completed in conjunction with the student's major requirements at the time of graduation. The University requires at least nine hours of the minor to be coursework not used to satisfy requirements of the student's major.

Registration for any of these courses will require that existing prerequisite course requirements are adequately met. Registration in courses does not require admission to the Risk Management Minor.

The Risk Management Minor requirements are:

## Requirements <br> Hours

Risk Management Requirement 1

| R M 357E | Introduction to Risk Management |
| :---: | :---: |
| or URB 321R | Introduction to Risk Management |

Risk Management Requirement 2

| R M 377 | Property-Liability Risk Management <br> and Planning ${ }^{1}$ |
| ---: | :--- |
| or R M 369K | Managing Employee Risks and Benefits |

Accounting Requirement

| One of the following: |  |
| :---: | :---: |
| ACC 310F | Foundations of Accounting (for non-business students) |
| ACC 311 | Fundamentals of Financial Accounting (for business students) |
| ACC 311H | Fundamentals of Financial Accounting: Honors (for BHP majors) |
| Finance Requirement |  |
| One of the following: |  |
| FIN 320F | Foundations of Finance (for nonbusiness students) |
| FIN 357 | Business Finance (for business students) |
| FIN 357H | Business Finance: Honors (for BHP majors) |
| Elective Courses |  |
| Two of the following courses: (Please note that no more than one can be a course offered by the McCombs School of Business) ${ }^{2}$ |  |
| R M 377 | Property-Liability Risk Management and Planning ${ }^{3}$ |
| or R M 369 K | Managing Employee Risks and Benefits |
| ACF 329 | Theory of Interest |
| or M 329F | Theory of Interest |
| Any three hours lower- or upper-division Actuarial Foundations (ACF) |  |
| CMS 354 | Conflict Resolution ${ }^{4}$ |
| CMS 371K | Practicum in Conflict Mediation ${ }^{4}$ |
| Any three hours lower- or upper-division Economics (ECO) |  |
| FIN 377 | Advanced Investment Analysis <br> (Topic 2: Financial Risk <br> Management) |
| Any three hours upper-division Legal Environment of Business (LEB) |  |
| M 339D | Introduction to Financial Mathematics for Actuaries |
| M 339J | Probability Models with Actuarial Applications |
| M 339U | Actuarial Contingent Payments I |
| M 339V | Actuarial Contingent Payments II |
| M 339W | Financial Mathematics for Actuarial Applications |
| M 349P | Actuarial Statistical Estimates |
| MKT 372 | Marketing Seminar (Topic 27: Reputational Risk and Crisis Management) |
| Please Note: |  |
| Other courses may be considered for substitution, as approved by the Risk Management Minor. Courses dealing with conflict resolution, health management, health infrastructure, public policy, governmental regulation, risk management, or security are likely candidates. |  |
| All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses. |  |
| --- |  |
| 1. Risk Management 377 and Risk Management 369 K are offered in alternating Fall semesters |  |

2. Risk Management Minor students must be able to enroll in an elective through their majors and have the required prerequisites - the Risk Management Minor Program cannot grant or request exceptions to restricted courses, or to prerequisites for elective courses.
3. Whichever was not used to fulfill the minor requirement above
4. Can be taken second summer only as open enrollment is only available then - web-based course
5. If student can access via open enrollment as majors have preference

Please contact the Risk Management program or Dr. Patrick L. Brockett, Director of the Risk Management Minor Program, for additional questions and further information.

## Certificate Programs

Certificate programs are designed to allow undergraduate students to develop an area of expertise in addition to their major program. The required number of hours to earn any certificate may vary but may not be fewer than 18 and may not exceed 24 . Undergraduates who complete transcript-recognized certificate requirements in conjunction with their degree requirements or within one year after earning the degree, receive recognition on the University transcript. At least half of the required certificate coursework must be completed in residence at the University. A maximum of nine hours of certificate coursework may be taken after the student has earned the undergraduate degree.

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

Students admitted to transcript-recognized certificates must contact their academic advisers to have approved certificates added to their degree profiles. This allows progress toward the credential to be tracked and ensures that certificates are added to official transcripts upon graduation, if all requirements are met.

The McCombs School of Business offers one certificate program, which is restricted to BBA students who have declared an accounting or finance major. To see a full list of certificates offered at the University, please see The University (p.15) section of the Undergraduate Catalog.

## Wealth Management Certificate

The Wealth Management Certificate will equip students with the perspectives, conceptual knowledge, and analytical skills necessary to participate successfully in myriad aspects of the wealth management industry, including offering financial planning services to individual and institutional investors. The certificate is open to undergraduate students in the Business School who are majoring in either finance or accounting and is also designed to help students prepare for participation in the Certified Financial Planner (CFP) certification program.

Admission to the certificate is restricted to students in the 2016-2018 or 2018-2020 Undergraduate Catalog, who have declared an accounting or finance major, and is based on students' overall academic record, including but not limited to hours and rigor of courses taken in residence, demonstrated interest, and University grade point average.

To fulfill the Wealth Management Certificate, students must complete 18 semester hours of coursework as described below. Students admitted to the Wealth Management Certificate must contact their BBA academic advisor to obtain standalone certificate pursuing status, otherwise
they cannot receive transcript recognition upon completion of the requirements.

At least half of the required certificate coursework must be completed in residence at The University of Texas at Austin. All coursework must be taken on the letter-grade basis and completed in conjunction with the students' major requirements, or within one year of graduation.

Registration for any of these courses will require that existing prerequisite course requirements are adequately met.

The Wealth Management Certificate requirements are:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Required Cour |  |  |
| ACC 364 | Fundamentals of Taxation | 3 |
| ACC 378 | Contemporary Accounting Topics (Topic 3: Financial Planning for Wealth Management) | 3 |
| FIN 367 | Investment Management | 3 |
| Elective Courses |  |  |
| Nine semester hours selected from the following: |  | 9 |
| CMS 332K | Theories of Persuasion |  |
| FIN 371M | Money and Capital Markets |  |
| FIN 377 | Advanced Investment Analysis <br> (Topic 1: Portfolio Analysis and Management) |  |
| LEB 370 | Topics in the Legal Environment of Business (Topic 15: Law of Wills, Trusts, and Estates) |  |
| MKT 372 | Marketing Seminar (Topic 11: Brand Management) |  |
| or |  |  |
| MKT 372 | Marketing Seminar (Topic 17: Consumer Behavior in a Digital World) |  |
| or |  |  |
| MKT 372 | Marketing Seminar (Topic 21: <br> Strategic Product Management) |  |
| R M 377 | Property-Liability Risk Management and Planning |  |

Please Note:
Other courses may be considered for substitution, as approved by the Wealth Management Certificate Committee.

All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses.

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed at the school level: Business
Administration (B A).
For courses offered by each department within the McCombs School of Business, please see the corresponding department page in the following sections.

## Department of Accounting

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Accounting: Accounting (ACC).

## Department of Finance

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Finance: Finance (FIN) and Real Estate (R E).

## Department of Business, Government and Society

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Business, Government, and Society: Business, Government, and Society (BGS), International Business (I B), and Legal Environment of Business (LEB).

## Department of Information, Risk, and Operations Management

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Information, Risk, and Operations Management: Business Analytics (BAX), Decision Science (D S), Management Information Systems (MIS), Operations Management (O M), Risk Management (R M), Statistics (STA).

## Department of Management

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Management: Management (MAN).

## Department of Marketing

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Marketing: Marketing (MKT).

# Moody College of Communication 

Jay M. Bernhardt, PhD, MPH, Dean<br>Anita L. Vangelisti, PhD, Associate Dean, Research and Graduate Education<br>Kathryn Fuller-Seeley, PhD, Interim Associate<br>Dean, Faculty Advancement and Strategic Initiatives<br>Ya'Ke Smith, MFA, Associate Dean, Diversity, Equity, and Inclusion<br>Kimberly L. Biar, BBA CPA, Executive<br>Director, Business and Technology Services<br>Allison M. Dawson, MLS, Chief Development Officer Darrell D. Rocha, BA, Assistant Dean for Student Advising Michael J. Wilson, BJ, Assistant Dean, External Relations https://moody.utexas.edu/

## General Information

## Mission

The mission of the Moody College of Communication at The University of Texas at Austin is to advance and enhance society through the study and practice of human communication. We pursue our mission through world-class teaching, scholarship, public service, and our shared commitment to collaboration that bridges disciplines within the college, across the University, and around the world. We draw energy and inspiration from the vibrant community of Austin, Texas to reinforce our core values of knowledge, innovation, collaboration, creativity, integrity, and diversity. We firmly believe that the communication arts and sciences are fundamental for humanity, critical for community, and essential for prosperity.

Moody College is preparing students to better society by enabling them to make the communication breakthroughs of tomorrow. While the media, channels and tools used to communicate are constantly changing, the foundational skills needed to be effective communicators remain the same. Students will become prepared to adapt to a dynamic field while learning the principles needed to become effective, ethical communicators.

Students can choose from seven degree programs: Advertising; Communication and Leadership; Communication Studies; Journalism; Public Relations; Radio-Television-Film; and Speech, Language, and Hearing Sciences. Students benefit from interdisciplinary approaches to communication education and exposure to a broad range of perspectives-ultimately preparing them to succeed across the range of communication disciplines and industries.

## 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 Belo Center for New Media (BMC), which opened in summer 2012. The BMC is a 5-level 120,000 square-foot facility that weds cutting-edge technology with innovative teaching and research methods. The Belo Center is home to the KUT Public Broadcast Center, the School of Journalism and Media, the Stan Richards School of Advertising \& Public Relations, and the Moody College of Communication Dean's Office. The Belo Center houses a multitude of instructional, research, and meeting spaces including a 300seat auditorium, a 120-seat lecture hall, and an executive briefing facility, as well as a theatrical-grade 75 -seat presentation room. The KUT Public Broadcast center is housed in a two-story, 20,000 square-foot wing which
includes a 72-seat, glass-walled performance studio that incorporates the community into some of KUT's 300 annual in-studio performances.

The Jesse H. Jones Communication Center in Communication Building A (CMA) is a six-level building housing classrooms, offices, and sophisticated technology facilities. All facilities offer pervasive wireless internet access and all instructional and production spaces feature highdefinition equipment. Communication Building $B$ (CMB), a nine-level production building, houses teaching and production facilities for the School of Journalism and Media and the Department of Radio-TelevisionFilm. These facilities provide opportunities for academic programs that cross disciplinary lines, interrelate traditional and online media, and otherwise combine the resources of the College in ways not feasible within any one of the components.

## Financial Assistance Available through the College

The Moody College of Communication and each academic unit have a large number of scholarships that are awarded annually. Students interested in receiving one of these scholarships should apply online early in the spring semester for scholarships to be awarded the following academic year. More information about college scholarships is available on the Moody College's website, and from the Student Advising Office.

## Student Services

## Academic Advising

The Student Advising Office, in collaboration with the academic departments, oversees all advising in the college. To allow in-depth advising on specific programs of study, courses, and career choices in the major, each student is assigned an adviser. Students should meet with their advisers to select courses appropriate to the degree and to ensure that all degree requirements are met. In addition, students should consult their advisers for assistance in preparing for graduation.

## Career Services

Moody College Career Center provides a variety of career development and job/internship search assistance programs for students and alumni. The University makes no promise to secure employment for each graduate.

## Student Council

Communication Council represents all undergraduate communication students and sponsors college-wide programs such as Communication Week and Senior Celebration as well as other events throughout the year.

## Admission and Registration

## Admission

## Admission to the University

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

## Admission Policies of the College

Students admitted to the University with deficiencies in high school units must remove them by the means prescribed in the General Information Catalog. 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 seeking students. Such students are admitted only with the approval of the appropriate academic unit head and the dean.

## Registration

The General Information Catalog gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule, published before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and the General Information Catalog are published on the registrar's website.

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

## Academic Policies and Procedures

## Requirements and Policies of the College

All students must fulfill the General Requirements for graduation given in the University section. Students in the Moody College of Communication are also subject to the following requirements and policies:

1. All communication majors must have a grade of at least $C$ - in each course taken in the Moody College of Communication that is counted toward the degree; if the course is offered on the pass/fail basis only, the course must have the symbol $C R$.
2. No more than 60 hours of communication coursework may count toward the degree.
3. At least 36 semester hours of upper-division coursework must be counted toward the degree.
4. Moody College students must complete at least 18 hours of inresidence upper-division coursework.
5. Students in the Moody College of Communication may not repeat for credit a course in which they have earned a grade of C - or better, unless otherwise specified in the catalog.
6. A student may declare only one minor or certificate to supplement their Moody major(s); exceptions must be approved by the Student Dean. Moody students must declare their minor/certificate intentions before they have completed $65 \%$ of their degree requirements, as indicated on the Interactive Degree Audit (IDA); exceptions must be approved by the Student Dean.

## Applicability Of Certain Courses Internship Credit

Some communication degree programs require an internship; in other programs, students may elect to complete an internship. Up to, but no more than, six 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. No more than one hour of PED coursework may be counted toward a degree in the Moody College of Communication. This hour shall be counted as a non-major elective and the grade earned will be included in the grade point average.

## Music Performance Courses

Music performance courses are offered by the College of Fine Arts under the fields of study ensemble, music, and as individual instruction in a particular instrument. No more than one hour of music performance coursework may be counted toward a degree in the Moody College of Communication. This hour shall be counted as non-major elective and the grade earned will be included in the grade point average.

## Transfer Coursework

No more than 12 semester hours of transfer credit may be counted toward a student's major requirements. Transfer credit may be counted towards prescribed work and the University Core Curriculum.

## Courses Taken on the Pass/Fail Basis

Moody College courses taken on the pass/fail basis cannot be counted toward the degree, unless they are offered only on the pass/fail basis. No course required for the degree and taken in residence may be counted if taken on the pass/fail basis, unless the course is offered only on that basis. However, a student may elect to count up to 15 hours of free elective coursework taken on the pass/fail basis. Credit earned by examination is not counted toward the total number of hours that the student may take pass/fail.

## Courses Taken in other Fields of Study

No more than 36 semester hours in a field of study other than the field of study in which the student is majoring may be counted toward a degree in the Moody College.

## ROTC Courses

No more than nine semester hours of credit for air force science, military science, or naval science courses may be counted toward any degree in the Moody College of Communication. Such coursework may be counted only as lower-division electives in degree programs that have room for such electives, and only by students who have completed the third and fourth years of the ROTC program. ROTC courses may not be substituted for any specific required course.

## Extension Courses

With the exception of summer internship courses, (1) courses taken through UT Extension may not be counted toward the major requirements of a Moody College degree; and (2) no courses taken through UT Extension may be substituted for courses offered inresidence by Moody College.

## Graduation

## Graduation

To be awarded a degree from the Moody College of Communication at The University of Texas at Austin, a candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements for graduation, the Core Curriculum requirements, the college graduation requirements, the requirements and policies listed in Academic Policies and Procedures, and the requirements given for the student's major under Prescribed Work, Major Requirements, and Special Requirements of the Major.

## Graduation With University Honors

Students who, upon graduation, have demonstrated outstanding academic achievement are eligible to graduate with University Honors.

Criteria for graduation with University Honors are given in the General Information Catalog.

## ROTC Degree Candidates

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.

## 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 advisor in the Student Advising Office. The degree audit is a computer-generated report of the student's progress in completing degree requirements. The student may also create, print, and review an audit online through IDA, the Interactive Degree Audit system; information about IDA is available at http:// registrar.utexas.edu/students/degrees/ida/.

Although the degree audit normally provides an accurate statement of requirements, students are responsible for knowing the requirements for the degree as stated in a catalog under which they are eligible to graduate and for registering so as to fulfill those requirements. Because students are responsible for registering for the courses needed to fulfill degree requirements, they should seek an official ruling in the Student Advising Office before registering if in doubt about any requirement.

## Degrees and Programs

## Degrees Offered

In the Moody College of Communication, seven undergraduate degrees are offered: Bachelor of Science in Advertising, Bachelor of Science in Communication and Leadership, Bachelor of Science in Communication Studies, Bachelor of Journalism, Bachelor of Science in Public Relations, Bachelor of Science in Radio-Television-Film, and Bachelor of Science in Speech, Language, and Hearing Sciences. In addition to the core curriculum, the requirements of each degree consist of special requirements, prescribed work, and major requirements; these are given within the section associated with each degree.

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

## Moody College Honors Program

The Moody College Honors Program requires 15 hours of coursework. Students should apply as incoming freshmen but have an opportunity to enter the program later by applying in their first year. Students accepted into the Moody College Honors Program must complete the following coursework. Exceptions may be made at the program director's discretion. All courses must be taken for letter grade (unless only offered on a pass/fail basis), and only $C$ - or better will count towards the program.

1. Communication 307 H and Communication 308 H (6 hours);
2. Elective seminars on special topics; Communication 370 H (between 3-9* hours, depending on the capstone option students choose);
3. A capstone requirement, with options that include a creative or service project (Communication 330 H ) or a traditional academic thesis (Communication 679H) (between 3-6 hours).
*Students who choose to complete nine hours of Communication 370Hwill be asked to complete additional assignments.

Moody College Honors Program students will be assessed for continuing eligibility at the end of each academic year, and must meet the following standards: an overall GPA of at least 3.0; a GPA in Moody College coursework of at least 3.4; participation in Moody College Honors Program courses and activities, as described on the program website and by program faculty and staff. Moody College Honors Program students who do not meet these standards may be subject to dismissal from the program.

At the time of graduation, Moody College Honors Program students who have an overall GPA of at least 3.0 and a GPA in Moody College coursework of at least 3.4 will receive special recognition at commencement for successful completion of the program.

## Moody College Success Scholars

The Moody College Success Scholars program is a two-year program in the Moody College of Communication that seeks to provide eligible incoming freshmen with a supportive and community-based foundation in order to promote strong academic performance, engagement in the Moody College community, and a timely graduation.

Membership in the Moody College Success Scholars program is by invitation only and exclusive to first- and second-year students within Moody College.

## Bachelor of Science in Advertising

To be awarded the degree of Bachelor of Science in Advertising, the candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements (p. 19) for graduation, the Core Curriculum (p.23) requirements, the college graduation requirements, the requirements and policies listed in Academic Policies and Procedures, and the requirements given in Prescribed Work, Major Requirements, and Special Requirements of the Major, below.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In some cases, a course required for the Bachelor of Science in Advertising may also be counted toward the core curriculum.

## Prescribed Work

1. Six semester hours of coursework focusing on communication foundations: Communication 301E and 302E.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Students must satisfy a foreign language and culture requirement in one of the following ways: (a) Demonstrating intermediate proficiency in a single foreign language; (b) Taking two consecutive courses in one language and one approved culture course in a
culture that is relevant to the language. A list of approved culture and language courses and combinations will be posted on the Student Advising website before registration for each semester and summer session. An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic advisor for information on testing.
4. Twelve hours of coursework in business, including Marketing 320F (Marketing 337 for students pursuing an additional major in business). At least six of the 12 hours must be upper-division.
5. At least 39, but no more than 45, semester hours of advertising, as described in Major Requirements, below.
6. Enough additional coursework to make a total of 120 semester hours.

## Major Requirements

At least 39, but no more than 45, semester hours of advertising, of which at least 24 hours must be upper-division. The following courses are required: Advertising 309R; 318J; 325; 344K; 345J; 350, 650, or 468L; 370J; 353; 373; and 12 additional hours of non-internship advertising coursework, nine of which must be upper-division.

## Special Requirements of the Major

To enroll in most upper-division courses in the Stan Richards School, a student must have completed Advertising 318J with a grade of at least $B$. Students may enroll in Advertising 318J no more than twice.

Advertising majors must complete Advertising 309R, 318J, 370J, and 373 in residence.

A student may not earn both the Bachelor of Science in Advertising and the Bachelor of Science in Public Relations.

## The Consent Procedure

Some courses in the Stan Richards School of Advertising \& Public Relations require consent of the instructor prior to registering. To be able to register for such a course, a student must first ask for and receive the instructor's consent. The student may be invited to an interview with the instructor or may be asked to provide supporting materials, such as an application or an essay. The student is responsible for knowing the deadline to apply. Consent forms are available from the student's advisor and in the Stan Richards School of Advertising \& Public Relations.

Some students may wish to apply to a competitive elective sequence; these sequences require consent to enroll.

## Courses

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

## Order and Choice of Work

## First Year

1. The student must take three courses from the following group each semester:
a. Rhetoric and Writing 306.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
c. Courses in a foreign language.
d. Courses that meet flag requirements.
2. Communication 301E
3. Enough additional coursework to raise the student's course load to 15 or 16 hours each semester. Courses should be chosen with the guidance of a college advisor.

## Second Year

1. The student must take three courses from the following group each semester; four are recommended:
a. English 316L, 316M, 316N, or 316P.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
d. Courses that meet flag requirements.
2. Communication 302E
3. Advertising 309R
4. Advertising 318J
5. Enough additional coursework, if needed, to raise the student's course load to 15 or 16 hours each semester. Basic courses in business, studio art, and computer sciences are especially recommended.

## Third and Fourth Years

1. Any remaining courses in the core curriculum and the prescribed work.
2. The remaining courses listed as major requirements, including advertising electives.
3. Additional upper-division electives chosen to support the major. Advertising majors normally emphasize economics, government, history, English, sociology, psychology, marketing, and/or management.

## Bachelor of Science in Communication and Leadership

To be awarded the degree of Bachelor of Science in Communication and Leadership, the candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements (p. 19) for graduation, the Core Curriculum (p.23) requirements, the college graduation requirements, the requirements and policies listed in Academic Policies and Procedures, and the requirements given in Prescribed Work, Major Requirements, and Special Requirements of the Major, below.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In some cases, a course required for the Bachelor of Science in Communication and Leadership may also be counted toward the core curriculum.

## Prescribed Work

1. Six semester hours of coursework focusing on communication foundations: Communication 301E and 302E.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with
an ethics flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Students must satisfy a foreign language and culture requirement in one of the following ways: (a) Demonstrating intermediate proficiency in a single foreign language; (b) Taking two consecutive courses in one language and one approved culture course in a culture that is relevant to the language. A list of approved culture and language courses and combinations will be posted on the Student Advising website before registration for each semester and summer session. An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic advisor for information on testing.
4. Thirty-six hours of coursework, as described in Major Requirements, below.
5. Enough additional coursework to make a total of 120 semester hours.

## Major Requirements

The major requires 36 hours of coursework across three designated areas, of which at least 15 hours must be upper-division. Courses that are in multiple lists may only be counted once, unless topics vary. Students must earn a $C$ - or better (or $C R$ for courses offered only on a pass/fail basis) in all courses counting toward major requirements:

1. Communication and Leadership 301, 321, 351, and 371.
2. Twelve semester hours in Communication Fundamentals and Skills courses, chosen from the following: Advertising 320, 321, 332 339L, 353; Business, Government, and Society 373; Communication and Leadership 320 (any topic), 340; Communication Studies 306M, $310 \mathrm{~K}, 313 \mathrm{M}, 315 \mathrm{M}, 316 \mathrm{~L}, 320,321 \mathrm{D}, 322 \mathrm{E}, 332,332 \mathrm{~K}, 333,334 \mathrm{~K}, 335$, 337, 338, 341, 353C, 353S, 355K, 364K, 371K, 372K; Journalism 331M, 358C; Management 328; Nursing 310; Rhetoric and Writing 312, 328 (Topic 4).
3. Twelve semester hours in Social Issues courses, chosen from the following: Advertising 334, 378 (Topic 26); African and African Diaspora Studies 310L, 3150, 330R, 352E, 360 or American Studies 370 (Topic 5) or History 365G (Topic 13); Applied Learning and Development 327; Communication and Leadership 320 (any topic), 340; Communication Studies 332D, 338L, 340K, 341, 342K, 344K, 347K, 354, 372T; Educational Psychology 350L; Government 320N, 351L or Core Texts and Ideas 325, Government 337D, 357G; Health Education 366; History 356P; Journalism 313P, 336F, 338J, 341F, 341 J, 346G, 348D, 351F, 355F; Latin American Studies 315 (Topic 3) or Jewish Studies 305D; Management 327, 337 (Topic 5); Nursing 309; Psychology 306; Public Affairs 325 (Topic 1); Public Health 317; Radio-TelevisionFilm 323C, 342 (Topic 8), 365 (Topic 13); Religious Studies 310, 358U; Social Work 310, 325; Sociology 307L, 308K, 309C, 319, 321G, 321K, 325L, 336D, 343, 352, 369K; Special Education 303; Speech, Language, and Hearing Sciences 378D; Women's and Gender Studies 340 (Topic 53), 345 (Topic 2).

## Special Requirements of the Major

A student may not earn both the Bachelor of Science in Communication and Leadership and the Bachelor of Science in 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. Undergraduate Studies 302 or 303
c. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
d. Courses in a foreign language.
e. Courses that meet flag requirements.
2. Communication and Leadership 301
3. Communication 301 E
4. Enough additional coursework to raise the student's course load to 15 or 16 hours each semester. Courses should be chosen with the guidance of a college advisor.

## Second Year

1. The student should take three courses from the following group each semester; four are recommended:
a. English 316L, 316M, 316N, or 316P.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
2. Communication and Leadership 321.
3. Two courses that meet flag requirements.
4. Communication 302E.
5. Enough additional coursework, if needed, to raise the student's course load to 15 or 16 hours each semester. Courses should be chosen with the guidance of a college academic advisor.

## Third Year

1. Two courses that meet flag requirements.
2. Any remaining courses in the core curriculum and the prescribed work.
3. Courses from the Communication Fundamentals and Skills, and Social Issues areas to fulfill the major requirements. Courses should be chosen with the guidance of a college academic advisor.
4. Communication and Leadership 351
5. Upper-division electives chosen to support the major.

## Fourth Year

1. Communication and Leadership 371
2. Upper-division electives chosen to support the major.
3. Any remaining major requirements from the Communication Fundamentals and Skills, and Social Issues areas. Courses should be chosen with the guidance of a college academic advisor.
4. Any remaining flag requirements.
5. Any remaining courses in the core curriculum and the prescribed work.

## 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 must fulfill the University's General Requirements (p.19) for graduation, the Core Curriculum (p. 23) requirements, the college graduation requirements, the requirements and policies listed in Academic Policies and Procedures, and the requirements given in Prescribed Work, Major Requirements, and Special Requirements of the Major, below.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23).
In some cases, a course required for the Bachelor of Science in Communication Studies may also be counted toward the core curriculum.

## Prescribed Work

1. Six semester hours of coursework focusing on communication foundations: Communication 301E and 302E.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Students must satisfy a foreign language and culture requirement in one of the following ways: (a) Demonstrating intermediate proficiency in a single foreign language; (b) Taking two consecutive courses in one language and one approved culture course in a culture that is relevant to the language. A list of approved culture and language courses and combinations will be posted on the Student Advising website before registration for each semester and summer session. An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic advisor for information on testing.
4. At least 36 , but no more than 48 , semester hours of communication studies as described in Major Requirements, below.
5. Enough additional coursework to make a total of 120 semester hours.

## Major Requirements

At least 36 , but no more than 48 , semester hours of communication studies of which at least 18 hours must be upper-division. Each student must complete one of the following tracks:

## Corporate Communication

1. Communication Studies $306 \mathrm{M}, 313 \mathrm{M}$, and 332 K .
2. Three semester hours chosen from the following Methods courses: Communication Studies 314L, 348, 348K, 349M, 350C, $350 \mathrm{M}, 357,358,359 \mathrm{C}, 377 \mathrm{~K}$, or 378 K . The course selected may not be counted toward any additional communication studies major requirement.
3. Three semester hours chosen from the following Career Preparation courses: Communication Studies 307K, 322E, 342K, 345G, 364M, or 370 K . The course selected may not be counted toward any additional communication studies major requirement.
4. Nine semester hours chosen from the following courses: Communication Studies 310K, 337, 339L, 341, 350C, 350M, $353 \mathrm{C}, 353 \mathrm{~S}, 370 \mathrm{~K}, 372 \mathrm{~K}$, and 372 T .
5. Twelve additional semester hours of communication studies.

## Interpersonal Communication

1. Communication Studies $306 \mathrm{M}, 315 \mathrm{M}$, and 332 K .
2. Three semester hours chosen from the following Methods courses: Communication Studies $314 \mathrm{~L}, 348,348 \mathrm{~K}, 349 \mathrm{M}, 350 \mathrm{C}, 350 \mathrm{M}, 357,358,359 \mathrm{C}, 377 \mathrm{~K}$, or 378 K . The course selected may not be counted toward any additional communication studies major requirement.
3. Three semester hours chosen from the following Career Preparation courses: Communication Studies 307K, 322E, 342K, 345G, 364M, or 370 K . The course selected may not be counted toward any additional communication studies major requirement.
4. Nine semester hours chosen from the following courses: Communication Studies 314L, 330, 334K, 344K, 354, 355K, $355 \mathrm{~T}, 357,358,370 \mathrm{~K}, 371 \mathrm{D}$, and 371 K .
5. Twelve additional semester hours of communication studies.

## Political Communication

1. Communication Studies 306M, 317C, and 332 K .
2. Three semester hours chosen from the following Methods courses: Communication Studies $314 \mathrm{~L}, 348,348 \mathrm{~K}, 349 \mathrm{M}, 350 \mathrm{C}, 350 \mathrm{M}, 357,358,359 \mathrm{C}, 377 \mathrm{~K}$, or 378 K . The course selected may not be counted toward any additional communication studies major requirement.
3. Three semester hours chosen from the following Career Preparation courses: Communication Studies 307K, 322E, 342K, 345G, 364M, or 370 K . The course selected may not be counted toward any additional communication studies major requirement.
4. Nine semester hours chosen from the following courses: Communication Studies 320, 322E, 332, 333, 338L, 340K, $342 \mathrm{C}, 342 \mathrm{~K}, 345,345 \mathrm{G}, 345 \mathrm{P}, 345 \mathrm{~V}, 364 \mathrm{~K}, 370 \mathrm{~K}, 372 \mathrm{D}$, and 373D.
5. Twelve additional semester hours of communication studies.

## Special Requirements of the Major

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

A student may not earn both the Bachelor of Science in Communication and Leadership and the Bachelor of Science in Communication Studies.

## Courses

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

## Order and Choice of Work

## First Year

1. The student must take three courses from the following group each semester.
a. Rhetoric and Writing 306.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences,
mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
C. Courses in a foreign language.
d. Courses that meet flag requirements.
e. Undergraduate Studies 302 or 303.
2. Communication 301 E
3. Enough additional coursework to raise the student's course load to 15 or 16 hours each semester. Courses should be chosen with the guidance of a college advisor.

## Second Year

1. The student must take three courses from the following group each semester; four are recommended:
a. English 316L, 316M, 316N, or 316P.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
C. Courses in the foreign language, unless the language requirement has been fulfilled.
d.
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Courses that meet flag requirements
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2. Communication 302 E .
3. Lower-division communication studies courses recommended by the student's advisor.
4. Enough additional coursework, if needed, to raise the student's course load to 15 or 16 hours each semester.

## Third and Fourth Years

1. Any remaining courses in the core curriculum and the prescribed work.
2. The remaining courses listed as major requirements. Students should note that some upper-division courses have a series of prerequisite courses that takes up to three semesters to complete.
3. Enough additional coursework to raise the student's course load to 15 or 16 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's General Requirements (p. 19) for graduation, the Core Curriculum (p. 23) requirements, the college graduation requirements, the requirements and policies listed in Academic Policies and Procedures, and the requirements given in Prescribed Work, Major Requirements, and Special Requirements of the Major, below.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In some cases, a course required for the Bachelor of Journalism may also be counted toward the core curriculum

## Prescribed Work

1. Six semester hours of coursework focusing on communication foundations: Communication 301E and 302E.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course
with a cultural diversity in the United States flag; one course with an ethics flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Students must satisfy a foreign language and culture requirement in one of the following ways: (a) Demonstrating intermediate proficiency in a single foreign language; (b) Taking two consecutive courses in one language and one approved culture course in a culture that is relevant to the language. A list of approved culture and language courses and combinations will be posted on the Student Advising website before registration for each semester and summer session. An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic advisor for information on testing.
4. At least 40 , but no more than 45 , semester hours of journalism coursework, as described in Major Requirements, below.
5. Enough additional coursework to make a total of 120 semester hours.

## Major Requirements

Journalism students must complete 40 semester hours in journalism, but no more than 45 journalism hours may be counted toward the degree. Students must complete the following coursework:

Level I, Foundations (Six hours): Journalism 301F and 302F
Level II, Applications (Six hours): Journalism 310F and 311F
Level III, Specialized Skills and Concepts (18 hours):

- At least nine semester hours in Skills courses to be chosen from: Journalism 320F, 321F, 322E, 322F, 322J, 323F, 324F, 325F, 325J, 325S, 326F, 327D, 328D, 328S, 330C, 330G, 331D, 331G, 331M, 331N, 331W, 332D, 332G, 332J, 332P, 333G, 333J, 333L, 333S, 334F, 334G, 334J, 334P, 335, 335D, 335F, 335G, 335J, 335N, 335P, 336D, 336F, 336J, 336M 337C, 337D, 337F, 337G, 337J, 337L, 337M, 337P, 338F, 339F, 339M, 339T (Topics 1, 3, and 4), 340J, 346F. Students should consult the School of Journalism and Media for the most updated course list.
- Journalism 350F (required) and at least three additional semester hours in Concepts courses to be chosen from: Journalism 338J, 340F, 340G, 341F, 341G, 341J, 342F, 342G, 342J, 343F, 343G, 344F, 344G, 345G, 346G, 347F, 347G, 348D, 348E, 348F, 348G, 348J, 348N, 349F, 349T, 350M, 350N, 351C, 351F, 351G, 351J, 351P, 351S, $351 \mathrm{~T}, 352 \mathrm{~F}, 353 \mathrm{~F}, 354 \mathrm{~F}, 354 \mathrm{~L}, 354 \mathrm{M}, 354 \mathrm{~N}, 354 \mathrm{R}, 354 \mathrm{~S}, 355 \mathrm{~F}, 355 \mathrm{G}$, 355M, 356G, 356M, 356R, 358N, 358P, 359M, 359S, 359T. Students should consult the School of Journalism and Media for the most updated course list.
- Three additional semester hours in Skills or Concepts.

Level IV, Professional Practices (six hours): Six hours chosen from Journalism 360F, 160G, 361F, 362F, 363D, 363F, 363K, 363L, 363N, 363P, 363S, 363V, 363W. Students should consult the School of Journalism and Media for the most updated course list.

Students must take four additional hours of journalism coursework.

## Special Requirements of the Major

Students are required to take Journalism 302F, 310F, and 311F in residence.

Journalism 310F and 311F require a grade of at least $B$-; students who do not fulfill this requirement cannot register for upper-division journalism Skills courses.

The student must complete at least 72 semester hours outside journalism.

A student majoring in journalism may not register for more than nine semester hours in journalism in one semester or summer session. The director or associate director may make exceptions to this rule for students who need additional journalism courses in order to graduate on time.

## Courses

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

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

## Order and Choice of Work

## First Year

1. The student must take three courses from the following group each semester:
a. Rhetoric and Writing 306
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
c. Courses in a foreign language.
2. Journalism 301F and 302F.
3. Communication 301 E .
4. Students who plan to take advanced photojournalism courses are encouraged to take Communication 316 in their first or second semester.
5. Two courses that meet flag requirements.
6. Enough additional coursework to raise the student's course load to 12 or 16 hours each semester. Courses should be chosen with the guidance of a college academic advisor.

## Second Year

1. The student should take three courses from the following group each semester; four are recommended:
a. English $316 \mathrm{~L}, 316 \mathrm{M}, 316 \mathrm{~N}$, or 316 P .
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
2. Journalism 310F and 311F and additional coursework to fulfill the major requirements.
3. Communication 302E.
4. Two courses that meet flag requirements.
5. Enough additional coursework, if needed, to raise the student's course load to 15 or 16 hours each semester. Courses should be chosen with the guidance of a college academic advisor.

## Third Year

1. Two courses that meet flag requirements.
2. Any remaining courses in the core curriculum and the prescribed work.
3. Journalism Level III and IV coursework to fulfill the major requirements. Courses should be chosen with the guidance of a college academic advisor.
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 from Levels III and IV. Courses should be chosen with the guidance of a college academic advisor.
3. Any remaining flag requirements.
4. Any remaining courses in the core curriculum and the prescribed work.

## Bachelor of Science in Public Relations

To be awarded the degree of Bachelor of Science in Public Relations, the candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements (p. 19) for graduation and the Core Curriculum (p. 23) requirements, the college graduation requirements, the requirements and policies listed in Academic Policies and Procedures, and the requirements given in Prescribed Work, Major Requirements, and Special Requirements of the Major, below.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In some cases, a course required for the Bachelor of Science in Public Relations may also be counted toward the core curriculum.

## Prescribed Work

1. Six semester hours of coursework focusing on communication foundations: Communication 301E and 302E.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Students must satisfy a foreign language and culture requirement in one of the following ways: (a) Demonstrating intermediate proficiency in a single foreign language; (b) Taking two consecutive courses in one language and one approved culture course in a culture that is relevant to the language. A list of approved culture and language courses and combinations will be posted on the Student Advising website before registration for each semester and summer session. An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic advisor for information on testing.
4. Twelve hours of coursework in business, including Marketing 320F ( 337 for students pursuing an additional major in business). At least six of the 12 hours must be upper-division.
5. Journalism 317.
6. At least 36 , but no more than 42 , semester hours of advertising and public relations, as described in Major Requirements, below.
7. Enough additional coursework to make a total of 120 semester hours.

## Major Requirements

At least 36 , but no more than 42 , semester hours of coursework, of which at least 24 hours must be upper-division. The following courses are required: Advertising 318J, 344K, 345J, Public Relations 309, 348, 350 or $650,352,353,367,377 \mathrm{~K}$, and six additional hours of non-internship advertising and/or public relations coursework.

## Special Requirements of the Major

The student must complete Advertising 318J, Public Relations 309, 367, and 377 K in residence.

To enroll in most upper-division courses in the Stan Richards School, a student must have completed Advertising 318 J with a grade of at least $B$. Students may enroll in Advertising 318J no more than twice.

A student may not earn both the Bachelor of Science in Advertising and the Bachelor of Science in Public Relations.

## The Consent Procedure

Some courses in the Stan Richards School of Advertising \& Public Relations require consent of the instructor prior to registering. To be able to register for such a course, a student must first ask for and receive the instructor's consent. The student may be invited to an interview with the instructor or may be asked to provide supporting materials, such as an application or an essay. The student is responsible for knowing the deadline to apply. Consent forms are available from the student's advisor and in the Stan Richards School of Advertising \& Public Relations.

Some students may wish to apply to a competitive elective sequence; these sequences require consent to enroll.

## Courses

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

## Order and Choice of Work

## First Year

1. The student must take three courses from the following group each semester.
a. Rhetoric and Writing 306
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
c. Courses in a foreign language.
d. Courses that meet flag requirements.
2. Communication 301 E
3. Additional coursework to raise the student's course load to 15 or 16 hours each semester. Courses should be chosen with the guidance of a college advisor.

## Second Year

1. The student must take three courses from the following group each semester; four are recommended:
a. Rhetoric and Writing 306; English 316L, 316M, 316N, or 316P.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
d. Courses that meet flag requirements.
2. Communication 302E
3. Advertising 318J and Journalism 317
4. Public Relations 309
5. Enough additional coursework, if needed, to raise the student's course load to 15 or 16 hours each semester. Basic courses in writing are especially recommended.

## Third Year

1. Any remaining courses in the core curriculum and the prescribed work.
2. Public Relations 348, Advertising 344K, 345J, Marketing 320F, and additional coursework to fulfill the major requirements.
3. Upper-division electives chosen to support the major. Public relations majors normally emphasize writing courses, such as those in English, journalism, and liberal arts; public speaking courses, such as those in communication studies; psychology; marketing; and/or management.

## Fourth Year

1. The remaining courses listed as major requirements.
2. Upper-division electives chosen to support the major, including advertising and public relations electives.

## Bachelor of Science in Radio-Television-Film

To be awarded the degree of Bachelor of Science in Radio-TelevisionFilm, the candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements (p. 19) for graduation and the Core Curriculum (p.23) requirements, the college graduation requirements, the requirements and policies listed in Academic Policies and Procedures, and the requirements given in Prescribed Work, and Major Requirements, below.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In some cases, a course required for the Bachelor of Science in Radio-Television-Film may also be counted toward the core curriculum.

## Prescribed Work

1. Six semester hours of coursework focusing on communication foundations: Communication 301E and 302E.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Students must satisfy a foreign language and culture requirement in one of the following ways: (a) Demonstrating intermediate proficiency in a single foreign language; (b) Taking two consecutive courses in one language and one approved culture course in a culture that is relevant to the language. A list of approved culture and language courses and combinations will be posted on the Student Advising website before registration for each semester and summer session. An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic adviser for information on testing.
4. At least 36 , but no more than 48 , semester hours of radio-televisionfilm as described in Major Requirements, below.
5. Enough additional coursework to make a total of 120 semester hours.

## Major Requirements

At least 36 but no more than 48 semester hours of radio-televisionfilm, of which at least 21 hours must be upper-division. All students must take Radio-Television-Film 307, 308, 317, and 318; nine upperdivision hours chosen from the following: Radio-Television-Film 321C, 321D, 322D, 323C, 324C, 326C, 328C, 331K, 331P, 331R, 335, 342, 342S, 345, 345C, 347C, 347P, 352, 359, 359S, 365, 368S (Topic 2), 370, 377H, 377S; and 15 additional hours of radio-television-film.

## Courses

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

For Radio-Television-Film 307, 308, 317, and 318 during Fall and Spring semesters, 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 non-majors.

Most upper-division radio-television-film courses in production are restricted to radio-television-film majors.

Students wishing to add a course not accessible online due to major restrictions, prerequisites, etc., may try to pursue a radio-television-film late add by contacting the instructor of the course. Late adds begin on the fifth class day of the semester and require a late add form.

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.

## Order and Choice of Work

## First Year

1. The student may take three courses from the following group each semester:
a. Rhetoric and Writing 306.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral science, visual and performing arts, mathematics, and science and technology requirements of the core curriculum.
c. Courses in a foreign language.
d. Courses that meet flag requirements.
2. Radio-Television-Film 307 and 308.
3. Communication 301 E .
4. Enough additional coursework to raise the student's course load to 15 or 16 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 316L, 316M, 316N, or 316P.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral science, visual and performing arts, mathematics, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
d. Courses that meet the flag requirements.
2. Radio-Television-Film 317 and 318.
3. Communication 302 E .
4. Enough additional coursework, if needed, to raise the student's course load to 15 or 16 hours each semester.

## Third and Fourth Years

1. Any remaining courses in the core curriculum and the prescribed work.
2. Three upper-division radio-television-film courses to be counted toward the Media Studies portion of the major requirements.
3. Fifteen additional semester hours of coursework in radio-televisionfilm, of which 12 hours must be upper-division.
4. Enough additional coursework to meet overall university-wide degree requirements.

## Bachelor of Science in Speech, Language, and Hearing Sciences

To be awarded the degree of Bachelor of Science in Speech, Language, and Hearing Sciences, the candidate must complete 120 semester hours of coursework and must fulfill the University's General Requirements (p. 19) for graduation, the Core Curriculum (p. 23) requirements, the college graduation requirements, the requirements and policies listed in Academic Policies and Procedures, and the requirements given in Prescribed Work, and Major Requirements, below.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In some cases, a course required for the Bachelor of Science in Speech, Language, and Hearing Sciences may also be counted toward the core curriculum.

## Prescribed Work

1. Six semester hours of coursework focusing on communication foundations: Communication 301E and 302E.
2. Three courses with a writing flag; one course with a quantitative reasoning flag; one course with a global cultures flag; one course with a cultural diversity in the United States flag; one course with an ethics flag; and one course with an independent inquiry flag. The same course cannot be used to satisfy the global cultures and cultural diversity flags even if the course carries both flags. Courses that fulfill flag requirements are identified in the Course Schedule. They may also be used to fulfill other degree requirements.
3. Students must satisfy a foreign language and culture requirement in one of the following ways: (a) Demonstrating intermediate proficiency in a single foreign language; (b) Taking two consecutive courses in one language and one approved culture course in a culture that is relevant to the language. A list of approved culture and language courses and combinations will be posted on the Student Advising website before registration for each semester and summer session. An extensive foreign language testing program is available at the University. Students with knowledge of a language are encouraged to take appropriate tests both to earn as much credit as possible and to be placed at the proper level for further study. Students should consult with an academic advisor for information on testing.
4. At least 39 ( 36 for students in education of the deaf/hearingimpaired) but no more than 54 semester hours of speech, language, and hearing sciences, as described in Major Requirements, below.
5. Three semester hours of coursework in introductory statistics. Courses that fulfill this requirement include Educational Psychology 308, 371, Statistics and Data Sciences 301, $302,303,304,305,306$, 328 M . Courses that fulfill this requirement may also be used to fulfill other degree, core curriculum, and flag requirements.
6. Enough additional coursework to make a total of 120 semester hours.

## Special Emphases in Speech, Language, and Hearing Sciences

Students majoring in speech, language, and hearing sciences 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

Students specializing in speech/language pathology or audiology must complete at least 39 semester hours of coursework in speech, language, and hearing sciences; those specializing in education of the deaf/ hearing-impaired must complete at least 36 hours. No more than 54 semester hours of coursework in speech, language, and hearing sciences may be counted toward the degree. The course requirements for each track are as follows:

1. Speech/language pathology: Speech, Language, and Hearing Sciences $306 \mathrm{~K}, 308 \mathrm{~K}, 311 \mathrm{~K}, 312$, 313L, 113P, 315S, 118L, 341, 350, $358,158 \mathrm{~L}, 367 \mathrm{~K}, 371$, and 373.
2. Audiology: Speech, Language, and Hearing Sciences $306 \mathrm{~K}, 308 \mathrm{~K}$, $311 \mathrm{~K}, 312,313 \mathrm{~L}, 113 \mathrm{P}, 315 \mathrm{~S}, 118 \mathrm{~L}, 341,350,358$, 158L, 367K, 371, and 373 .
3. Education of the deaf/hearing-impaired: Speech, Language, and Hearing Sciences $308 \mathrm{~K}, 311 \mathrm{~K}, 312,313 \mathrm{~L}, 113 \mathrm{P}, 118 \mathrm{~L}, 331 \mathrm{E}, 341$, $360 \mathrm{M}, 364,367 \mathrm{~K}, 373$, and four hours of 175 N

## Courses

Because prerequisites are subject to change, students should consult the Course Schedule before registering.

## Order and Choice of Work

## First Year

1. The student must take three courses from the following group each semester.
a. Rhetoric and Writing 306
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum
c. Courses in a foreign language. Students in education of the deaf/hearing-impaired are encouraged to take American Sign Language.
d. Courses that meet flag requirements.
2. Communication 301 E
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 advisor.

## Second Year

1. The student must take three courses from the following group each semester; four are recommended:
a. English 316L, 316M 316N, or 316P.
b. Courses to be counted toward the American history, American and Texas government, social and behavioral sciences, mathematics, visual and performing arts, and science and technology requirements of the core curriculum.
c. Courses in the foreign language, unless the language requirement has been fulfilled.
d. Courses that meet flag requirements.
2. Communication 302E
3. Speech, Language, and Hearing Sciences 306K (for students in speech/language pathology or audiology) or 308 K (for students in education of the deaf/hearing-impaired) and other lower-division courses in speech, language, and hearing sciences recommended by the student's advisor.
4. Enough additional coursework, if needed, to raise the student's course load to 15 or 16 hours each semester.

## Third and Fourth Years

1. Any remaining courses in the core curriculum and the prescribed work.
2. The remaining courses listed as major requirements.
3. Enough additional coursework to raise the student's course load to 15 or 16 hours each semester.

## Minor and Certificate Programs

## Policy for Moody College Students

While a minor is not required as part of any communication degree program, students may choose to complete a minor in any field to which they gain entry. A student may declare only one minor or certificate
to supplement the Moody major(s); exceptions must be approved by the student dean. Moody students must declare their minor/certificate intentions before they have completed $65 \%$ of their degree requirements, as indicated on the Interactive Degree Audit (IDA); exceptions must be approved by the student dean.

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin. For more information regarding the requirements for achieving a minor or certificate, including a comprehensive list of minors and certificates, please visit the Minor and Certificate Programs (p.13) section of the Undergraduate Catalog.

## Minors Offered

## Communicating for Development and Philanthropy Minor

The minor is open to all undergraduate students at The University of Texas at Austin who have an overall GPA of at least 2.5. The minor requires 18 hours of coursework, including at least nine hours completed in residence and nine hours taken at the upper-division level. All courses must be taken for a letter grade, unless the course is only offered on the pass/fail basis. Only courses with a grade of $C$ - or better (or $C R$ for courses offered only on a pass/fail basis) will be counted. If demand exceeds space available, the Moody College reserves the right to select students based on a review of their academic record.

The requirements are:

| Requirements | Hours |  |
| :---: | :---: | :---: |
| CLD 330 | Philanthropy Capstone | 3 |
| CMS 306M | Professional Communication Skills | 3 |
| CMS 321D | Communicating for Development and Philanthropy | 3 |
| Three hours from the following: |  | 3 |
| CMS 337 | Building Sales Relationships |  |
| MKT 320F | Foundations of Marketing |  |
| MKT 337 | Principles of Marketing |  |
| Three hours from the following list, focusing on communicating about social issues: |  | 3 |
| ADV 320 <br> or P R 320 | Integrated Communication for Nonprofit Organizations <br> Integrated Communication for Nonp Organizations |  |
| ADV 322 <br> or P R 322 | Health Communication: Messages, Campaigns, and the Media Health Communication: Messages, Campaigns, and the Media |  |
| ADV 323 <br> or P R 323 | Public Communication of Science and Techology <br> Public Communication of Science and Techology |  |
| $\begin{aligned} & \text { ADV } 324 \\ & \quad \text { or P R } 324 \end{aligned}$ | Communicating Sustainability Communicating Sustainability |  |
| ADV 336 | Multicultural Issues in Advertising and Public Relations (any topic) |  |
| ADV 378 | Advanced Studies in Advertising (Topic 37: Social Enterprise Branding) |  |
| CMS 332K | Theories of Persuasion |  |
| CMS 340K | Communication and Social Change |  |


| CMS 342K | Political Communication |
| :--- | :--- |
| CMS 340M | Social Media and Social Movement: <br> Then and Now |
| J 358S | Communicating Social Change |
| RTF 301S | Social Activism in Film |
| RTF 323C | Screening Race |
| RTF 342 | Topics in Global Media (Topic 8: <br> Development Communication and <br> Social Change) |
| SLH 378D | Quality of Life in Clinical Care |

A three-hour internship course with a focus on development 3
or philanthropy. ${ }^{1}$
---

1. Students must have their internship reviewed and approved by the faculty committee for the Minor in Communicating for Development and Philanthropy.

## Communication and Social Change Minor

The minor is open to all undergraduate majors at The University of Texas at Austin and requires 18 semester hours of coursework. Nine hours must be taken at the upper-division level, and at least nine hours must be taken in residence. All courses must be taken for a letter grade, unless the course is only offered on the pass/fail basis. Only courses with a $C$ - or better (or CR for courses offered only on a pass/fail basis) will be counted toward the minor. If demand exceeds space available, the Moody College reserves the right to select students based on a review of their academic record.

The requirements for the minor are as follows:

| Requirements | Hou |  |
| :---: | :---: | :---: |
| COM 323 | Communication Internship (Topic 2: Social Change Internship) | 3 |
| Fifteen additiona | o be chosen from the following: | 15 |
| ADV 320 or P R 320 | Integrated Communication for Nonprofit Organizations Integrated Communication for Nonprofit Organizations |  |
| ADV 322 or P R 322 | Health Communication: Messages, Campaigns, and the Media Health Communication: Messages, Campaigns, and the Media |  |
| ADV 323 <br> or P R 323 | Public Communication of Science and Techology <br> Public Communication of Science and Techology |  |
| $\begin{aligned} & \text { ADV } 324 \\ & \text { or P R } 324 \end{aligned}$ | Communicating Sustainability Communicating Sustainability |  |
| ADV 336 | Multicultural Issues in Advertising and Public Relations (any topic) |  |
| CMS 340K | Communication and Social Change |  |
| CMS 342K | Political Communication |  |
| CMS 354 | Conflict Resolution |  |
| J 315R | Contemporary Representation in Media |  |
| J 341J | Minorities and the Media |  |
| J 342G | Reporting the World: A Critical Examination of the United States News Media |  |
| J 348D | Gender and the News |  |


| J 351F | Journalism, Society, and the Citizen <br> Journalist |
| :--- | :--- |
| J 358S | Communicating Social Change |
| RTF 301S | Social Activism in Film |
| RTF 323C | Screening Race |
| RTF 342 | Topics in Global Media (Topic 8: <br> Development Communication and <br> Social Change) |
| RTF 365 | Topics in Media and Society (Topic <br> 13: Activist Media) |

## Communication Studies Minor

This minor is open only to students who do not have a major in Moody College. The minor requires 18 hours of coursework, including at least nine hours completed in residence. All courses must be taken for a letter grade, unless the course is only offered on the pass/fail basis. Only courses with a grade of $C$ - or better (or $C R$ for courses offered only on a pass/fail basis) will be counted. Students must earn a 2.0 minimum GPA in courses counting toward the minor. The Department of Communication Studies reserves the right to limit the number of students accepted as communication studies minors.

The course requirements are as follows:

| Requirements | Hours |  |
| :--- | :--- | :--- |
| CMS 306M | Professional Communication Skills | 3 |
| CMS 315 M | Interpersonal Communication | 3 |
|  | Theory |  |
| Twelve additional hours in Communication Studies | 12 |  |

## Global Communication Minor

This minor is only open to students in the Moody College of Communication. At least nine hours must be completed in residence and at least six hours must be taken at the upper-division level. All courses must be taken for a letter grade, unless the course is only offered on the pass/fail basis. Students must earn a grade of at least a $C$ - (or $C R$ for courses offered only on a pass/fail basis) in each course counted toward fulfillment of the minor requirements.

The minor requires 15 semester hours of coursework. The requirements are:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| COM 323 | Communication Internship (Topic 3: Global Experience) ${ }^{1}$ | 3 |
| Twelve hours of coursework selected from the list below: ${ }^{2}$ |  | 12 |
| ADV 334 | International Advertising |  |
| CMS 314L | Language, Communication, and Culture |  |
| CMS 323R | Rhetoric: East and West |  |
| CMS 355K | Intercultural Communication |  |
| J 328S | Reporting en Espanol |  |
| J 340F | Covering the Global Economy |  |
| J 340G | Reporting Asia: A Foreign Correspondent's Framework |  |
| J 340J | Documentary Tradition of Latin America |  |
| J 342G | Reporting the World: A Critical Examination of the United States News Media |  |
| J 345G | Human Rights Journalism |  |


| J 346G | Domestic Issues and Global Perspective |
| :---: | :---: |
| J 347F | Reporting Latin America |
| RTF 342 | Topics in Global Media (Topic 1: National Media Systems) |
| RTF 342 | Topics in Global Media (Topic 2: Comparative Media Systems) |
| RTF 342 | Topics in Global Media (Topic 7: Global Media Systems) |
| RTF 342 | Topics in Global Media (Topic 8: Development Communication and Social Change) |
| RTF 365 | Topics in Media and Society (Topic 8: Migration and Media) |
| RTF 365 | Topics in Media and Society (Topic 10: Globalization and Social Media) |

1. Or an approved substitution of study abroad coursework or internship coursework done while studying abroad.
2. Three hours may be substituted with experiential learning courses to be petitioned by the student for credit.

## Health Communication Minor

This minor is open to all students at The University of Texas at Austin. The Moody College reserves the right to limit the number of students accepted into this minor by instituting a competitive application process. Applicants may be judged on such factors as grade point average, prior coursework taken, prior experience in the field, and response to essay prompts.

The minor requires 16 semester hours of coursework including nine hours to be completed in residence. All courses must be taken for a letter grade, unless the course is only offered on the pass/fail basis. Only courses with a $C$ - or better (or CR for courses offered only on a pass/ fail basis) will be counted toward the minor. Students must fulfill the following requirements:

Requirements Hours
COM 102
Introduction to Health
1

Three hours of Interpersonal Communication:

| CMS 330 | Interpersonal Health <br> Communication |
| :--- | :--- |
| CMS 332 | Argumentation and Advocacy |
| CMS 332K | Theories of Persuasion |
| CMS 344K | Lying and Deception <br> Communication and Personal <br> Relationships |
| HDF 337 | Personal Relationships |
| HDF 266C | Guidance in Adult-Child <br> \& HDF 266L |
| Relationships <br> and Guidance in Adult Child |  |
| Relationships Lab |  |


| HDF 347 | Socioeconomic Problems of Families | N 309 | Global Health |
| :---: | :---: | :---: | :---: |
|  |  | NTR 330 | Nutrition Education and Counseling |
| HDF 378L | Theories of Child and Family Development | NTR 331 | International Nutrition: Social and Environmental Policies |
| N 310 | Communication in Health Care Settings | NTR 332 | Community Nutrition |
|  |  | NTR 337 | Principles of Epidemiology in Nutritional Sciences |
| S W 360K | Current Social Work Topics (Topic <br> 4: Practice with Abused and Neglected Children and their Families) | NTR 338W | Issues in Nutrition and Health |
|  |  | NTR 365 | Selected Topics in Nutritional Sciences (Topic 4: Obesity and |
| WGS 301 | Introductory Topics in Women's and Gender Studies (Topic 4: Family Relationships) |  | Metabolic Health) |
|  |  | PBH 317 | Introduction to Public Health |
| or HDF 304 |  | PBH 334 | Global Health |
| WGS 301 | Introductory Topics in Women's and Gender Studies (Topic 23: Romantic Relationships and Family Formation) | PBH 338 | Environmental Health |
|  |  | PBH 341R | Public Health Research |
|  |  | PBH 356 | Health Behavior Theory and Practice |
| or SOC 308J | Romantic Relationships and Family Formation | PBH 358D | Health Policy and Health Systems |
| Three hours of Population/Mass Media: 3 |  | PBH 361P | Public Health Internship |
| ADV 319 | Psychology of Advertising | PHL 325M | Medicine, Ethics, and Society |
| ADV 322 | Health Communication: Messages, Campaigns, and the Media | PSY 319 K | Social Psychology |
|  |  | PSY 339 | Behavior Problems of Children |
| or P R 322 | Health Communication: Messages, Campaigns, and the Media | PSY 341K | Selected Topics in Psychology (Topic 4: Health Psychology) |
| ADV 327 | Account Planning | PSY 352 | Abnormal Psychology |
| AMS 370 | Seminar in American Culture (Topic <br> 1: American Cultural History of Alcohol and Drugs) | PSY 364M | Mental Illness and the Brain |
|  |  | S W 334 | Social Work Practice in Organizations and Communities |
| CMS 372T | Time Matters | S W 360K | Current Social Work Topics (Topic 9: Loss and Grief: Individual and Family Perspectives) |
| ECO 325K | Health Economics |  |  |
| EDP 350G | Adolescent Development |  |  |
| EDP 350L | Human Sexuality | SOC 307P | Introduction to the Sociology of Health and Well-Being |
| EDP 371 | Introduction to Statistics |  |  |
| GOV 370V | The Politics of Health Care | SOC 321G | Global Health Issues and Health |
| GRG 334E | Children's Environmental Health |  | Systems |
| $\begin{aligned} & \text { H S } 301 \\ & \quad \text { or SOC 308S } \end{aligned}$ | Introduction to Health and Society Introduction to Health and Society | SOC 354 K | Sociology of Health and Illness |
|  |  | SDS 302 | Data Analysis for the Health Sciences |
| HDF 313 or WGS 313 | Child Development |  |  |
|  | Child Development | SDS 332 | Statistical Models for the Health and Behavioral Sciences |
| HDF 371 | Adolescent Development in Context | URB 354 | Topics in Urban Society and Culture <br> (Topic 10: Human Behavior and <br> Social Environment) |
| HDF 378K | Advanced Child and Family Development (Topic 6: Introduction to Early Childhood Interventions) |  |  |
| HED 329K | Child and Adolescent Health | WGS 301 | Introductory Topics in Women's and Gender Studies (Topic 20: Fertility and Reproduction) |
| HED 335 | Theories of Substance Use and Abuse |  |  |
| HED 343 | Foundations of Epidemiology | or SOC 307K | Fertility and Reproduction |
| HIS 350R | Undergraduate Seminar in United States History (Topic 5: American Cultural History of Alcohol and Drugs) | WGS 301 | Introductory Topics in Women's and Gender Studies (Topic 21: Gender, Race, Class in American Societies) <br> Gender, Race, and Class in American Society |
| HIS 350R | Undergraduate Seminar in United States History (Topic 18: Women in Sickness and Health) | $\begin{aligned} & \text { WGS 322C } \\ & \text { or SOC } 333 \mathrm{~K} \end{aligned}$ | Sociology of Gender <br> Sociology of Gender |
| J 349F | Reporting Public Health and Science | WGS 345 | Topics in Women's and Gender Studies (Topic 3: Women in Sickness and Health) |
| KIN 334 | Children's Exercise and Physical Activity |  |  |


| WGS 345 | Topics in Women's and Gender <br> Studies (Topic 35: Psychosocial <br> Issues in Women's Health) |
| :---: | :--- |
| or HED 361 | Psychosocial Issues in Women's Health |

Six additional upper-division hours from the above areas of which three hours must be from outside the student's major college.

## Journalism and Media Minor

In order to apply for a Journalism and Media Minor, a student must have at least a 2.75 GPA and have completed Journalism 301F and earned at least a $C$-. The School of Journalism and Media reserves the right to limit the number of students accepted as Journalism and Media minors. If demand exceeds space available, students will be selected based on a review of their academic record, particularly performance in Journalism 301 F . At least 12 hours must be taken in residence and for a letter grade (no pass/fail). Students must earn a C- or better in Journalism 301F, and 302F or 313P.

The minor requires 15 hours of coursework, including at least six upperdivision hours. Students must fulfill the following requirements:


## Latino Media Arts \& Studies Minor

The Latino Media Arts \& Studies Minor is open to all undergraduate students at The University of Texas at Austin. The minor requires 18 hours of coursework, including at least nine hours completed in residence. All courses must be taken for a letter grade, unless the course is only offered on the pass/fail basis. Only courses with a grade of $C$ - or better (or $C R$ for courses offered only on a pass/fail basis) will be counted.

Students must fulfill the following requirements:

| Requirements | Hours |  |
| :--- | :--- | :--- |
| RTF 306 | Introduction to World Cinema <br> History | 3 |
| or RTF 307 | Media and Society |  |
| RTF 323C | Screening Race | 3 |
| Six hours of upper-division coursework chosen from the | 6 |  |

following:

| ADV 334 | International Advertising |
| :---: | :---: |
| J 328S | Reporting en Espanol |
| J 334F | Oral History as Journalism |
| J 334N | Oral History in Multimedia Storytelling |
| J 341J | Minorities and the Media |
| J 347F | Reporting Latin America |
| J 351G | Introduction to Global Media |
| J 354F | Journalism and Press Freedom in Latin America |
| J 354L | Mapping Latino Culture in East Austin |
| J 356R | Race and Digital Media Cultures |
| RTF 322D | Film History 1960 to Present |
| RTF 335 | Television Analysis and Criticism (Topic 2: Race, Class, and Gender in American Television) |
| RTF 342 | Topics in Global Media (Topic 7: Global Media Systems) |
| RTF 342S | Topics in Global Media (Topic 1: Global Hollywood) |
| RTF 345 | Studies in Film History (Topic 3: History of Mexican Cinema) |
| RTF 359S | Studies in Media and Culture (Topic 8: Latina/os and U.S. Media) |
| RTF 359S | Studies in Media and Culture (Topic 9: Latina Feminisms and Media) |
| RTF 359S | Studies in Media and Culture (Topic 14: Latino Images in Film) |
| RTF 365 | Topics in Media and Society (Topic 8: Migration and Media) |
| RTF 365 | Topics in Media and Society (Topic 13: Activist Media) |
| RTF 366K | Introductory Production (Topic 4: East Austin Stories) |

Six additional hours of upper- or lower-division coursework in 6 the Department of Mexican American \& Latina/o Studies or in the Teresa Lozano Long Institute of Latin American Studies.

## Media and Entertainment Industries Minor

This program is open only to students who are not majoring in radio-television-film. Applicants must have a 2.5 cumulative grade point average. The Radio-Television-Film Department reserves the right to limit the number of students accepted as media and entertainment industries minors. If demand exceeds space available, students will be selected based on such factors as GPA, prior coursework taken, prior experience in the field, and response to essay prompts. Acceptance into the minor does not come with preference or guarantee of a seat in any RTF course.

The minor requires 15 hours of coursework, with at least nine hours being upper-division and at least nine hours completed in residence. All courses must be taken for a letter grade, unless the course is only offered on the pass/fail basis. Only courses with a $C$ - or better (or CR for courses offered only on a pass/fail basis) will be counted toward the minor.

Courses that appear in multiple lists may only be counted once. If a student chooses to take a six-hour internship course, only three of the hours may count toward the minor. Six hours of non-internship coursework taken during the Semester in Los Angeles Program may be counted toward the minor. Students must petition in advance if they wish to substitute another internship course number in place of Radio-Television-Film 330N.

Students must take the following coursework:

## Requirements

Hours
Three hours from the following:

| RTF 303C | Introduction to Media and <br> Entertainment Industries |
| :--- | :--- |
| RTF 347P | The Business of Hollywood |

Three hours from the following:

| RTF 303C | Introduction to Media and <br> Entertainment Industries |
| :--- | :--- |
| RTF 330N | Internship in Media Industries |
| RTF 347P | The Business of Hollywood |
| RTF 350L | Semester in Los Angeles Internship |
| RTF 650L | Semester in Los Angeles Internship |
| RTF 367K | Producing Film and Television |
| Nine hours from the following: |  |
| RTF 303C | Introduction to Media and <br> Entertainment Industries |
| RTF 306 | Introduction to World Cinema <br> History |
| RTF 308 | Development of Film and Media |
| RTF 321C | History of American Television <br> Film, Video, and Television Theory <br> (Topic 8: Transmedia Storytelling) |
| RTF 331K 333 | Introduction to Screenwriting |
| RTF 335 | Television Analysis and Criticism <br> (Topic 3: Contemporary Television <br> Criticism) |
| RTF 342S | Topics in Global Media (Topic 1: <br> Global Hollywood) |
| RTF 345 | Studies in Film History (Topic 7: <br> British Film and Television) |
| RTF 347C | The Business of Media (Topic 1: <br> Semester in Los Angeles: How <br> Hollywood Works) |
| RTF 347P | The Business of Hollywood |


| RTF 348 | Studies in Media Industries (Topic <br> 2: Semester in Los Angeles: <br> Development Process of Film and <br> Television) |
| :--- | :--- |
| RTF 348 | Studies in Media Industries (Topic <br> 3: Semester in Los Angeles: Inside <br> the Music Industry) |
| RTF 348 | Studies in Media Industries (Topic <br> 4: Semester in Los Angeles: <br> New Media and Emerging <br> Entertainment) |
| RTF 359 | Studies in Media and Culture (Topic <br> 3: Asian American Media Cultures) |
| RTF 365 | Topics in Media and Society <br> (Topic 9: Media Industries and <br> Entrepreneurship) |
| RTF 367K | Producing Film and Television |
| RTF 377H | Advanced Topics in Media Studies <br> (Topic 1: Media and Popular <br> Culture) |

## Media Studies Minor

This minor is open only to students who are not majoring in radio-television-film. Applicants must have a 2.5 cumulative grade point average. The Radio-Television-Film Department reserves the right to limit the number of students accepted as media studies minors. If demand exceeds space available, students will be selected based on a review of the applicant's academic record. Acceptance into the minor does not come with preference or guarantee of a seat in any RTF course.

The minor requires 15 hours of coursework, including at least nine hours completed in residence. Courses that appear in multiple groupings may only be counted once. All courses must be taken for a letter grade, unless the course is only offered on the pass/fail basis. Only courses with a $C$ - or better (or CR for courses offered only on a pass/fail basis) will be counted toward the minor.

Production and screenwriting courses offered in the Radio-TelevisionFilm Department do not count toward the Media Studies Minor.

Students must take the following coursework:

## Requirements <br> Hours

Three hours from the following:

| RTF 306 | Introduction to World Cinema <br> History |
| :--- | :--- |
| RTF 307 | Media and Society |
| RTF 308 | Development of Film and Media |

Six hours from the following:

| RTF 301N | Introductory Topics in Radio- <br> Television-Film (any topic) |
| :--- | :--- |
| RTF 321C | History of American Television |
| RTF 321D | Film History to 1960 |
| RTF 322D | Film History 1960 to Present |
| RTF 323C | Screening Race |
| RTF 324C | Introduction to Global Media |
| RTF 326C | Tech Culture |
| RTF 328C | Gender and Media Culture |
| RTF 331P | Topics in New Communication <br> Technologies (Topic 3: Internet <br> Cultures) |

Six hours from the following:

| RTF 321C | History of American Television |
| :---: | :---: |
| RTF 321D | Film History to 1960 |
| RTF 322D | Film History 1960 to Present |
| RTF 323C | Screening Race |
| RTF 324C | Introduction to Global Media |
| RTF 326C | Tech Culture |
| RTF 328C | Gender and Media Culture |
| RTF 331 K | Film, Video, and Television Theory (any topic) |
| RTF 331P | Topics in New Communication Technologies (any topic) |
| RTF 331R | Topics in New Media (any topic) |
| RTF 335 | Television Analysis and Criticism (any topic) |
| RTF 342 | Topics in Global Media (any topic) |
| RTF 342S | Topics in Global Media (any topic) |
| RTF 345 | Studies in Film History (any topic) |
| RTF 345C | Experimental Media and the Art of Disruption |
| RTF 347P | The Business of Hollywood |
| RTF 352 | Global Media and Area Studies (any topic) |
| RTF 359 | Studies in Media and Culture (any topic) |
| RTF 359S | Studies in Media and Culture (any topic) |
| RTF 365 | Topics in Media and Society (any topic) |
| RTF 368S | Undergraduate Thesis (Topic 2: Media Studies Thesis) |
| RTF 370 | Film Analysis and Criticism (any topic) |
| RTF 377H | Advanced Topics in Media Studies (any topic) |
| RTF 377S | Advanced Topics in Media Studies with Screenings (any topic) |
|  |  |

1. No more than three hours of Radio-Television-Film 301N may count toward the minor.

## Professional Sales and Business Development Minor

The Professional Sales and Business Development Minor is sponsored by the McCombs School of Business and the Moody College of Communication; it is administered by the McCombs School of Business. Information regarding the specific requirements of the minor can be found in the McCombs School of Business's Minor and Certificate Programs (p. 69) section of the Undergraduate Catalog.

## Science Communication Minor

This minor is open only to students with majors in the College of Natural Sciences or the Moody College of Communication. To declare the Science Communication Minor, a student must have at least a 2.5 cumulative grade point average. All courses must be taken for a letter grade, unless the course is only offered on the pass/fail basis. Only courses with a $C$ - or better (or CR for courses offered only on a pass/fail basis) will be counted toward the minor.

The minor requires 18 semester hours of coursework. At least nine hours must be taken at the upper-division level and at least nine hours must be taken in residence.

The minor requirements are:
Requirements
Hours

| ADV 323 | Public Communication of Science <br> and Techology |
| :--- | :--- | :--- |
| or P R 323 | Public Communication of Science and <br> Techology |
| Three hours of Foundations courses: |  |
| ADV 305 | Fundamentals of Advertising |
| ADV 324 | Communicating Sustainability |
| or P R 324 | Communicating Sustainability |

Three hours of Skills courses: 3
CMS 316L Interviewing Principles and Practices
CMS $320 \quad$ Advanced Presentation Skills
CMS 337 Building Sales Relationships
CMS 345G Communicating to Government
CMS 350C Crowds, Clouds, and Community
CMS 353S Social Media and Organizations
CMS 372K Advanced Organizational Communication
COM $308 \quad$ Creative Communication of Scientific Research
or NSC $303 \quad$ Creative Communication of Scientific Research
COM $323 \quad$ Communication Internship (Topic 4: Science Communication Internship)
J313P Multimedia News Reporting
J 336F Social Media Journalism
J 346F Reporting on the Environment
Three hours of Ethics and Leadership courses:

| CLD 301 | Introduction to Communication and <br> Leadership |
| :--- | :--- |
| CMS 322E | Communication Ethics |
| CMS 332 | Argumentation and Advocacy |
| CMS 338 | Leadership Stories |
| CMS 344K | Lying and Deception |
| CMS 353C | Communication for Innovation |

Six additional hours of coursework chosen from the
Foundations, Skills, and Ethics and Leadership course lists.

## Sports Media Minor

The minor requires 18 semester hours of coursework. Nine hours must be taken at the upper-division level and at least nine hours must be
taken in residence. All courses must be taken for a letter grade, unless the course is only offered on the pass/fail basis. Only courses with a $C$ - or better (or $C R$ for courses offered only on a pass/fail basis) will be counted toward the minor.

The requirements are:

| Requirements |  | Hours $\begin{array}{r} \\ \\ \\ \\ \\ \\ \\ \\ 3 \\ 12\end{array}$ |
| :---: | :---: | :---: |
| ADV/P R 378S | Special Topics in Sports Media (Topic 13: The Business of Sports Television) |  |
| or ADV 348S | The Business of Sports Media |  |
| or P R 348S | The Business of Sports Media |  |
| or J 348G | The Business of Sports Media |  |
| CMS 363C | Communication and Sports |  |
| Twelve hours of c | ork to be selected from: |  |
| ADV/P R 378S | Special Topics in Sports Media (up to six hours may be counted) |  |
| AFR 374D | Advanced Topics in Black United States Studies (Topic 12: African Americans in Sports) |  |
| or EDC 373 | African Americans in Sports |  |
| CMS 363P | Politics and Protest in Sports |  |
| J 326F | Reporting Sports |  |
| KIN 347 | Historical and Ethical Issues in Physical Culture and Sports |  |
| KIN 350 | Sociological Aspects of Sport and Physical Activity |  |
| KIN 352K | Studies in Human Movement: Topical Studies (Topic 3: Women and Sport) ${ }^{1}$ |  |
| KIN 352K | Studies in Human Movement: Topical Studies (Topic 5: Sport, Fitness, and Mass Media) |  |
| KIN 352K | Studies in Human Movement: Topical Studies (Topic 31: Sport, Society, and the International Olympic Movement) ${ }^{1}$ |  |
| KIN 352K | Studies in Human Movement: Topical Studies (Topic 32: History of Physical Culture) ${ }^{1}$ |  |
| KIN 354 | Sport and Event Marketing |  |
| KIN 355 | Media and Public Relations in Sport |  |
| RTF 359 | Studies in Media and Culture (Topic <br> 8: Women in Sports Media) |  |
| --- |  |  |
| 1. No more than six semester hours of Kinesiology 352K may be counted. |  |  |

## Courses for Teacher Preparation

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

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed at the college level: Communication (COM) and Communication and Leadership (CLD).

For courses offered by each department within the Moody College of Communication, please see the corresponding department page in the following sections.

## Stan Richards School of Advertising and Public Relations

Pease see the General Information Catalog for a list of courses. The following fields of study are housed in the Stan Richards School of Advertising and Public Relations: Advertising (ADV) and Public Relations (PR).

## Department of Communication Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Communication Studies: Communication Studies (CMS).

## School of Journalism and Media

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the School of Journalism and Media: Journalism ( J ).

## Department of Radio-TelevisionFilm

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Radio-Television-Film: Radio-Television-Film (RTF).

## Department of Speech, Language, and Hearing Sciences

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Speech, Language and Hearing Sciences: Speech, Language, and Hearing Sciences (SLH).

## College of Education

Charles Martinez, PhD, Dean, College of Education<br>Sherry Field, PhD, Associate Dean for Faculty and Academic Affairs<br>Beth Maloch, PhD, Associate Dean for<br>Administration and Educator Preparation<br>Richard Reddick, PhD, Associate Dean for<br>Equity, Community Engagement, and Outreach<br>Alexandra Loukas, PhD, Interim Associate<br>Dean for Research and Graduate Studies<br>Richard Hogeda, M.ED, Assistant Dean for Student Affairs C.J. Keudell, M.S., Assistant Dean for Financial Affairs Stacey Oliver, MAT, Assistant Dean for Development https://education.utexas.edu

## General Information

## Mission

The University of Texas at Austin, through the College of Education, is committed to the preparation of teachers and other educators who are dedicated to the employment and advancement of education for all people. In pursuing this mission, the College of Education performs several functions.

It is a professional school offering two teacher certification degrees. The Bachelor of Science in Applied Learning and Development allows students to pursue teacher certification for elementary (early childhood through grade six) generalist, bilingual generalist, all-level (early childhood through grade 12) or generic special education certification, or all-level physical education certification. The Bachelor of Science in Kinesiology and Health offers a major that leads to all-level physical education certification.

The college provides the professional sequence of education courses and serves as the certification agent for all University students pursuing certification to teach in Texas, whether they are enrolled in the College of Education or in another division of the University. See Preparation for Teacher Certification (p. 17) for more information. Accountability information for the teacher preparation program is given in the General Information Catalog.

The college also offers programs that do not lead to teacher certification. These programs, in youth and community studies, athletic training, exercise science, health promotion and behavioral science, physical culture and sports, and sport management, 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, racquet sport courts, and faculty offices. College of Education faculty members and programs are also housed in Gregory Gymnasium and the Lee and Joe Jamail Texas Swimming Center, and the North End Zone.

## Financial Assistance Available through the College

Scholarships as well as graduate fellowships and assistantships are available to students in the College of Education. Application for all undergraduate awards and some graduate awards should be made to the Office of the Dean, George I. Sánchez Building 216; graduate students should also inquire in their departmental offices. Generally, applications are accepted online in March for the following academic year.

## Student Services

The Office of the Dean of the College of Education provides a variety of student services, including maintenance of student records, academic counseling, certification counseling, and official evaluations of the student's academic standing and progress toward a degree. Students are encouraged to contact the office whenever they have questions about degree requirements, academic standing, teacher certification, general University regulations, or registration. The office is also a good source of general information and referral that students are urged to use when they have questions or problems of any nature.

## Academic Advising

The College of Education encourages all students to see their advisers at least once a semester for a comprehensive discussion of their programs. Academic advisers are available in George I. Sánchez Building 216.

## Career Services

The College of Education offers career services to assist University students in making informed career choices. Education Career Services makes job search materials, events, and counseling accessible to students on a regular basis. Information about these services is available at https://education.utexas.edu/about/college-offices/career-services.

As a complement to the assistance available from the college, the University's Sanger Learning Center and the Center for Strategic Advising and Career Counseling in the School of Undergraduate Studies provide comprehensive career services to all students. The centers offer professional assistance to all University students in choosing or changing their majors or careers, seeking an internship, and planning for the job search or for graduate study.

## Student Organizations

The Education Council is the official channel for student participation in policy formulation and evaluation and in development of student activities in the college. Voluntary organizations in the college include the Bilingual Education Student Organization, the Texas Health Promotion Club, the Kinesiology Club, Longhorn Athletic Training Student Association, Minorities in Education, the Student Council for Exceptional

Children, and Teachers of Tomorrow. Pi Lambda Theta, Phi Delta Kappa, and Kappa Delta Pi are honorary organizations for men and women.

## Education Scholars

The Education Scholars program is for select students admitted to the College of Education at the University of Texas at Austin. Participation in the two-year program is by invitation only, with the aim to provide the benefits of a small college atmosphere while preparing students to become future leaders of the College of Education. For more information, see https://education.utexas.edu/students/undergraduate-students/ enhancing-your-degree/texas-education-scholars.

## Admission and Registration

## Admission

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

Information about admission to teacher preparation programs and to majors in the Department of Kinesiology and Health is available in the Office of the Dean, George I. Sánchez Building 216.

Admission to majors in kinesiology is restricted for internal transfer students. Students should see an adviser in the Office of the Dean, George I. Sánchez Building 216 for information.

## Admission to the Professional Development Sequence

All students seeking teacher certification must complete a sequence of professional development courses. Admission to the Professional Development Sequence is restricted. Space availability may be a factor in the admission decision, as well as academic performance, completion of prerequisite courses, documented evidence of proficiency in reading and in oral and written communication, and the number of hours the student needs, at the time of application, to complete the program.

For students seeking early childhood through grade six, all-level generic special education, or all-level physical education certification, admission to the Professional Development Sequence is competitive and there is a specific University grade point average, as well as mandated grades in prerequisite courses required. Additionally, students seeking early childhood through grade six and all-level generic special education certification may only lack one class outside the sequence when they enter the Professional Development Sequence. To progress within the sequence, and to complete the sequence, the student must maintain a specific University grade point average and must earn the appropriate grade in each course in the sequence. Students are encouraged to speak to an adviser in the Office of the Dean, George I. Sánchez Building 216 for additional information about these requirements.

For students in other teacher certification programs, requirements for admission to and continuation in the Professional Development Sequence are set by the college in which the student majors.

## Registration

The General Information Catalog gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule, published before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of
classes. The Course Schedule and the General Information Catalog are published on the registrar's website.

## Academic Policies and Procedures

## Honors

## University Honors

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

## Graduation with University Honors

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

## Graduation

## Special Requirements of the College

All students must fulfill the General Requirements (p. 19) for graduation. In addition, students in the College of Education must be registered in the college either in residence or in absentia the semester or summer session the degree is to be awarded and must apply to the dean for the degree no later than the date specified in the official academic calendar. The student must have an official degree audit on file prior to applying for the degree.

## Applying for Graduation

Each student seeking a degree from the College of Education should apply for an official degree audit in the Student Dean's Office, George I. Sánchez Building 216. The degree audit is essential to ensure that the student meets all the degree requirements given in a catalog under which he or she is eligible to graduate.

In the final semester or summer session, a candidate for graduation must apply for the degree by the deadline given in the official academic calendar.

## Degrees and Programs

## General Requirements

1. All College of Education students seeking teacher certification must complete the entire Professional Development Sequence of coursework in residence. Residence credit includes only courses taken at the University; it does not include credit by examination, courses taken by extension or correspondence, or courses taken at another institution.
2. State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.
3. Except as otherwise indicated, credit by examination is treated like any other earned credit in meeting degree requirements.
4. With the exception of credit earned by examination, each course counted toward the degree or toward certification requirements must
be taken on the letter-grade basis, unless the course is offered only on the pass/fail basis.
5. To graduate, all students must have a University grade point average of at least 2.00.

## Applicability of Certain Courses

## Physical Activity Courses

Physical activity (PED) courses are offered by the Department of Kinesiology and Health Education. Up to three semester hours of physical activity coursework may be counted as electives toward any College of Education degree. All physical activity courses are counted among courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

A maximum of 12 semester hours of credit in air force science, military science, or naval science may be used as free electives in any degree plan of the College of Education.

## Concurrent Enrollment and University Extension Courses

In the semester they plan to graduate, students may not take any course to be counted toward the degree at another institution or through University Extension; students who plan to graduate at the end of the summer session may request approval to take transfer work only in the first summer term.

## Curriculum and Instruction Coursework

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.

## Teacher Certification

Please see the Preparation for Teacher Certification (p. 17).

## UTeach-Urban Teachers

UTeach-Urban Teachers is a teacher preparation program for students seeking teacher certification for secondary in English or social studies. UTeach-Urban Teachers offers a three-semester program for undergraduate students, beginning the summer before their senior year, for students working towards a bachelor's degree in English, history, geography, government, economics, or other humanities disciplines. UTeach-Urban Teachers also offers a Masters of Education degree program with teacher certification for students seeking teacher certification while pursuing a masters. These programs are designed to help English and social studies teacher candidates develop knowledge, skills, and dispositions to support teaching and learning in linguistically and culturally diverse urban settings. Program advising is housed in the College of Education. Information is available on the UTeach-Urban Teachers website and from the College of Education advising office.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

For students seeking secondary teacher certification in English :

## Requirements

Hours

| ALD 327 | Sociocultural Influences on Learning | 3 |
| :---: | :---: | :---: |
| EDC 370 S | Secondary School Subjects (Topic 1: Advanced Methods in English, Language Arts, and Reading) | 3 |
| EDC 351S | Secondary School Teaching Practicum | 3 |
| EDC 651S | Secondary School Teaching Practicum | 6 |
| For students seeking secondary teacher certification in social studies: |  |  |
| Requirements |  |  |
| EDC 339E | Secondary School Literacy across the Disciplines | 3 |
| ALD 327 | Sociocultural Influences on Learning | 3 |
| EDC 370 S | Secondary School Subjects (Topic 3: Advanced Methods in Social Studies) | 3 |
| EDC 351 S | Secondary School Teaching Practicum | 3 |
| EDC 651 S | Secondary School Teaching Practicum | 6 |

## Bachelor of Science in Applied Learning and Development

The curriculum for the degree has four components: (a) the Universitywide core curriculum; (b) prescribed work for the Bachelor of Science in Applied Learning and Development; (c) major requirements; and (d) electives. Students choose one of three majors: early childhood through grade six ESL generalist, which can lead to early childhood through grade six generalist certification or early childhood through grade six bilingual generalist certification; all-level generic special education, which can lead to all-level generic special education certification; or youth and community studies, which does not lead to teacher certification.

The youth and community studies major requires 120 hours of coursework; the early childhood through grade six ESL generalist major requires 124 hours of coursework; and the all-level generic special education major requires 127 hours of coursework. Students in all majors must complete at least 36 hours of upper-division coursework.

## Core Curriculum

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags (p. 23).

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent. Applied Learning and Development 328 carries a writing flag.
2. Quantitative Reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course. Applied Learning and Development 327 carries a cultural diversity in the United States flag.
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

In some cases, a course that is required for the Bachelor of Science in Applied Learning and Development may also be counted toward the Core Curriculum; these courses are identified above. Courses used to fulfill flag requirements may also be used to fulfill other requirements.

## Prescribed Work

All students must complete the following requirements. The youth and community studies major requires modifications to the prescribed work; these are described in the section for the major below.

1. Applied Learning and Development 333 or Informatics 320 (Topic 2: Children's Literature).
2. Psychology 301 or Special Education 303. One of these courses may also be used to fulfill the social and behavioral sciences requirement of the Core Curriculum.
3. UTeach-Natural Sciences 306J, 306K, and 306L. These courses may also be used to fulfill parts I and II of the science and technology requirement of the Core Curriculum. In addition, students must complete UTeach-Natural Sciences 306M.
4. Mathematics 316 K and 316 L .
5. Foreign language: Students must demonstrate proficiency in a single foreign language equivalent to that shown by completion of the second college semester in the language; proficiency is usually shown by earning credit for language courses 601D and 610D or the equivalent. Prospective Texas teachers are strongly encouraged to take Spanish to fulfill the language requirement.

Although the foreign language requirement is the attainment of a certain proficiency, rather than the completion of a specified number of hours, the courses taken to gain this proficiency are not electives and may not be taken on the pass/fail basis. Any part of the requirement may be fulfilled by credit by examination.

Students who completed two years of a single foreign language in high school and who are not pursuing teacher certification may substitute three courses in specific multicultural and language/ communication courses for the foreign language requirement. A list of the acceptable substitute courses is available in the Student Dean's Office, George I. Sánchez Building 216.

## Major Requirements

## Early Childhood Through Grade Six ESL Generalist

Students who have completed the early childhood through grade six ESL generalist major are eligible to teach pre-kindergarten through grade six after meeting additional state requirements.

For this major, students must complete the following:

1. Coursework in applied learning and development:
a. Three semester hours in cognition and learning chosen from Applied Learning and Development 320 and 321
b. Applied Learning and Development 322
c. Applied Learning and Development 327
d. Applied Learning and Development 328
e. Applied Learning and Development 329
f. Health Education 329K
g. Kinesiology 314
2. A curricular specialization consisting of Curriculum and Instruction 370E (Topic 1: Reading), 370E (Topic 2: Language Arts), 370E (Topic 20: Teaching English as a Second Language), and either Special Education 378R or Curriculum and Instruction 371R
3. The Professional Development Sequence described below. Admission to the Professional Development Sequence is restricted; admission requirements are given in Admission to the Professional Development Sequence (p. 93).
a. Methods courses: Curriculum and Instruction 370E (Topic 3: Science), 370E (Topic 4: Social Studies), and 370E (Topic 5: Mathematics)
b. Curriculum and Instruction 331E
c. Curriculum and Instruction 371 G
d. Curriculum and Instruction 950E

## All-Level Generic Special Education

Students who have completed the all-level generic special education major are eligible to teach in special education classrooms from prekindergarten through grade twelve after meeting additional state requirements.

For this major, students must complete the following:

1. Coursework in applied learning and development and related areas:
a. Three semester hours in human development chosen from Human Development and Family Sciences 313 and Psychology 304
b. Three semester hours in cognition and learning chosen from Applied Learning and Development 320 and 321
c. Applied Learning and Development 322 and 327
2. Prescribed work in special education: Special Education 332, 337, 372, 375C, 376, 378D, 378E, 378R, 378S, 378T (Topic 6: Teaching Math to Students with Disabilities).
3. The Professional Development Sequence described below. Admission to the Professional Development Sequence is restricted; admission requirements are given in Admission to the Professional Development Sequence (p. 93).
a. Curriculum and Instruction 370E (Topic 5: Mathematics), 370E (Topic 1: Reading), 370E (Topic 2: Language Arts), and 370E (Topic 20: Teaching English as a Second Language.
b. Curriculum and Instruction 331E
c. Special Education 960

## Youth and Community Studies

Completion of a major in youth and community studies does not entitle the student to receive a teaching certificate.

1. The Prescribed Work, with the following modifications:
a. A course in English or rhetoric and writing may be counted in place of Informatics 320 (Topic 2: Children's Literature). The course used to fulfill the humanities requirement of the core curriculum may not also be counted toward this requirement.
b. Students must take Educational Psychology 318 T (Topic 5: Introduction to Career Planning)
c. Students are not required to take UTeach-Natural Sciences $306 \mathrm{~J}, 306 \mathrm{~K}, 306 \mathrm{~L}$, and an additional natural sciences or computer science course. However, they must complete the science and technology, part I and part II, requirements of the Core Curriculum.
d. Mathematics 316 K and 316 L are not required.
e. Students must take a three-semester-hour entrepreneurship course.
2. Coursework in applied learning and development and related fields:
a. Applied Learning and Development 320, 322, 327, 329, and 331
b. Applied Learning and Development 321 or Educational Psychology 350G
c. Health Education 329 K
d. Three semester hours of coursework in kinesiology or health education
3. Either a specialization in the Department of Kinesiology and Health Education, a minor outside of Applied Learning and Development, a certificate, or a track in a second field of study which consist of a minimum of 15 hours of coursework, six of which must be upperdivision. No more than six hours in the minor may also be counted toward other degree requirements. Information about approved areas of study and specific courses that may be used is available in the Student Dean's Office, George I. Sánchez Building 216.
4. Professional concentration: Fifteen semester hours selected from one of the following five concentrations: Coaching, Early Childhood, Physical Education Activity, Special Populations, Urban Teachers, and Youth and Social Services. A list of courses in each concentration is available in the Student Dean's Office, George I. Sánchez Building 216.

## Electives

Additional elective coursework may be needed to provide the total number of semester hours required for the student's major. Students in all majors must complete at least 36 hours of upper-division coursework.

## Bachelor of Science in Athletic Training

Students who plan to major in athletic training must be admitted to the Athletic Training Program (ATP). Admission is based on a competitive application process. The student's grade point average and completion of prescribed coursework are factors in the admission decision. Applicants must also participate in the Directed Observation Program, meet a set of technical standards, pass a health assessment/ physical examination, provide proof of immunizations and vaccinations, submit letters of recommendation, and submit additional application documents. More information about the admission process and requirements is available from an academic advisor and at http:// www.edb.utexas.edu/education/departments/undergrad/at/atep/.

In addition to completing the coursework associated with the athletic training major, students in the ATP must participate in clinical rotations and become adept in a set of educational competencies and clinical proficiencies. Students who plan to take the Board of Certification (BOC) examination or the state licensure examination for athletic trainers must complete the ATP.

The curriculum for the degree has four components: (a) the Universitywide core curriculum; (b) prescribed work; (c) major requirements; and (d) electives. A total of at least 120 semester hours of coursework is required; at least 36 hours must be in upper-division courses.

## Core Curriculum

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags (p. 23).

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent. Kinesiology 346 carries a writing flag.
2. Quantitative Reasoning: one flagged course. Kinesiology 320 carries a quantitative reasoning flag.
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course.
5. Ethics: one flagged course. Kinesiology 346 carries an ethics flag
6. Independent Inquiry: one flagged course

In some cases, a course that is required for the Bachelor of Science in Athletic Training may also be counted toward the core curriculum; these courses are identified below. Courses used to fulfill flag requirements may also be used to fulfill other requirements.

## Prescribed Work

1. Writing: Three courses with a writing flag. These courses are identified in the Course Schedule.
2. Social science
a. Psychology 301 , which may also be counted toward the social and behavioral sciences requirement of the core curriculum.
3. Mathematics: Mathematics 305G or calculus. Mathematics 305G and several calculus courses may also be counted toward the mathematics requirement of the core curriculum.
4. Natural science: Many courses that fulfill this natural science requirement may also be counted toward the science and technology requirements of the core curriculum.
a. Biology 302F or 311C
b. Six hours of coursework in chemistry ( 304 K and 305 , or 301 and 302), physics ( 302 K and 302 L , or 309 K and 309 L , or 317 K and 317 L ), or physical science (303 and 304).
c. Kinesiology 330E, Kinesiology 352K (Topic 33: Nutrition: Exercise, Health, and Sport), Nutrition 306 or 312
5. Classical Civilization 306M
6. Foreign language: In addition to the core curriculum requirements above, undergraduates are expected to have completed two years in a single foreign language in high school. Students without two years of high school foreign language coursework must earn credit for the second college-level course in a foreign language; this credit does not count toward the student's degree. Students can consult with their advisor and the degree requirements to determine whether additional foreign language requirements apply to them.

## Major Requirements

1. The following courses:
a. Kinesiology 312 (Topic 2: Care and Prevention of Athletic Injuries)
b. Kinesiology 219K (Topic 3: Introduction to Athletic Training)
c. Kinesiology 424 K , Applied Human Anatomy
d. Kinesiology 425K, Physiology of Exercise
e. Kinesiology 320, Applied Biomechanics of Human Movement; or Kinesiology 326K, Biomechanical Analysis of Movement
f. Kinesiology 341, Therapeutic Modalities in Athletic Training
g. Kinesiology 342, Clinical Evaluation of Athletic Injuries in the Lower Body
h. Kinesiology 343, Clinical Evaluation of Athletic Injuries in the Upper Body
i. Kinesiology 344, Therapeutic Exercise and Rehabilitation Techniques: Lower Body
j. Kinesiology 344U, Therapeutic Exercise and Rehabilitation: Upper Body
k. Kinesiology 345, General Medical Conditions in Athletic Training
I. Kinesiology 346, Athletic Training Program Administration
m. Kinesiology 363, Theory and Practice in Strength Coaching n. Kinesiology 140S, Senior Seminar in Athletic Training
2. Students enrolled in the Athletic Training Program must complete a practicum course, determined by the faculty advisor, for each semester of their clinical rotations.
3. Nine hours of coursework in kinesiology, health education, or allied health profession prerequisites.

## Electives

Additional elective coursework may be required to provide the 120 semester hours required for the degree. Up to six hours of fieldwork may be counted toward the degree as electives. Up to three hours in physical education activity coursework (PED) may be counted as electives.

## Bachelor of Science in Kinesiology and Health

The field of kinesiology consists of biomechanical, physiological, psychological, managerial, epidemiological, rehabilitative, and sociocultural approaches to the study of human movement and personal and public health. The Bachelor of Science in Kinesiology and Health degree program offers five majors: applied movement science, exercise science, health promotion and behavioral science, physical culture and sports, and sport management.

The applied movement science program is designed for students interested in studying human movement as a background for helping others develop motor skills, physically active lifestyles and fitness. Students who successfully complete the physical education activity track can be recommended for teacher certification in physical education. The exercise science program is appropriate preparation for further study in sport and exercise sciences or in movementrelated areas such as physical therapy and sport medicine. The health promotion and behavioral science major is designed to prepare graduates for a number of professions including public health, community health promotion, university/college health services, government agencies, voluntary health agencies, corporate fitness and wellness, and healthcare centers. The sport management major is designed for students who are interested in the organization, marketing, and management of sport and/or entertainment programs. The physical culture and sports major is designed to prepare students for graduate school and/or careers related to a social science approach to sport and exercise.

The curriculum for the degree has four components: (a) the Universitywide Core Curriculum; (b) prescribed work for the Bachelor of Science in Kinesiology and Health; (c) major requirements, which include a minor or specialization; and (d) electives. More information, including a list of specializations and minors, is available from the College of Education Student Dean's Office, George I. Sánchez Building 216.

A total of at least 120 semester hours of coursework is required for the Bachelor of Science in Kinesiology and Health. For all majors, at least 36 hours must be in upper-division coursework.

## Core Curriculum

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags (p. 23).

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

In some cases, a course that is required for the Bachelor of Science in Kinesiology and Health may also be counted toward the Core Curriculum; these courses are identified above. Courses used to fulfill flag requirements may also be used to fulfill other requirements.

## Prescribed Work

All students must complete the following requirements. Some majors require modifications to the prescribed work; these are described in the section for each major below.

1. Writing: Three courses with a writing flag. These courses are identified in the Course Schedule.
2. Social science:

Psychology 301 and several social science courses that fulfill requirement b may also be counted toward the social and behavioral sciences requirement of the core curriculum.
a. Psychology 301.
b. Three hours of coursework in anthropology, economics, geography, linguistics, or sociology.
3. Mathematics: Three hours of coursework in mathematics. Several courses that fulfill this requirement may also be counted toward the mathematics requirement of the core curriculum.
4. Natural science:

Many courses that fulfill this natural science requirement may also be counted toward the science and technology requirements of the core curriculum.
a. Biology 302F or 311C.
b. Six hours of coursework in chemistry.
c. Six additional hours chosen from astronomy, biology, chemistry, computer applications, computer science, geological sciences, mathematics, physical science, physics, experimental psychology, physical anthropology, physical geography, history of science, and philosophy of science.
5. In addition to the core curriculum requirements above, undergraduates are expected to have completed two years in a single foreign language in high school. Students without two years of high school foreign language coursework must earn credit for the beginning level proficiency in a foreign language; this credit does not count toward the student's degree. Students should consult their advisers to determine whether additional foreign language requirements apply to them. A list of acceptable substitute courses is available in the Student Dean's Office, George I. Sánchez Building 216.

## Major Requirements

All students seeking the Bachelor of Science in Kinesiology and Health must complete the following 12 semester-hour core, so that they are exposed to all aspects of the fields of kinesiology and health. Students will take three semester hours in Kinesiology 119 or physical education courses (the courses must require substantial physical activity) along with choosing three of the following courses.

1. Health Education 311
2. Kinesiology 310
3. Kinesiology 312M
4. Kinesiology 335C
5. Kinesiology 347

## Applied Movement Science

Applied movement science majors must complete the following:

1. The Prescribed Work (p.97), with the following modifications:
a. To fulfill the mathematics requirement, Applied Movement Science majors must complete Mathematics 305G or calculus. Mathematics 305 G and several calculus courses may also be counted toward the mathematics requirement of the core curriculum.
b. Applied movement science majors do not need to complete a course to fulfill the second part of the social science requirement (Prescribed Work 2b)
c. In fulfilling the natural science requirement, the student must complete the following:
i. In place of biology and chemistry, nine hours of coursework chosen from the natural science and technology Core Curriculum course list can be counted.
ii. Applied movement science majors do not need to complete the six additional hours of natural sciences (Prescribed Work 4 c ).
2. Twenty-five semester hours in the cognate in applied movement science:
a. Kinesiology 311 K , Sport Psychology
b. Kinesiology 320
c. Kinesiology 321 or Kinesiology 425K
d. Kinesiology 424 K
e. Eleven to twelve hours of health education or kinesiology electives
f. In place of biology and chemistry, nine hours of coursework chosen from the natural science and technology Core Curriculum course list can be counted
3. Either a specialization in the Department of Kinesiology and Health Education, a minor outside the department, a certificate, or a track in a second field of study which consist of a minimum of 15 hours of coursework, six of which must be upper-division. No more than six hours in the minor may also be counted toward other degree requirements. Information about approved areas of study and specific courses that may be used is available in the Student Dean's Office, George I. Sánchez Building 216.

## Exercise Science

Students who plan to major in exercise science must apply for admission to the program. A student's grade point average and completion of prescribed prerequisite coursework are factors in the admission decision. Information about admission requirements is available from an academic adviser.

Exercise science majors must complete the following:

1. The Prescribed Work described above, with the following modifications:
a. To fulfill the mathematics requirement, exercise science majors must complete Mathematics $408 \mathrm{C}, 408 \mathrm{~K}$, or 408 N . The calculus course may also be counted toward the mathematics requirement of the core curriculum.
b. To fulfill the natural science requirement, exercise science majors must complete Biology 311C, Chemistry 301 and 302, and Physics 302 K and 102M. Chemistry may also be counted toward part I of the science and technology requirement of the Core

Curriculum; Biology 311C or Physics 302K may also be counted toward part II of that requirement.
2. Twenty-three semester hours in the cognate in exercise science:
a. Kinesiology 424 K
b. Kinesiology 425 K
c. Kinesiology 326 K
d. Three hours chosen from Kinesiology 321M, 335C, and 336
e. Nine hours of exercise science electives; approved courses available in the Student Dean's Office, George I. Sánchez Building 216.
3. Either a specialization in the Department of Kinesiology and Health Education, a minor outside the department, a certificate, or a track in a second field of study which consist of a minimum of 15 hours of coursework, six of which must be upper-division. No more than six hours in the minor may also be counted toward other degree requirements. Information about approved areas of study and specific courses that may be used is available in the Student Dean's Office, George I. Sánchez Building 216.

## Health Promotion and Behavioral Science

Health promotion and behavioral science majors must complete the following:

1. The Prescribed Work above, with the following modifications:
a. In place of biology and chemistry, nine hours of coursework chosen from the natural science and technology Core Curriculum course list can be counted.
b. Health Promotion and Behavioral Science majors do not need to complete the six additional hours of natural sciences (Prescribed Work 4c).
c. Communication Studies 306M
2. Eighteen semester hours in the cognate in health promotion:
a. Health Education 343
b. Health Education 350
c. Health Education 351
d. Health Education 373
e. Six hours of health promotion and behavioral science electives; approved courses available in the Student Dean's Office, George I. Sánchez Building 216.
3. Either a specialization in the Department of Kinesiology and Health Education, a minor outside the department, a certificate, or a track in a second field of study which consist of a minimum of 15 hours of coursework, six of which must be upper-division. No more than six hours in the minor may also be counted toward other degree requirements. Information about approved areas of study and specific courses that may be used is available in the Student Dean's Office, George I. Sánchez Building 216.

## Physical Culture and Sports

Physical culture and sports majors must complete the following:

1. The Prescribed Work, with the following modification to the natural science requirement:
a. In place of biology and chemistry, nine hours of coursework chosen from the natural science and technology Core Curriculum course list can be counted.
b. In place of six additional hours of natural science (prescribed work requirement 4c), three hours of coursework in computer applications.
2. Twenty-one semester hours in the cognate in physical culture and sports:
a. Kinesiology 312 (Topic: 5: Sport Industry in America)
b. Kinesiology 349
c. Six semester hours of physical culture and sports electives chosen from Kinesiology $311 \mathrm{~K}, 312$ (Topic 4: Philosophy and Leadership in Sport and Physical Activity), 348, 350, 352K (Topic 5: Sport, Fitness, and Mass Media), 352K (Topic 6: Race and Sport in African-American Life), 355, 361, 362, and 363.
d. Three hours from Kinesiology 350 or Kinesiology 352K (Topic 6: Race and Sport in African-American Life), whichever is not used in 2c.
e. Kinesiology 351
f. Kinesiology 352K (Topic 32: History of Physical Culture)
3. Either a specialization in the Department of Kinesiology and Health Education, a minor outside the department, a certificate, or a track in a second field of study which consist of a minimum of 15 hours of coursework, six of which must be upper-division. No more than six hours in the minor may also be counted toward other degree requirements. Information about approved areas of study and specific courses that may be used is available in the Student Dean's Office, George I. Sánchez Building 216.

## Sport Management

Students who plan to major in sport management must apply for admission to the program. A student's grade point average, volunteer and work experiences, and completion of prescribed prerequisite coursework are factors in the admission decision. Information about admission requirements is available from an academic advisor.

Sport management majors must complete the following:

1. The Prescribed Work described, with the following modifications:
a. Sport management majors must complete an economics course to fulfill the second part of the social science requirement.
b. In fulfilling the natural science requirement, the student must complete the following
i. In place of biology and chemistry, nine hours of coursework chosen from the natural science and technology Core Curriculum course list can be counted.
ii. In place of six additional hours of natural science (prescribed work 4c), three hours of coursework in computer applications.
c. Communication Studies 306M.
2. Twenty-one semester hours in the cognate in sport management:
a. Kinesiology 312 (Topic 5: The Sport Industry in America)
b. Kinesiology 350 or Kinesiology 352K (Topic 6: Race and Sport in African-American Life)
c. Kinesiology 353
d. Kinesiology 354
e. Kinesiology 355
f. Kinesiology 356
g. Kinesiology 357
3. Kinesiology 628, or 328C and three semester hours of a kinesiology or health education elective.
4. Either a specialization in the Department of Kinesiology and Health Education, a minor outside the department, a certificate, or a track in a second field of study which consist of a minimum of 15 hours of coursework, six of which must be upper-division. No more than six hours in the minor may also be counted toward other degree requirements. Information about approved areas of study and specific courses that may be used is available in the Student Dean's Office, George I. Sánchez Building 216.

## Electives

Additional electives may be required to provide the total number of semester hours required for the student's major. No more than 12 semester hours of fieldwork and/or internship courses may be counted toward the degree.

## Minor and Certificate Programs

## Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minors and Certificate Programs (p. 13) section of the Undergraduate Catalog.

## Educational Psychology Minor

## Requirements

Hours
Completion of 15 undergraduate semester credit hours in educational psychology, six of which must be upper-division hours.
Please Note:
Information about available courses and the certification process documenting completion of the minor is available from the Department of Educational Psychology, George I. Sanchez Building 504.

## Kinesiology and Health Education Minor

## Requirements <br> Hours

A cumulative 2.5 The University of Texas at Austin GPA for admission
Completion of 15 undergraduate semester credit hours in
Kinesiology (KIN) or Health Education (HED), six of which must be upper-division hours.
Please Note:
Information about available courses and the certification process documenting completion of the minor is available from the Student Dean's Office, George I. Sanchez Building 216.

## Urban Teachers Minor

By admission only
The Urban Teachers minor prepares students for secondary teacher certification in English/Language Arts or Social Studies.

- The Urban Teachers minor requires a three-semester commitment (summer, fall, spring)
- Admission into the Urban Teachers minor requires a 2.5 overall UT GPA

Eighteen semester hours of required Urban Teachers coursework must be completed as follows:

Requirements Hours
Six hours from:

| ALD 327 | Sociocultural Influences on <br> Learning |
| :--- | :--- |
| EDC 350 | Topics in Educational Studies |
|  | (Topic 3: Teaching Secondary <br> Social Studies) |


| or EDC 339F | Adolescent Literacy |  |
| :---: | :---: | :---: |
| Three hours from: |  | 3 |
| EDC 370 S | Secondary School Subjects (Topic 1: Advanced Methods in English, Language Arts, and Reading) |  |
| EDC 370 S | Secondary School Subjects (Topic <br> 3: Advanced Methods in Social Studies) |  |
| Nine hours from: |  | 9 |
| EDC 351S | Secondary School Teaching Practicum (Topic 1: Secondary School Teaching Practicum: English) |  |
| and |  |  |
| EDC 671S | Praxis for Student Teaching (Topic 1: Secondary English) |  |
| OR |  |  |
| EDC 371 S | Praxis for Student Teaching (Topic 1: Secondary English) |  |
| and |  |  |
| EDC 651S | Secondary School Teaching Practicum (Topic 1: School Teaching Practicum: English) |  |
| OR |  |  |
| EDC 351S | Secondary School Teaching <br> Practicum (Topic 2: Secondary <br> Teaching School Practicum: Social Studies) |  |
| and |  |  |
| EDC 671S | Praxis for Student Teaching (Topic 4: Secondary Social Studies) |  |
| OR |  |  |
| EDC 371 S | Praxis for Student Teaching (Topic 4: Secondary Social Studies) |  |
| and |  |  |
| EDC 651S | Secondary School Teaching <br> Practicum (Topic 2: Secondary <br> Teaching School Practicum: Social Studies) |  |

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed at the college level: Applied Learning and Development (ALD).

For courses offered by each department within the College of Education, please see the corresponding department page in the following sections.

## Department of Curriculum and Instruction

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Curriculum and Instruction: Curriculum and Instruction (EDC), Foreign Language Education (FLE), and Science, Technology, Engineering, and Mathematics Education (STM).

## Department of Educational Leadership and Policy

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Educational Leadership and Policy: Educational Leadership and Policy (ELP).

## Department of Educational Psychology

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Educational Psychology: Educational Psychology (EDP).

## Department of Kinesiology and Health Education

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Kinesiology and Health Education: Health Education (HED), Kinesiology (KIN), and Physical Education (PED).

## Science Education Center

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Science Education Center. Science (SCI).

## Special Education

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Special Education: Special Education (SED).

# Cockrell School of Engineering 

Sharon L. Wood, PhD, PE, Dean<br>Gerald E. Speitel Jr., PhD, PE, Associate Dean for Academic Affairs John G. Ekerdt, PhD, PE, Associate Dean for Research<br>Christopher Higgins, Chief Development Officer<br>Michelle G. Meyer, MEd, Assistant Dean for Engineering Student Services Wesley G. Queen, BBA, Assistant Dean for Business Affairs http://www.engr.utexas.edu/

## General Information

## Mission

The mission of the Cockrell School of Engineering is to achieve excellence in undergraduate and graduate education, research, and public service. The school strives to provide an educational experience that inspires students to reach for the highest levels of intellectual attainment and personal growth throughout their lives, to provide a scholarly and professional environment that enables students and faculty members to make lasting contributions to the advancement of knowledge and the creative practice of engineering, to engage in service that enhances the public's understanding of technology and facilitates the use of technology for the betterment of society, and to lead the nation in providing equality of opportunity for engineering education.

Engineering education affords individuals the opportunity to prepare themselves for life in an era when human well-being depends more than ever before on the ability to apply technology for the benefit of society. It has become clear that in producing the goods and services demanded by an expanding population, we must consider the effects of technology on the environment. Solution of many of the problems faced by society today will involve a high level of technology.

Engineers are involved with all the devices and systems made by and for people-buildings and factories, transportation and communication systems, equipment for generating and distributing electrical energy, computers and electronic devices; indeed, all of the manufactured products we see around us. Engineers of diverse backgrounds working together and with other professionals have produced heart pumps, surgical lasers, robotics for manufacturing and construction, polymers, safer and more efficient nuclear reactors, advances in space research and in environmental protection, safe and attractive bridges, satellites and telecommunication systems, and small but powerful computers. Just as much of the technology being applied today has been developed within the past ten years, the solution of tomorrow's problems will require the development of new technology through engineering research.

In addition to its traditional function of giving men and women the opportunity to prepare for careers as professional engineers, the Cockrell School of Engineering also has a second function: providing the opportunity to acquire a technical background to students who plan to continue their education in areas such as business, public affairs, law, medicine, and scientific disciplines related to engineering. The engineering faculty willingly accepts its obligation to enhance cooperation between engineers and others working to improve the quality of life.

The school is organized into academic departments that offer a variety of degrees. Although there are distinct differences among the degree programs, they have much in common; all are based on a foundation of mathematics, natural sciences, and basic engineering subjects. Following the development of an adequate foundation during the first
two years, an engineering student begins concentrated study in a particular area. During the senior year the student delves into practical engineering problems, developing skills in defining a problem, translating available information into equations that can be analyzed logically, creating additional information when necessary, and choosing a course of action that has a reasonable chance of producing the desired results.

The school seeks to give students the knowledge necessary to take advantage of opportunities in a number of areas. The engineer who begins a professional career immediately following graduation usually will find opportunity for a variety of responsible positions in industry and government. The first assignments usually are of a technical nature. Later, one may choose to become a technical specialist or to move into positions involving administration and management. Either choice can lead to a rewarding professional career.

Many engineering graduates elect to continue their education. Studies by the American Society for Engineering Education indicate that nearly 50 percent of all engineering graduates eventually earn a master's degree. Most do their graduate work in engineering, either in a professional program where advanced design techniques are emphasized or in a graduate school where the emphasis is on research. Others elect to enroll in graduate programs in other disciplines. The flexibility to accommodate a broad spectrum of educational objectives has been incorporated into the degree structure of the Cockrell School of Engineering through technical area options and electives that permit students to define programs of study that best suit their needs.

## History

The Department of Engineering was established in 1884, an outgrowth of work in applied mathematics first offered in the Department of Literature, Science, and Arts. About 1920, the department became a college; in 2007, the college was renamed the Cockrell School of Engineering in honor of Ernest Cockrell Jr., an alumnus and benefactor of the University. The first degree in engineering, a Bachelor of Science with a major in civil engineering, was conferred in 1888. Civil engineering degrees have been conferred since 1894 and electrical engineering degrees since 1896.

Degrees in architecture were conferred in the College of Engineering from 1909 through 1951, when the School of Architecture became an autonomous division of the University. Degrees in chemical engineering have been conferred since 1916; degrees in mechanical engineering since 1919; degrees in architectural engineering since 1928; degrees in petroleum engineering since 1931; degrees in aeronautical engineering from 1943 to 1959 and in aerospace engineering since 1960; degrees in ceramic engineering from 1948 to 1961; degrees in meteorology from 1951 to 1963; degrees in geosystems engineering and hydrogeology, offered jointly with the Jackson School of Geosciences, since 1996; and undergraduate degrees in biomedical engineering beginning in 2002. A degree in engineering science was offered from 1960 until 1988.

## Facilities

The Cockrell School occupies six buildings on the central campus, with a total of $1,340,000$ 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 main campus.

## Research Organizations

Faculty members and students of the Cockrell School of Engineering may participate in a wide variety of research projects conducted under the Bureau of Engineering Research. The bureau and its component research units are supported by federal, state, and industrial research contracts and grants that provide part-time employment for selected
undergraduate and graduate students and for some faculty members. More than six hundred individual research projects are usually underway at any one time. In addition to providing students with experience in research methodology, these research projects enable faculty members to keep abreast of developments in their principal areas of interest.

Research units currently operating within the Bureau of Engineering Research are the Center for Aeromechanics Research; Center for Electromechanics; Center for Energy and Environmental Resources; Center for Engineering Education; Center for Mechanics of Solids, Structures, and Materials; Center for Petroleum and Geosystems Engineering; Center for Water and the Environment; Center for Space Research; Center for Transportation Research; Construction Industry Institute; Phil M. Ferguson Structural Engineering Laboratory; Microelectronics Research Center; Nanomanufacturing Systems for Mobile Computing and Mobile Energy Technologies Center; and the Wireless Networking and Communications Group.

The Nuclear Engineering Teaching Laboratory is an academic unit of the Cockrell School. Interdisciplinary research units operated cooperatively by the school and other colleges are the Energy Institute; Texas Materials Institute; the Center for Perceptual Systems; and the Institute for Computational Engineering and Sciences.

## Libraries

Staff and collections of the Richard W. McKinney Engineering Library support teaching, learning, and research in all fields offered by the Cockrell School of Engineering. The library, located in the Engineering Education and Research Center (EER) 1.706, is a branch of the University Libraries. Library webpages link to materials, guides, and contact information.

Other units of the University Libraries include the Perry-Castañeda Library (social sciences and humanities), Mallet Chemistry Collection, Kuehne Physics-Math-Astronomy Library, Life Science Library, Marine Science Library, and Walter Geology Library. The print and electronic collections of these and other library components form one of the largest academic libraries in the United States.

The Fine Arts Library houses a makerspace, available to students in all majors. Computer workstations, scanning equipment, and printing are available to students at each library location.

Assistance with finding and using library resources is offered in person, by contacting individual members of the library staff, and through Ask a Librarian services.

## Engineering Development Office

In 1955, the University of Texas System Board of Regents authorized establishment of the Engineering Foundation Advisory Council (renamed the Engineering Advisory Board in 2007) to promote academic excellence in engineering education. Since then, with the board's leadership, the Cockrell School of Engineering has received generous support from individuals and corporations to develop programs of excellence. This philanthropy supports academic and leadership programs for students, scholarships for undergraduate students, fellowships for graduate students, facility development, and faculty support in the forms of endowed chairs and professorships, fellowships, and innovations in teaching and research. The Cockrell School's development staff encourages gifts to the school through the annual giving program, the establishment of endowments, estate planning, and the fostering of longlasting relationships with alumni, friends, and corporate partners.

## Financial Assistance through the School Engineering Scholarship Program

The Engineering Scholarship Program recognizes students in the Cockrell School of Engineering with scholarship awards based primarily on merit and leadership. To be considered for engineering scholarships, future students can submit either the ApplyTexas application or the Coalition for College application through the University by December 1 , completing the scholarship section and marking engineering as their first-choice major. Additionally, students should acknowledge the Engineering Honors Program question with their interest on the admission application, also due by December 1 .

Current engineering students should complete the online engineering scholarship application by April 1 each year to be considered for scholarship awards from the Cockrell School and from their department for the following year. Information for scholarship recipients and links to additional scholarship resources is available at https:// students.engr.utexas.edu/policies-forms/scholarship-policies

## Student Services

## Engineering Student Services

Engineering Student Services (ESS) serves the University and the public by helping to recruit, retain, and graduate engineering students. The office aims to accomplish this mission by providing personal and responsive guidance and support throughout each student's University experience. The staff strives to provide a foundation for students to develop successful lives, careers, and long-term relationships with the Cockrell School of Engineering and The University of Texas at Austin.

The Assistant Dean for Engineering Student Services and the academic advisors represent the dean in all student matters. Academic advisors strive to build a strong foundation for academic and professional success for all engineering students, through personalized and responsive guidance throughout the four-year college experience. In addition, the ESS staff helps students, staff, and faculty navigate the policies and procedures of the Cockrell School and the University. Students may seek assistance in person in the Engineering Education and Research Center (EER) 2.848, by phone at (512) 471-4321, or by email to studentservices@engr.utexas.edu. Engineering Student Services also provides information online at https://students.engr.utexas.edu/ academics-advising/advising.

## Advising

## Academic Advising

There are several offices within the Cockrell School that work together to provide the engineering student with academic advising services. It is the engineering student's responsibility to be aware of these services and to take advantage of them. Faculty, departmental, and Engineering Student Services academic advisors are available throughout the year to discuss matters that affect the student's academic progress toward degree completion.

To facilitate movement through an academic program, each engineering student must be advised in his or her major department before registering for each semester or summer session. Each student should review his or her audit every semester through IDA, the University's Interactive Degree Audit system. The advising audit lists the courses remaining in the student's degree plan and the requirements the student has not yet fulfilled. It normally provides an accurate statement of requirements, but the student is responsible for knowing the exact requirements for the degree as stated in a catalog under which he or she is entitled to graduate.

## Counseling and Referral Services

University counseling services are available from the Counseling and Mental Health Center, the Telephone Counseling Service and University Health Services. These offices are described in General Information Catalog.

## Counselors in Academic Residence Program (CARE)

CARE is a program of the Counseling and Mental Health Center, which provides a licensed mental health professional to work with students who have been referred by faculty and staff. CARE counselors integrate in the college and provide support and consultation on mental health issues for advisors, faculty and dean's staff. The Engineering CARE counselor is located in the Engineering Student Services Office.

## Student Organizations and Programs

Engineering Student Life
Engineering Student Life (ESL) aims to enhance leadership abilities of all engineering students as a means to establish confidence in communication, teamwork and ethics skills needed for the professional world. ESL hosts professional development retreats like The LeaderShape Institute and Ramshorn Retreats, for individuals seeking personal enrichment, which also include enhanced leadership opportunities for advanced students. As the Cockrell School's primary liaison to the over eighty-five engineering student organizations, ESL provides officer training and advising for group leaders. To foster a welcoming and collaborative environment within the Cockrell School, ESL coordinates community building events like Gone to Engineering and Dean's Study Breaks. These professional development and social networking opportunities augment the student's college experience by allowing them to interact with other motivated students, provide venues to envision big goals, and practice partnering to accomplish complex projects.

Additional information about Engineering Student Life and engineering student organizations is available in person in the Engineering Education and Research Center (EER) 2.848, online at https:// students.engr.utexas.edu/student-life-resources, by phone at (512) 232-5778, and by e-mail at studentlife@engr.utexas.edu.

## Ramshorn Scholars Program

The Ramshorn Scholars Program (RSP) is an engineering academic learning community designed to facilitate student success in engineering and at UT Austin. As a part of the Ramshorn Scholars Program, student status as an engineer-in-training is kept front and center through interactive programming and specialized resources.

RSP aims to create a community that promotes and helps students achieve academic excellence. In fact, the Ramshorn is a symbol with deep roots in the Cockrell School that has defined academic achievements for our student engineers for decades.

Additional information about RSP is available in person in the Engineering Education and Research Center (EER) 2.848, online at https://students.engr.utexas.edu/support-services/ramshorn-scholars-program, by phone at (512) 471-4321, and by e-mail to ramshornscholars@engr.utexas.edu.

## Equal Opportunity in Engineering Program

The Equal Opportunity in Engineering (EOE) Program invites students to become part of an exciting community that focuses on academic success and personal growth. EOE initiatives such as the Fall KickOff, First-Year Interest Groups (FIGs), and Engineering Peer Leaders
help students establish a strong academic foundation and promote the formation of a peer support network. In addition, EOE provides students with access to tutoring, undergraduate research opportunities through the Texas Research Experience (TREX) program, and professional development workshops. In partnership with Pi Sigma Pi Minority Academic Engineering Society, the National Society of Black Engineers, and the Society of Hispanic Professional Engineers, the EOE Program builds a network that makes it easy to meet other engineering students, form study groups, and develop friendships that last well after graduation.

The Cockrell School established the EOE Program in 1970 to promote the recruitment and academic development of African American, Hispanic, and Native American students interested in pursuing careers in engineering. Since that time, EOE has expanded its goals and now seeks to increase the diversity of its student body by supporting students who come from historically underrepresented population groups in Texas or who have backgrounds or experiences that will contribute to the overall diversity of the Cockrell School of Engineering.

Additional information about the EOE Program is available in person in the Engineering Education and Research Center (EER) 2.608, online at http://www.engr.utexas.edu/eoe/, by phone at (512) 471-5953, and by e-mail to eoe@engr.utexas.edu.

## Women in Engineering Program

The Women in Engineering Program (WEP) has a goal to increase the overall percentage of women enrolled in and graduating from the Cockrell School of Engineering. WEP connects students, educators, and professionals to the world of engineering through recruitment initiatives, supportive structures, and educational services to promote the success and advancement of women in engineering.

WEP's First-Year Initiative (FYI) provides academic and peer support to connect first-year students to the engineering community. The Women in their Second Year of Engineering (WISE) and Consider Every Option (CEO) programs and workshops provide career exploration opportunities to help second-year students and beyond discover possibilities and make informed decisions for the future. Graduates Linked with Undergraduates in Engineering (GLUE) gives students opportunities to gain practical research experience, and WEP leadership and career development seminars help prepare students for leadership roles in the engineering profession.

Additional information about WEP is available in person in the Engineering Education and Research Center (EER) 2.608, online at http:// www.engr.utexas.edu/wep/; by phone at (512) 471-5650; and by e-mail at wep@engr.utexas.edu.

## Career Services

The Engineering Career Assistance Center (ECAC) helps engineering students with job search and career planning through counseling, workshops, and campus recruiting and interviews. Engineering students should register with ECAC beginning in August each academic year to receive full benefit of the center's services.

ECAC offers individual career counseling services to engineering students on a walk-in basis and by appointment. Topics addressed in individual counseling sessions and workshops include career planning and exploration, résumé writing, interviews, site visits, and evaluating job offers.

ECAC hosts interviews in its 27 interview rooms throughout the fall and spring recruiting seasons. Employers seek graduating students, co-op students, and summer interns in all engineering disciplines.

ECAC encourages engineering students to visit our office in person in the Engineering Education and Research Center (EER) 2.604. Engineering students can also visit ECAC online at http://www.engr.utexas.edu/ student-life/career-services and reach out to ECAC via e-mail at ecac@engr.utexas.edu or phone at (512) 471-1915.

## Cooperative Engineering Education Program

The Cooperative Engineering Education (Co-op) Program is an academic program that allows undergraduate students to obtain full-time engineering experience before they graduate. Students gain work experience directly related to their field of engineering by alternating semesters of full-time campus study with training in industry.

To realize the full academic and professional value of the Co-op Program, students complete either two or three semesters with the same employer in a cooperative engineering position. Students receive two or three hours of letter-grade credit that may be applied toward the engineering degree. Students should apply for the Co-op Program at least one semester before planning to begin a co-op work term.

Students may apply for the first work term after completing 28 semester hours of basic sequence coursework, which includes eight hours of physics, eight hours of calculus, and at least one course in the selected engineering major. Students must have an overall University grade point average (GPA) of at least 2.50, a GPA in the major area of study of at least 2.00, and at least twelve semester hours of degree-applicable coursework left to complete after the final co-op term. Students may apply for the program after one semester at the University.

Engineering students can visit the Co-op Program in EER or online at http://www.engr.utexas.edu/ecac/coop/. Engineering students can reach the Co-op Program via e-mail at co-op@engr.utexas.edu, or by phone at (512) 471-5954.

## UTeach-Engineering

UTeach-Engineering is an innovative program that prepares engineering students to teach mathematics, physical science, and engineering to students in grades eight through twelve.The program, a collaboration between the Cockrell School of Engineering, the College of Natural Sciences, the College of Education, and area school districts, seeks to attract interested students to explore teaching in conjunction with their undergraduate experience.Upon completing the program, students graduate with a bachelor's degree and are recommended for a secondary school teaching certificate.The UTeach-Engineering program invites students to explore their interest in teaching as early as the freshman year. Key features of the program include field experience, mentorship, seminar instruction, cohort support and innovative use of technology. UTeach-Engineering students gain experience in public school classrooms as they teach progressively longer lessons under the guidance of a mentor teacher.By working with some of Texas's most respected secondary school teachers, students quickly learn whether they are suited for the teaching profession.

## Study Abroad

International Engineering Education offers programs designed for Longhorn Engineers so they can take study abroad first-hand without delaying graduation. Participants may apply their scholarships and financial aid loans to all necessary costs, including tuition and fees, required travel, insurance and living expenses. Most programs do not have any foreign language requirements so students may take engineering courses while also exploring global innovation, entrepreneurship, and service through immersion in industry, laboratories and communities abroad.

As one of the best engineering schools in the country, the Cockrell School of Engineering prides itself in providing international engineering education opportunities to prepare its students to become global leaders and innovators. For this generation of engineers, developing an international perspective and global leadership skills is fundamental. The engineering profession has a central role in the globalized marketplace. Industry leaders and government experts urge engineering students to immerse themselves in other cultures to learn to effectively work and successfully compete but also to collaborate with other countries on special projects, products, and solutions for the global challenges of the twenty-first century. Engineers lead the world in developing and managing high technologies and companies that improve and affect our daily quality of life, health, security, education, economy, and world peace.

We offer a variety of programs for all majors and class levels so that every interested student can find an opportunity. Students may study abroad as early as the end of their first year. Maymesters, typically starting at the end of May, offer one course abroad that is taught by outstanding Cockrell School of Engineering faculty. They offer invaluable faculty mentorship and academic inspiration to students throughout their career. Most short summer programs are between four to 8 weeks and offered from the end of May to the beginning of August. They may offer more than one course. The costs of these programs vary depending on location, duration and activities.

Advanced sophomores, juniors and fall semester seniors may participate in bilateral exchanges with selected partner universities abroad. Exchange students immerse themselves fully in another academic and cultural environment for at least four months during the fall or the spring or both semesters. They take a full load of courses from the host university's regular university offerings. The courses are usually offered in English or, if the student is sufficiently proficient, they may also study in courses offered in the host country's language. Students pay the same tuition and fees that they pay to attend The University of Texas at Austin. The other living expenses vary depending on the location.

Apart from the traditional summer study abroad, we also offer engineering students other types of international programs that provide very valuable experiential learning. These are usually in the summer and include industry and research immersion internships. Projects with Underserved Communities (PUC) offers a fall and spring engineering course sequence that focuses on project development and project management to prepare students for a short summer implementation phase at a community abroad.

All engineering students are highly encouraged to participate in at least one global learning experience. The International Engineering Education office holds frequent information session sessions and one-on-one advising to help students plan how to globalize their education and select a program that best suits their interests. For more information, please visit http://www.engr.utexas.edu/academics/undergraduate-education/study-abroad/.

## Admission and Registration

## Admission

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. All students who wish to major in engineering must be admitted to the University according to the procedures given in the General Information Catalog.

Information is available from The University of Texas at Austin, Engineering Education and Research Center (EER), Cockrell School of

Engineering, 2501 Speedway, C2108, Austin TX 78712. The telephone number is (512) 471-4321.

Students who have questions about the requirements of a specific degree plan should contact the appropriate departmental advising office. Additional information about academic advising can be found at http:// www.engr.utexas.edu/undergraduate/advising.

## Freshman Admission

Freshman applicants seeking admission to the Cockrell School must meet the calculus readiness requirement by the official admissions application deadline. More information about calculus readiness is available at http://www.engr.utexas.edu/undergraduate/admission/ calculus/.

Applicants to the Cockrell School may submit the ApplyTexas application or the Coalition for College Access, Affordability and Success application and select engineering as a first-choice major. When selecting a secondchoice major, freshman applicants may choose from one of the many other majors offered at the University, and choose a second major that aligns with their interests.

## Transfer Admission

## Internal Transfer

Internal transfer describes the process of a currently enrolled undergraduate student at The University of Texas at Austin moving from one college to another or moving within the Cockrell School from one major to another. Students must apply for internal transfer into Cockrell School majors through an online application. Admission is competitive and based on space availability. Students must meet ALL of the requirements below to be considered for transfer into a major in the Cockrell School of Engineering. Coursework and GPA for the semester in which a student applies for a change of major will be included in the transfer application. The University of Texas at Austin degree holders seeking a second degree in engineering should contact Engineering Student Services for information on a separate application process.

## Requirements and Application Deadlines

## First-Semester Engineering Students

- Proposed semester for transfer: spring
- Current college of enrollment: Cockrell School of Engineering
- Required in-residence credit hours completed: 12 hours minimum (credit by exam, UT Correspondence, UT Extension and transfer hours from another university are not counted)
- Minimum cumulative in-residence GPA 3:0
- Minimum GPA in all required technical courses for proposed major. 3:0
- Required courses completed before transfer. Mathematics 408C (or math course beyond M 408C) in residence; a minimum of one other in-residence technical course toward your proposed major. Technical courses include math, science, and departmental courses for proposed engineering major
- Application deadline: December 15 (application opens November 15)


## Continuing Engineering Students

- Proposed semester for transfer: summer, fall, or spring
- Current college of enrollment: Cockrell School of Engineering
- Required in-residence credit hours completed: 24 hours minimum (credit by exam, UT Correspondence, UT Extension and transfer hours from another university are not counted)
- Minimum cumulative in-residence GPA 3:0
- Minimum GPA in all required technical courses for proposed major 3:0
- Required courses completed before transfer. Mathematics 408D or 408M; Physics 303K and 103M; a minimum of four in-residence technical courses toward your proposed major. Technical courses include math, science, and departmental courses for a proposed engineering major
- Application deadline: December 15 for spring transfer (application opens November 15) or May 15 for summer/fall transfer (application opens April 15)


## All Other UT Austin Students

- Proposed semester for transfer. fall
- Current college of enrollment: Any UT college except the Cockrell School of Engineering
- Semesters completed at UT Austin before transfer. four long semesters (fall/spring) or less
- Required in-residence credit hours completed: 24 hours minimum and 60 hours maximum (credit by exam, UT Correspondence, UT Extension and transfer hours from another university are not counted)
- Minimum cumulative in-residence GPA: 3.0
- Minimum GPA in all required technical courses for proposed major 3.0
- Required courses completed before transfer. Mathematics 408D or 408M; Physics 303 K and Physics 103M; a minimum of four inresidence technical courses toward your proposed major. Technical courses include mathematics, science, and departmental courses for a proposed engineering major
- No more than one previous attempt to transfer into the Cockrell School is permitted. Third applications are not allowed. An application for two different engineering majors in the same semester counts as one single attempt. Any attempts before September 2013 will not count towards the two-attempt limit.
- Application deadline: May 15 (application opens April 15)


## External Transfer

External transfer applicants will be required to meet the following minimum criteria to be considered for admission to an engineering major:

- Transfer credit for Mathematics 408L, 408M, or 408D
- Transfer credit for Physics 303K and 103M
- Transfer credit for at least four technical courses, including the mathematics and physics coursework listed above. Technical courses include courses offered in math, physics, chemistry, biology, geology, computer science, or engineering.


## 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 the General Information Catalog. All transfer applicants must submit transcripts of all college and high school coursework.
2. Only courses listed in the student's engineering degree program, or equivalent courses accepted by the department chair and approved by the dean, may be counted toward an engineering degree. A course may therefore be accepted for transfer credit but not be applicable toward an engineering degree.
3. Courses that are common to all degree programs in the Cockrell School are listed in Requirements Included in All Engineering Degree Plans (p. 111). These may be taken at any school offering courses acceptable for transfer to the University.
4. Completion of sequences of technical courses in the major area sometimes requires five or more semesters. Therefore, most transfer students should anticipate a minimum of five semesters in residence at the University.

## Registration

The General Information Catalog gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule, published online before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes.

To register for a course, a student must fulfill the prerequisite given in the catalog or course schedule. If the student has not fulfilled the prerequisite, he or she must obtain the approval of the department offering the course before registering for it.

## Concurrent Enrollment

Concurrent enrollment refers to taking courses through The University of Texas at Austin Extension (UEX) program, or taking courses at another university or a community college. An engineering student must have the approval of the dean for concurrent enrollment. Application for this approval should be made online at https://students.engr.utexas.edu/ policies-forms/concurrent-enrollment. A student may not enroll concurrently in any course counted toward the degree in the semester he or she will be graduating. More information about the approval process is available in the Engineering Student Services located in the Engineering Education Research Center (EER) 2.848, by email at studentservices@engr.utexas.edu (student-affairs@engr.utexas.edu); or by phone at (512) 471-4321.

## Academic Policies and Procedures

## Grade Point Average for Academic Decisions

In the Cockrell School of Engineering, the grade point average used in all academic decisions is the average of grades the student has earned in residence in courses applicable to the degree. Academic decisions are decisions about engineering probation, engineering dismissal, internal transfer (change of major), admission to the Engineering Honors Program, designation as an Engineering Scholar, eligibility for graduation, and eligibility for graduation with University Honors.

## Quantity of Work Rule

## Maximum Number of Hours in the Long Session

As used in items 1 and 2 below, "coursework" includes correspondence courses, extension courses, distance education courses, nonrequired electives, physical activity courses, and courses for which the student is registered concurrently at another institution.

1. An engineering student may not register for more than 17 semester hours of coursework without an approved application to do so. Application is made online at https://students.engr.utexas.edu/ policies-forms
2. No student may register for more than 21 semester hours of coursework during any long-session semester.

## Rules for the Summer Session

A student may not receive credit for more than 14 semester hours during a 12-week summer session or for more than eight semester hours in a six-week summer term. These limits apply whether the courses are taken at the University or another institution. For more information about the quantity of work allowed in the summer, see the General Information Catalog.

## Repetition of a Course

An undergraduate in the Cockrell School may not enroll in any lower division courses in engineering, geology or natural sciences required by the engineering degree plan more than twice. A symbol of $Q$ or $W$ counts as an enrollment unless it is recognized as nonacademic by the dean's office. Undergraduates will receive a secure academic note (SAN) with permission to enroll in a course for a third attempt if the student has a symbol Q or W in earlier attempts that is recognized as nonacademic by the dean's office.

To request permission to enroll in a course for a third or more attempt a student must submit a written appeal at https:// students.engr.utexas.edu/policies-forms. A student may receive departmental adviser approval to enroll in a course a third or more times only if the student has a substantiated nonacademic reason for not successfully completing the course in earlier attempts. Documentation may be required by the departmental adviser to support the substantiated nonacademic reason. If the student is denied approval to enroll in a required course, he or she will be placed in the undeclared major code and must consider other eligible degree options.

A student who is denied approval to repeat a course in residence at the University will also be denied approval to complete the course by transfer, extension, correspondence, distance education, or credit by examination and then count it toward the degree.

A student in the Cockrell School may not repeat for a letter grade a course in which he or she has earned a grade of $C$ - or better.

## Attendance

Engineering students are expected to attend all meetings of the classes for which they are registered. Students who fail to attend class regularly are inviting scholastic difficulty. In some courses, instructors may have special attendance requirements; these should be made known to students during the first week of classes. With the approval of the dean, a student may be dropped from a course with a grade of $F$ for repeated unexcused absences.

## Portable Computing Devices

All degree programs in the Cockrell School have specific expectations regarding portable computing devices. For more information, please see the catalog sections for these programs.

## Academic Standards

In addition to the scholastic standards described in the General Information Catalog, the Cockrell School imposes the following academic standards. Students who fail to meet the standards stated in the General Information Catalog are placed on "scholastic probation" by the University. The probationary status given to those who fail to meet the following school standards is "engineering probation."

In cases with extenuating circumstances, the student may appeal to the dean for a waiver of any of the following requirements.

A student is placed on engineering probation under the following circumstances:

- If his or her grade point average in courses in the major area of study taken in residence falls below 2.00. The "major area of study" includes all courses in the student's discipline and required under the student's engineering degree plan. For specific degree plans, there are additional courses included in the "major area of study":
- For architectural and civil engineering majors, the major area includes all courses in both architectural engineering and civil engineering;
- For environmental engineering majors, the major area includes all courses in architectural engineering, civil engineering and environmental engineering;
- For aerospace engineering majors, the major area includes all courses in both aerospace engineering and engineering mechanics;
- For computational engineering majors, the major area includes all courses in computational engineering, aerospace engineering and engineering mechanics
- For geosystems engineering and hydrogeology majors, the major area includes all courses in both geological sciences and petroleum and geosystems engineering.
- If the student's grade point average in required technical courses taken in residence falls below 2.00. "Required technical courses" are courses taken in the Cockrell School, the College of Natural Sciences, or the Jackson School of Geosciences and required under the student's engineering degree plan; they include approved technical elective courses.

Grades received at the University in all courses in the major area, including grades in courses that have been repeated, are included in computing the student's grade point average.

A student on engineering probation will be removed from probation at the end of a long-session semester or summer session if the student is no longer subject to engineering probation under either of the criteria above.

After being placed on engineering probation, a student must be removed from probation within the next two long-session semesters in which he or she is registered. A student who fails to be removed from engineering probation within this time will be placed on engineering dismissal from the school

A student seeking to reenter the school after having been scholastically dismissed from the University must enroll as an undeclared major unless there is a reasonable likelihood that the student can complete the degree plan under which he or she last registered. A student seeking to reenter the school after having been dismissed from engineering must enroll as an undeclared major. Students who are undeclared majors may not enroll in engineering courses

Any student having academic difficulty should discuss his or her status with an academic adviser in the Engineering Student Services Office. Call (512) 471-4321 to set up an appointment with an academic adviser.

## Pass/Fail Option

All courses required for all engineering degrees must be taken for a letter grade unless the course is offered only on the pass/fail basis or if it meets the requirements for the Cockrell School of Engineering's semester exchange grading policy for study abroad. A student may elect to take courses that do not count toward the degree or are being taken to remove a deficiency on the pass/fail basis rather than for a letter grade. To elect the pass/fail system of grading

1. The student must have received at least 30 hours of college credit before registering for any course on the pass/fail basis, unless the course is offered only on the pass/fail basis.
2. The student may take no more than two courses a semester on the pass/fail basis.
3. The student may take up to five one-semester courses, including correspondence courses, on the pass/fail basis.
4. The student must submit an application no later than the deadline given in the academic calendar at https://students.engr.utexas.edu/ policies-forms.

For information on how to receive credit by examination, see the General Information Catalog

## Grade Policy for Semester Exchange (Study Abroad) Students

With permission of the undergraduate advisor in their department, engineering students may elect to place up to four exchange courses on their records with a CR, rather than a University of Texas at Austin letter grade. The following restrictions apply:

1. Only courses completed on a semester exchange at a Cockrell School of Engineering partner institution qualify.
2. Students must choose the Pass/Fail option by the usual University mid-semester deadline given in the academic calendar and must have prior permission of their undergraduate adviser before doing so. If the exchange university does not follow the same academic calendar at The University of Texas at Austin, the student must make this request before 60 percent of the course completion (usually about nine weeks from the start of class).
3. The corresponding course in The University of Texas at Austin degree plan will determine the minimum grade requirement to obtain the $C R$ grade (i.e., if the University course required a $C$ - or better, the student must have earned the equivalent of $C$ - or better on the exchange course to receive a $C R$; in the absence of a specified minimum grade requirement, the standard is an equivalent of $D$ - or better.
4. Courses in the engineering degree program taken on exchange programs with the CR grade option may be counted toward any requirements for the degree except courses being applied toward the 42 hour, University Core Curriculum requirements.
5. No matter how many exchange courses a student takes, no more than two exchange courses per semester and no more than four total exchange courses with the $C R$ grade can be applied toward the degree.
6. Once a course is place on The University of Texas at Austin record, the grade designation may not be changed.

## Honors

## University Honors

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

## Graduation with University Honors

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

## Cockrell School Honors Program

The Cockrell School of Engineering offers a select group of students the opportunity to participate in the Engineering Honors Program (EHP), a non-curriculum based program designed to enhance the undergraduate experience outside the classroom. Participants gain access to scholarships for first-year students, honors housing, faculty mentors and community building events hosted by the EHP.

When submitting an admission application to the University through ApplyTexas or the Coalition for College Access, Affordability, and Success application, incoming first-year students should mark engineering as their first-choice major and indicate their intent to apply for honors. Students will receive additional instructions to complete the EHP application separately. Both the admission application and the EHP application are due December 1.

The Cockrell School also sends current students invitations to apply for the EHP after they complete 24 hours in residence and rank in the top 10 percent of their class and major. Eligible students must have at least 60 hours remaining in their degree program in order to receive an invitation to apply.

To remain in the EHP, students must maintain an in-residence grade point average of at least 3.50. The grade point average is evaluated each year after grades for the spring and summer semester have been awarded.

An EHP student who completes an optional undergraduate honors thesis will receive special honors designation on his or her transcript and is recognized during the graduation ceremony. Additional information about the honors thesis and the EHP is available at https:// students.engr.utexas.edu/academics-advising/honors-program.

## Engineering Scholars

Engineering Scholars are designated each spring semester from the sophomore, junior, and senior classes. To be eligible, a student must be enrolled in the Cockrell School, must have completed at least 24 semester hours of coursework in residence while enrolled in the school, must have a grade point average that places him or her in the top 5 percent of the class, be of good character, and show promise of continued success in engineering. The grade point average used to determine the student's class rank includes only courses that the student has completed in residence and that are applicable to the degree.

## Professional and Honor Societies

Professional student organizations play an important role in the life of an engineering student. Many of these are student branches of national professional engineering organizations that endeavor to advance the profession of engineering by education, service, professional development, publication, and support of meetings, activities, and conferences. In addition to a variety of professional development and social activities, engineering student organizations frequently support projects that aid students and benefit the Cockrell School of Engineering, the University, and the community.

Honor societies are also an important part of the Cockrell School student community. Honor societies admit students who have established outstanding scholastic records and have demonstrated desirable character and leadership traits. The engineering honor societies are Beta Mu Epsilon (biomedical engineering); Chi Epsilon (civil engineering); Eta Kappa Nu (electrical and computer engineering); Omega Chi Epsilon (chemical engineering); Phi Alpha Epsilon (architectural engineering); Pi Epsilon Tau (petroleum and geosystems engineering); Pi Tau Sigma (mechanical engineering); and Sigma Gamma Tau (aerospace
engineering); Tau Beta Pi selects top students from all engineering disciplines. Kappa Theta Epsilon is the cooperative engineering education honor society for all engineering majors who participate in the cooperative engineering program.

The Student Engineering Council is the governing body representing all undergraduate engineering students. Representatives to the council are elected by the professional student organizations and honor societies in the Cockrell School; members-at-large are elected annually. The Graduate Engineering Council is the governing body representing all graduate engineering students.

Engineering student organizations and honor societies are overseen by Engineering Student Life. A complete list of engineering societies is available at https://students.engr.utexas.edu/student-life-resources.

## Graduation

## Special Requirements of the School

All University students must have a grade point average of at least 2.00 to graduate. Students in the Cockrell School must also have an inresidence grade point average of at least 2.00 in all courses applicable to the degree, the major area of study and required technical courses. "Major area of study" and "required technical courses" are defined in the section "Academic Standards."

A candidate for a degree in engineering must be registered in the Cockrell School either in residence or in absentia the semester or summer session the degree is to be awarded. No later than the date given in the official academic calendar, the candidate must complete an online application form for graduation or graduation in absentia at http:// www.engr.utexas.edu/graduation/.

All individual degree programs must include at least 48 semester hours of engineering coursework.

## Residence Rules

All University students must complete in residence at least 60 semester hours of the coursework counted toward the degree. In the Cockrell School, 30 of these 60 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 24 hours of technical coursework counted toward an engineering degree must be taken while the student is registered as an undergraduate engineering major at the University. A student seeking an exception to this requirement must obtain written approval in advance from the dean. Information about the petition process is available in the Engineering Student Services Office, located in the Engineering Education and Research Center (EER).

## Degree Audit

Each student should review his or her degree audit every semester through IDA, the University's Interactive Degree Audit system. The degree audit normally provides an accurate statement of requirements, but the student is responsible for knowing the requirements for the degree as stated in a catalog under which he or she is eligible to graduate and for registering so as to fulfill these requirements; see the rules on graduation under a particular catalog (p. 20). Since the student is responsible for correct registration toward completion of the degree program, he or she should first check the requirements with their department Undergraduate Advising Office and then seek an official ruling in the Engineering Student Services Office before registering if in doubt about any requirement. Avoidance of errors is the main purpose of the degree
audit, but it remains the responsibility of the student to fulfill all catalog requirements.

## Applying for Graduation

Students must apply for graduation the first semester they are eligible to graduate. A student is eligible to graduate if their engineering degree audit is $100 \%$ complete. If a student fails to submit an application for degree by the deadline given in the academic calendar, an application for degree may be submitted by his or her academic Dean or designee. An application submitted under these circumstances cannot be canceled without a successful appeal to the Office of the Provost (Student Success Initiatives). Please refer to the Graduation Appeal Application for further information.

Please contact the Engineering Student Services Office, located in the Engineering Education and Research Center (EER) 2.848, or by phone at (512) 471-4321 for further questions.

## Nonresidence Coursework

A student in his or her final semester may not enroll concurrently at another institution in any course, including a distance education course, to be counted toward the degree. In the final semester, the student may also not enroll by extension or correspondence in coursework to be counted toward the degree. All transfer, extension, and correspondence coursework must be added to the student's official record before his or her last semester.

## 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 meets all the requirements of the second degree that he or she did not meet in completing the first degree. This process is subject to approval by the Engineering Student Services Office. No student may receive two bachelor's degrees in the same discipline of engineering, even if the technical area options are different. For example, a student may receive the degree of Bachelor of Science in Chemical Engineering and that of Bachelor of Science in Mechanical Engineering but may not receive two Bachelor of Science in Chemical Engineering degrees. A student may not receive bachelor's degrees in both architectural engineering and civil engineering.

## Commencement

In addition to the University commencement ceremony held each spring, the Cockrell School holds a commencement ceremony in May. Degree candidates intending to graduate in the current academic year and who have applied to participate are eligible to attend the May commencement ceremony. Information about graduation and commencement is available at http://www.engr.utexas.edu/graduation.

## Registration as a Professional Engineer

The practice of engineering has a profound effect on public health, safety, and welfare. Therefore, the commitment to the public good through the licensing or registration provisions available in all states and many foreign countries is an important step in the professional development of an engineer. Becoming licensed in Texas as a professional engineer requires graduation from an approved curriculum in engineering, passage of the examination requirements, and a specific record of an additional four years or more of active practice in engineering work indicating that the applicant is competent to be placed in responsible charge of such work. Additional requirements include good character and reputation.

Engineering students are encouraged to take the Fundamentals of Engineering examination during their last long-session semester and to seek certification as an "engineer in training."

For additional information, contact the Texas Board of Professional Engineers or the equivalent agency in another state.

## Degrees and Programs

To satisfy the course requirements for an engineering degree, a student must earn credit for all of the courses listed in the curriculum for that degree.

All University curricula leading to bachelor's degrees in engineering are accredited by the Engineering Accreditation Commission of ABET, www.abet.org. ABET sets minimum standards for engineering education, defined in terms of curriculum content, the quality of the faculty, and the adequacy of facilities. Graduation from an accredited program is an advantage when applying for membership in a professional society or for registration as a professional engineer.

## Dual Degree Programs

## Engineering/Plan II Honors Program

A limited number of students whose high school class standing and admission test scores indicate strong academic potential and motivation may pursue a curriculum leading to both a bachelor's degree in engineering and the Bachelor of Arts, Plan II. This dual degree option, offered jointly by the Cockrell School and the Plan II Honors Program of the College of Liberal Arts, provides the student with challenging liberal arts courses while he or she also pursues a professional degree in engineering. Admission to this program requires at least two separate applications: one to the University and one to the Plan II Honors Program. Students should contact both the Cockrell School Engineering Student Services Office, located in the Engineering Education and Research Center (EER), and the Plan II office, located in Patton Hall (RLP), for more information on applications and early deadlines.

## Architectural Engineering/Architecture

A program that leads to both the Bachelor of Science in Architectural Engineering degree and the Bachelor of Architecture degree is available to qualified students. The program combines the course requirements of both degrees and requires six years for completion. Students who wish to pursue both degrees must apply for admission to the School of Architecture according to the procedures and deadlines established by the school. The program is described in Bachelor of Architecture/ Bachelor of Science in Architectural Engineering Dual Degree Program (p. 35); additional information is available from the undergraduate advisor 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 been admitted to both degree programs.

## Technical Area Options

Several engineering degree programs require a student to select a "technical area option" and to complete a specified number of courses in that area. Other degree programs do not require a student to specify a particular option but allow the student to choose courses either within an
area of specialty or more broadly across technical areas. Although most options are designed to help the student develop greater competence in a particular aspect of the major, others permit the student to develop background knowledge in areas outside the major. In many cases, students who elect the latter options intend to continue their education in professional or graduate school; these options are particularly appropriate for students who plan to work in those interdisciplinary areas where the creation of new technology through research and development is very important.

## Preparation for Professional School

Technical area options also allow the student to fulfill the special course requirements for admission to professional schools. For more information, students should consult an advisor who is familiar with the admission requirements of the professional program in which the student is interested.

## Medical School

A properly constructed program in engineering provides excellent preparation for entering medical school. The engineer's strong background in mathematics and natural science--combined with a knowledge of such subjects as applied mechanics, fluid dynamics, heat transfer, thermodynamics, chemical kinetics, diffusion, and electricity and magnetism--enhance the mastery of many aspects of medical science. An engineering background is also useful to those who develop and use new instruments for detecting and monitoring medical abnormalities. The engineering/premedical programs described in this catalog usually afford opportunities to pursue alternative vocations for those who do not enter medical school. Students who intend to apply for admission to a medical school should contact the University's Health Professions Office for information about admission requirements and application and test deadlines.

## Dental School

Much of the information above about medical school applies also to dental school. All applicants must take the Dental Admission Test. Certain courses not taken by all engineers are also required, but these vary markedly from school to school. Students who are interested in dentistry can obtain specific information from the University's Health Professions Office.

## Law School

Each year a few graduates, representing all engineering disciplines, elect to enter law school, where they find their training in careful and objective analysis is a distinct asset. Many of these students are preparing for careers in patent or corporate law that will enable them to draw on their combined knowledge of engineering and law. Others may not plan to use their engineering knowledge directly, but they still find that the discipline in logical reasoning acquired in an engineering education provides excellent preparation for the study of law. Students interested in admission to the law school of the University should consult the Law School Catalog. Students interested in pursuing law school outside of the University may utilize pre-law services of the Liberal Arts Career Service Center. In addition, the Engineering Career Assistance Center (ECAC) provides pre-law advising.

## Graduate Study in Business

Since many engineering graduates advance rapidly into positions of administrative responsibility, it is not surprising that they often elect to do graduate work in the area of business administration. In addition to an understanding of the technical aspects of manufacturing, the
engineer has the facility with mathematics to master the quantitative methods of modern business administration.

Requirements for admission to the University's graduate business programs are outlined in the Graduate Catalog. Many engineering degree programs offer technical area options that include business and management courses. These can be used with advantage by students who plan to do graduate-level work in business. Students interested in pursuing a graduate business program outside of the University may utilize the Engineering Career Assistance Center (ECAC) for career advising.

## ABET Criteria

The Engineering Accreditation Commission of ABET curriculum requirements specify subject areas appropriate to engineering but do not prescribe specific courses. The program curriculum must provide adequate content for each area, consistent with the student outcomes and program educational objectives, to ensure that students are prepared to enter the practice of engineering. The curriculum must include:

1. a minimum of 30 semester credit hours (or equivalent) of a combination of college-level mathematics and basic sciences with experimental experience appropriate to the program
2. a minimum of 45 semester credit hours (or equivalent) of engineering topics appropriate to the program, consisting of engineering and computer sciences and engineering design, and utilizing modern engineering tools
3. a broad education component that complements the technical content of the curriculum and is consistent with the program educational objectives
4. a culminating major engineering design experience that 1 ) incorporates appropriate engineering standards and multiple constraints, and 2) is based on the knowledge and skills acquired in earlier course work

## Liberal Education of Engineers

Each student must complete the University's Core Curriculum. The core curriculum includes the first-year signature course and courses in English composition, American and Texas government, American history, mathematics, science and technology, visual and performing arts, humanities, and social and behavioral sciences. It must be an integral part of all engineering degree programs, so that engineering graduates will be aware of their social responsibilities and the effects of technology on society. The University of Texas at Austin believes every undergraduate should be exposed to a set of skills and experiences in preparation for a complex world. To this end, all undergraduates at The University of Texas at Austin are required to earn flags: courses that include a substantial focus on cultural diversity in the U.S., ethics, global cultures, independent inquiry, quantitative reasoning, and writing.

With the appropriate selection of courses, the University's Core Curriculum, flags, and ABET general education requirements can be satisfied simultaneously.

## Social and Behavioral Sciences Requirement

As part of the University's Core Curriculum, each student must complete three semester hours of coursework in social and behavioral sciences. Additionally, the Core Curriculum social and behavioral science course may be satisfied simultaneously for flag requirement(s) as well as coursework in a potential minor and certificate program.

## Visual and Performing Arts Requirement

As part of the University's Core Curriculum, each student must complete three semester hours of coursework in visual and performing arts. Architectural engineering majors must take an approved architectural history course as part of the Bachelor of Science in Architectural Engineering requirement. This course (or its prerequisite) will fulfill the visual and performing arts requirement of the Core Curriculum. Additionally, the Core Curriculum visual and performing arts course may be satisfied simultaneously for flag requirement(s) as well as coursework in a potential minor and certificate program.

## Foreign Language Requirement

In accordance with the University's basic education requirements, all students must demonstrate proficiency in a foreign language equivalent to that shown by completion of two semesters of college coursework. Credit earned at the college level to achieve the proficiency may not be counted toward a degree. For a student admitted to the University as a freshman, this requirement is fulfilled by completion of the two high school units in a single foreign language that are required for admission; students admitted with a deficiency in foreign language must remove that deficiency as specified in the General Information Catalog.

## Applicability of Certain Courses

## Physical Activity Courses

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

## ROTC Courses

The dean, upon recommendation of the department advisor, 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 Cockrell School of Engineering, up to a maximum of 12 semester credit hours. Core Curriculum courses cannot be substituted.

## Correspondence and Extension Courses

Credit that a University student in residence earns simultaneously by The University of Texas at Austin correspondence/extension or elsewhere or through distance education at another school will not be counted toward a degree in the Cockrell School unless specifically approved in advance by the dean. Application for this approval should be made online or at the Engineering Student Services Office, located in the Engineering Education and Research Center (EER). No more than 20 semester hours required for any degree offered in the Cockrell School may be taken by correspondence and extension.

## Requirements Included in All Engineering Degree Plans

Each student must complete the University's Core Curriculum. In the process of fulfilling engineering degree requirements, students must also complete: one independent inquiry flag, one quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag and at least one writing flag are carried by courses specifically required for each engineering degree plan. As applicable, students are advised to fulfill the second writing flag and global culture and cultural diversity requirements with a course that meets another requirement of the core curriculum, such as the first-year signature course. Students are encouraged to complete flag
requirements within the first and second year of their degree program. Additionally, students are encouraged to discuss options with his or her departmental academic advisor. Courses that may be used to fulfill flag requirements (p. 23) are identified in the Course Schedule.

In addition, students in all engineering degree plans must complete the following requirements. In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below.

## Requirements

Hours
Engineering Communication (This course may also count towards the writing flag requirement and the ethics flag requirement.)

| ASE 333T | Engineering Communication |  |
| :--- | :--- | :--- |
| BME 333T | Engineering Communication |  |
| CHE 333T | Engineering Communication |  |
| C E 333T | Engineering Communication |  |
| E E 333T | Engineering Communication |  |
| M E 333T | Engineering Communication |  |
| PGE 333T | Differential and Integral Calculus <br> (This course may also be used to <br> fulfill the mathematics requirement <br> of the core curriculum and the <br> M 408C | quantitative reasoning flag <br> requirement.) |
| M 408D | Sequences, Series, and <br> Multivariable Calculus | 4 |
|  | Differential Equations with Linear <br> Algebra (May also be used to fulfill <br> M 427J | the quantitative reasoning flag <br> requirement.) |

Physics

| PHY 303K | Engineering Physics I (This course <br> may also be counted toward the <br> science and technology, Part I, <br> requirement of the core curriculum <br> and the quantitative reasoning flag <br> requirement.) | 3 |
| :--- | :--- | :--- |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 303L | Engineering Physics II (This course <br> may also be counted toward the <br> science and technology, Part I, <br> requirement of the core curriculum <br> and the quantitative reasoning flag <br> requirement.) | 3 |
| PHY 103N | Laboratory for Physics 303L | 1 |

## 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.

## Bachelor of Science in Aerospace Engineering

The field of aerospace engineering developed because of humanity's desire for aircraft systems for military, commercial, and civilian purposes; it was first called aeronautical engineering or aeronautics. When the space age began, it was natural for aeronautical engineers to participate in the development of spacecraft systems for space exploration. This branch of engineering became known as astronautical engineering or astronautics, and the combined field is called aerospace engineering or aeronautics and astronautics. Because of the diverse nature of the work, the aerospace engineer must have a basic knowledge of physics, mathematics, digital computation, and the various disciplines of aerospace engineering: aerodynamics and propulsion, structural mechanics, flight mechanics and orbital mechanics, and control. Because of their extensive education in fundamental disciplines, aerospace engineers can work in areas other than aerospace engineering and are employed in a wide range of careers.

The objectives of the aerospace engineering degree program are to prepare students for professional practice in aerospace engineering and related engineering and scientific fields; to prepare students for such postbaccalaureate study as their aptitudes and professional goals may dictate; to instill in students a commitment to lifelong education and to ethical behavior throughout their professional careers; and to make students aware of the global and societal effects of technology. To meet these objectives, the faculty has designed a rigorous curriculum that emphasizes fundamentals in the basic sciences, mathematics, and the humanities, and integrates classroom and laboratory experiences in the engineering disciplines of aerodynamics and propulsion, structural mechanics, mechanics of materials, flight and orbital mechanics, controls, computation, electromechanical systems, design, and technical communication. The curriculum requires students to use modern engineering tools, to work individually, and to practice teamwork.

The first two years of the aerospace engineering curriculum emphasize fundamental material along with engineering sciences, while the third year introduces concepts in the areas of aerodynamics and propulsion, structural mechanics, flight mechanics and orbital mechanics, and flight control. The fourth year provides further depth in aerospace engineering, with emphasis on design and laboratory courses. During the junior year, the student elects to pursue one of two design tracks, atmospheric flight or space flight. Both tracks are complemented by general education courses and courses offered in other engineering disciplines. In addition, the student may choose electives that increase the breadth of the program or that provide additional depth within one or more subdisciplines within the department. All of the following subdisciplines are also represented in the elective options.

## Aerodynamics and Propulsion

This subdiscipline 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, computational fluid dynamics, and experimental fluid mechanics.

## Structural Mechanics

This subdiscipline includes the study of airplane, spacecraft, and missile structures, the materials that make them efficient, and methods for testing, analysis, and design of new structural systems. Course topics include structural analysis, structural dynamics, materials (including advanced composites), aeroelasticity, experimental structural mechanics, and computer-aided design of structures.

## Flight Mechanics and Orbital Mechanics

Flight mechanics involves the analysis of the motion of aircraft, missiles, rockets, reentry vehicles, and spacecraft that are subjected to gravitational, propulsive, and aerodynamic forces; the study of uncontrolled motion of satellites and coasting spacecraft is usually referred to as orbital mechanics. Subject matter in these areas includes trajectory analysis and optimization; attitude dynamics, stability, and control; flight test; orbit determination; orbital operations; systems engineering; sensors; satellite hardware applications; and simulation.

## Flight Control

Control theory is applied in aerospace engineering to the development of automatic flight control systems for aircraft (autopilots and stability augmentation systems), attitude control systems for satellites, and guidance and control systems for missiles, rockets, reentry vehicles, and spacecraft. Course topics include linear system theory, classical control theory, digital control, and probability theory.

## Student Outcomes

Attainment of these outcomes prepares graduates to enter the professional practice of engineering. Aerospace engineering graduates should demonstrate:

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- An ability to communicate effectively with a range of audiences
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies


## Portable Computing Devices

Students entering aerospace engineering are required to have access to a portable computing device capable of running the software tools required for undergraduate engineering analyses (MATLAB, SOLIDWORKS, Word, Excel, etc.) and accessing the remote server for the department. This device does not need to be brought to campus on a daily basis, but individual courses may require that the device be brought to certain lectures, labs, and/or exams. Minimum and recommended specifications may be found on the department website.

## Curriculum

Course requirements include courses within the Cockrell School of Engineering and other required courses. In addition, each student must complete the University's Core Curriculum (p. 23). In some cases, a course that fulfills one of the following requirements may also be counted toward Core Curriculum or flag requirements; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, and both writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p.23) are identified in the Course Schedule.

Courses used to fulfill technical elective requirements must be approved by the aerospace engineering faculty before the student enrolls in them.

The student must take all courses required for the degree on the lettergrade basis and must earn a grade of at least $C$ - in each course, except for those listed as Remaining Core Curriculum courses. He or she must also maintain grade point averages of at least 2.00 in the major area of study and in required technical courses as described in Academic Standards (p. 106), and a cumulative University grade point average of at least 2.00 as described in the General Information Catalog.

| Requirements |  | Hours |
| :--- | :--- | :--- |
| Aerospace Engineering | Courses |  |
| ASE 120K | Low-Speed Aerodynamics <br> Laboratory | 1 |
| ASE 320 | Low-Speed Aerodynamics | 3 |
| ASE 324L | Aerospace Materials Laboratory | 3 |
| ASE 330M | Linear System Analysis | 3 |
| ASE 333T | Engineering Communication |  |
| (writing flag and ethics flag) | 3 |  |
| ASE 362K | Compressible Flow | 3 |
| ASE 366K | Spacecraft Dynamics | 3 |
| ASE 367K | Flight Dynamics | 3 |
| ASE 370C | Feedback Control Systems | 3 |
| ASE 375 | Electromechanical Systems | 3 |
| ASE 376K | Propulsion | 3 |
| Chemistry | Principles of Chemistry I (part II | 3 |
| CH 301 | science and technology) | 3 |

## Computational Engineering

| COE 301 | Introduction to Computer |
| :--- | :--- |
|  | Programming |
| COE 311K | Engineering Computation |


| Engineering Mechanics |  | 3 |
| :--- | :--- | ---: |
| E M 306 | Statics | 3 |
| E M 311M | Dynamics |  |
| E M 319 | Mechanics of Solids | 3 |
| Mathematics | Differential and Integral Calculus <br> M 408C <br> (mathematics; quantitative <br> reasoning flag) | 4 |
| M 408D | Sequences, Series, and <br> Multivariable Calculus | 4 |
| M 427J | Differential Equations with Linear <br> Algebra (quantitative reasoning <br> flag) | 4 |

## Physics

PHY 103M
Laboratory for Physics 303K


## Design Track Options

The design track option allows the student to choose seven semester hours of courses in either atmospheric flight or space flight. Each student should choose a design track by the end of the first semester of the junior year and plan an academic program to meet the track requirements in the next three semesters. Many students choose 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 design courses in the other track as electives.

## 4 Design Track 1, Atmospheric Flight

Also called aeronautics, this track provides the student with a wellrounded program of study emphasizing the major disciplines of aerodynamics, propulsion, structures, design, performance, flight mechanics, 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 361 K, Aircraft Design I (carries an independent inquiry flag)
Aerospace Engineering 361L, Aircraft Design II (carries a writing flag)
Aerospace Engineering 162M, High-Speed Aerodynamics Laboratory

## Design Track 2, Space Flight

Also called astronautics, this track offers a well-rounded program of study that provides a background in the traditional areas of materials, structures, propulsion, and controls, while also giving the student a chance to learn about the space environment, attitude determination and control, orbital mechanics, mission design, and spacecraft systems engineering. These subjects are treated at a fundamental level that lays a foundation for work in a broad variety of specialties in space-related industries. This option is intended for the undergraduate student whose primary interest is space and spacecraft.

Aerospace Engineering 166M, Spacecraft Systems Laboratory Aerospace Engineering 374K, Space Systems Engineering Design Aerospace Engineering 374L, Spacecraft/Mission Design (carries an independent inquiry flag and a writing flag)

## Structures Elective

The degree requires all students to take three semester hours of an approved structures elective.
Students pursuing the Design Track 1, Atmospheric Flight, must take Aerospace Engineering 365, Structural Dynamics, to fulfill this requirement.
Students pursuing Design Track 2, Space Flight, will choose one of four options to fulfill this requirement:
Aerospace Engineering 339/Engineering Mechanics 339, Advanced Strength of Materials
Aerospace Engineering 357, Mechanics of Composite Materials
Aerospace Engineering 365, Structural Dynamics
Computational Engineering 321 K, Computational Methods for Structural Analysis.

## Aerospace Electives

The degree requires all students to take nine semester hours of approved aerospace electives. The list of approved electives may be found on the department website. For students pursuing Design Track 1, Atmospheric Flight, six of the nine hours must include Aerospace Engineering 364, Applied Aerodynamics, and either Computational Engineering 321 K, Computational Methods for Structural Analysis or Computational Engineering 347, Introduction to Computational Fluid Dynamics.

## Special Projects Laboratories

The department offers students the opportunity to participate in special projects such as student-built radio-controlled aircraft competitions and student satellite-building projects. These time-intensive projects are open to all aerospace engineering students with at least 15 semester hours of University credit toward the degree and a grade point average of at least 2.50. Academic credit for participation in departmentally approved student projects is available on the pass/fail basis through the course Aerospace Engineering 128. Three such laboratory courses can be combined to count as one three-hour technical elective; one such laboratory course can be combined with a two-hour cooperative program to count as one three-hour technical elective.

## Suggested Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| UGS 302 or 303 |  | 3 COE 301 | 3 |
| CH 301 |  | 3 M 408 D | 4 |
| M 408C |  | 4 PHY 303K | 3 |
| RHE 306 |  | 3 PHY 103M | 1 |
| Social and behavioral sciences |  | 3 American and Texas government | 3 |
|  |  | American history | 3 |
|  | 16 |  | 17 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| EM 306 |  | 3 COE 311 K | 3 |
| M 427J |  | 4 EM 311M | 3 |
| PHY 303L |  | 3 EM 319 | 3 |
| PHY 103N |  | 1 M 427 L | 4 |
| M E 210 |  | 2 ASE 333T | 3 |
| M E 310 T |  | 3 |  |
|  | 16 |  | 16 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ASE 320 |  | 3 ASE 362K | 3 |
| ASE 120K |  | 1 ASE 367K | 3 |
| ASE 330M |  | 3 Design courses | 4 |
| ASE 366K |  | 3 Aerospace elective | 3 |
| Structures elective |  | 3 Visual and performing arts | 3 |
| E 316L, 316M, 316N, or 316P | 3 |  |  |
|  | 16 |  | 16 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ASE 375 |  | 3 ASE 324L | 3 |
| ASE 376K |  | 3 ASE 370C | 3 |
| Design course |  | 3 Aerospace elective | 3 |
| Aerospace elective |  | 3 American history | 3 |
| Technical elective |  | 3 American and Texas government | 3 |
|  |  | 5 | 15 |

Total credit hours: 127

## Bachelor of Science in Architectural Engineering

Buildings are the domain of architectural engineers and endpoints of this important engineering discipline. Americans spend over 70 total years of an average lifetime inside of buildings. As such, an important role of architectural engineers is to design buildings that are structurally resilient and able to withstand the loads that act on their exterior and interior surfaces. Because of the amount of time people spend in them, it is also important that buildings be designed, constructed, operated, and maintained to be healthy environments, free of airborne or surface contamination that can adversely affect occupants. Furthermore, buildings should also be comfortable environments that facilitate worker productivity and learning. In the United States, buildings account for nearly $40 \%$ of all energy use, over $70 \%$ of electricity use, and are major contributors to greenhouse gas emissions. As such, architectural engineers strive to design, construct, and operate both energy efficient and healthy buildings, with an increasing focus on the use of appropriate green building materials and products.

The building sector represents a major fraction of the United States economy, and buildings are by far the number one asset amongst all assets in the United States. Their appropriate design is critical
for the people they serve, national and global economies, and for reasons of environmental sustainability. The curriculum in architectural engineering is designed to meet these needs. It offers training in the fundamentals of engineering, with specialization in structural analysis and design, building energy and environments, building construction, and materials. This curriculum affords the student the opportunity to attain competence in the structural design of resilient buildings, from high-rise office buildings to single-family homes, and from hospitals to schools. Courses in building energy and environments provide graduates with knowledge relevant to the design and operation of both energy efficient and healthy buildings. Students will also gain important knowledge related to sustainable construction practices, construction management, and modern building materials.

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 engineering firms, general contractors, manufacturers, government agencies, and architecture firms. The curriculum also serves as an excellent springboard to graduate study in the areas of structural engineering, building energy and environments, construction engineering and project management, or infrastructure materials engineering.

## Student Outcomes

Graduates of the architectural engineering program are expected to have

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- An ability to communicate effectively with a range of audiences
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies


## Program Educational Objectives

Graduates of the architectural engineering program should solve architectural engineering problems within a greater societal context. They should:

- Exhibit character and decision-making skills embodying professionalism and ethical behavior
- Apply knowledge, strong reasoning, and quantitative skills to design and implement creative and sustainable solutions
- Engage in lifelong learning to meet evolving engineering challenges facing society
- Exhibit strong communication, critical thinking, interpersonal, and management skills as leaders and contributors in the architectural engineering profession


## Dual Degree program in Architectural Engineering and Architecture

A program that leads to both the Bachelor of Science in Architectural Engineering degree and the Bachelor of Architecture degree is available to qualified students. The program combines the course requirements of both degrees and requires six years for completion. Students who wish to pursue both degrees must apply for admission to the School of Architecture according to the procedures and deadlines established by the school. The program is described in Bachelor of Architecture/ Bachelor of Science in Architectural Engineering Dual Degree Program (p. 35); additional information is available from the undergraduate advisor for architectural engineering.

## Portable Computing Devices

Student entering Architectural Engineering are required to have a laptop at their disposal. Laptops do not need to be brought to campus on a daily basis, but individual courses may require that a laptop be brought to class or lab sessions. For more information, see the list of minimum system requirements.

## Curriculum

Course requirements include courses within the Cockrell School of Engineering and other required courses. In addition, each student must complete the University's Core Curriculum (p. 23). In some cases, a course required for the Bachelor of Science in Architectural Engineering may also be counted toward the core curriculum; these courses are identified below. To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet ABET criteria, students should follow the guidance given in Liberal Education of Engineers.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, the global cultures flag, and one writing flag are carried by courses specifically required for the degree; these courses are identified below. Students are advised to fulfill the second writing flag requirement with a course that meets another requirement of the core curriculum. Courses that may be used to fulfill flag requirements (p. 23) are identified in the Course Schedule.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Architectural Engineering Courses |  |  |
| ARE 102 | Introduction to Architectural Engineering | 1 |
| ARE 217 | Computer-Aided Design and Graphics | 2 |
| ARE 320K | Introduction to Design I | 3 |
| ARE 320L | Introduction to Design II | 3 |
| ARE 323K | Project Management and Economics | 3 |
| ARE 335 | Materials and Methods of Building Construction | 3 |
| ARE 346N | Building Environmental Systems | 3 |
| ARE 346P or ARE 371 | HVAC Design Energy Simulation in Building Design | 3 |
| ARE 366 | Contracts, Liability, and Ethics (ethics flag) | 3 |


| ARE 465 | Integrated Design Project (independent inquiry flag) | 4 |
| :---: | :---: | :---: |
| Civil Engineering |  |  |
| CE311K | Introduction to Computer Methods | 3 |
| CE311S | Probability and Statistics for Civil Engineers | 3 |
| C E 319F | Elementary Mechanics of Fluids | 3 |
| C E 324P | Properties and Behavior of Engineering Materials | 3 |
| C E 329 | Structural Analysis | 3 |
| $\begin{aligned} & \text { C E } 331 \\ & \quad \text { or CE } 335 \end{aligned}$ | Reinforced Concrete Design Elements of Steel Design | 3 |
| C E 333T | Engineering Communication (writing flag; ethics flag) | 3 |
| C E 357 | Geotechnical Engineering | 3 |
| Chemistry |  |  |
| CH 301 | Principles of Chemistry I (part II science and technology) | 3 |
| Engineering Mechanics |  |  |
| EM 306 | Statics | 3 |
| EM 319 | Mechanics of Solids | 3 |
| Mathematics |  |  |
| M 408C | Differential and Integral Calculus (mathematics; quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| M 427J | Differential Equations with Linear Algebra (quantitative reasoning flag) | 4 |
| Physics |  |  |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| PHY 303K | Engineering Physics I (part I science and technology) | 3 |
| PHY 303L | Engineering Physics II (part I science and technology) | 3 |
| Other Required Courses |  |  |
| GEO 303 | Introduction to Geology | 3 |
| M E 320 | Applied Thermodynamics | 3 |
| Approved architectural history elective (visual and performing arts; global cultures flag) |  | 3 |
| Approved mathematics or science elective |  | 3 |
| Approved technical electives |  | 9 |
| Remaining Core Curriculum Courses |  |  |
| RHE 306 | Rhetoric and Writing (English composition) | 3 |
| E 316L | British Literature ${ }^{1}$ | 3 |
| or E 316M | American Literature |  |
| or E316N | World Literature |  |
| or E 316P | Masterworks of Literature |  |
| American and Texas government ${ }^{2}$ |  | 6 |
| American history ${ }^{2}$ |  | 6 |
| Social and behavioral science ${ }^{3}$ |  | 3 |
| UGS 302 | First-Year Signature Course ${ }^{4}$ | 3 |
| or UGS 303 | First-Year Signature Course |  |
| --- |  |  |

4 1. Some sections of the listed English humanities courses ( E
316L, 316M, 316N, 316P) carry a global cultures or cultural diversity flag.
2. Some sections carry a cultural diversity flag.
3. Some sections carry a global cultures and/or cultural diversity flag.
4. In UGS 302, all sections carry a writing flag. In UGS 303, some sections carry a writing flag.

## Total Hours

126

## Technical Electives

Technical electives in architectural engineering are listed in three areas of specialization below. Nine semester hours must be chosen from the following approved technical elective courses or selected with the approval of the department undergraduate advisor. Lower-division courses may not be used as technical electives.

## Area 1, Structural Engineering

Architectural Engineering 345K, Masonry Engineering Architectural Engineering 362L, Structural Design in Wood
Civil Engineering 331, Reinforced Concrete Design or 335, Elements of Steel Design
Civil Engineering 360K, Foundation Engineering (carries an independent inquiry flag)
Civil Engineering 362M, Advanced Reinforced Concrete Design (carries an independent inquiry flag)
Civil Engineering 362N, Advanced Steel Design (carries an independent inquiry flag)
Civil Engineering 363, Advanced Structural Analysis
Civil Engineering 375, Earth Slopes and Retaining Structures
Engineering Mechanics 339, Advanced Strength of Materials

## Area 2, Building Energy and Environments

Architectural Engineering 346P, HVAC Design or 371, Design of Energy Efficient and Healthy Buildings
3 Architectural Engineering 370, Design of Energy Efficient and Healthy Buildings
3 Civil Engineering 341, Introduction to Environmental Engineering
Mechanical Engineering 339, Heat Transfer
Mechanical Engineering 374F, Fire Science
Mechanical Engineering 374S, Solar Energy Systems Design
Mechanical Engineering 379N, Engineering Acoustics

## Area 3, Construction and Infrastructure Materials Engineering

Architectural Engineering 358, Cost Estimating in Building Construction Architectural Engineering 376, Building Information Modeling for Capital Projects
3 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<br>First Term<br>ARE 102<br>CH 301

| M 408C | $4 \mathrm{M} \mathrm{408D}$ |  | 4 |
| :---: | :---: | :---: | :---: |
| RHE 306 | 3 PHY 303K |  | 3 |
| UGS 302 or 303 | 3 PHY 103M |  | 1 |
|  | Social and behavioral sciences |  | 3 |
|  | 14 |  | 17 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| CE 311 K | 3 ARE 217 |  | 2 |
| EM 306 | 3 CE311S |  | 3 |
| M 427J | 4 EM 319 |  | 3 |
| PHY 303L | 3 CE319F |  | 3 |
| PHY 103N | 1 CE333T |  | 3 |
| American history | 3 American history |  | 3 |
|  | 17 |  | 17 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ARE 320K |  | 3 ARE 320L | 3 |
| C E 324P | 3 ARE 335 |  | 3 |
| C E 329 | 3 ARE 346N |  | 3 |
| C E 357 | 3 C E 331 or 335 |  | 3 |
| M E 320 | 3 E 316L, 316M, 316N, or 316P |  | 3 |
|  | 15 |  | 15 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ARE 323K |  | 3 ARE 465 | 4 |
| ARE 346P or 371 | 3 ARE 366 |  | 3 |
| Approved math/science elective | 3 American government |  | 3 |
| Approved technical elective | 3 Approved technical electives |  | 6 |
| American and Texas government | 3 |  |  |
|  | 15 |  | 16 |

Total credit hours: 126

## Bachelor of Science in Biomedical Engineering

The mission of the Department of Biomedical Engineering is to develop clinically translatable solutions for human health by training the next generation of biomedical engineers, cultivating leaders, and nurturing the integration of science, engineering, and medicine in a discoverycentered 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, computational biomedical engineering, or biomechanics), and culminates in a team capstone design experience. Students are expected to develop an understanding of industrial, research, and clinical biomedical engineering environments; an understanding of regulatory issues and biomedical ethics; the ability to create, identify, formulate, and solve biomedical engineering problems; the ability to design systems to meet needs in medical/life science applications; an understanding of life processes at the molecular, cellular, tissue, and organismal levels; the ability to use instrumentation and to make measurements and interpret data in living systems; and an appreciation of the interdisciplinary nature of biomedical engineering research.

## Portable Computing Devices

Students entering biomedical engineering are required to have a laptop computer. Laptops do not need to be brought to campus on a daily basis, but individual courses may require that a laptop be brought to certain
lectures, labs, and/or exams. Minimum requirements for the laptop are listed on the department's website.

## Student Outcomes

Graduates of the biomedical engineering program are expected to have:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specific needs with consideration of public health, safety, and welfare, as well as global, cultural, societal, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgement to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

## 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 include courses within the Cockrell School of Engineering, and other required courses. In addition, each student must complete the University's core curriculum (p. 23). In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, and the two writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p. 23) are identified in the Course Schedule.

Prior to registration, students must receive approval from the Biomedical Engineering Academic Advising Office for courses to be used to fulfill technical and nontechnical course requirements. The student must take all courses required for the degree on the letter-grade basis and must earn a grade of at least $C$ - in each, except for those listed as Remaining Core Curriculum Courses.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Biomedical Engineering Courses |  |  |
| BME 214L | Computational Fundamentals of Biomedical Engineering Design |  |
| BME 245L | Experimental Principles of Biomedical Engineering Design |  |
| BME 261L | Development and Analysis in Biomedical Engineering Design |  |
| BME 303 | Introduction to Computing |  |
| BME 303L | Introduction to Biomedical Engineering Design |  |
| BME 311 | Network Analysis in Biomedical Engineering |  |
| BME 313L | Introduction to Numerical Methods in Biomedical Engineering |  |
| BME 333T | Engineering Communication (writing and an ethics flag) |  |
| BME 335 | Engineering Probability and Statistics |  |
| BME 343 | Biomedical Engineering Signal and Systems Analysis |  |
| BME 344 | Biomechanics |  |
| BME 349 | Biomedical Instrumentation |  |
| BME 352 | Engineering Biomaterials |  |
| BME 353 | Transport Phenomena in Living Systems |  |
| BME 355 | Molecular Engineering |  |
| BME 365R | Quantitative Engineering Physiology I |  |
| BME 365S | Quantitative Engineering Physiology II |  |
| BME 370 | Biomedical Engineering Capstone Design I (writing flag) |  |
| BME 371 | Biomedical Engineering Capstone <br> Design II (independent inquiry flag) |  |


| Biology |  | 2 |
| :--- | :--- | ---: |
| BIO 206L | Introductory Laboratory <br> Experiments in Biology |  |
| BIO 311C | Introductory Biology I | 3 |

## Biochemistry and Chemistry

BCH 369 Fundamentals of Biochemistry 3
CH 128K Organic Chemistry Laboratory 1
CH 301 Principles of Chemistry I 3
CH 302 Principles of Chemistry II 3
CH 204 Introduction to Chemical Practice 2
CH 320M Organic Chemistry I 3
or CH 328M Organic Chemistry I

## Mathematics

M 408C
Differential and Integral Calculus
(mathematics; quantitative
reasoning flag)

| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| :---: | :---: | :---: |
| M 427J | Differential Equations with Linear Algebra (quantitative reasoning flag) | 4 |
| Physics |  |  |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| PHY 303K | Engineering Physics I (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 303L | Engineering Physics II (part I science and technology; quantitative reasoning flag) | 3 |
| Rhetoric and Writing |  |  |
| RHE 306 | Rhetoric and Writing (English composition) | 3 |
| Remaining Core Curriculum Courses |  |  |
| E 316L | British Literature ${ }^{1}$ | 3 |
| or E 316M | American Literature |  |
| or E 316N | World Literature |  |
| or E 316P | Masterworks of Literature |  |
| American and Texas government ${ }^{2}$ |  | 6 |
| American history ${ }^{2}$ |  | 6 |
| Social and behavioral sciences ${ }^{3}$ |  | 3 |
| Visual and performing arts ${ }^{3}$ |  | 3 |
| UGS 302 | First-Year Signature Course ${ }^{4}$ | 3 |
| or UGS 303 | First-Year Signature Course |  |
| ---- |  |  |
| 1. Some sections of the English humanities courses (E 316L, $316 \mathrm{M}, 316 \mathrm{~N}, 316 \mathrm{P}$ ) carry a global cultures or cultural diversity flag. |  |  |
| 2. Some sections carry a cultural diversity flag. |  |  |
| 3. Some sections carry a global cultures and/or cultural diversity flag. |  |  |
| 4. In UGS 302, all sections carry a writing flag. In UGS 303, some sections carry a writing flag. |  |  |
| Minimum Required |  | 133 |

## Integrated BSBME/MSE program

The integrated degree program results in simultaneously awarding a Bachelor of Science in Biomedical Engineering (BSBME) and a Master of Science in Engineering (MSE) degree offered by the graduate program in biomedical engineering. The objective of the Integrated BSBME/MSE Program is to enable prepared undergraduates in Biomedical Engineering to earn two degrees in a shortened time period. By applying AP and Credit by Exam courses, having students take recommended summer courses, and allowing seniors to enroll in graduate-level engineering courses reserved for graduate credit, the program enables graduates to complete both degree requirements in five years.

Admissions. Current undergraduate BME students may begin the application process to the Integrated BSBME/MSE Program option in the first term of their third year. Admission includes the two steps outlined below. Undergraduate students not in the biomedical engineering major are not eligible to apply. It is expected that all students selected for the program in Step 1 and have been successful in their first graduatelevel coursework will be selected for admission in Step 2. Successful
completion will be evaluated and determined by the department's Domestic Graduate Admission Committee and the Graduate Advisor.

Step 1. Students go through the first step in application for admission to the Integrated BSBME/MSE Program in the second term of the third year. The Step 1 application is internal through the department and includes a resume, statement of purpose, and letters of recommendation. Qualified applicants will be selected based on the applicant's progress to degree completion, grade point average, and other qualifications included in the application materials. Selected students will be notified early in the summer after their the third year of their admission status for the integrated program, allowing them to meet with an academic advisor to plan graduate coursework in the first term of their fourth year.

Step 2. Students go through the second step in the application after the second term of their fourth year. The Step 2 application is formal through the Graduate and International Admission Center (GIAC) and includes a resume, statement of purpose, letters of recommendation, and a TOEFL score (if required). Qualified applicants will be selected based on success in graduate-level engineering courses in the first term of their fourth year, grade point average, and other qualifications included in the application materials. Graduate Record Exam (GRE) test scores are required for admission through GIAC.

If a student in their fourth year is taking graduate courses and would be on track to complete the integrated program but did not apply in their third year through Step 1, they may also choose to apply in Step 2 and formally apply through GIAC by the normal admission deadline. These students will be evaluated for admission on the same criteria.

Degree Requirements. In order for integrated program students to complete both the BSBME and MSE degrees in five years, the department waives six semester credit hours (SCH) of technical area electives in lieu of six SCH of graduate engineering coursework reserved for graduate credit taken in the fourth year. This reduces the total BSBME degree requirements for integrated program students from 133 to 127 SCH . The remaining required six SCH of technical area electives required for the BSBME degree must be taken in engineering (see Technical Area Options section below).

Students in the integrated program complete 12 SCH of graduate coursework in their fourth year and 18 SCH of graduate coursework in their fifth year to complete a total of 30 SCH of graduate coursework for the MSE degree as described in the Graduate Catalog. Students have the option of choosing the coursework or thesis options for the MSE degree as described in the Graduate Catalog. Which courses the student takes will be determined with the graduate advisor and academic advisor to ensure compliance with degree requirements and meet the students' career goals.

Students unable to successfully complete the integrated program, or who wish to terminate pursuit of the MSE for any reason, may obtain a BSBME degree by satisfying all of the requirements for the standalone degree. Two of the graduate courses (six SCH) taken in the fourth year may count toward the 12 SCH of technical area electives required to complete the entire 133 SCH requirements. An undergraduate student leaving the integrated program will be on a trajectory to graduate with the regular BSBME degree in the same timeframe prior to admission to the integrated program.

Graduates of the integrated program will receive the BSBME and MSE degrees simultaneously after successfully completing the 127 SCH for the BSBME and 30 SCH for the MSE, a total of 157 SCH. It is expected that students in this program will graduate with both degrees in a total of five years to completion.

Advising. Once admitted, students will be advised each semester by the graduate advisor and an academic advisor to complete coursework required for the BSBME degree in their fourth year, and completion of the coursework required for the MSE degree in their fourth and fifth years.

Information regarding the integrated program requirements and policies may be obtained from the Biomedical Engineering Academic Advising Office in BME 3.308.

## Technical Area Options

The technical area option allows the student to build on the biomedical engineering core curriculum by choosing 12 semester hours of technical area coursework. A minimum of six semester hours of the 12 semester hours of technical area coursework must be taken within engineering. Students choose coursework in one of the following four areas: biomedical imaging and instrumentation; cellular and biomolecular engineering; computational biomedical engineering; or biomechanics. Within some technical areas, career emphases are available for students to focus coursework toward a particular career track. Students have flexibility to take technical elective coursework from more than one career emphasis under the same technical area. Each student should choose a technical area by the end of the sophomore year and plan an academic program to meet the area requirements during the next two years. Students can visit the Biomedical Engineering Academic Advising Office in BME 3.308 for more information about the Technical Area Options.

Preparation for health professions. Students who plan to attend medical, veterinary, or dental school in Texas must complete coursework in addition to that required for the BS in Biomedical Engineering in order to meet professional school admission requirements; those who plan to attend schools outside Texas may need additional coursework. The student is responsible for knowing and meeting these additional requirements, but assistance and information are available in the Health Professions Office in the College of Natural Sciences, PAI 5.03. Additional information about preparation for health professions is available online at https://cns.utexas.edu/health-professions.

Preparation for law. There is no sequential arrangement of courses prescribed for a pre-law program. The Association of American Law Schools puts special emphasis on comprehension and expression in words, critical understanding of the human institutions and values with which the law deals, and analytical power in thinking. Courses relevant to these objectives deal with communication of ideas, logic, mathematics, social sciences, history, philosophy, and the physical sciences. Services for pre-law students are provided to students in all colleges by Liberal Arts Career Services in FAC 18, and to engineering students by the Engineering Career Assistance Center (ECAC) in EER 2.604. Additional information about preparation for law is available online at https:// liberalarts.utexas.edu/lacs/index.php.

Plan II Honors Program. Students enrolled in the Plan II Honors Program are encouraged to contact the Biomedical Engineering Academic Advising Office, in addition to the Plan II Office to ensure that requirements for both programs are met. Plan II courses may count toward biomedical engineering program requirements.

Minors and Certificate programs. Biomedical engineering students may enrich their education through minors and certificate programs. For a full list please see Minor and Certificate Programs (p. 13). Common examples of certificates completed by Biomedical engineering students are as follows:

Business Minor. Students who wish to learn about fundamental business concepts and practices may take supplemental coursework that leads to the Business Minor, awarded by the Red McCombs School
of Business. The certificate description is provided in the Minor and Certificate Programs section of the McCombs School of Business in the Undergraduate Catalog (p. 63).

Business of Healthcare Certificate. The Red McCombs School of Business offers this certificate to prepare students for the unique challenges and opportunities in the field of healthcare. The certificate description is provided in the Minor and Certificate Programs section of the McCombs School of Business in the Undergraduate Catalog (p. ).

Elements of Computing. Students who wish to learn about computer science may take the coursework that leads to the certificate in the Elements of Computing, awarded by the Department of Computer Science. The certificate description is provided in the Minor and Certificate Programs section of the College of Natural Science in the Undergraduate Catalog (p. 293).

Pre-Health Professions Certificate. This certificate provides majors outside of the College of Natural Sciences (CNS) access to the courses required to complete health professions prerequisites. The certificate description is provided in the Minor and Certificate Programs section of the College of Natural Science in the Undergraduate Catalog (p.295).

Bridging Disciplines Programs. These interdisciplinary programs offer students the opportunity to develop skills to collaborate across disciplines and cultures. The certificate description is provided in the Minor and Certificate Programs section of the School of Undergraduate Studies in the Undergraduate Catalog (p. 24).

## Technical Area 1, Biomedical Imaging and Instrumentation

This technical area is designed for students interested in the general area of medical imaging science and instrumentation design. Two career emphases are available in this area: biomedical imaging and biomedical instrumentation. Students are required to select 12 semester hours from any of the Technical Area 1 electives; six of the 12 hours must be within engineering.

## Career Emphasis A: Biomedical Imaging

The main objective of this emphasis is to prepare students for a career in biomedical imaging. A solid foundation, practical knowledge, and skills are established in optics, imaging modalities, and image and signal processing.

While students are required to select 12 hours from any of the Technical Area 1 electives, the following are recommended for the biomedical imaging career emphasis:

Biomedical Engineering 336, Cancer Bioengineering
Biomedical Engineering 347, Fundamentals of Biomedical Optics
Biomedical Engineering 350, Computational Methods for Biomedical Engineers
Biomedical Engineering 357, Biomedical Imaging Modalities
Biomedical Engineering 358, Medical Decision Making
Electrical Engineering 347, Modern Optics
Electrical Engineering 351M, Digital Signal Processing
Electrical Engineering 371Q, Digital Image Processing
An approved upper-division biomedical engineering, electrical engineering, or physics course

## Career Emphasis B: Biomedical Instrumentation

The main objective of this emphasis is to prepare students to design and use biomedical instrumentation for imaging, diagnostic, and therapeutic applications. A solid foundation, practical knowledge, and skills are established in analog and digital network analysis, software and hardware programming, electronic circuits, sensors, data acquisition
systems, image and signal processing, and computational analysis of data as it applies to living systems.

While students are required to select 12 hours from any of the Technical Area 1 course options, the following are recommended for the biomedical instrumentation career emphasis:

Biomedical Engineering 306, Fundamentals of Computing
Biomedical Engineering 354, Molecular Sensors and Nanodevices for Biomedical Engineering Applications
Biomedical Engineering 363E, Medical Device Design and Manufacturing
Biomedical Engineering 367, Design of Artificial Organs
Biomedical Engineering 374K, Biomedical Instrument Design
Biomedical Engineering 374L, Applications of Biomedical Instrumentation Lab
Electrical Engineering 312, Software Design and Implementation I Electrical Engineering 319K, Introduction to Embedded Systems Electrical Engineering 438, Fundamentals of Electronic Circuits I Laboratory Electrical Engineering 445L, Embedded Systems Design Laboratory Electrical Engineering 445M, Embedded and Real-Time Systems Laboratory Electrical Engineering 445S, Real-Time Digital Signal Processing Laboratory Electrical Engineering 351M, Digital Signal Processing

## Technical Area 2, Cellular and Biomolecular Engineering

The major objective of this area is to teach students how to integrate knowledge in cell and molecular biology with engineering analysis, so that they can address problems in molecular-based medicine. Two career emphases are available in this area: biomaterials/regenerative medicine and nanotechnology. Students are required to select 12 semester hours from any of the Technical Area 2 electives; six of the 12 hours must be within engineering.

## Career Emphasis A: Biomaterials/Regenerative Medicine

The objective of this emphasis is to prepare students for a career in biomaterials and regenerative medicine engineering. This emphasis includes solid foundation in cell and tissue engineering, biomaterials, and pharmacology. While students are required to select 12 hours from any of the Technical Area 2 course options, the following are recommended for the biomaterials/regenerative medicine career emphasis:

Biology 320, Cell Biology
Biology 325, Genetics
Biology 326M, Introductory Medical Microbiology and Immunology
Biomedical Engineering 336, Cancer Bioengineering
Biomedical Engineering 339, Biochemical Engineering
Biomedical Engineering 359, Cellular and Molecular Biomechanics Biomedical Engineering 363E, Medical Device Design and Manufacturing Biomedical Engineering 364, Biological Responses to Medical Devices Biomedical Engineering 365, Tissue Microenvironments
Biomedical Engineering 366, Immune Engineering
Biomedical Engineering 367, Design of Artificial Organs
Biomedical Engineering 369, Biomimetic Design and Engineering
Biomedical Engineering 373, Tissue, Scaffold, and Cell Biomechanics Applications
Biomedical Engineering 375, Stem Cells in Cell and Tissue Engineering Biomedical Engineering 376, Cell Engineering
Biomedical Engineering 379, Tissue Engineering
An approved topic of Chemical Engineering 379, Topics in Chemical Engineering
Chemistry 320N, Organic Chemistry II and 220C, Organic Chemistry Laboratory; or 328N, Organic Chemistry II and 128L, Organic Chemistry Laboratory
Pharmacy PharmD 338, Introduction to Pharmacology

An approved upper-division biomedical engineering, chemical engineering or mechanical engineering course

## Career Emphasis B: Nanotechnology

The objective of this emphasis is to prepare students for a career in nanotechnology. This emphasis includes solid foundation in nanodevices and sensors, biological physics, and nanocomposites. While students are required to select 12 hours from any of the Technical Area 2 course options, the following are recommended for the nanotechnology career emphasis:

Biomedical Engineering 346, Computational Biomolecular Engineering Biomedical Engineering 354, Molecular Sensors and Nanodevices for Biomedical Engineering Applications
Biomedical Engineering 356, Polymer and Bioconjugate Chemistry Biomedical Engineering 359, Cellular and Molecular Biomechanics Chemical Engineering 339P, Introduction to Biological Physics An approved topic of Chemical Engineering 379, Topics in Chemical Engineering
Chemistry 320N, Organic Chemistry II and 220C, Organic Chemistry Laboratory; or 328N, Organic Chemistry II and 128L, Organic Chemistry Laboratory
An approved topic of Mechanical Engineering 379M, Topics in Mechanical Engineering
An approved upper-division biomedical engineering, chemical engineering or mechanical engineering course

## Technical Area 3, Computational Biomedical Engineering

The objective of this area is to provide students with the knowledge and skills that will enable them to design and use computational algorithms to address problems in biomedical research and health care. Examples include (a) designing medical decision aids using statistical and machine learning models, (b) dynamic modeling and computer simulation to study the biomechanics and control of movement, (c) development of thermodynamic models of dynamic processes at the microscopic and macroscopic scales in biological systems, and (d) image processing techniques for quantitative measurement and interpretation of biomedical images. Students are required to select 12 semester hours from any of the Technical Area 3 electives; six of the 12 hours must be within engineering.

Students must select 12 hours from the following:
Biomedical Engineering 306, Fundamentals of Computing
Biomedical Engineering 336, Cancer Bioengineering
Biomedical Engineering 345, Graphics and Visualization Laboratory
Biomedical Engineering 346, Computational Biomolecular Engineering
Biomedical Engineering 347, Fundamentals of Biomedical Optics
Biomedical Engineering 348, Modeling of Biomedical Engineering Systems
Biomedical Engineering 350, Computational Methods for Biomedical Engineers
Biomedical Engineering 357, Biomedical Imaging Modalities
Biomedical Engineering 358, Medical Decision Making
Biomedical Engineering 363E, Medical Device Design and Manufacturing
Biomedical Engineering 367, Design of Artificial Organs
Biomedical Engineering 373, Tissue, Scaffold, and Cell Biomechanics Applications
Electrical Engineering 312, Software Design and Implementation I
Electrical Engineering 319K, Introduction to Embedded Systems
Electrical Engineering 422C, Software Design and Implementation II
Electrical Engineering 360C, Algorithms
Electrical Engineering 371Q, Digital Image Processing
Mathematics 325K, Discrete Mathematics
Mathematics 340L, Matrices and Matrix Calculations

A computer science course from an approved list

## Technical Area 4, Molecular, Cellular, and Tissue Biomechanics

The major objective of this area is to provide students with knowledge of the structure and function of biological systems by means of the methods of mechanics. Students will learn skills to apply engineering principles to understand how living systems function at all scales of organization and to translate this understanding to the design of devices and procedures that will improve diagnostic and therapeutic methods in health care.

Students must select 12 hours from the following; six of the 12 hours must be within engineering:

Biomedical Engineering 336, Cancer Bioengineering
Biomedical Engineering 342, Biomechanics of Human Movement Biomedical Engineering 346, Computational Biomolecular Engineering
Biomedical Engineering 347, Fundamentals of Biomedical Optics
Biomedical Engineering 354, Molecular Sensors and Nanodevices for Biomedical Engineering Applications
Biomedical Engineering 359, Cellular and Molecular Biomechanics Biomedical Engineering 362, Introduction to Nonlinear Dynamics in Biological Systems
Biomedical Engineering 363E, Medical Device Design and Manufacturing Biomedical Engineering 365, Tissue Microenvironments
Biomedical Engineering 367, Design of Artificial Organs
Biomedical Engineering 369, Biomimetic Design and Engineering
Biomedical Engineering 373, Tissue, Scaffold, and Cell Biomechanics
Applications
Biomedical Engineering 376, Cell Engineering
Chemical Engineering 339P, Introduction to Biological Physics
Kinesiology 326K, Biomechanical Analysis of Movement
Mechanical Engineering 314D, Dynamics
Mechanical Engineering 344, Dynamic Systems and Controls and 144L, Dynamic Systems and Controls Laboratory
Mechanical Engineering 354, Introduction to Biomechanical Engineering Mechanical Engineering 372J, Robotics and Automation
An approved upper-division biomedical engineering or mechanical engineering course

## Suggested Arrangement of Courses

| First Year |  |  |
| :--- | :---: | ---: |
| First Term | Hours | Second Term |
| BIO 311C | 3 BME 303 | 3 |
| BME 303L | 3 CH 302 | 3 |
| UGS 302 or 303 | 3 CH 204 | 2 |
| BIO 206L | 2 M 408D | 4 |
| CH 301 | 3 PHY 303K | 3 |
| M 408C | 4 PHY 103M | 1 |
|  | RHE 306 | 3 |
|  | 18 | 19 |
| Second Year |  |  |
| First Term | Hours | Second Term |
| BME 214L | 2 BME 333T | 3 |
| CH 320M or 328M | 3 BME 313L | 3 |
| CH 128K | 1 BME 344 | 3 |
| BME 311 | 3 BME 335 | 3 |
| M 427J | 4 BCH 369 | 3 |
| PHY 303L | 3 | 3 |


| PHY 103N | 1 |  |
| :--- | :--- | ---: |
|  | 17 | 15 |
| Third Year | Hours | Second Term |
| First Term | 2 BME 261L | Hours |
| BME 245L | 3 BME 355 | 2 |
| BME 343 | 3 BME 349 | 3 |
| BME 352 | 3 BME 365S | 3 |
| BME 365R | 3 Technical area elective | 3 |
| E 316L, 316M, 316N, or 316P | 3 BME 353 | 3 |
| Technical area elective | 17 | 3 |
|  |  | 17 |
| Fourth Year | Second Term | 3 |
| First Term | 3 BME 371 | 3 |
| BME 370 | 3 GOV 312L or 312P | 3 |
| GOV 310L | 3 Visual and performing arts | 3 |
| Technical area elective | 3 Technical area elective | 3 |
| American history | 3 American history | 3 |
| Social and behavioral sciences | 15 | 3 |
|  |  | 15 |

Total credit hours: 133

## Bachelor of Science in Chemical Engineering

Chemical engineering is one of the most broadly-based engineering disciplines. Its field of practice covers the development, design, and control of processes and products that involve molecular change, both chemical and biological, and the operation of such processes. Because many of the products that sustain and improve life are produced by carefully designed and controlled molecular changes, the chemical engineer serves in a wide variety of industries. These industries range from chemical and energy companies to producers of all types of consumer and specialty products, pharmaceuticals, textiles, polymers, advanced materials, and solid-state and biomedical devices.

Careers are available in industry, government, consulting, and education. Areas of professional work include research and development, operations, technical service, product development, process and plant design, market analysis and development, process control, and pollution abatement

The chemical engineering degree program prepares students for professional practice in chemically related careers after the bachelor's degree or an advanced degree. Chemical engineering graduates are expected to attain the following capabilities at or within a few years of graduation: apply the fundamentals of science and engineering to solve important chemical engineering problems in industry, government or academic settings; communicate effectively and demonstrate the interpersonal skills required to lead and/or participate in interdisciplinary projects; apply life-long learning to meet professional and personal goals of their chosen profession, including graduate study; articulate and practice professional, ethical, environmental and societal responsibilities, and value different global and cultural perspectives. To meet the program objective, the faculty has designed a rigorous, demanding, and state-of-the-art curriculum that integrates lectures and laboratory experience in basic science, mathematics, engineering science, engineering design, and the liberal arts.

## ABET Student Outcomes:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety,
and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, crate a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## Portable Computing Devices

Students entering chemical engineering are required to have a laptop computer at their disposal. Laptops do not need to be brought to campus on a daily basis, but individual courses may require that a laptop be brought to certain lectures, labs, and/or exams. Minimum requirements for the laptop are listed on the department's website.

## Curriculum

Course requirements are divided into three categories: lower-division courses in the major, upper-division courses in the major, and other required courses. Enrollment in some upper-division Chemical Engineering courses requires completion of eight hours of lower-division Chemical Engineering coursework (Chemical Engineering 210, 317 and 319) and 11 hours of non-Chemical Engineering coursework (Chemistry $328 \mathrm{M}, 128 \mathrm{~K}, 353$, Physics 303L and 103N) in the major, while earning a grade of $C$ - or better in each course. In addition, each student must complete the University's Core Curriculum. In some cases, a course required for the Bachelor of Science in Chemical Engineering may also be counted toward the core curriculum; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, and the two writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p. 23) are identified in the Course Schedule.
Requirements Hours

## Chemical Engineering Courses

| CHE 210 | Introduction to Computing | 2 |
| :--- | :--- | ---: |
| CHE 253K | Applied Statistics | 2 |
| CHE 253M | Measurement, Control, and Data <br> Analysis Laboratory | 2 |
| CHE 264 | Chemical Engineering Process and <br> Projects Laboratory (writing flag) | 2 |
| CHE 317 | Introduction to Chemical <br> Engineering Analysis | 3 |
| CHE 319 | Transport Phenomena | 3 |
| CHE 322 | Thermodynamics | 3 |
| CHE 333T | Engineering Communication |  |
| (writing flag; ethics flag) | 3 |  |
| CHE 338 | Biochemical Engineering | 3 |


| CHE 348 | Numerical Methods in Chemical Engineering and Problem Solving | 3 |
| :---: | :---: | :---: |
| CHE 350 | Chemical Engineering Materials | 3 |
| CHE 354 | Transport Processes | 3 |
| CHE 360 | Process Control | 3 |
| CHE 363 | Separation Processes and Mass Transfer | 3 |
| CHE 372 | Chemical Reactor Analysis and Design | 3 |
| CHE 473K | Process Design and Operations (independent inquiry flag) | 4 |
| Chemistry |  |  |
| CH 302 | Principles of Chemistry II (part II science and technology; quantitative reasoning flag) | 3 |
| CH 204 | Introduction to Chemical Practice (quantitative reasoning flag) | 2 |
| CH 128K | Organic Chemistry Laboratory | 1 |
| CH 328M | Organic Chemistry I | 3 |
| CH 353 | Physical Chemistry I (quantitative reasoning flag) | 3 |
| Mathematics |  |  |
| M 408C | Differential and Integral Calculus (mathematics; quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| M 427J | Differential Equations with Linear Algebra (quantitative reasoning flag) | 4 |
| M 427L | Advanced Calculus for Applications II | 4 |
| Physics |  |  |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| PHY 303 K | Engineering Physics I (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 303L | Engineering Physics II (part I science and technology; quantitative reasoning flag) | 3 |
| Rhetoric and Writing |  |  |
| RHE 306 | Rhetoric and Writing (English composition) | 3 |
| Other Required Courses |  |  |
| Approved tech | $s$ area electives in engineering | 6 |
| Approved tech | s area electives | 6 |
| CH 128L | Organic Chemistry Laboratory | 1 |
| CH 328N | Organic Chemistry II | 3 |
| CH 153K | Physical Chemistry Laboratory (writing flag) | 1 |
| Chemistry elective with a laboratory experience (not an online course) chosen from |  | 4 |
| CH 431 | Inorganic Chemistry |  |
| $\begin{aligned} & \text { CH } 354 \\ & \& \text { CH } 154 \mathrm{~K} \end{aligned}$ | Quantum Chemistry and Spectroscopy and Physical Chemistry Laboratory |  |
| $\begin{aligned} & \text { CH 354L } \\ & \text { \& CH } 154 \mathrm{~K} \end{aligned}$ | Physical Chemistry II and Physical Chemistry Laboratory |  |


| CH 455 | Fundamentals of Analytical Chemistry |  |
| :---: | :---: | :---: |
| BCH 369 <br> \& CHE 177K | Fundamentals of Biochemistry and Undergraduate Research Project |  |
| BCH 369 <br> \& CHE 177L | Fundamentals of Biochemistry and Undergraduate Research Project |  |
| CH 354 <br> \& CHE 177K | Quantum Chemistry and Spectroscopy and Undergraduate Research Project |  |
| CH 354 <br> \& CHE 177L | Quantum Chemistry and Spectroscopy and Undergraduate Research Project |  |
| Remaining Core Curriculum Courses |  |  |
| E 316L | British Literature ${ }^{1}$ | 3 |
| or E 316M | American Literature |  |
| or E 316 N | World Literature |  |
| or E 316P | Masterworks of Literature |  |
| American and Texas government ${ }^{2}$ |  | 6 |
| American history ${ }^{2}$ |  | 6 |
| Visual and performing arts ${ }^{3}$ |  | 3 |
| Social and behavioral sciences ${ }^{3}$ |  | 3 |
| UGS 302 | First-Year Signature Course ${ }^{4}$ | 3 |
| or UGS 303 | First-Year Signature Course |  |
| ---- |  |  |
| 1. Some sections of the English humanities courses (E 316L, $316 \mathrm{M}, 316 \mathrm{~N}, 316 \mathrm{P}$ ) carry a global cultures or cultural diversity flag. |  |  |
| 2. Some sections carry a cultural diversity flag. |  |  |
| 3. Some sections carry a global cultures and/or cultural diversity flag. |  |  |
| 4. In UGS 302, all sections carry a writing flag. In UGS 303, some sections carry a writing flag. |  |  |

## Honors Program

Chemical engineering students who are in the Engineering Honors Program and 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 Option Areas

Because of the broad training in natural sciences and engineering received by the chemical engineer, opportunities are provided for students also to develop particular talents and interests in one or two areas of emphasis. Each student must complete 12 semester hours in one of the following areas or six semester hours in each of two areas. These courses must include at least two engineering courses, of which one must be in Chemical Engineering. If two technical option areas are selected, then two courses from each technical option area should be completed. The technical area courses should be discussed with a faculty adviser during faculty advising for the next registration period. The courses listed in each area do not constitute a complete list of
technical option area courses but illustrate the types of courses that are generally suitable for a given area. A list of suggested complementary biology, physics, mathematics, and chemistry electives for each of the technical option areas is available from the Chemical Engineering Undergraduate Office and published on the departmental Web page.

Students 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. 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. Chemical Engineering 377K may be counted only once toward the degree.

## Area 1, Process Systems and Product Engineering

The chemical process industry is one of the most advanced in the applications of modern design and control techniques and computer technology. Competence in design, economics, fault detection, optimization, control, and simulation is essential in this industry. Chemical engineers are also frequently involved in the development of new consumer and specialty products, an assignment that requires not only technical skills but also an understanding of the principles of successful marketing and quality control. Chemical engineering courses in this technical focus area cover topics such as optimization and statistical quality control, while courses in mechanical engineering and electrical engineering deal with both theory and applications in statistics, computer control, economic analysis, and operations research.

Chemical Engineering 341, Design for Environment
Chemical Engineering 342, Chemical Engineering Economics and Business Analysis
Chemical Engineering 356, Optimization: Theory and Practice
Chemical Engineering 376K, Process Evaluation and Quality Control
Chemical Engineering 379, Topics in Chemical Engineering*
Electrical Engineering 370K, Computer Control Systems
Electrical Engineering 379K*
Architectural Engineering 323K, Project Management and Economics
Mechanical Engineering 335, Engineering Statistics
Mechanical Engineering 348F, Advanced Mechatronics II
Mechanical Engineering 353, Engineering Finance
Mechanical Engineering 366L, Operations Research Models
Marketing 320F, Foundations of Marketing
Upper-division mathematics course
*Approved topics

## Area 2, Materials Engineering

Advances in technology and improvements in our quality of life are linked to the development, processing, and manufacture of engineering materials. Materials span the spectrum from "hard" to "soft" materials and include metals, ceramics, semiconductors, and polymers; all are prepared in carefully controlled chemical processes. These materials are used technologically in objects such as catalysts, fuel cells, microelectronic devices, membranes, solar cells, and high-performance plastics. With advancements in analytical probes and modeling, our understanding of materials has become increasingly more molecular and the traditional boundaries between disciplines have faded to the extent that this is a truly interdisciplinary area. Chemical engineers can assume a creative role in this area when provided with the appropriate fundamentals and applications background.

Chemical Engineering 322M, Molecular Thermodynamics

Chemical Engineering 323, Chemical Engineering for Micro- and Nanofabrication
Chemical Engineering 355, Introduction to Polymers
Chemical Engineering 379*
Chemistry 341, Special Topics in Laboratory Chemistry
Chemistry 354, Quantum Chemistry and Spectroscopy
Chemistry 354L, Physical Chemistry II
Chemistry 367L, Macromolecular Chemistry
Chemistry 376K, Advanced Analytical Chemistry
Electrical Engineering 339, Solid-State Electronic Devices
Mechanical Engineering 349, Corrosion Engineering
Mechanical Engineering 359, Materials Selection
Mechanical Engineering 374S, Solar Energy Systems Design
Physics 338K, Electronic Techniques
Physics 355, Modern Physics and Thermodynamics
Physics 375S, Introductory Solid-State Physics
*Approved topics

## Area 3, Environmental Engineering

Chemical engineers are uniquely qualified to contribute to the solution of environmental problems and to design processes and products that minimize environmental hazards. From pollution prevention by process optimization, to new understanding of chemical processes that occur in the environment, to new materials for advanced catalysts and carbon-free energy sources, chemical engineers are creating the "green" technologies needed to sustain the planet.

Chemical Engineering 341, Design for Environment
Chemical Engineering 357, Technology and Its Impact on the Environment Chemical Engineering 359, Energy Technology and Policy
Chemical Engineering 376K, Process Evaluation and Quality Control Chemical Engineering 379*
Civil Engineering 341, Introduction to Environmental Engineering Civil Engineering 342, Water and Wastewater Treatment Engineering
Civil Engineering 364, Design of Wastewater and Water Treatment Facilities Civil Engineering 369L, Air Pollution Engineering
Civil Engineering 370K, Environmental Sampling and Analysis
Mechanical Engineering 374S, Solar Energy Systems Design
Mechanical Engineering 379M, Topics in Mechanical Engineering
*Approved topics

## Area 4, Biochemical, Biomolecular, and Biomedical Engineering

## Track A: Cellular and Bioprocess Engineering

Chemical engineers are developing innovative solutions to practical problems in biotechnology and in the biochemical, pharmaceutical, and life science industries. This track is designed to prepare students for a career or research in the areas of applied cellular engineering and bioprocess engineering in the chemicals and pharmaceutical industry. Chemical engineering and elective courses are available that cover chemical engineering principles applied to biological systems and the fundamentals of biomolecular, cellular, and metabolic processes. This track is also suitable for students interested in biofuels.

Chemical Engineering 339, Introduction to Biochemical Engineering
Chemical Engineering 339P, Introduction to Biological Physics
Chemical Engineering 379*
Biochemistry 369, Fundamentals of Biochemistry
Biochemistry 370, Physical Methods of Biochemistry
Biology 325, Genetics
Biology 326R, General Microbiology
Biology 339, Metabolism and Biochemistry of Microorganisms
*Approved topics

## Track B: Biomedical Engineering

This track is designed to prepare students for careers in the biomedical and pharmaceutical industries that deal with medical systems or improvement of health treatment alternatives. This is also a natural track to be followed by students who plan to attend medical school. Chemical engineering courses and electives are available that cover the application of chemical engineering principles to the design of new medical and therapeutic devices, as well as to the understanding of physiological processes.

Chemical Engineering 339, Introduction to Biochemical Engineering
Chemical Engineering 339P, Introduction to Biological Physics
Chemical Engineering 339T, Cell and Tissue Engineering
Chemical Engineering 355, Introduction to Polymers
Chemical Engineering 379*
Biology 320, Cell Biology
Biology 325, Genetics
Biology 326R, General Microbiology
Biology 365S, Human Systems Physiology
Biomedical Engineering 352, Engineering Biomaterials
Biomedical Engineering 353, Transport Phenomena in Living Systems
Biomedical Engineering 365R, Quantitative Engineering Physiology I
Biochemistry 369, Fundamentals of Biochemistry
Electrical Engineering 374K, Biomedical Electronic Instrument Design Mechanical Engineering 354, Introduction to Biomechanical Engineering
*Approved topics

## Area 5, Energy Technologies

The need for energy sustainability and new energy technologies provides some of the most significant scientific and engineering challenges that face society. Chemical engineers are uniquely qualified to address these issues and contribute new solutions to the problem. Technologies include solar energy utilization in the form of photovoltaics, biofuels and solar fuels; new and more efficient ways to extract fossil fuels from existing reservoirs; alternative power sources like wind, geothermal, and nuclear. Policy is also an important and active area that involves chemical engineers. Chemical engineering and other elective courses are available that teach fundamentals of energy technology and policy.

Chemical Engineering 323, Chemical Engineering for Micro- and Nanofabrication
Chemical Engineering 339, Introduction to Biochemical Engineering
Chemical Engineering 341, Design for Environment
Chemical Engineering 355, Introduction to Polymers
Chemical Engineering 357, Technology and Its Impact on the Environment
Chemical Engineering 359, Energy Technology and Policy
Chemical Engineering 379*
Civil Engineering 341, Introduction to Environmental Engineering
Electrical Engineering 339, Solid-State Electronic Devices
Mechanical Engineering 374S, Solar Energy Systems Design
Mechanical Engineering 379M, Topics in Mechanical Engineering
Petroleum and Geosystems Engineering 305, Energy and the Environment
Petroleum and Geosystems Engineering 430, Drilling and Well Completions
*Approved topics

## Area 6, Engineering Economics and Business Leadership

Chemical engineers who understand the economic and policy issues faced by modern chemical and materials companies are needed to solve the challenges of modern industry. Globalization, sustainability, safety and modern labor practices, intellectual property protection, and
the process of innovation are all issues facing modern industry. This focus area is designed to prepare students for business leadership in a technical arena.

Chemical Engineering 342, Chemical Engineering Economics and Business Analysis
Chemical Engineering 356, Optimization: Theory and Practice
Chemical Engineering 379, Topics in Chemical Engineering*
Architectural Engineering 323K, Project Management and Economics
Economics 304K, Introduction to Microeconomics
Economics 304L, Introduction to Macroeconomics
Economics 328, Industrial Organization
Economics 339K, International Trade and Investment
Economics 351 K , Current Issues in Business Economics
International Business 378, International Business Operations
Mechanical Engineering 353, Engineering Finance
Mechanical Engineering 366L, Operations Research Models
Marketing 320F, Foundations of Marketing
Marketing 460, Information and Analysis
Science, Technology, and Society 332, The Nanotechnology and Science Revolution
*Approved topics

## Suggested Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| CH 302 |  | 3 CH 204 | 2 |
| CHE 102 ${ }^{1}$ |  | 1 M 408 D | 4 |
| CHE 210 |  | 2 PHY 303K | 3 |
| M 408C |  | 4 PHY 103M | 1 |
| RHE 306 |  | 3 UGS 302 or 303 | 3 |
| Social and behavioral sciences |  | 3 American and Texas government | 3 |
|  |  | 6 | 16 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| CH 128 K |  | 1 CH 128 L | 1 |
| CH 328M |  | 3 CH 328 N | 3 |
| CHE 317 |  | 3 CH 353 | 3 |
| M 427J |  | 4 CHE 319 | 3 |
| PHY 303L |  | $3 \mathrm{E} 316 \mathrm{~L}, 316 \mathrm{M}, 316 \mathrm{~N}$, or 316P | 3 |
| PHY 103N |  | 1 M 427 L | 4 |
|  |  | 5 | 17 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| CH 153K |  | 1 CHE 253M | 2 |
| CHE 322 |  | 3 CHE 363 | 3 |
| CHE 333T |  | 3 CHE 348 | 3 |
| CHE 253K |  | 2 CHE 338 | 3 |
| CHE 354 |  | 3 American history | 3 |
| Chemistry elective |  | 4 Visual and performing arts | 3 |
|  |  | 6 | 17 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| CHE 350 |  | 3 CHE 360 | 3 |
| CHE 264 |  | 2 CHE 473K | 4 |
| CHE 372 |  | 3 American history | 3 |
| Approved engineering area course |  | 3 Approved engineering area course | 3 |
| American and Texas government |  | 3 Approved technical area course | 3 |

Approved technical area course 3

## Total credit hours: 130

1 Optional; students who do not take this course will take 15 hours of coursework in the fall semester of the first year. Actual credit hours for the degree is 129 .

## Bachelor of Science in Civil Engineering

Civil engineers design, construct, operate and maintain the physical fabric of society. In doing so, civil engineers work toward continuous improvement of the human condition and natural environment, tackling many of the grand challenges that face humankind today. Much of the work of civil engineers is highly visible, such as roadways, bridges, airports, levees, buildings, bike paths, and city parks, while other parts are rarely seen but equally vital to the health of communities, such as the water and wastewater treatment, distribution, and collection systems or the energy infrastructure. Civil engineers keep human beings safe by designing resilient infrastructure that does not fail in extraordinary events, but that is also socially, economically, and environmentally sustainable.

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 18 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, the desire to be a professional, and a desire to work with others to better the lives of humankind. 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.

## Student Outcomes

Graduates of the civil engineering program should attain the following outcomes:

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- An ability to communicate effectively with a range of audiences
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies


## Program Educational Objectives

Graduates of the civil engineering program should solve civil engineering problems within a greater societal context. They should:

- Exhibit character and decision-making skills embodying professionalism and ethical behavior
- Apply knowledge, strong reasoning, and quantitative skills to design and implement creative and sustainable solutions
- Engage in lifelong learning to meet evolving engineering challenges facing society
- Exhibit strong communication, critical thinking, interpersonal, and management skills as leaders and contributors in the civil engineering profession


## Portable Computing Devices

Students entering Civil Engineering are required to have a laptop at their disposal. Laptops do not need to be brought to campus on a daily basis, but individual courses may require that a laptop be brought to class or lab sessions. For a list of minimum system requirements see: www.caee.utexas.edu/students/itss.

## Curriculum

Course requirements include courses within the Cockrell School of Engineering and other required courses. In addition, each student must complete the University's Core Curriculum (p. 23). In some cases, a course required for the Bachelor of Science in Civil Engineering may also be counted toward the core curriculum; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag and one writing flag are carried by courses specifically required for the degree; these courses are identified below. Students are advised to fulfill the second writing flag requirement with a course that meets another requirement of the core curriculum. Courses that may be used to fulfill flag requirements (p. 23) are identified in the Course Schedule.

Requirements
Hours
Civil Engineering Courses

| C E 301 | Civil Engineering Systems | 3 |
| :---: | :---: | :---: |
| C E 311 K | Introduction to Computer Methods | 3 |
| CE311S | Probability and Statistics for Civil Engineers | 3 |
| C E 319F | Elementary Mechanics of Fluids | 3 |
| C E 321 | Transportation Systems ${ }^{1}$ | 3 |
| C E 324P | Properties and Behavior of Engineering Materials ${ }^{1}$ | 3 |
| C E 329 | Structural Analysis ${ }^{1}$ | 3 |
| C E 333T | Engineering Communication (writing flag; ethics flag) | 3 |



Civil Engineering 362M, Advanced Reinforced Concrete Design (carries an independent inquiry flag)
Civil Engineering 362N, Advanced Steel Design (carries an independent inquiry flag)
Civil Engineering 363, Advanced Structural Analysis
Transportation Engineering
Civil Engineering 367G, Design and Evaluation of Ground-Based
Transportation Systems (carries an independent inquiry flag)
Civil Engineering 367P, Pavement Design and Performance
Civil Engineering 367T, Traffic Engineering
Civil Engineering 367R, Optimization Techniques for Transportation
Engineers
Civil Engineering 358, Introductory Ocean Engineering
Civil Engineering 365K, Hydraulic Engineering Design (carries an
independent inquiry flag)
Civil Engineering 374K, Hydrology
Civil Engineering 374L, Groundwater Hydraulics

## Suggested Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| C E 301 |  | 3 CH 302 | 3 |
| CH 301 |  | 3 ME 210 | 2 |
| M 408C |  | $4 \mathrm{M} \mathrm{408D}$ | 4 |
| RHE 306 |  | 3 PHY 303K | 3 |
| UGS 302 or 303 |  | 3 PHY 103M | 1 |
|  |  | Social and behavioral sciences or visual and performing arts (may be taken in any semester) | 3 |
|  |  | 6 | 16 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| C E 311 K |  | 3 CE311S | 3 |
| EM 306 |  | 3 EM 319 | 3 |
| M 427J |  | 4 C E 319F | 3 |
| PHY 303L |  | 3 CE333T | 3 |
| PHY 103N |  | 1 American history (may be taken in any semester) | 3 |
| American history (may be taken in any semester) |  | 3 |  |
|  |  | 7 | 15 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| C E 324P |  | 3 E M 311 M or M E 320 | 3 |
| Base level course |  | 3 Base level course | 3 |
| Base level course |  | 3 Base level course | 3 |
| Base level course |  | 3 Base level course | 3 |
| E 316L, $316 \mathrm{M}, 316 \mathrm{~N}$, or 316 P |  | 3 Social and behavioral sciences or visual and performing arts (may be taken in any semester) | 3 |
|  |  | 5 | 15 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| Technical Elective |  | 3 C E 370P | 3 |
| Technical Elective |  | 3 Technical Elective | 3 |
| Technical Elective |  | 3 Technical Elective | 3 |
| Approved science elective (may be taken in any semester) |  | 3 Technical Elective | 3 |
| American and Texas government (may be taken in any semester) |  | 3 American government (may be taken in any semester) | 3 |


| 15 | 15 |
| :--- | :--- | :--- |

[^2]
## Bachelor of Science in Computational Engineering

Computational engineering is a relatively new field in engineering that recognizes the increasing demand for advanced computational methods in engineering practice. Computational engineering in this context refers to the study and development of computer algorithms that translate mathematical and physical descriptions of engineering problems into languages and software that computers can process. This emphasis distinguishes computational engineering from computer science and computer engineering. Computational engineers must have basic knowledge of fundamental engineering and science, with more advanced knowledge of mathematics, algorithms and software engineering and design. Because of their extensive education in these disciplines, computational engineers can work in a variety of areas.

The objectives of the computational engineering degree program are to prepare students for professional practice in engineering; to prepare students for such post-baccalaureate study as their aptitudes and professional goals may dictate; to instill in students a commitment to acquire and apply new knowledge 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 and the humanities, integrates classroom and laboratory experiences in engineering, with advanced instruction in mathematics, statistics and computational science. The curriculum requires students to use modern engineering tools and computer technology, to work individually, and to practice teamwork.

The initial coursework in the computational engineering curriculum emphasize fundamental material along with engineering sciences, while the later coursework goes into further depth in mathematics, algorithms, computer languages, software engineering and design, and experimentation. The major offers technical electives in the third and fourth years where students may choose from a variety of courses that orient them towards different engineering applications and better prepare those students who may choose to pursue a graduate degree.

## Student Outcomes

Attainment of these outcomes prepares graduates to enter the professional practice of engineering. Computational engineering graduates should demonstrate:

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- An ability to communicate effectively with a range of audiences
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies


## Program Educational Objectives

Within a few years of graduation, computational engineering graduates should:

- Contribute to the economic development of Texas and the nation through the ethical practice of computational engineering in industry and public service
- Exhibit leadership in technical or business activity through engineering ability, communication skills, and knowledge of contemporary and global issues
- Continue to educate themselves through professional study and personal research
- Be prepared for admission to, and to excel in, the best graduate programs in the world
- Use their engineering ability and creative potential to create technology that will improve the quality of life in society


## Portable Computing Devices

Students entering computational engineering are required to have access to a portable computing device capable of running the software tools required for undergraduate engineering analyses (MATLAB, SOLIDWORKS, Word, Excel, etc.) and accessing to the remote server for the department. This device does not need to be brought to campus on a daily basis, but individual courses may require that the device be brought to certain lectures, labs, and/or exams. Minimum and recommended specifications may be found on the department website.

## Curriculum

Course requirements include courses within the Cockrell School of Engineering and other required courses. In addition, each student must complete the University's Core Curriculum. In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the United States flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, and both writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements are identified in the Course Schedule.

Courses used to fulfill technical elective requirements must be approved by the computational engineering faculty before the student enrolls in them.

The student must take all courses required for the degree on the lettergrade basis and must earn a grade of at least $C$ - in each course, except for those listed as Remaining Core Curriculum Courses. He or she must also maintain grade point averages of at least 2.00 in the major area of study and in required technical courses as described in Academic Standards, and a cumulative University grade point average of at least 2.00 as described in General Information.

## Requirements

Hours
Computational Engineering Courses

| COE 301 | Introduction to Computer <br> Programming |
| :--- | :--- |
| COE 311 K | Engineering Computation |


| COE 321K | Computational Methods for Structural Analysis | 3 |
| :---: | :---: | :---: |
| COE 322 | Scientific Computation | 3 |
| COE 332 | Software Engineering and Design | 3 |
| COE 347 | Introduction to Computational Fluid Dynamics | 3 |
| COE 352 | Advanced Scientific Computation | 3 |
| COE 374 | Senior Design Project (writing flag and independent inquiry flag) | 3 |
| Aerospace Engineering |  |  |
| ASE 320 | Low-Speed Aerodynamics | 3 |
| ASE 330M | Linear System Analysis | 3 |
| ASE 333T | Engineering Communication (writing flag and ethics flag) | 3 |
| ASE 375 | Electromechanical Systems | 3 |
| Chemistry |  |  |
| CH 301 | Principles of Chemistry I (part II science and technology) | 3 |
| Engineering Mechanics |  |  |
| E M 306 | Statics | 3 |
| E M 311M | Dynamics | 3 |
| E M 319 | Mechanics of Solids | 3 |
| Mathematics |  |  |
| M 408C | Differential and Integral Calculus (mathematics; quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| M 427J | Differential Equations with Linear Algebra (quantitative reasoning flag) | 4 |
| M 427L | Advanced Calculus for Applications II | 4 |
| M 362K | Probability I | 3 |
| Mechanical Engineering Courses |  |  |
| M E 210 | Engineering Design Graphics | 2 |
| M E 310T | Applied Thermodynamics | 3 |
| Physics |  |  |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| PHY 303K | Engineering Physics I (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 303L | Engineering Physics II (part I science and technology; quantitative reasoning flag) | 3 |

## Other required courses

Approved technical electives
Rhetoric and Writing

RHE $306 \quad$| Rhetoric and Writing (English |
| :--- | :--- |
| composition) |

Remaining Core Curriculum Courses

| E 316 L | British Literature ${ }^{1}$ | 3 |
| :---: | :--- | :--- |
| or E 316 M | American Literature |  |
| or E 316 N | World Literature |  |
| or E 316 P | Masterworks of Literature |  |

American and Texas government ${ }^{2}$

| American history ${ }^{2}$ | 6 |
| :--- | :--- |
| Social and behavioral sciences $^{3}$ | 3 |
| Visual and performing arts $^{3}$ | 3 |
| UGS 302 | First-Year Signature Course ${ }^{4}$ |
| or UGS 303 First-Year Signature Course | 3 |

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1. Some sections of the English humanities courses (E 316L, $316 \mathrm{M}, 316 \mathrm{~N}, 316 \mathrm{P}$ ) carry a global cultures or cultural diversity flag.
2. Some sections carry a cultural diversity flag.
3. Some sections carry a global cultures and/or cultural diversity flag.
4. In UGS 302, all sections carry a writing flag; in UGS 303, some sections carry a writing flag.

## Total Hours

## Technical Electives

The technical electives allow students to focus in a specific area. Of the 15 hours in the degree plan, the following distribution is required. The list of approved electives may be found on the department website.

- Advanced Elective: At least six hours must be chosen from the approved list of advanced electives.
- Math/Computational Elective: Up to six hours may be chosen from the approved list of math/computational electives or six more hours of advanced electives.
- Foundational Elective: Up to three hours may be chosen from the approved list of foundational electives or three more hours of advanced or math/computational electives.


## Suggested Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| UGS 302 or 303 |  | 3 COE 301 | 3 |
| CH 301 |  | $3 \mathrm{M} \mathrm{408D}$ | 4 |
| M 408C |  | 4 PHY 303K | 3 |
| RHE 306 |  | 3 PHY 103M | 1 |
| Social and behavioral sciences |  | 3 M E 210 | 2 |
|  |  | American history | 3 |
|  | 16 |  | 16 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| E M 306 |  | 3 COE 311 K | 3 |
| COE 322 |  | 3 COE 332 | 3 |
| M 427J |  | 4 E M 311 M | 3 |
| PHY 303L |  | 3 M 427L | 4 |
| PHY 103N |  | 1 American and Texas government | 3 |
| M E 310T |  | 3 |  |
|  | 17 |  | 16 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| ASE 320 |  | 3 ASE 330M | 3 |
| ASE 333T |  | 3 COE 321 K | 3 |
| COE 352 |  | 3 COE 347 | 3 |
| E M 319 |  | 3 Technical elective | 3 |
| M 362K |  | 3 E 316L, 316M, 316N, or 316P | 3 |
|  |  | 5 | 15 |

Fourth Year
First Term Hours Second Term Hours

ASE 375
Technical electives
American and Texas government
Visual and performing arts
3
6 Technical electives 6
3 American history 3
3
15

Total credit hours: 122

## Bachelor of Science in Electrical Engineering

Students seeking the Bachelor of Science in Electrical Engineering pursue one of two curricula-electrical engineering or computer engineering. Both curricula contain the fundamentals of electrical engineering and computer engineering; they differ in technical core requirements in order to suit different career objectives.

The curricula in electrical engineering and computer engineering are designed to educate students in the fundamentals of engineering, which are built upon a foundation of mathematics, science, communication, and the liberal arts. Graduates should be equipped to advance their knowledge while contributing professionally to a rapidly changing technology. Areas in which electrical and computer engineers contribute significantly are: communications, signal processing, networks and systems, electronics and integrated circuits, energy systems and renewable energy, fields, waves and electromagnetic systems, nanoelectronics and nanotechnology, computer architecture and embedded systems, and software engineering and design. Typical career paths of graduates include design, development, management, consulting, teaching, and research. Many graduates seek further education in law, medicine, business, or engineering.

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 an advanced technical component and a set of free electives from within or outside of the department. Once the technical core area is chosen, the student is assigned a faculty advisor with expertise in that area to help the student select technical core courses that are appropriate to his or her career and educational goals. The curriculum thus ensures breadth through the core courses and the choice of a technical elective; technical core area coursework provides additional depth.

## Student Outcomes

Electrical and computer engineering graduates should demonstrate:

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- An ability to communicate effectively with a range of audiences
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic environmental, and societal contexts
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies


## Program Educational Objectives

Electrical and computer engineering graduates should:

- Contribute to the economic development of Texas and beyond through the ethical practice of electrical and computer engineering in industry and public service
- Exhibit leadership in technical or business activity through engineering ability, communication skills, and knowledge of contemporary and global issues
- Continue to educate themselves through professional study and personal research
- Be prepared for admission to, and to excel in, the best graduate programs in the world
- Design systems to collect, encode, store, transmit, and process energy and information, and to evaluate system performance, either individually or in teams
- Use their engineering ability and creative potential to create technology that will improve the quality of life in society


## Portable Computing Devices

Students enrolled in a degree program in electrical and computer engineering will be expected to own a portable computing device capable of compiling and running a program suitable for use in the classroom and on the University wireless network. Use of these devices in the classroom and as a general part of the learning experience within our programs is at the discretion of faculty and not all classes or courses of instruction will require the use of these devices. Once admitted, students will be informed by the Electrical and Computer Engineering Department (ECE) office about specific device requirements.

## Curriculum

Course requirements include courses within the Cockrell School of Engineering and other required courses. In addition, each student must complete the University's core curriculum. In some cases, a course that fulfills one of the following requirements may also be counted toward the core curriculum; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, and two writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements ( p .23 ) are identified in the Course Schedule. More information about flags is given in Skills and Experiences Flags (p. 23).

Enrollment in Electrical Engineering 333T, 160, 260, 360, 460, and 379K requires completion of Electrical Engineering 312 or 313 with a grade of at least $C$-.

Pre-approved courses are used to fulfill technical core, advanced math and/or science and core technical electives; other elective courses must be approved by the electrical and computer engineering faculty before the student enrolls in them.

Transfer Coursework: No more than 25 semester credit hours of transfer electrical engineering coursework may be counted for credit toward the electrical engineering degree.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Electrical Engineering Courses |  |  |
| E E 302 | Introduction to Electrical Engineering (part II science and technology) | 3 |
| E E 306 | Introduction to Computing | 3 |
| E E 411 | Circuit Theory | 4 |
| E E 312 | Software Design and Implementation I | 3 |
| or E E 312H | Software Design and Implementatio |  |
| E E 313 | Linear Systems and Signals | 3 |
| E E 319K | Introduction to Embedded Systems | 3 |
| E E 333T | Engineering Communication (writing flag) | 3 |
| E E351K | Probability and Random Processes | 3 |
| E E 364D | Introduction to Engineering Design (writing flag) | 3 |
| or E E 364E | Interdisciplinary Entrepreneurship |  |
| One of the following senior design project courses: |  | 4 |
| E E 464G | Multidisciplinary Senior Design Project (independent inquiry flag) |  |
| E E 464H | Honors Senior Design Project (independent inquiry flag) |  |
| E E 464K | Senior Design Project (independent inquiry flag) |  |
| E E 464R | Research Senior Design Project (independent inquiry flag) |  |
| E E 464S | Start-Up Senior Design Project |  |
| Advance technical component: Within an identified "core": two core courses (six-seven hours), one core laboratory course (four hours), one advanced mathematics course (three-four hours) |  |  |
| Advanced technical component electives: Within the same identified "core": four courses (minimum 12 hours) |  |  |
| Advanced technical elective: Within any core of Electrical Engineering: one upper-division electrical engineering course (or E E 316) (three-four hours) ${ }^{1}$ |  |  |
| Set of free electives: at least 14 hours of additional coursework taken for a letter grade. ${ }^{2}$ |  |  |
| Other Technical Courses |  |  |
| Mathematics |  |  |
| M 408C \& M 408D | Differential and Integral Calculus and Sequences, Series, and Multivariable Calculus (mathematics; quantitative reasoning flag) | 8 |
| or |  |  |
| M 408K <br> \& M 408L <br> \& M 408M | Differential Calculus and Integral Calculus and Multivariable Calculus |  |
| M 427J | Differential Equations with Linear Algebra (quantitative reasoning flag) | 4 |
| M 340L | Matrices and Matrix Calculations | 3 |
| Physics |  |  |


| PHY 103M | Laboratory for Physics 303K |  |
| :---: | :---: | :---: |
| PHY 103N | Laboratory for Physics 303L |  |
| PHY 303K | Engineering Physics I (part I science and technology; quantitative reasoning flag) | 3 |
| PHY 303L | Engineering Physics II (part I science and technology; quantitative reasoning flag) | 3 |
| Rhetoric and Writing |  |  |
| RHE 306 | Rhetoric and Writing (English composition) | 3 |
| Remaining Core Curriculum Courses |  |  |
| E 316L | British Literature ${ }^{3}$ | 3 |
| or E 316M | American Literature |  |
| or E 316 N | World Literature |  |
| or E316P | Masterworks of Literature |  |
| American and Texas government ${ }^{4}$ |  | 6 |
| American history ${ }^{4}$ |  | 6 |
| Visual and performing arts ${ }^{5}$ |  | 3 |
| Social and behavioral science ${ }^{5}$ |  | 3 |
| UGS 302 | First-Year Signature Course ${ }^{6}$ | 3 |
| or UGS 303 | First-Year Signature Course |  |
| ---- |  |  |
| 1. E E Option: Advanced Technical Component (mathematics) is four hours and one Advanced Technical Component Requirement is three hours. C E Option: Advanced Technical Component (mathematics) is three hours and one Advanced Technical Component Elective is four hours. |  |  |
| 2. Must include at least one advanced mathematics or basic science course (three hours); no more than three hours of lower-division coursework; all coursework must count for a major in the offering department; all coursework must be taken in residence, except that up to three credit hours can be transferred with approval; no course can duplicate a course the student has taken or is required to take as part of the other Electrical Engineering coursework requirements. |  |  |
| 3. Some sections of the English humanities courses (E 316L, 316M, 316N, 316P) carry a global cultures or cultural diversity flag. |  |  |
| 4. Some sections carry a cultural diversity flag. |  |  |
| 5. Some sections carry a global cultures and/or cultural diversity flag. |  |  |
| 6. In UGS 302, all sections carry a writing flag; in UGS 303, some sections carry a writing flag. |  |  |

## Total Hours

## Integrated BSEE/MSE program

The integrated degree program results in simultaneously awarding a Bachelor of Science in Electrical Engineering: Integrated Option (BSEE) degree, and a Master's of Science in Engineering (MSE) degree in any one of the ten graduate tracks offered by the graduate program in electrical and computer engineering (ECE).

There are two stages to admission, an informal non-binding department based stage and a second stage in which the student formally applies to the Graduate School within the integrated BSEE/MSE program and within one of the available ECE graduate tracks. At stage one, undergraduate students in the ECE department may apply to the integrated degree program after qualifying for admission to major sequence. The purpose of stage one is primarily to provide appropriate advising to students
interested in and appropriate for the integrated program. Admission to the integrated program at stage one is based on the applicant's grade point average, letters of recommendation, a statement of purpose, and other relevant examples of academic ability and leadership. Students will be advised by the integrated program advisor about the appropriate courses to take and reserve for graduate credit in their senior year in order to complete the integrated program as efficiently as possible. As for admission to the regular standalone MSE program, all admissions decisions at stage two are made by the admissions committee in the respective graduate track, with admission requirements set by the graduate track, with the exception that Graduate Record Exam (GRE) test scores are not required of integrated program participants. While optimal, application and admission at stage one are not required for application and admission to the integrated program at stage two.

The integrated program requires 120 semester credit hours (SCH) for the BSEE portion of the integrated program, as opposed to the 125 SCH minimum required for the BSEE degree alone. Students in the integrated program begin taking graduate courses as seniors. Students admitted to the integrated program will normally take and reserve for graduate credit two graduate courses in place of approved electives from the advanced technical coursework that would otherwise be required in the regular/ standalone BSEE program. However, precisely which BSEE electives are to be replaced by the graduate courses can be adjusted as approved by technical core faculty advisors.

Students in this program will receive the BSEE and MSE degrees simultaneously after successfully completing a minimum total of 150 semester credit hours, 30 of which must qualify for the MSE program of work in electrical and computer engineering. Students unable to successfully complete the integrated program may obtain a BSEE degree by satisfying all of the requirements for the standalone BSEE degree. Since the regular BSEE degree requirements are a subset of the Integrated BSEE/MSE Program degree requirements, an undergraduate student should still be on a trajectory to graduate with the regular BSEE degree in the same timeframe that the student was on when applying to the Integrated BSEE/MSE Program. A student dismissed from the integrated program while a graduate student should already meet the degree requirements for the regular BSEE degree.

Information regarding the integrated program requirements and policies may be obtained from the ECE advising offices.

## Upper-Division Technical Component Areas

Both electrical engineering and computer engineering students must choose an advanced technical component area. Electrical engineering students must choose their advanced technical component area from the electrical engineering technical areas listed below; computer engineering students must choose their technical component area from the computer engineering technical areas.

For all technical component areas, the student must complete all courses in the area on the letter-grade basis.

## Electrical Engineering Advanced Technical Component Areas Communications, Signal Processing, Networks, and Systems

Communications, signal processing, networks, and systems broadly encompasses the principles underlying the design and implementation of systems for information transmission. The field considers how information is represented, compressed, and transmitted on wired and wireless links and how communication networks can be, and are, designed and operated. A student who chooses this technical component area should recognize that communications and networking is a broad application domain where many engineering tools come
into play. from circuit design for wireless phones to embedded network processors to system and application software for networked systems.

Students complete the following:

1. Either Electrical Engineering 325, Electromagnetic Engineering or E E 351M Digital Signal Processing
2. One of the following: Electrical Engineering 362 K , Introduction to Automatic Control, Electrical Engineering 371Q, Digital Image Processing, or E E 360K Introduction to Digital Communications
3. Core laboratory course: Either Electrical Engineering 445S, RealTime Digital Signal Processing Laboratory, or E E 471C Wireless Communications Laboratory
4. Core mathematics course: Mathematics 427L, Advanced Calculus for Applications II
5. Four courses from the following list:

Electrical Engineering 325, Electromagnetic Engineering
Electrical Engineering 325K, Antennas and Wireless Propagation Electrical Engineering 445S, Real-Time Digital Signal Processing Laboratory
Electrical Engineering 351M, Digital Signal Processing
Electrical Engineering 360C, Algorithms
Electrical Engineering 460J, Data Science Laboratory
Electrical Engineering 360K, Introduction to Digital Communications
Electrical Engineering 461P, Data Science Principles
Electrical Engineering 362K, Introduction to Automatic Control Electrical Engineering 363M, Microwave and Radio Frequency Engineering
Electrical Engineering 471C, Wireless Communications Laboratory
Electrical Engineering 371Q, Digital Image Processing
Mathematics 325K, Discrete Mathematics
Mathematics 362M, Introduction to Stochastic Processes (carries a quantitative reasoning flag)
Mathematics 365C, Real Analysis I

## Electronics and Integrated Circuits

The electronics and integrated circuits technical component area involves the design and analysis of the circuits that provide the functionality of a system. The types of circuits that students encounter include analog and digital integrated circuits, radio frequency circuits, mixed signal (combination of analog and digital) circuits, power electronics, and biomedical electronics. The design and implementation of integrated circuits and systems using analog and digital building blocks are included in this core area. A student should choose this technical component area if he or she is interested in designing chips for applications, such as computing, telecommunications, and signal processing.

Students complete the following:

1. Electrical Engineering 325, Electromagnetic Engineering
2. Electrical Engineering 339, Solid-State Electronic Devices
3. Core laboratory course: Electrical Engineering 438, Fundamentals of Electronic Circuits I Laboratory
4. Core mathematics course: Mathematics 427L, Advanced Calculus for Applications II
5. Electrical Engineering 316, Digital Logic Design
6. Three courses from the following list:

Electrical Engineering 321K, Mixed Signal and Circuits Laboratory
Electrical Engineering 438K, Analog Electronics
Electrical Engineering 338L, Analog Integrated Circuit Design
Electrical Engineering 440, Integrated Circuit Nanomanufacturing Techniques
Electrical Engineering 445L, Embedded Systems Design Laboratory

Electrical Engineering 445S, Real-Time Digital Signal Processing Laboratory
Electrical Engineering 460M, Digital Systems Design Using HDL
Electrical Engineering 460N, Computer Architecture
Electrical Engineering 460R, Introduction to VLSI Design
Electrical Engineering 360S, Digital Integrated Circuit Design
Electrical Engineering 361R, Radio-Frequency Electronics
Electrical Engineering 363M, Microwave and Radio Frequency Engineering
Electrical Engineering 374K, Biomedical Electronic Instrument Design Electrical Engineering 374L, Applications of Biomedical Engineering

## Energy Systems and Renewable Energy

This technical component area provides the foundation for a career in electric power systems, generation, grid operation, motors and drives, and renewable energy sources. This area involves the study and design of reliable and economic electric power systems, including both traditional and renewable resources. Energy conversion involves conversion to and from electrical energy, including the study and design of electrical machines.

Students complete the following:

1. Electrical Engineering 325, Electromagnetic Engineering
2. Electrical Engineering 368L, Power Systems Apparatus and Laboratory or Electrical Engineering 369, Power Systems Engineering
3. Core laboratory course: Electrical Engineering 462L, Power Electronics Laboratory
4. Core mathematics course: Mathematics 427L, Advanced Calculus for Applications II
5. Electrical Engineering 362K, Introduction to Automatic Control
6. Three courses from the following list:

Electrical Engineering 339, Solid-State Electronic Devices
Electrical Engineering 339S, Solar Energy Conversion Devices Electrical Engineering 341, Electric Drives and Machines Electrical Engineering 362Q, Power Quality and Harmonics Electrical Engineering 362R, Renewable Energy and Power Systems Electrical Engineering 362S, Development of a Solar-Powered Vehicle Electrical Engineering 368L, Power Systems Apparatus and Laboratory Electrical Engineering 369, Power Systems Engineering
Mechanical Engineering 337C, Introduction to Nuclear Power Systems

## Fields, Waves, and Electromagnetic Systems

Students in this technical component area study different aspects of applied electromagnetics, including antennas, radio wave propagation, microwave and radio frequency circuits and transmission structures, optical components and lasers, and engineering acoustics. A student should choose the electromagnetic engineering area if he or she is interested in engineering that involves the physical layer in modern communication and radar systems. Graduates are well positioned for jobs in antenna design and testing, propagation channel characterization, microwave and radio frequency circuit design, electromagnetic emission testing from electronic devices and systems, radar system design and development, optical telecommunication, optical information and signal processing systems, and component design and development.

Students complete the following:

1. Electrical Engineering 325, Electromagnetic Engineering
2. Electrical Engineering 339, Solid-State Electronic Devices
3. Core laboratory course: Electrical Engineering 438, Fundamentals of Electronic Circuits I Laboratory or Electrical Engineering 462L, Power Electronics Laboratory
4. Core mathematics course: Mathematics 427L, Advanced Calculus for Applications II
5. Either Electrical Engineering 325K, Antennas and Wireless Propagation or Electrical Engineering 363M, Microwave and Radio Frequency Engineering
6. Three courses from the following list:

Electrical Engineering 321K, Mixed Signal and Circuits Laboratory Electrical Engineering 325K, Antennas and Wireless Propagation Electrical Engineering 334K, Quantum Theory of Electronic Materials Electrical Engineering 341, Electric Drives and Machines Electrical Engineering 347, Modern Optics
Electrical Engineering 348, Laser and Optical Engineering
Electrical Engineering 361R, Radio-Frequency Electronics
Electrical Engineering 363M, Microwave and Radio Frequency Engineering
Electrical Engineering 363N, Engineering Acoustics
Electrical Engineering 369, Power Systems Engineering
Electrical Engineering 374K, Biomedical Electronic Instrument Design
Electrical Engineering 374L, Applications of Biomedical Engineering

## Nanoelectronics and Nanotechnology

Students in this technical component area learn about the materials and devices used in modern electronic and optoelectronic systems. Through required and electives courses, students learn about the fundamentals of charge transport and interactions with light in semiconductors. They learn about devices beginning with diodes and transistors, the building blocks of integrated circuits, and extending to photodiodes, semiconductor lasers, photodetectors and photovoltaic devices. They learn about microelectronics fabrication techniques. And they are introduced to quantum mechanics, particularly as it applies to electronic and optoelectronic materials and devices. Students may also explore device applications through digital and analog circuit design. With exposure to the topics in this area, students are well positioned to work in a wide variety of fields that rely on semiconductor devices, such as computers, telecommunications, the automotive industry, and consumer electronics.

Students complete the following:

1. Electrical Engineering 325, Electromagnetic Engineering
2. Electrical Engineering 339, Solid-State Electronic Devices
3. Core laboratory course: Electrical Engineering 440, Integrated Circuit Nanomanufacturing Techniques
4. Core mathematics course: Mathematics 427L, Advanced Calculus for Applications II
5. Four courses from the following list:

Electrical Engineering 334K, Quantum Theory of Electronic Materials
Electrical Engineering 438, Fundamentals of Electronic Circuits I Laboratory
Electrical Engineering 338L, Analog Integrated Circuit Design
Electrical Engineering 339S, Solar Energy Conversion Devices
Electrical Engineering 347, Modern Optics
Electrical Engineering 348, Laser and Optical Engineering
Electrical Engineering 360S, Digital Integrated Circuit Design
Electrical Engineering 438, Fundamentals of Electronic Circuits I Laboratory
Electrical Engineering 460R, Introduction to VLSI Design

## Computer Engineering Advanced Technical Component Areas

## Computer Architecture and Embedded Systems

Computer architecture involves understanding the operation and design of computers on many different levels. These levels include the instruction set, microarchitecture, and logic design. Embedded
systems represent the combination of software and hardware that are designed to perform specific functions. These systems may be standalone items or an integral part of a larger system. Within this technical component area, students are exposed to logic design, programming, computer architecture, systems design, and digital signal processing. The student studying computer architecture will be well positioned to join the microprocessor design industry as a logic designer or a circuit designer. After a good deal of experience on the job, the student would be well positioned to become the chief architect of a new design.

Jobs in embedded systems involve defining, designing, and fabricating application-specific processors and computers in areas such as automotive electronics, consumer devices, and telecommunications.

Students complete the following:

1. Electrical Engineering 316, Digital Logic Design
2. Electrical Engineering 460N, Computer Architecture
3. Core laboratory course: Electrical Engineering 445L, Embedded Systems Design Laboratory
4. Core mathematics course: Mathematics 325 K , Discrete Mathematics
5. Electrical Engineering 360C, Algorithms
6. Three courses from the following list:

Electrical Engineering 422C, Software Design and Implementation II Electrical Engineering 445M, Embedded and Real-Time Systems Laboratory
Electrical Engineering 445S, Real-Time Digital Signal Processing Laboratory
Electrical Engineering 460M, Digital Systems Design Using HDL
Electrical Engineering 360P, Concurrent and Distributed Systems
Electrical Engineering 460R, Introduction to VLSI Design
Electrical Engineering 362K, Introduction to Automatic Control
Computer Science 375, Compilers

## Software Engineering and Design

Courses in this area cover the engineering life cycle of software systems, including requirement analysis and specification, design, construction/ programming, testing, deployment, maintenance, and evolution. Area courses are intended to teach students theory, practical methods, and tools for designing, building, delivering, maintaining, and evolving software to meet stakeholder requirements. Every software engineer must understand how software systems operate and how they can be used to solve engineering problems and deliver solutions. The courses in this area are designed to educate students about a diverse and relevant set of technologies and about the ways that technology can be used to design and build software systems.

Students complete the following:

1. Electrical Engineering 422C, Software Design and Implementation II
2. Electrical Engineering 360C, Algorithms
3. Core laboratory course: Electrical Engineering 461L, Software Engineering and Design Laboratory
4. Core mathematics course: Mathematics 325 K , Discrete Mathematics
5. Four courses from the following list:

Electrical Engineering 316, Digital Logic Design
Electrical Engineering 445L, Embedded Systems Design Laboratory Electrical Engineering 445M, Embedded and Real-Time Systems Laboratory
Electrical Engineering 360F, Introduction to Software Engineering Electrical Engineering 460N, Computer Architecture
Electrical Engineering 360P, Concurrent and Distributed Systems Electrical Engineering 361Q, Requirements Engineering
Electrical Engineering 372N, Telecommunication Networks

Electrical Engineering 360T, Software Testing
Electrical Engineering 461P, Data Science Principles

## Data Science and Information Processing

This technical component trains students in information and signal processing, data mining as well as decision and control algorithms. Applications include data analytics, machine learning, sound and image processing as well as knowledge extraction and actuation.

Students complete the following:

1. Electrical Engineering 461P, Data Science Principles
2. Electrical Engineering 360C, Algorithms
3. Core laboratory course: Electrical Engineering 460J, Data Science Laboratory
4. Core mathematics course: Mathematics 325 K , Discrete Mathematics
5. Electrical Engineering 351M, Digital Signal Processing
6. Three courses from the following list:

Electrical Engineering 422C, Software Design and Implementation II Electrical Engineering 445S, Real-Time Digital Signal Processing Laboratory
Electrical Engineering 360P, Concurrent and Distributed Systems
Electrical Engineering 361C, Multicore Computing
Electrical Engineering 461L, Software Engineering and Design Laboratory
Electrical Engineering 362K, Introduction to Automatic Control Electrical Engineering 471C, Wireless Communications Laboratory Electrical Engineering 371Q, Digital Image Processing

## Alternate Mathematics Courses

For students who choose an advanced technical component area in computer engineering:

Mathematics 427L, Advanced Calculus for Applications II Mathematics 328K, Introduction to Number Theory
Mathematics 343 K , Introduction to Algebraic Structures
Mathematics 344 K , Intermediate Symbolic Logic
Mathematics 348, Scientific Computation in Numerical Analysis (carries a quantitative reasoning flag)
Mathematics 358 K , Applied Statistics (carries a quantitative reasoning flag)
Mathematics 374M, Mathematical Modeling in Science and Engineering
Computer Science 341, Automata Theory
Computer Science 346, Cryptography
For students who choose an advanced technical component area in electrical engineering:

Mathematics 325K, Discrete Mathematics
Mathematics 328K, Introduction to Number Theory
Mathematics 346, Applied Linear Algebra
Mathematics 348, Scientific Computation in Numerical Analysis (carries a quantitative reasoning flag)
Mathematics 358 K , Applied Statistics (carries a quantitative reasoning flag)
Mathematics 361, Theory of Functions of a Complex Variable
Mathematics 362M, Introduction to Stochastic Processes
Mathematics 372K, Partial Differential Equations and Applications
Mathematics 374, Fourier and Laplace Transforms
Mathematics 374M, Mathematical Modeling in Science and Engineering

# Suggested arrangement of courses: Computer and Electrical Engineering 

Computer and Electrical Engineering Curriculum - Advanced Technical Component

| First Year |  |  |
| :--- | :--- | ---: |
| First Term | Hours | Second Term |
| E E 302 | 3 E E 319K | Hours |
| E E 306 | 3 M 408D | 3 |
| M 408C | 4 PHY 303K | 4 |
| RHE 306 | 3 PHY 103M | 3 |
| UGS 302 or 303 | 3 Visual and performing arts or social | 1 |
|  | and behavioral sciences |  |
|  | 16 | 14 |

Second Year

| First Term | Hours | Second Term | Hours |
| :---: | :---: | :---: | :---: |
| E E 411 |  | $4 \mathrm{E} \mathrm{316L}, \mathrm{316M}, \mathrm{316N} ,\mathrm{or} \mathrm{316P}$ | 3 |
| M 427J |  | 4 E E 312 | 3 |
| PHY 303L |  | 3 E E 313 | 3 |
| PHY 103N |  | 1 GOV 310L | 3 |
| Visual and performing arts or social and behavioral sciences |  | $3 \mathrm{M} \mathrm{340L}$ | 3 |

Third Year
First Term
Hours Second Term Hours

E E 333T
EE351K
3 Advanced technical elective 3
3 Free elective (mathematics or basic 4 science)
Advanced technical component
4 Free elective (satisfying constraints)
(mathematics)*
Advanced technical component
4 Advanced technical component
laboratory
Advanced technical component
requirement
requirement*
3 Advanced technical component 3
elective
17
17
Fourth Year
First Term
E E 364D
Hours Second Term
Hours

American history
Free elective (satisfying constraints)
Advanced technical component
electives
3 E E 464C, 464G, 464H, 464K, or 464R 4
3 GOV 312L 3
3 American history
6 Advanced technical component 3
elective
Free elective (satisfying constraints)
3
15
16
Total credit hours: 125
*E E Option: Advanced Technical Component (mathematics) is four hours and one Advanced Technical Component elective is three hours.
*C E Option: Advanced Technical Component (mathematics) is three hours and one Advanced Technical Component elective is four hours.

## Bachelor of Science in Environmental Engineering

Environmental Engineers protect the natural environment and the health of people as influenced by the environment. The field began as a part of civil engineering by providing the water supply for municipalities but has grown to encompass a broad view of the interaction of humans with the environment. The environmental engineer applies principles from all of the natural sciences (physics, chemistry, geology, and biology) to understand the natural environment and to build systems that protect
that environment. Areas of environmental engineering include air quality, water quality, water resources, and contaminant process engineering.

The environmental engineering student obtains a broad background in mathematics and all the sciences, along with their application to the several areas of environmental engineering. This flexible curriculum allows the student to elect 18 semester hours of approved technical coursework to emphasize the areas of environmental engineering of most interest to the student. In addition, courses in the humanities and social sciences are included.

To excel as an environmental engineer, a student should have an aptitude for mathematics and science, an abiding interest in protecting the natural environment and public health, and the motivation to study and prepare for environmental engineering practice. Environmental engineering graduates of the University may seek a wide variety of employment opportunities with private consulting firms, industry, and government agencies at the local, state, and national levels. 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.

## Student Outcomes

Graduates of the environmental engineering program should attain the following outcomes:

- An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- An ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- An ability to communicate effectively with a range of audiences
- An ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- An ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- An ability to acquire and apply new knowledge as needed, using appropriate learning strategies


## Program Educational Objectives

Graduates of the environmental engineering program should address environmental engineering problems within a greater societal context. They should:

- Exhibit character and decision-making skills embodying professionalism and ethical behavior
- Apply knowledge, strong reasoning, and quantitative skills to design and implement creative and sustainable solutions
- Engage in lifelong learning to meet evolving engineering challenges facing society
- Exhibit strong communication, critical thinking, interpersonal, and management skills as leaders and contributors in the environmental engineering profession


## Portable Computing Devices

Students entering Environmental Engineering are required to have a laptop at their disposal. Laptops do not need to be brought to campus on a daily basis, but individual courses may require that a laptop be brought to class or lab sessions. For a list of minimum system requirements, see the Cockrell School of Engineering website.

## Curriculum

Each student must complete the University's Core Curriculum. In some cases, a course required for the Bachelor of Science in Environmental Engineering may also be counted toward the core curriculum; these courses are identified below. To ensure that courses used to fulfill the social and behavioral sciences and visual and performing arts requirements of the core curriculum also meet $A B E T$ criteria, students should follow the guidance given in ABET Criteria.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, and one writing flag are carried by courses specifically required for the degree; these courses are identified below. Students are advised to fulfill the flag requirements with a course that meets other requirements of the degree. Courses that may be used to fulfill flag requirements are identified in the Course Schedule.

Math, science and engineering electives are chosen from a list of approved courses maintained in the undergraduate office.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Environmental Engineering |  |  |
| EVE 302 | Foundations of Environmental Engineering | 3 |
| EVE 310 | Sustainable Systems Engineering | 3 |
| EVE 312 | Environmental Engineering and Science | 3 |
| Approved environmental engineering elective |  | 15 |
| Approved environmental engineering design elective |  | 3 |
| Architectural Engineering |  |  |
| ARE 323K | Project Management and Economics | 3 |
| Biology |  |  |
| BIO 311C | Introductory Biology I | 3 |
| Chemistry |  |  |
| CH 301 | Principles of Chemistry I (part I science and technology) | 3 |
| CH 302 | Principles of Chemistry II (part I science and technology) | 3 |
| CH 204 | Introduction to Chemical Practice | 2 |
| CH 328M | Organic Chemistry I | 3 |
| Civil Engineering |  |  |
| CE311K | Introduction to Computer Methods | 3 |
| CE311S | Probability and Statistics for Civil Engineers | 3 |
| C E 319F | Elementary Mechanics of Fluids | 3 |
| C E 333T | Engineering Communication (writing flag; ethics flag) | 3 |
| C E 356 | Elements of Hydraulic Engineering | 3 |
| Engineering Mechanics |  |  |


| E M 306 | Statics | 3 |
| :---: | :---: | :---: |
| Geology |  |  |
| GEO 303 | Introduction to Geology | 3 |
| Mathematics |  |  |
| M 408C | Differential and Integral Calculus (mathematics; quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |
| M 427J | Differential Equations with Linear Algebra (quantitative reasoning flag) | 4 |
| Physics |  |  |
| PHY 103M | Laboratory for Physics 303K | 1 |
| PHY 103N | Laboratory for Physics 303L | 1 |
| PHY 303K | Engineering Physics I (part II science and technology) | 3 |
| PHY 303L | Engineering Physics II | 3 |
| Other Required Courses |  |  |
| $\begin{aligned} & \text { M E } 310 \mathrm{~T} \\ & \text { or M E } 326 \\ & \text { or CH } 353 \end{aligned}$ | Applied Thermodynamics <br> Thermodynamics <br> Physical Chemistry I | 3 |
| Approved mathematics or science elective |  | 3 |
| Approved engineering elective |  | 6 |
| Remaining Core Curriculum Courses |  |  |
| RHE 306 | Rhetoric and Writing | 3 |
| E 316L | British Literature ${ }^{1}$ | 3 |
| or E 316 M | American Literature |  |
| or E 316 N | World Literature |  |
| or E 316P | Masterworks of Literature |  |
| American and Texas Government ${ }^{2}$ |  | 6 |
| American History ${ }^{2}$ |  | 6 |
| Social and behavioral science ${ }^{3}$ |  | 3 |
| Visual and performing arts ${ }^{3}$ |  | 3 |
| $\text { UGS } 302$ <br> or UGS 303 | First-Year Signature Course ${ }^{4}$ First-Year Signature Course | 3 |
| ----- |  |  |
| 1. Some sections of the English humanities courses (E 316L, $316 \mathrm{M}, 316 \mathrm{~N}, 316 \mathrm{P}$ ) carry a global cultures or cultural diversity flag. |  |  |
| 2. Some sections carry a cultural diversity flag. |  |  |
| 3. Some sections carry a global cultures and/or cultural diversity flag. |  |  |
| 4. In UGS 302 all sections carry a writing flag; in UGS 303 some sections carry a writing flag. |  |  |

## Total Hours

## Technical Electives

Technical electives in environmental engineering are listed in four areas of specialization below. Six semester credit hours must be selected from one of the technical areas along with an approved environmental engineering design elective. Approved environmental engineering design electives are chosen from a list of approved courses maintained in the undergraduate office. The remaining environmental engineering electives can be taken from any area or combination of areas. Courses not listed can be approved by the undergraduate advisor.

## Area 1, Climate and Energy

Architectural Engineering 346N, 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, Studies in Architectural Engineering
Civil Engineering 369L, Air Pollution Engineering
Civil Engineering 369R, Indoor Air Quality

## Area 2, Sustainable Water Systems

Civil Engineering 342, Water and Wastewater Treatment Engineering
Civil Engineering 346, Solid Waste Engineering and Management
Environmental Engineering 350, Environmental Chemistry for a Sustainable World

## Area 3, Water Resources and the Environment

Civil Engineering 374K, Hydrology
Civil Engineering 374L, Groundwater Hydraulics
Civil Engineering 357, Geotechnical Engineering
Civil Engineering 358, Introductory Ocean Engineering

## Area 4, Contaminant Fate and Transport

Chemical Engineering 319, Transport Phenomena
Civil Engineering 342, Water and Wastewater Treatment Engineering
Chemical Engineering 322, Thermodynamics

## Suggested Arrangement of Courses

| First Year |  |  |
| :--- | :---: | ---: |
| First Term | Hours | Second Term |
| BIO 311C | 3 CH 302 | Hours |
| CH 301 | 3 CH 204 | 3 |
| M 408C | 4 M 408D | 2 |
| RHE 306 | 3 PHY 303K | 4 |
| UGS 302 or 303 | 3 PHY 103M | 3 |
|  | EVE 302 | 1 |
|  | 16 | 3 |
| Second Year |  | Hours |
| First Term | Hours | Second Term |
| E M 306 | 3 CH 328M | 3 |
| M 427J | 4 C E 311K | 3 |
| PHY 303L | 3 C E 319F | 3 |
| PHY 103N | 1 C E 333T | 3 |
| EVE 310 | 3 EVE 312 | 3 |
| American and Texas government | 3 | 3 |
|  | 17 | 15 |


| Third Year |  |  |
| :--- | :--- | ---: |
| First Term | Hours | Second Term |
| M E 320, 326, or CH 353 | 3 GEO 303 | 3 |
| C E 311S | 3 Environmental Engineering elective | 3 |
| C E 356 | 3 Environmental Engineering elective | 3 |
| Environmental Engineering elective | 3 American history | 3 |
| American government | 3 E 316L, 316M, 316N, or 316P | 3 |
|  | 15 | 3 |
| Fourth Year |  | 3 |
| First Term | Hours | Second Term |
| ARE 323K | 3 Environmental Engineering design | 3 |
| Environmental Engineering elective | elective | 3 |
| Environmental Engineering elective | 3 Engineering elective | 3 |
| Social and behavioral science | 3 Engineering elective | 3 |
| Mathematics or science elective | 3 American history | 3 |
|  | 3 Visual and performing arts | 3 |

Total credit hours: 124

## Bachelor of Science in Geosystems Engineering and Hydrogeology

Geosystems engineers and hydrogeologists are concerned with the development and use of engineering approaches in the management of natural resources from the earth's surface and subsurface, environmental restoration of subsurface sites, and other processes related to the earth sciences. This degree program, offered jointly by the Cockrell School of Engineering and the Jackson School of Geosciences, is designed to teach students the geological and engineering principles needed to solve subsurface resource development and environmental problems. The curriculum includes a fundamental sequence of engineering and geological sciences courses in such areas as multiphase fluid flow, physical hydrology, heat and mass transfer, field methods, and engineering design. This interdisciplinary systems approach, combining engineering and geological sciences, is increasingly required to address complex real-world problems such as characterization and remediation of aquifers. The degree program is designed to prepare graduates for employment with environmental, water resource management, and energy companies in addition to many government agencies. 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 (including carbon dioxide sequestration), oil and gas production and services, or similar pursuits. Graduates are expected to understand the fundamental principles of science and engineering behind the technology of geosystems engineering and hydrogeology to keep their education from becoming outdated and to give them the capability of self-instruction after graduation. They should also be prepared to serve society by applying the ideals of ethical behavior, professionalism, and environmentally responsible stewardship of natural resources.

Containing the following elements, the technical curriculum provides both breadth and depth in a range of topics.

[^3]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


## ABET Student Outcomes:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## Portable Computing Devices

Students entering Geosystems Engineering and Hydrogeology are required to have access to a portable computing device capable of running programs suitable for use in the classroom and on the university wireless network. The use of this device will be necessary in many required courses, and individual instructors may require the device be brought to class or lab sessions. For a list of minimum system requirements see http://www.pge.utexas.edu/future/undergraduate/ program.

## Curriculum

Course requirements include courses within the Cockrell School of Engineering and other required courses. In addition, each student must complete the University's Core Curriculum (p. 22). In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics flag, one global cultures flag, one
cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, and both writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p. 23) are identified in the Course Schedule.

Courses used to fulfill technical and nontechnical elective requirements must be approved by the petroleum and geosystems engineering faculty and the geological sciences faculty before the student registers for them.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Petroleum an | m Engineering Courses |  |
| PGE 310 | Formulation and Solution of Geosystems Engineering Problems | 3 |
| PGE 322K | Transport Phenomena in Geosystems | 3 |
| PGE 323K | Reservoir Engineering I: Primary Recovery | 3 |
| PGE 323L | Reservoir Engineering II: Secondary and Tertiary Recovery | 3 |
| PGE 326 | Thermodynamics and Phase Behavior | 3 |
| PGE 333T | Engineering Communication (writing flag and ethics flag) | 3 |
| PGE 358 | Principles of Formation Evaluation | 3 |
| PGE 365 | Resource Economics and Valuation | 3 |
| PGE 373L | Geosystems Engineering Design and Analysis (independent inquiry flag) | 3 |
| PGE 424 | Petrophysics | 4 |
| PGE 427 | Properties of Petroleum Fluids (Properties of Petroleum Fluids) | 4 |
| Chemistry |  |  |
| CH 301 | Principles of Chemistry I (part II science and technology) | 3 |
| CH 302 | Principles of Chemistry II | 3 |
| Civil Engineering |  |  |
| C E 357 | Geotechnical Engineering | 3 |
| Engineering Mechanics |  |  |
| E M 306 | Statics | 3 |
| E M 319 | Mechanics of Solids | 3 |
| Geological Sciences |  |  |
| GEO 303 | Introduction to Geology | 3 |
| GEO 376L | Field Methods in Groundwater Hydrology | 3 |
| GEO 376S | Physical Hydrology | 3 |
| GEO 416K | Earth Materials | 4 |
| GEO 416M | Sedimentary Rocks | 4 |
| GEO 420K | Introduction to Field and Stratigraphic Methods | 4 |
| GEO 428 | Structural Geology | 4 |
| GEO 476K | Groundwater Hydrology (writing flag) | 4 |
| Mathematics |  |  |
| M 408C | Differential and Integral Calculus (mathematics; quantitative reasoning flag) | 4 |
| M 408D | Sequences, Series, and Multivariable Calculus | 4 |



## Suggested Arrangement of Courses

|  | PHY 103N |  | 1 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 15 |  | 17 |  |  |
| Third Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours | Summer Term | Hours |
| GEO 476K |  | 4 C E 357 |  | 3 GEO 376L | 3 |
| PGE 322K |  | 3 GEO 420K |  | 4 |  |
| PGE 323K |  | 3 PGE 323L |  | 3 |  |
| PGE 424 |  | 4 PGE 358 |  | 3 |  |
| Social and behavioral sciences |  | 3 American government |  | 3 |  |
|  |  | 7 |  | 6 | 3 |
| Fourth Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours |  |  |
| GEO 428 |  | 4 PGE 373L |  | 3 |  |
| GEO 376S |  | 3 Geoscience technical elective |  | 3 |  |
| PGE 365 |  | 3 American government |  | 3 |  |
| Engineering technical elective |  | 3 American history |  | 3 |  |
| E 316L, 316M, 316N, or 316P |  | 3 Visual and performing arts |  | 3 |  |
|  |  | 6 |  | 5 |  |
| Total credit hours: 132 |  |  |  |  |  |

## Bachelor of Science in Mechanical Engineering

Mechanical engineering is one of the largest and broadest fields of technical study. Mechanical engineers are concerned with the engineering systems used to control and transform energy to meet the needs of humanity. In mechanical engineering, students develop an understanding of basic topics and fundamental principles upon which engineered systems are conceived and developed in a modern society. It is an excellent foundation for a rewarding career in engineering, as well as for further study in business, law, medicine, and other professions that require a solid foundation in science and technology, and the ability to solve problems.

The mechanical engineering department is dedicated to graduating mechanical engineers who practice mechanical engineering in the general stems of thermal/fluid systems, mechanical systems and design, and materials and manufacturing in industry and government settings; pursue advanced education, research and development, and other creative efforts in science and technology; conduct themselves in a responsible, professional, and ethical manner; and participate as leaders in activities that support service to and economic development of the region, state, and nation.

The mechanical engineering faculty has defined seven educational outcomes that students in the program are expected to achieve by the time of graduation. These outcomes are

- Ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- Ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- Ability to communicate effectively with a range of audiences
- Ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- Ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- Ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- Ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

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, probability and statistics, physics, and chemistry
- Engineering courses that develop a working knowledge of graphics and computer-aided design, engineering mechanics, thermodynamics, kinematics, dynamics and control of mechanical systems, computational methods, fluid mechanics, heat transfer, materials science and engineering, mechatronics, technical communication, and engineering economics
- Mechanical engineering project and laboratory experiences that develop competence in measurements and instrumentation, interpretation of data, reverse engineering analysis of mechanical systems, use of computational tools for engineering analysis, integration of multidisciplinary topics in design of complex systems, teamwork and project planning, and written and oral communication
- A sequence of engineering design courses, culminating in a major capstone design experience in collaboration with an industrial sponsor, that draws on the knowledge and skills students have acquired in earlier coursework and incorporates modern engineering standards and realistic constraints
- Core curriculum courses, including social and behavioral sciences, humanities, and visual and performing arts electives, that complement the technical content of the curriculum
- A broad range of senior elective options that provide a career gateway to further study and lifelong learning in the practice of engineering and other professions
- Many courses throughout the curriculum are structured to motivate the study of engineering science by challenging students with indepth analysis of real mechanical components and systems. In these courses, students address real-world projects based on current industrial methods and practices to connect theory with practice.


## Portable Computing Devices

Students entering Mechanical Engineering are expected to have a laptop computer at their disposal. The use of laptop computers will be necessary in many required courses, and individual instructors may require that a laptop be brought to class or lab sessions. For a list of minimum system requirements see: http://www.me.utexas.edu/ laptopreq.

## Curriculum

Course requirements include courses within the Cockrell School of Engineering, and other required courses. In addition, each student must complete the University's Core Curriculum (p. 23). In some cases, a course required as part of the major may also be counted toward the core curriculum; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the University's flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics flag, one global cultures flag, one
cultural diversity in the United States flag, and three writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, and three writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p.23) are identified in the Course Schedule.

Requirements
Hours
Mechanical Engineering Courses

| M E 130L | Experimental Fluid Mechanics | 1 |
| :---: | :---: | :---: |
| M E 134L | Materials Engineering Laboratory | 1 |
| M E 139L | Experimental Heat Transfer | 1 |
| M E 140L | Mechatronics Laboratory | 1 |
| M E 144L | Dynamic Systems and Controls Laboratory | 1 |
| M E 266K | Mechanical Engineering Design Project (independent inquiry flag and writing flag) | 2 |
| M E 266P | Design Project Laboratory | 2 |
| M E 302 | Introduction to Engineering Design and Graphics | 3 |
| M E 314D | Dynamics | 3 |
| M E 316T | Thermodynamics | 3 |
| M E 318M | Programming and Engineering Computational Methods | 3 |
| M E 330 | Fluid Mechanics | 3 |
| M E 333T | Engineering Communication (writing flag and ethics flag) | 3 |
| M E 334 | Materials Engineering | 3 |
| M E 335 | Engineering Statistics | 3 |
| M E 338 | Machine Elements | 3 |
| M E 339 | Heat Transfer | 3 |
| M E 340 | Mechatronics | 3 |
| M E 344 | Dynamic Systems and Controls | 3 |
| M E 353 | Engineering Finance | 3 |
| M E 366J | Mechanical Engineering Design Methodology (writing flag) | 3 |
| Chemistry |  |  |
| CH 301 | Principles of Chemistry I (part II science and technology) | 3 |


| Engineering Mechanics |  | 3 |
| :--- | :--- | ---: |
| E M 306 | Statics | 3 |
| E M 319 | Mechanics of Solids | Mathematics |
| Ma | Differential and Integral Calculus <br> (mathematics; quantitative <br> reasoning flag) | 4 |
| M 408D | Sequences, Series, and <br> Multivariable Calculus | 4 |
| M 427J | Differential Equations with Linear <br> Algebra <br> M 427L | Advanced Calculus for Applications <br> II |

Physics
PHY 303K

PHY 303L

Engineering Physics I (part I science and technology; quantitative reasoning flag) Engineering Physics II (part I science and technology; quantitative reasoning flag)

| PHY 103M | Laboratory for Physics 303K | 1 |
| :--- | :--- | :---: |
| PHY 103N | Laboratory for Physics 303L | 1 |
| Rhetoric and Writing | Rhetoric and Writing (English <br> RHE 306 | 3 |

## Other Required Courses

Approved career gateway electives 12
Approved natural science/mathematics elective 3
Remaining Core Curriculum Requirements
E 316L British Literature ${ }^{1} 3$
or E 316M American Literature
or E 316 N World Literature
or E 316P Masterworks of Literature
American and Texas government ${ }^{2} \quad 6$
American history ${ }^{2}$ 6
Social and behavioral sciences ${ }^{3} 3$
Visual and performing arts ${ }^{3} 3$
UGS $302 \quad$ First-Year Signature Course ${ }^{4} 3$
or UGS 303 First-Year Signature Course

## -----

1. Some sections of the English humanities courses (E 316L,
$316 \mathrm{M}, 316 \mathrm{~N}, 316 \mathrm{P}$ ) carry a global cultures or cultural diversity flag.
2. Some sections carry a cultural diversity flag.
3. Some sections carry a global cultures and/or cultural diversity flag.
4. In UGS 302, all sections carry a writing flag. In UGS 303, some sections carry a writing flag.

Total Hours

## Career Gateway Elective Options

The ME curriculum includes 12 credit hours of Career Gateway Electives (CGEs) which give students the flexibility to tailor their upper-division academic program to meet a variety of career goals, while ensuring that they graduate with a robust grounding in one or more selected technical or specialty areas. The CGEs are arranged into tracks, each of which has designated courses. Technical tracks are designed to provide more focus in a selected technical area than is provided in the core curriculum alone. Specialty tracks are designed for those students whose career interests extend beyond mechanical engineering. Detailed guidelines for choosing CGEs and for approval of CGE choices are published on the mechanical engineering website and may be subject to periodic change as needs arise. Exceptions can be considered on a case-by-case basis by petition to the undergraduate advisor.

## Minors and Transcript-Recognized Certificate Programs

Minors and transcript-recognized certificate programs offer interdisciplinary curricula that support and extend a student's major. Minors that may be of particular interest to mechanical engineering students include the minor in Materials Science and Engineering and certificates in Computational Science and Engineering, the National Academy of Engineering Grand Challenges Scholars Program, Humanitarian Engineering, Applied Statistical Modeling, and PreHealth Professions. Additional information about minors and transcript recognized certificates is available online (p.13).

## Integrated BSME/MSE Program

The integrated degree program results in simultaneously awarding a Bachelor of Science in Mechanical Engineering (BSME) and a Master of Science in Engineering (MSE) degree offered by the J. Mike Walker Department of Mechanical Engineering. The objective of the Integrated BSME/MSE Program is to enable prepared undergraduates in Mechanical Engineering to earn two degrees in a shortened time period. By applying AP and Credit by Exam courses, having students take recommended summer courses, and allowing seniors to enroll in graduate-level engineering courses reserved for graduate credit, the program enables graduates to complete both degree requirements in five years.

Admissions. Current undergraduate mechanical engineering (ME) students may begin the application process to the Integrated BSME/ MSE Program option in the first term of their third year. Admission includes the two steps outlined below. Undergraduate students not in the mechanical engineering major are not eligible to apply. It is expected that all students selected for the program in Step 1 and have been successful in their first graduate-level coursework will be selected for admission in Step 2. Successful completion will be evaluated and determined by the department's Domestic Graduate Admission Committee and the graduate advisor.

Step 1. Students complete the first step in application for admission to the Integrated BSME/MSE Program in the first term of the third year. The Step 1 application is internal through the department and includes a resume, statement of purpose, and letters of recommendation. Qualified applicants will be selected based on the applicant's progress to degree completion, grade point average, and other qualifications included in the application materials. Selected students will be notified early in the second term of the third year of their admission status for the integrated program, allowing them to meet with an academic advisor to plan graduate coursework in the first term of their fourth year.

Step 2. Students complete the second step in the application in the second term of their fourth year. The Step 2 application is formal through the Graduate and International Admission Center (GIAC). Admission to the integrated program will be based on a review of the applicant's undergraduate record and GPA, GRE scores, performance in graduate coursework, letters of recommendation, personal statement, TOEFL score (if required), and research experience.

If a student in their fourth year is taking graduate courses and would be on track to complete the integrated program but did not apply in their third year through Step 1, they may apply by completing Step 1 and Step 2 together. These students will be evaluated for admission on the same criteria.

Degree Requirements. In order for integrated program students to complete both the BSME and MSE degrees in five years, the department waives six semester credit hours (SCH) of technical area electives in lieu of six SCH of graduate engineering coursework reserved for graduate credit taken in the fourth year. This reduces the total BSME degree requirements for integrated program students from 126 to 120 SCH.

Students in the integrated program complete 12 SCH of graduate coursework in their fourth year and 18-24 SCH of graduate coursework in their fifth year to complete a total of 30-36 SCH of graduate coursework for the MSE degree as described in the Graduate Catalog. Students have the option of choosing the coursework, report, or thesis option for the MSE degree as described in the Graduate Catalog. The selected degree option determines the number of hours required to graduate with the MSE degree. Courses the student takes will be determined with
the graduate advisor and academic advisor to ensure compliance with degree requirements and to meet the students' career goals.

Students unable to successfully complete the integrated program, or who wish to terminate pursuit of the MSE for any reason, may obtain a BSME degree by applying for a change of major back to the standalone BSME program and satisfying all of the requirements for the standalone degree. Six SCH of the graduate courses taken in the fourth year may count toward the 12 SCH of CGEs required to complete the entire 126 SCH requirements. An undergraduate student leaving the integrated program will be on a trajectory to graduate with the regular BSME degree in the same timeframe prior to admission to the integrated program.

Graduates of the integrated program will receive the BSME and MSE degrees simultaneously after successfully completing the 120 SCH for the BSME and 30-36 SCH for the MSE, a total of 150-156 SCH. Ideally students in this program will graduate with both degrees in a total of five years to completion.

Advising. Once admitted, students will be advised each semester by the graduate advisor and an academic advisor to complete coursework required for the BSME degree in their fourth year, and completion of the coursework required for the MSE degree in their fourth and fifth years. Information regarding the integrated program requirements and policies may be obtained from the ME Academic Advising Office in ETC 2.146.

## Suggested Arrangement of Courses

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| CH 301 |  | 3 M 408D | 4 |
| M 408C |  | 4 PHY 303K | 3 |
| M E 302 |  | 3 PHY 103M | 1 |
| RHE 306 |  | 3 Social and behavioral sciences | 3 |
| UGS 302 or 303 |  | 3 Visual and performing arts | 3 |
|  |  | American history | 3 |
|  | 16 |  | 17 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| EM 306 |  | 3 E M 319 | 3 |
| M 427J |  | 4 M 427 L | 4 |
| M E 316T (Thermodynamics) |  | 3 M E 318M | 3 |
| PHY 303L |  | 3 M E 314D (Dynamics) | 3 |
| PHY 103N |  | 1 M E 333T | 3 |
| American and Texas Government | 3 |  |  |
|  | 17 |  | 16 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| M E 330 |  | 3 M E 338 | 3 |
| M E 130L |  | 1 M E 339 | 3 |
| M E 334 |  | 3 M E 139L | 1 |
| M E 134L |  | 1 M E 340 | 3 |
| M E 335 |  | 3 M E 140L | 1 |
| Approved career gateway elective |  | 3 Approved career gateway elective | 3 |
|  | 1 | 4 | 14 |

[^4]
# Bachelor of Science in Petroleum Engineering 

Energy is a key component to people's everyday lives. Petroleum engineers are able to address and solve important technology challenges that will lead to energy security and societal prosperity, so the position is in high demand. This challenging and rewarding field of engineering requires creative application of a wide spectrum of knowledge, including, but not limited to mathematics, physics, geology, and chemistry.

Worldwide energy demand is growing, and experts agree that oil and gas will continue to play an important role in the world's energy supply. The decision making for complex projects falls to a great extent upon petroleum engineers, providing them with a high degree of responsibility. In addition, since hydrocarbon reserves are found in such diverse areas as Asia, South America, and Europe, petroleum engineers will have opportunities for exciting assignments all over the globe.

Petroleum engineers play a variety of roles within the energy business. They design and monitor the drilling of exploratory and development wells used to locate and produce the oil and gas from the subsurface. They work with technologies that can describe the characteristics of rocks deep beneath the surface and detect the type of fluids contained in those rocks. They install and maintain the equipment that lifts fluids from subsurface reservoirs to the surface, and they design surface collection and treatment facilities to prepare produced hydrocarbons for delivery to a refinery or pipeline. Hydraulic fracturing of shale gas and tight oil is the responsibility of a petroleum engineer, as is the development and implementation of enhanced oil recovery methods that capture stranded or bypassed hydrocarbons from old oilfields. In addition to these traditional petroleum engineering career choices, there are other emerging careers for petroleum engineering graduates in pollution clean up, underground waste disposal (including the subsurface injection of carbon dioxide to reduce atmospheric greenhouse gases), and hydrology.

The objective of the petroleum engineering program is to graduate practical, qualified engineers who can successfully pursue careers in the oil and gas production and services industries or similar areas. Graduates of the program are expected to understand the fundamental principles of science and engineering behind the technology of petroleum engineering to keep their education current and to give them the capability of 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


## ABET Student Outcomes:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## Portable Computing Devices

Students entering Petroleum Engineering are required to have access to a portable computing device capable of running programs suitable for use in the classroom and on the university wireless network. The use of this device will be necessary in many required courses, and individual instructors may require the device be brought to class or lab sessions. For a list of minimum system requirements see: http:// www.pge.utexas.edu/future/undergraduate/program.

## Curriculum

Course requirements include courses within the Cockrell School of Engineering and other required courses. In addition, each student must complete the University's Core Curriculum (p. 22). In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, and both writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p. 23) are identified in the Course Schedule.

Courses used to fulfill technical and nontechnical elective requirements must be approved by the petroleum and geosystems engineering undergraduate advisor before the student enrolls in them.


## Other Required Courses

# Minor and Certificate Programs 

## Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minor and Certificate Programs section of the Undergraduate Catalog.

## Materials Science and Engineering Minor

The transcript-recognized undergraduate academic minor in materials science and engineering must be completed in conjunction with an undergraduate degree at The University of Texas at Austin in one of the following majors: chemistry, physics, aerospace engineering, electrical and computer engineering, or mechanical engineering; students pursuing an integrated undergraduate/graduate program must complete the requirements for the minor within one year after completing the undergraduate requirements of their program. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minors and Certificate Programs (p.13) section of the Undergraduate Catalog. Details about the minor in Materials Science and Engineering are available at http:// tmi.utexas.edu/academics/undergraduate-minor-materials-scienceengineering/.

## Admissions

To be considered for admission into the Minor Program for Materials Science and Engineering, students must meet the following requirements:

- The minor must be completed in conjunction with an undergraduate degree in one of the five supported majors of chemistry, physics, aerospace engineering, electrical and computer engineering, or mechanical engineering.
- Students must have completed Mathematics 408C, Mathematics 408D, Mathematics 427J, Chemistry 301, Physics 303K and Physics 303 L , or equivalent and all with a grade of $C$ - or higher.
- Students who have completed 30 hours or more and have not taken more than 60 hours will be encouraged to apply online at the earliest possible date. Applications will be reviewed continuously throughout the year.


## Requirements

The requirements for the minor in Materials Science and Engineering will consist of 15 credit hours towards the minor. All students will be required to take a three-credit hour, laboratory-based bridge course (E S 360). The remainder of the required courses required for the minor will consist of a sequence of courses that are specific to the major degree and which are detailed below.

If students are interested in additional coursework, they can see http:// tmi.utexas.edu/academics/undergraduate-minor-materials-scienceengineering/ for a complete list of courses that would serve as optional electives. Courses beyond 15 hours are not required for the completion of the minor.

## Chemistry Majors

Requirements
Hours

| E S 360M | Experiments in Materials Science <br> and Engineering | 3 |
| :--- | :--- | :---: |
| CH 353 | Physical Chemistry I | 3 |
| PHY 355 | Modern Physics and <br> Thermodynamics | 3 |
| CHE 355 | Introduction to Polymers | 3 |
| M E 349 | Corrosion Engineering | 3 |

All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses.
*An additional 3 hours of optional electives may be taken. For a complete list of courses available, please see http:// tmi.utexas.edu/academics/undergraduate-minor-materials-science-engineering/.

## Physics Majors

| Requirements |  | Hours |
| :---: | :---: | :---: |
| ES 360M | Experiments in Materials Science and Engineering | 3 |
| PHY 369 | Thermodynamics and Statistical Mechanics | 3 |
| CH 367C <br> or CH 367L <br> or M E 336 | Materials Chemistry Macromolecular Chemistry Materials Processing | 3 |
| CH 354S | Elements of Spectroscopy | 3 |
| E E 334 K | Quantum Theory of Electronic Materials | 3 |

All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses.
*An additional 3 hours of optional electives may be taken. For a complete list of courses available, please see http:// tmi.utexas.edu/academics/undergraduate-minor-materials-science-engineering/.

## Aerospace Engineering Majors

| Requirements | Hours |  |
| :--- | :--- | :--- |
| E S 360M | Experiments in Materials Science <br> and Engineering | 3 |
| M E 310T | Applied Thermodynamics | 3 |
| ASE 357 | Mechanics of Composite Materials | 3 |
| ASE 324L | Aerospace Materials Laboratory | 3 |
| M E 349 | Corrosion Engineering <br> or M E 336 | Materials Processing |

## Electrical Engineering Majors

| Requirements | Hours |  |
| :--- | :--- | :---: |
| E S 360M | Experiments in Materials Science <br> and Engineering | 3 |
| PHY 369 | Thermodynamics and Statistical <br> Mechanics | 3 |
| E E 325 | Electromagnetic Engineering | 3 |
| CH 354S | Elements of Spectroscopy | 3 |


| or CH 367C | Materials Chemistry |
| :--- | :--- |
| E E 334 K | Quantum Theory of Electronic <br> Materials |
| All classes must be taken on the letter-grade basis. The |  |
| student must earn a combined grade point average of at least |  |
| 2.00 in these courses. |  |

*An additional 3 hours of optional electives may be taken. For a complete list of courses available, please see http:// tmi.utexas.edu/academics/undergraduate-minor-materials-science-engineering/.

## Mechanical Engineering Majors

| Requirements <br> E S 360M | Experiments in Materials Science <br> and Engineering | Hours |
| :--- | :--- | :--- |
| M E 316T | Thermodynamics |  |
| PHY 355 | Modern Physics and <br> Thermodynamics |  |
| or PHY 375S | Introductory Solid-State Physics |  |
| or PHY 369 | Thermodynamics and Statistical Mechanics |  |
| or CH 353 | Physical Chemistry I |  |
| M E 378K | Mechanical Behavior of Materials | 3 |
| M E 349 | Corrosion Engineering | 3 |
| or ASE 357 | Mechanics of Composite Materials | 3 |

All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.00 in these courses.
*An additional 3 hours of optional electives may be taken. For a complete list of courses available, please see http:// tmi.utexas.edu/academics/undergraduate-minor-materials-science-engineering/.

## Certificate Programs

## National Academy of Engineering Grand Challenges Scholars Program Certificate

The National Academy of Engineering Grand Challenges Scholars Program (GCSP) certificate is designed to be complementary, not additive, to a student's traditional academic path. The GCSP certificate provides students with the scholarship network and formal recognition from the National Academy of Engineering, while typically requiring only one course beyond their standard degree program.

The GCSP certificate program is designed to offer students from all majors and all years an introduction to the program through Engineering Studies 377, an array of university-wide course connections, and mentorship. GC Scholars choose between 18 and 24 hours of approved coursework from a broad range of offerings that align with the five key program components. The five key curriculum components include facing the 21 st Century Engineering Grand Challenges with (1) entrepreneurship and (2) service-learning by (3) understanding global dimensions through (4) research and (5) interdisciplinary curriculum. Each Scholar must choose at least one class that emphasizes each one of the components. Scholars will be advised on progress regularly by faculty affiliated with the program, and will present their work at an annual GCSP colloquium.

The certificate requirements are:

At least 18 hours of approved courses from GC Scholar
Coursework Program Plan
Be a student of good standing
Complete courses, a research project, a community project, a comprehensive reflective report, and a final design, which are evaluated with aligned rubrics.

## Computational Science and Engineering Certificate

The Cockrell School sponsors the transcript-recognized Certificate in Computational Science and Engineering along with the Jackson School of Geosciences, the College of Liberal Arts, and the College of Natural Sciences.

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

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

To apply for admission, students must have completed 60 semester hours of coursework, must have a grade point average of at least 3.00, and must have taken coursework in calculus.

Students must complete 18 semester hours of approved coursework with a grade of at least $C$ - in each course. A student's overall GPA in certificate courses must be 3.00 or greater.

## Requirements

Hours
Students must take at least one course in each of the
following areas:
Upper Division Mathematics
Basic Programming
Numerical Applications
Advanced Computing
Electives
Scientific Computing Project ${ }^{1}$

1. To be supervised by a member of the computational science, engineering, and mathematics (CSEM) graduate program faculty. The research project is completed in a three-semester-hour research methods or individual instruction course, which the student should take during the senior year. The research project may include mentoring by Oden Institute postdoctoral fellows and CSEM graduate students as part of a vertical instructional research team.

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

Some courses on the approved course list may be restricted by the department offering the course. Please note that the CSE Certificate Program cannot ask the department to waive prerequisites or force the department to lift restrictions on their courses.

A list of approved courses is available at https://www.oden.utexas.edu/ programs/cse-certificate/ and in the Oden Institute for Computational Engineering and Sciences, POB 4.110

## Humanitarian Engineering Certificate

The undergraduate Humanitarian Engineering Certificate provides students with the opportunity to develop expertise in designing and/ or implementing projects or products for traditionally underserved populations, e.g., the physically or mentally challenged, low-income or rural communities, or communities experiencing humanitarian crises. The participants will develop not only technical knowledge but also awareness of social, political, and/or economic circumstances that may be important to the development of engineering solutions for underserved populations.

The certificate consists of 18 hours. Students must receive a grade of at least a $C$ - in each course applied toward the certificate and have a cumulative grade point average of at least 3.0 in the courses presented to fulfill the certificate. The certificate program will be managed by the Committee for the Humanitarian Engineering Certificate in the J. Mike Walker Department of Mechanical Engineering. Students may apply for participation in the program at any time during their enrollment at The University of Texas at Austin, but it is recommended that they apply prior to starting the requirements. Students must contact the Committee for the Humanitarian Engineering Certificate in the J. Mike Walker Department of Mechanical Engineering to apply for the certificate in the semester in which they are completing the requirements and graduating.

The course requirements for the certificate are:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Three hours from the following: |  | 3 |
| UGS 302 | First-Year Signature Course ${ }^{1}$ |  |
| UGS 303 | First-Year Signature Course ${ }^{1}$ |  |
| SOC 307N | Sociology of Development |  |
| ANT 302 | Cultural Anthropology |  |
| CTI 302 | Classics of Social and Political Thought |  |
| GRG 305 | This Human World: An Introduction to Geography |  |
| PHY 303L <br> \& PHY 103N | Engineering Physics II and Laboratory for Physics 303L | 4 |
| Humanitarian engineering project chosen from the following: |  |  |


| $\begin{aligned} & \text { E S } 277 \text { K } \\ & \text { \& E S } 277 \mathrm{~L} \end{aligned}$ | Project Development with Underserved Communities and Project Design with Underserved Communities |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { E S 225C } \\ & \text { \& E S 225D } \end{aligned}$ | Humanitarian Product Design and Humanitarian Product Prototyping |  |
| Approved project design course such as M E 466K ${ }^{2}$ |  |  |
| Approved independent study research project ${ }^{2}$ |  |  |
| M E 120C | Humanitarian Engineering Seminar | 1 |
| Three hours from the following: |  | 3 |
| GRG 344K | Global Food, Farming, and Hunger |  |
| SOC 369K | Population and Society |  |
| GRG 336 | Contemporary Cultural Geography |  |
| GRG 350K | Geographies of Globalization |  |
| GRG 357 | Medical Geography |  |
| SOC 321G | Global Health Issues and Health Systems |  |
| CTI 323 | Might and Right among Nations |  |
| PHL 325D | Environmental Ethics and Philosophy |  |
| PHL 325M | Medicine, Ethics, and Society |  |
| ANS 361 | Topics in Asian Studies (Topic 31: <br> Global Markets and Local Cultures) |  |
| HIS 366N | Topics in History (Topic 18: Global History of Disease) |  |
| ADV 324 | Communicating Sustainability |  |
| CMS 340K | Communication and Social Change |  |
| Three hours from the following: ${ }^{3}$ |  | 3 |
| ARE 323K | Project Management and Economics |  |
| ARE 346N | Building Environmental Systems |  |
| BME 339 | Biochemical Engineering |  |
| BME 342 | Biomechanics of Human Movement |  |
| BME 344 | Biomechanics |  |
| BME 352 | Engineering Biomaterials |  |
| BME 358 | Medical Decision Making |  |
| C E 341 | Introduction to Environmental Engineering |  |
| C E 342 | Water and Wastewater Treatment Engineering |  |
| C E 364 | Design of Wastewater and Water Treatment Facilities |  |
| C E 369R | Indoor Air Quality |  |
| C E 374K | Hydrology |  |
| CHE 339 | Introduction to Biochemical Engineering |  |
| CHE 339T | Cell and Tissue Engineering |  |
| CHE 341 | Design for Environment |  |
| CHE 342 | Chemical Engineering Economics and Business Analysis |  |
| CHE 357 | Technology and Its Impact on the Environment |  |
| E E339S | Solar Energy Conversion Devices |  |
| E E 362R | Renewable Energy and Power Systems |  |
| E E 362S | Development of a Solar-Powered Vehicle |  |


| E E 374K | Biomedical Electronic Instrument <br> Design |
| :--- | :--- |
| E E 374L | Applications of Biomedical <br> Engineering |
| M E 337F | Nuclear Environmental Protection <br> M E 350D |
| Mesign and Control of Robots for |  |
| M E 354M | Biomechanics of Human Movement |
| M E 362S | Solar Energy Systems Design <br> Development of a Solar-Powered <br> Vehicle |
| M E 363M | Energy Technology and Policy |
| M E 374T | Renewable Energy Technology |
| M E 371D | Medical Device Design and <br> Manufacturing |
| M E 378E | Nanotechnology for Sustainable <br> Energy |
| PGE 305 | Energy and the Environment |

1. For an approved list of courses, please see your adviser.
2. Approval for these options must be obtained in advance
from the Committee for the Humanitarian Engineering Certificate.
3. Additional courses may be substituted for those listed upon approval by the adviser for Humanitarian Engineering.

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed at the school level: Engineering Studies (E S) and General Engineering (G E).

For courses offered by each department within the Cockrell School of Engineering, please see the corresponding department page in the following sections.

## Department of Aerospace Engineering and Engineering Mechanics

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Aerospace Engineering and Engineering Mechanics: Aerospace Engineering (ASE), Computational Engineering (COE), and Engineering Mechanics (E M).

## Department of Biomedical Engineering

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Biomedical Engineering: Biomedical Engineering (BME).

## John J. McKetta Jr. Department of Chemical Engineering

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the John J. McKetta Jr. Department of Chemical Engineering: Chemical Engineering (CHE).

# College of Fine Arts 

Douglas Dempster, PhD, Dean<br>Andrew F. Dell'Antonio, PhD, Associate Dean for Undergraduate Studies Roxanne Schroeder-Arce, MFA, Director of UTeach Fine Arts http://www.finearts.utexas.edu

## General Information

## Mission

The College of Fine Arts was established by the state legislature in 1937; in the decades since then, the college has grown with The University to become a leading center for arts study. Both students and faculty members of the College of Fine Arts have regularly received national and international recognition for their achievements; such recognition indicates the degree of academic and artistic excellence to which the college is dedicated.

The College of Fine Arts strives to prepare students for the practice, study, criticism, and teaching of the arts; to lead in developing the arts through research and the creation of new works; and to provide performances and exhibitions that deepen the understanding of the arts, expand audiences, and develop a better quality of life in the University, community, state, and nation. The college prepares students and audiences for the coming decades by emphasizing cultural diversity and technological advancement and by exploring the interrelationships among all the arts.

## Facilities

The Office of the Dean of the College of Fine Arts is located in the E. William Doty Fine Arts Building, at the corner of 23rd and Trinity streets. General inquiries about the college should be directed to this office. The mailing address is The University of Texas at Austin, Office of the Dean, College of Fine Arts, 2301 Trinity Street D1400, Austin TX, 78712.

Within the college are four academic units-the Department of Art and Art History, the School of Design and Creative Technologies, the Sarah and Ernest Butler School of Music, and the Department of Theatre and Dance. Inquiries about a particular unit should be directed to that unit.

## The Visual Arts Center

The Visual Arts Center (VAC) is a 13,000 square foot gallery space located in the College of Fine Arts. We provide a platform for artists, curators, and educators to experiment, test ideas, and take risks. We aim to spark generative conversations about art and contemporary society through our exhibitions and public programs that take place throughout the academic year.

For more information on the VAC's exhibitions and public programs, please visit http://www.utvac.org.

## Texas Performing Arts

One of the nation's largest campus-based performing arts organizations, Texas Performing Arts is the university's primary performing arts presenter, an anchor for Austin's arts community, and a major force in the region's cultural landscape.

Texas Performing Arts offers hundreds of performances annually, from College of Fine Arts productions to international touring artists, and is the home of Broadway in Austin. Its venues range from the 244-seat Brockett Theater to the 2,900-seat Bass Concert Hall, and include state-of-the-art production shops for the creation of new work.

Every aspect of Texas Performing Arts is a professional learning laboratory for UT students, who receive \$10 tickets, work side-by-side with professional staff and visiting artists, and connect with others through Hook 'em Arts, a student-led arts advocacy group.

## 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 central laboratories and media-enhanced classrooms in each of the four academic units, and extensive wireless Internet coverage throughout the college.

Because of the rapidly growing importance of computers in College of Fine Arts curricula, students are strongly encouraged to come to the University with their own computers. In some programs of study, laptops are required. Students should contact the area of academic interest for more information.

## Fine Arts Library

Located on levels 3 and 5 of the E. William Doty Fine Arts Building, the Fine Arts Library supports research and instruction in the College of Fine Arts, including the Butler School of Music, the School of Design and Creative Technologies, and the Departments of Art and Art History and Theatre and Dance. The Fine Arts Library is also home to The Foundry, a makerspace for all members of the campus community, equipped with 3D printers, a laser cutter, a vinyl printer cutter, mills, high-end Macs for writing video games, a collaborative video station, a virtual reality space, and a recording studio. For more information, including hours and contact information, go to: https://www.lib.utexas.edu/about/locations/ fine-arts.

Services include information and research assistance, instruction in getting the best from library databases including online and full-text journals, circulation, and course reserves (for checking out items). The Fine Arts Library offers computing hardware and software to support the study of the fine arts, a high-end scanner, as well as media equipment and digital cameras. Carrels can be assigned to students seeking a specific location. A full range of support is provided for The Foundry's equipment. More details can be found here: https://www.lib.utexas.edu/ foundry.

The art collection includes materials on most art and design movements and schools, photography, and art education. Artists of most periods and nationalities and studies of their work are represented, as are most media and techniques. Art works on display include a large preColumbian pottery collection and modern prints. The Visual Resource Collection contains over 100,000 images from art, architecture, the performing arts, and fashion, and is accessible, with a UT EID, at https:// guides.lib.utexas.edu/visualresources.

The music collection includes materials on performance, composition, history, ethnomusicology, music education, and music therapy. Most historical periods and geographical areas are covered in both classical and popular idioms, and while the emphasis is on the Western classical tradition, many other musics are represented. Tens of thousands of scores are available for both study and performance. A streaming audio service with access to over 10 million tracks is available, and students can stream movies, documentaries, and musical performances via the Library Catalog, at http://catalog.lib.utexas.edu/.

The theatre and dance collection includes materials on performance, especially play production, theatrical design, playwriting, theatre education, and dance. Materials on other types of theatrical presentations, such as magic, circuses, and pantomime, are also included. The Fine Arts Library holds texts of major plays written in

English or translated into English, with contemporary plays collected most heavily. The Perry-Castañeda Library also holds texts of plays in English and other languages, with emphasis on plays as a literary form and on literary criticism.

Special collections include artist's books, zines, materials from the Austin Theatre Alliance-Paramount and State Theatres, and the Historical Music Recordings Collection, which includes over 300,000 items in older formats such as 78 rpm and LP records, and open-reel tapes.

## Financial Assistance Available through the College

Students in the College of Fine Arts are eligible for a variety of scholarships and awards. Most scholarship aid in the college is offered through the academic units (art and art history, design and creative technologies, music, and theatre and dance). For information about scholarship procedures and deadlines, the student should contact the academic unit of interest.

## Student Services

## Student Affairs

The Office of Student Affairs, a division of the Office of the Dean, offers a variety of student services, including academic advising, maintenance of student records, degree auditing, and other undergraduate student support services. Students should contact the Office of Student Affairs for answers to questions about degree requirements, graduation, or College of Fine Arts and University of Texas policies and regulations. This office is also a good source of referral for University-wide student support offices.

## Academic Advising

Each academic unit in the college (art and art history, design and creative technologies, music, and theatre and dance) has at least one full-time staff adviser. Questions about advising policies and procedures should be directed to those offices. Senior academic advisers and Student Affairs personnel are also available to undergraduate students in the centralized Student Affairs 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. The student's proposed schedule of classes must be approved by the adviser. Subsequent changes or corrections in the schedule must also have the adviser's approval.

## Career Services

## Career Advising

Fine Arts Career Services, a division of the Office of the Dean, helps fine arts majors explore career options, plan for careers, and develop strategies for seeking jobs upon graduation. More information is available at https://finearts.utexas.edu/careers. Career advising and planning services are also available from Texas Career Engagement and the School of Undergraduate Studies' Vick Center for Strategic Advising and Career Counseling.

The University makes no promise to secure employment for each graduate.

## Education Career Services

Candidates for teacher certification in the College of Fine Arts are eligible for Education Career Services in the College of Education. Education Career Services assists students who are seeking positions in
education-related occupations at the elementary school and secondary school level. Additional information is available on the Education Career Services website at https://education.utexas.edu/about/college-offices/ career-services.

## Student Organizations

In each of the units of the College of Fine Arts are various student organizations, including honor societies, professional associations, and service organizations. For information about current organizations and their eligibility requirements, contact the appropriate academic unit or the Office of the Dean of Students.

The Fine Arts Council is the official student organization of the college.

## Study Abroad

The College of Fine Arts offers many opportunities for students to study abroad:

Learning Tuscany program offers arts instruction by University faculty members at the Santa Chiara Study Center in Castiglion Fiorentino, near Florence. Students take both studio art and art history courses and focus on the culture of central Italy through class time and numerous field trips to nearby cities. More information is available from the undergraduate advising office in the Department of Art and Art History.

Urban Art and Design: Mexico City is a fall semester program that focuses on Mexico City's contemporary art and design scenes. Mexico City is one of the most vibrant, welcoming, boisterous, dissonant and ultimately dazzling cities in the world. With nearly 9 million residents, it is one of the planet's great urban laboratories where social, artistic and ecological problems meet solutions every day. Mexico City is a global hub of art, architecture and communication full of creative people and big ideas.

Casa Herrera is a research, conference, and teaching facility located in the heart of Antigua, Guatemala, operated by the Department of Art and Art History. As an extension of the department's Mesoamerica Center, Casa Herrera focuses on the varied and inter-related disciplines that contribute to the study of Pre-Columbian art, archeology, history, and culture.

## Admission and Registration

## Admission

Admission and readmission of undergraduate students to the University is the responsibility of the executive director of admissions. Information about admission to the University is given in the General Information Catalog and online at https://admissions.utexas.edu/.

For information about College of Fine Arts programs and admissions requirements, prospective students may contact the director of recruitment and enrollment in Fine Arts or a specialized admissions coordinator in the Department of Art and Art History, the School of Design and Creative Technologies, the Butler School of Music, or the Department of Theatre and Dance.

In most cases, current students should consult the college's academic advisors for answers to questions about degree requirements and steps for internal transfer or simultaneous majors. As an exception to this protocol, current students interested in music should direct such inquiries to the Butler School of Music admissions coordinator.

## Admission Policies of the College

To major in any field in the College of Fine Arts, a student must be admitted to the University. Most majors in the college are restricted majors that require the approval of faculty admissions committees within the college and special requirements for application.

## 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. Some majors require a portfolio submission. Information about admission requirements, procedures, and deadlines is available from the undergraduate admissions office in the department or online at http:// art.utexas.edu.

## School of Design and Creative Technologies

Admission to programs in the School of Design and Creative Technologies requires the approval of the Design and Creative Technologies Admissions Committee. Some majors require a portfolio submission. Information about admission requirements, procedures, and deadlines is available from the undergraduate admissions office in the department or online at https://designcreativetech.utexas.edu/ admissions/freshman-admissions.

## Sarah and Ernest Butler School of Music

To major in music, a student must pass an audition conducted by the Butler School of Music. At the discretion of the school, a student who fails an audition may be allowed to reaudition at a later date. Information about audition requirements, procedures, dates, and deadlines is available from the undergraduate admissions office in the Butler School or online at https://music.utexas.edu/apply/undergraduate-admission.

## 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. Some majors require an audition, interview or portfolio submission. Information about admission requirements, procedures, and deadlines is available from the undergraduate admissions office in the department or online at http://theatredance.utexas.edu.

## Transfer

## Internal Transfer and Simultaneous Majors

A student may seek entrance to the College of Fine Arts via internal transfer from another division of the University or adding a simultaneous major in accordance with the procedures and policies given in the General Information Catalog. However, a student seeking admission to any department of the college must also satisfy the special admission requirements described above.

## External Transfer

Students who begin study at another institution are encouraged to consult the director of recruitment and enrollment in the College of Fine Arts or the admissions coordinator for the respective department or school before applying to the University. Transfer applicants must also satisfy the special admissions requirements described above.

## Transfer Credit Evaluation

Most credit accepted from another college or university is evaluated by the Office of Admissions to determine equivalent courses at The University of Texas at Austin. For some transferred courses, especially in the fine arts, credit is accepted but no specific University equivalency is assigned. If, for example, a student has completed 12 semester hours of transferable coursework in studio art at another institution, the

Office of Admissions may accept the work only as 12 semester hours of unspecified credit in art. The same will often be true for courses in design, theatre and dance, and music.

Unspecified transfer credit outside the student's major is evaluated by the Office of the Dean, Student Affairs during the degree audit process described in the Degree Audit (p. 155) section. For unspecified transfer credit within the student's major, however, the student must seek a transfer evaluation from the designated advisor in art and art history, music, theatre and dance, or design and creative technologies. The advisor will identify courses in the major that are equivalent to University courses and forward his or her written recommendation to the Office of the Dean, Student Affairs.

Transfer credit in music performance may not be counted toward a degree in music until the student has completed additional music performance coursework at the University.

## Registration

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

## Registration Approvals Required

Before registering for any semester or summer session, a student in the College of Fine Arts must obtain documented approval of the proposed schedule of classes from his or her designated advisor.

## Course Prerequisites

The student must also meet the prerequisite for each course in which he or she enrolls. Prerequisites are given in the relevant catalog section and often appear in the Course Schedule. A student who registers for or adds a class without having met the prerequisite may be dropped from the class.

## Fine Arts Registration Requirements

In addition to individual course prerequisites, there are special registration requirements for certain courses and areas of study in the College of Fine Arts.

## Sarah and Ernest Butler School of Music

1. A student with transferred college credit in music theory must take a diagnostic examination in music theory. The results of the examination determine the level of music theory for which the student is advised to register.
2. Before beginning upper-division coursework in the major instrument, students majoring in music performance (including those pursuing the pedagogy option) must pass a full faculty jury examination in the major instrument and must be admitted to upper-division standing in that instrument.
3. Before beginning upper-division coursework in the major area, a student majoring in composition or music studies must obtain the approval of a designated committee composed of faculty members from that major.
4. Fulfillment of the music performance requirement signifies the attainment of a given level of artistic performance, rather than the completion of a specific number of semester hours of credit. At the discretion of the faculty, a student may be required to repeat any
course in music performance; in such a case, the course may be repeated for credit. No music performance requirement is fulfilled unless approval of the faculty has been obtained.
5. A student who receives a grade lower than a $C$ - in any music performance course may not register for that course during the next semester or summer session until the requests of other students for such work have been met.
6. A student in a degree other than music studies or the Bachelor of Arts in Music degree, whose degree plan requires a piano proficiency of Music 210 K , must continue with group piano classes in consecutive semesters until the requirement is fulfilled. The student may not enroll in private instruction until the Music 210K proficiency has been completed. A student in music studies, whose degree plan requires piano proficiency demonstrated in Music 201F (Piano for Teachers), must successfully complete Music 201F before being admitted to upper-division coursework in music studies. Students in the Bachelor of Arts in Music degree program must successfully complete the piano proficiency of Music 201N.

## 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 advisor to determine the appropriate course. Nonmajors who wish to enroll in production or performance laboratory courses must consult the undergraduate advising office of the department.

## Academic Policies and Procedures

## Academic Standards

## Class Attendance and Absences

Regular and punctual attendance is required at all classes, laboratories, practice hours, and other activities for which the student is registered.

Absences from scheduled practice hours, rehearsals, and laboratories will be excused only for serious and substantiated reasons, and the final grade in the course may be lowered for unexcused absence. Absence from a theatre, dance, or music rehearsal, crew meeting, or performance may be deemed sufficient reason for giving the student a grade of $F$ for the semester's work in the course concerned.

If an instructor indicates that a student has fallen below a passing grade in a course because of excessive absences, the dean, upon written recommendation of the instructor, may drop the student from that course and assign a grade of $F$ for the semester.

## Special Regulations of the College

## Personal Computing Devices

Undergraduate majors in the Department of Art and Art History and the School of Design and Creative Technologies must provide their own portable computing devices and software suitable for use in the classroom and for completing course assignments. Information about specific technical requirements is available from the departmental undergraduate advising office.

## Studio Courses

Students retain copyright to all two-dimensional, three-dimensional, timebased, and electronic artwork created in the Department of Art and Art History; they grant a nonexclusive license to exhibit, display, reproduce,
perform, or adapt these works at the discretion of the faculty. Works left in any departmental facility at the end of any semester or summer session may be removed or destroyed at the discretion of the faculty.

## Design and Arts and Entertainment Technologies Courses

Students retain copyright to all two-dimensional, three-dimensional, timebased, digital, and electronic artwork created in the School of Design and Creative Technologies; they grant a nonexclusive license to exhibit, display, reproduce, perform, or adapt these works at the discretion of the faculty. Works left in any departmental facility at the end of any semester or summer session may be removed or destroyed at the discretion of the faculty.

## Music Performances

A student majoring in the Butler School of Music must consult his or her faculty advisor before participating in any public performance.

## Honors

## University Honors

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

## Graduation with University Honors

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

## 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. At the beginning of the senior year (or second semester of the junior year), an interested art history major should apply to the honors advisor for admission to the program. The criteria for admission are

1. Completion of at least 90 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 15 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 advisor.
5. Approval of the honors advisor, who is responsible for maintaining the high standards for admission to and completion of the program.

Graduation with Special Honors in Art History<br>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 60 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 advisor.
7. Completion of Art History 379 H with a grade of $A$. This conference course, in which the student researches and writes a thesis, may not be counted toward the minimum number of hours of art history required for the degree.
To enroll in Art History 379H, the student must have the consent of the honors advisor. Consent is based on a written prospectus for the student's honors thesis and notification of support from the art history faculty member who will supervise the thesis. The prospectus and the notification of support must be submitted to the honors advisor 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 advisor, 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 379 H .
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.

## Special Honors in Arts and Entertainment Technologies

The Honors Program in Arts and Entertainment Technologies gives outstanding arts and entertainment technologies students an opportunity to undertake an advanced research and writing project under the supervision of a faculty member. The notation "Special Honors in Arts and Entertainment Technologies" appears on the transcript of each graduate who completes the program.

## Admission to the Program

The honors program is available to qualified students pursuing the degree of Bachelor of Science in Arts and Entertainment Technologies. At the beginning of the junior year, an interested arts and entertainment technologies student should apply to the honors advisor for admission to the program. The criteria for admission are

1. Completion of at least 60 semester hours of college credit.
2. A university grade point average of at least 3.50 .
3. Completion of Arts and Entertainment Technologies 304 with a grade of at least $A$ -
4. Completion of Arts and Entertainment Technologies 310 with a grade of at least A-.
5. Approval of the honors advisor, who is responsible for maintaining the high standards for admission to and completion of the program.

## Graduation with Special Honors in Arts and Entertainment Technologies

To complete the program, students must meet the following requirements by the end of the semester in which they graduate.

1. Graduation from the arts and entertainment technologies program.
2. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree.
3. A university grade point average of at least 3.50 .
4. A grade point average of at least 3.60 in all arts and entertainment technologies courses taken at the University.
5. Completion of Arts and Entertainment Technologies 170, Research Methods Proseminar.
6. Approval of the honors advisor or a designate.
7. Completion of Arts and Entertainment Technologies 378H, Honors Senior Thesis with a grade of A. This conference course, in which the student researches and produces a thesis, may not be counted toward the minimum number of hours of AET required for the degree.
8. Completion of one of the following courses with a grade of $A$ :
a. Arts and Entertainment Technologies 372
b. Arts and Entertainment Technologies 373
c. Arts and Entertainment Technologies 376
d. Arts and Entertainment Technologies 377
e. Arts and Entertainment Technologies 379
9. 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 arts and entertainment technologies.

## Special Honors in Theatre and Dance

The Honors Program in Theatre and Dance gives outstanding theatre and dance majors an opportunity to undertake an advanced research and writing project under the supervision of a faculty member. The notation "Special Honors in Theatre and Dance" appears on the transcript of each graduate who completes the program.

## Admission to the Program

The honors program is available to qualified theatre and dance majors pursuing the degree of Bachelor of Arts in Theatre and Dance. At the beginning of the junior year, an interested theatre and dance major should apply to the honors advisor for admission to the program. The criteria for admission are

1. Completion of at least 60 semester hours of college credit.
2. A university grade point average of at least 3.30 .
3. A grade point average of at least 3.60 in all theatre and dance courses attempted in residence.
4. Completion of at least 15 semester hours in theatre and dance. If the hours in theatre and dance were not earned at the University, admission is at the discretion of the head of the Theatre and Dance Honors program or a designate.
5. Approval of the head of the Theatre and Dance Honors program or a designate, who is responsible for maintaining the high standards for admission to and completion of the program.

## Graduation with Special Honors in Theatre and Dance

To complete the program, students must meet the following requirements by the end of the semester in which they graduate.

1. Graduation as a theatre and dance major.
2. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree.
3. A university grade point average of at least 3.30 .
4. A grade point average of at least 3.60 in all theatre and dance courses taken at the University.
5. Completion of Theatre and Dance 375 H with a grade of at least $B$.
6. Approval of the head of the Theatre and Dance Honors program or a designate.
7. Completion of Theatre and Dance 379 H with a grade of $A$. This is a conference course, in which the student researches and produces a thesis. To enroll in Theatre and Dance 379H, the student must have the consent of the head of the Theatre and Dance Honors program or a designate. Consent is based on a written prospectus for the student's honors thesis and a letter of support from the theatre and dance faculty member who will supervise the thesis. The prospectus and the letter of support must be submitted to the head of the Theatre and Dance Honors program or a designate by the end of the semester preceding the semester in which the student plans to take Theatre and Dance 379H. The student may develop the honors project and prepare the prospectus either in Theatre and Dance 376H or in another theatre and dance course:
a. With the approval of the head of the Theatre and Dance Honors program or a designate, the student must complete the independent study course Theatre and Dance 376 H with a theatre and dance faculty member who agrees to supervise the student's work. Theatre and Dance 376H may be counted toward the degree as elective theatre and dance credit. The student must earn a grade of at least $B$ in order to progress to Theatre and Dance 379H.
b. The student may also base the prospectus on a project undertaken in another theatre and dance 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 theatre and dance.

## Recognition in Music Performance

This recognition 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.

## Eligibility

To apply for a Recognition in Music Performance, a student must be enrolled as an undergraduate music major pursuing the Bachelor of Music degree or the Bachelor of Arts in Music degree. He or she must be enrolled in principal instrument course 260.

## Procedure

A student who meets the eligibility criteria must submit a petition to the appropriate music performance jury for permission to audition before the Butler School of Music faculty-that is, to perform at a full faculty jury examination. This petition may be submitted during any semester in which the student is enrolled in principal instrument course 260.

Ordinarily, the student may not audition for the full faculty before the conclusion of his or her second semester of principal instrument course 260 . If the petition is approved, the student may audition at a full faculty jury examination.

If the student obtains approval at the full faculty jury examination, then he or she must present a recognition 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 recognition recital is to be given. A recognition 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 Recognition in Music Performance. If approval is given by the division faculty, the recognition is issued by the Butler School and signed by both the student's music performance instructor and the director of the school.

## Graduation

## Special Requirements of the College

All students must fulfill the general requirements (p. 19) for graduation. Students in the College of Fine Arts must also fulfill the following requirements.

## Residence

See the University-wide general requirements (p.19) on coursework to be taken in residence. Unless an exception is approved by the adviser and the dean, a student in the College of Fine Arts must also complete in residence the last 18 semester hours in the major subject that are counted toward the degree.

## Grade Point Average

All University students must have a grade point average of at least 2.00 to graduate. In addition, students in 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.

## Design

A student majoring in design must maintain a cumulative grade point average of at least 2.50 for all upper-division design courses taken in residence at the University.

## Bachelor of Arts in Music

A student pursuing the Bachelor of Arts in Music must have a grade point average of at least 2.50 in all upper-division courses in the Butler School of Music (excluding ensemble) taken in residence at the University.

## Bachelor of Arts in Theatre and Dance

A student pursuing the Bachelor of Arts in Theatre and Dance must have a grade point average of at least 2.50 in all upper-division courses in the Department of Theatre and Dance.

## Butler School of Music Special Requirements Ensemble Requirement

Ensembles that may be used to fulfill the following requirements are designated by the Butler School. For information, the student should contact the undergraduate advising office of the school. With the approval of the designated adviser, a student may enroll in more than one ensemble in a semester, but no more than one ensemble a semester may be used to fulfill this requirement.

## Bachelor of Music

Students seeking the Bachelor of Music other than music studies must complete in residence at least eight long-session semesters of approved ensemble. Transfer students must complete an approved ensemble each long-session semester in residence until they have met the ensemble requirement or until they graduate, whichever comes first. A transfer student may count toward this requirement two semesters of transferred ensemble approved by the Butler School.

Students majoring in music studies must complete in residence at least six long-session semesters of approved ensemble.

## Bachelor of Arts in Music

Students seeking this degree must complete in residence at least four long-session semesters of ensemble approved by the Butler School. Transfer students must complete an approved ensemble each longsession semester in residence until they have completed four semesters of ensemble or until they graduate, whichever comes first. A transfer student may count toward this requirement one semester of transferred ensemble approved by the Butler School.

## Recital Requirement for Music Studies Majors

Before the end of his or her last semester of study on the principal instrument, a music studies major must present either the recital required for Recognition in Music Performance (p. 152) or a community performance approved by the music studies faculty and the student's instructor in the principal instrument.

## Degree Audit

Official degree audits are reviewed by the Office of Student Affairs for students with a major in the College of Fine Arts. If a student changes his or her catalog, principle instrument, major, or any degree option that affects the requirements of his or her degree program, a new official degree audit will be generated and reviewed.

The official degree audit provides an accurate statement of the requirements, but the student is responsible for meeting all deadlines, knowing the requirements, and registering for courses that fulfill all the requirements for the degree as stated in a catalog under which he or she is entitled to graduate. Before registering, the student should seek an official ruling from the Office of Student Affairs if in doubt about any requirement.

## Applying for Graduation

In the semester or summer session in which the degree is to be conferred, the candidate must be registered at the University and must file a graduation application form with the Office of Student Affairs. This should be done at the beginning of the semester in which the student intends to graduate; it must be done by the deadline to apply for an undergraduate degree, which is given in the official academic calendar. No degree will be conferred unless the graduation application form has been filed on time.

An official degree audit must be on file when the student submits the graduation application. Because the application process includes a review of all remaining degree requirements, candidates for graduation are encouraged to apply as early in the semester as possible. A student who applies for graduation but does not receive the degree must submit a new application in the semester he or she subsequently intends to graduate.

The student must be registered at the University for the semester or summer session in which the degree is to be granted. This requirement may be fulfilled by registering for courses in residence or by registering in absentia. For information about registration in absentia, the student should consult the Office of Student Affairs during the semester in which he or she intends to graduate.

Credit received by examination, correspondence, or transfer does not fulfill the residence requirement. Students planning to receive credit by any of these means must consult the Office of Student Affairs before the semester in which they intend to graduate for a ruling about whether the credit may be applied toward the degree and for information about the procedures and deadlines involving credit by examination, correspondence, and transfer.

No degree will be conferred unless all requirements have been fulfilled and all deadlines met.

## Degrees and Programs

## Degrees Offered

The College of Fine Arts offers a wide variety of degree programs. For undergraduate students who seek professional training in the arts or who feel the need for intensive training in their chosen art, the college offers the degrees of Bachelor of Fine Arts, Bachelor of Music, and Bachelor of Science in Arts and Entertainment Technologies. These degrees require that approximately two-thirds of the coursework be completed in the major area.

The student who wants a broad education with an emphasis in the arts may pursue the degree of Bachelor of Arts, Bachelor of Arts in Music, or Bachelor of Arts in Theatre and Dance. These degrees require that approximately a third of the coursework be completed in the major area.

## Department of Art and Art History

The Department of Art and Art History offers academic programs in art education, art history, and studio art.

## Art Education

Art educators believe art is an essential component of a comprehensive education. The art education program prepares students to serve as teaching artists in schools and community settings. Comprehensive coursework ranges from grounding in the field (its philosophical, historical and social contexts), current art education trends (visual/ material culture art education, social justice art education, multicultural art education, discipline-based art education), content knowledge (age appropriate art making skills, art criticism, aesthetics, educational philosophy, educational technology, ethical decision making) and pedagogical strategies (curriculum writing, teaching strategies, standards and evaluation). Field observations and practical classroom teaching in community and school environments are required of all students in the program. Coursework meets state requirements for teacher certification in all-level art (early childhood through grade 12).

## Art History

Art history is a discipline that works to deepen and expand our understanding of art and visual expression from a variety of perspectives, from an initial context of making and reception to an ensuing circulation, including collection and display. Students in art history become proficient in visual and cultural analyses, core components of critical thinking and writing, as well as historical interpretation. The art history program is among the nation's largest and most distinguished, with over 20 full-time faculty who are leading scholars in their respective fields and represent a diversity of critical and methodological outlooks. Our objects of inquiry include all media, historical periods, and geographical areas: from sculpture to digital art, from pre-history to the present, and from every part of the world.

## Studio Art

The purpose of the studio art program is to transmit a professional, solid foundation of skills in a wide range of studio practices by providing students with experiences in historical and theoretical models along with a vocabulary to understand and engage in critical discourses of art. Studio instruction encompasses drawing and painting (contemporary and historical practices), photography and media (black/white darkroom, digital, still and moving image), print (intaglio, lithography, serigraphy), sculpture and extended media (casting, hot and cold fabrication, digital fabrication, installation), and transmedia (digital-time art, video art, performance art). Through an exploration of the ideas and forms at the leading edge of knowledge, our students develop the capacity for experimentation and invention, the creation of new forms of studio art.

The University's extensive resources for art research include the Fine Arts Library, the Blanton Museum of Art, the Perry-Castañeda Library, and specialized collections such as the Harry Ransom Center, the Classics Library, the Architecture and Planning Library, the Benson Latin American Collection, Landmarks, and the University Co-op Materials Lab.

## Programs of study

Programs of study leading to the following undergraduate degrees are offered in the Department of Art and Art History:

```
- Bachelor of Arts
    - Art history
    - Studio art
- Bachelor of Fine Arts
    - Studio art
    - Art education
        - Students who plan to pursue certification to teach art in
        Texas public schools should follow the art education (AED)
        program.
```


## School of Design and Creative Technologies

The School of Design and Creative Technologies offers academic programs in design and arts and entertainment technologies.

## Design

The undergraduate design program empowers students with a rich, multi-faceted educational experience that poises graduates for careers in the design professions or an entrepreneurial endeavor. Design is about solving a problem and creating new processes, products, and services for people. It is human-centered; the end-user's needs, wants, and limitations are explored at all stages within the design process and development lifecycle.

Students enjoy the extensive offerings of one of the world's great public universities, while receiving individualized instruction from expert, passionate faculty and local industry professionals in small cohorts of
approximately 20 students. Students immerse themselves in various aspects of design and learn to create graphics, objects, interactions, systems, and services.

## Arts and Entertainment Technologies

Arts and Entertainment Technologies is focused on professional practice in immersive media, experience design, and interactive systems. Faculty noted for their professional excellence and experience teach a diverse set of courses in design and technology. Students work with faculty and each other to produce state-of-the-art content in an interdisciplinary academic setting aligned with the missions of both the College of Fine Arts and The University of Texas.

Coursework is centered around design methods, coding, game development, real-time graphics, sound design, simulation, collaboration, emerging technology, storytelling, and interconnected modes of production and distribution. Through this curriculum, students are prepared for careers in the fields of real-time technology, mixed reality, and immersive media which are powering new forms of design, education, and business.

## Programs of study

Programs of study leading to the following undergraduate degrees are offered in the School of Design and Creative Technologies:

- Bachelor of Arts
- Design
- Bachelor of Fine Arts
- Design
- Bachelor of Science in Arts and Entertainment Technologies
- Arts and entertainment technologies


## Sarah and Ernest Butler School of Music

Through professional education of the highest caliber, the Butler School of Music prepares students for productive careers as performers, teachers, composers, and scholars, and for satisfying lives as informed and responsible members of a democratic society. In accordance with the University's mission, the School also seeks to extend the boundaries of knowledge and human experience through research and the creation of new music.

Housed in two connected buildings, the physical facilities of the Butler School include performance spaces in the 700-seat Bates Recital Hall with its world-renowned Visser-Rowland pipe organ, Jessen Auditorium, the Recital Studio, and McCullough Theatre. For special events, the school collaborates with Texas Performing Arts for performances in Bass Concert Hall. Other facilities include well-equipped classrooms and faculty studios/offices, multiple large and small rehearsal halls, electronic music studios, recording studios, 130 practice rooms and modules (including dedicated rooms for organ, harp, and percussion), a technology lab, chamber music rooms, two digital keyboard labs, and 250 well-maintained pianos. Also available to music students are libraries including manuscripts, rare editions, and performance collections; a Medieval and Renaissance instrument collection; a Javanese gamelan, and a Music Learning Laboratory.

## Programs of study

Programs of study leading to the following undergraduate degrees are offered in the Butler School of Music:

- Bachelor of Arts in Music
- Emphasis in Music
- Emphasis in Composition
- Bachelor of Music
- Composition
- Jazz
- Concentration in Performance: double bass, drum set, guitar, piano, saxophone, trombone, and trumpet
- Concentration in Composition: double bass, drum set, guitar, piano, saxophone, trombone, and trumpet
- Performance: voice, piano, organ, harp, harpsichord, and orchestral instruments
- Music studies
- Students who plan to pursue certification to teach music in Texas public schools should follow the Music Studies program.


## Courses

The University of Texas at Austin is an institutional member of the National Association of Schools of Music, approved for both its undergraduate and its graduate degrees in music. The requirements for entrance and for graduation given in this catalog are in accordance with the published regulations of the association.

## Areas of Study

The College of Fine Arts offers courses in several areas of music. The undergraduate courses available in music performance, music literature, music studies, and music theory are listed below and with complete descriptions in the General Information Catalog.

## Music Performance

Before the first semester or summer session in which they will be enrolled, new and transfer students must file an Application for Instruction in Music Performance. The card indicates the faculty member to whom the student has been assigned.

All students enrolled in a music performance course must fill out a Music Performance and Jury Report at the end of each semester or summer session for each course taken.

Students who receive a grade below $C$ - in any music performance course may not register for that course the next semester until the requests of other students for such work have been met.

Some of the following courses may be repeated for credit on the recommendation of the appropriate music performance jury.

Music 201J, Beginning Class Piano for Nonmusic Majors
Music 201K, Second-Semester Class Piano for Nonmusic Majors
Music 201 M, Beginning Music Performance: Class Piano
Music 201N, Beginning Music Performance: Second-Semester Class Piano
Music 201S, Beginning Music Performance: Class Harp
Music 201T, Beginning Music Performance: Second-Semester Class Harp
Music 210J, Beginning Instruction in Music Performance: ThirdSemester Class Piano
Music 210K, Beginning Instruction in Music Performance: FourthSemester Class Piano
Music 111E, English Diction and Phonetic Translation
Music 311F, French for Musicians
Music 311G, German for Musicians
Music 311 J , Italian for Musicians
Music 115T, Lower-Division Reed Making
Music 420J, Junior Jazz Recital
Music 420R, Junior Recital
Music 222J, Instrumental Conducting
Music 222K, Instrumental Conducting

Music 223J, Choral Conducting
Music 223K, Choral Conducting
Music 159J, Harp Repertoire
Music 259L, Vocal Repertoire Coaching
Music 259N, Chamber Music: Strings and Piano
Music 259T, Topics in Instrumental Technology
Music 160C, Senior Composition Recital
Music 460J, Senior Jazz Recital
Music 460R, Senior Recital
Music 366P, Senior Piano Pedagogy Project
Music 176C , Music 276C , Music 376C, Special Topics in Music
Performance
Music 178C , Music 278C , Music 378C, Independent Study: Music Performance

## Music Literature

Music 302L, An Introduction to Western Music
Music 302P, Introductory Topics in Western Music
Music 303M, Introduction to Music in World Cultures
Music 303N, Introduction to Popular Music in World Cultures
Music 303P, Topics in Music of World Cultures
Music 307, Topics in Popular Music
Music 313M, History of Music I
Music 313N, History of Music II
Music 330L, History of Music III
Music 334, The Music of the Americas
Music 337, Music and Film Sound
Music 338, Masterpieces of Music
Music 342, Area Studies in Ethnomusicology
Music 343J, History of Jazz
Music 376G, Special Topics in Music Literature
Music 178G , Music 278G , Music 278G, Independent Study: Music
Literature
Music 379K, Advanced Topics in Music Literature

## Music Studies

Music 115D, String Instrument Fundamentals Music 115E, Brass Instrument Fundamentals
Music 115F, Woodwind Instrument Fundamentals
Music 115G, Guitar Fundamentals
Music 354, Musical Development of Children
Music 354C, Children's Music Literature and Performance I
Music 354D, Children's Music Literature and Performance II
Music 354F, Music Performance, Listening, and Appreciation
Music 155C, Techniques of Percussion Performance
Music 255D, Techniques of String Performance
Music 255E, Techniques of Brass Performance
Music 255F, Techniques of Woodwind Performance
Music 255M, Marching Band Techniques
Music 255V, Techniques of Vocal Performance
Music 356G, Choral Ensemble Literature and Performance
Music 356J, Instrumental Ensemble Literature and Performance
Music 176M, Special Topics in Music Studies
Music 178M , Music 278M , Music 378M, Independent Study: Music
Studies

## Music Theory

Music 605, Musicianship
Music 411, Ear Training and Sight-Singing
Music 612, Structure of Tonal Music
Music 214C, Beginning Composition
Music 218J, Beginning Jazz Improvisation
Music 321J, Twentieth-Century Musical Analysis

Music 224G, Intermediate Composition
Music 224J, Advanced Composition
Music 325L, Counterpoint
Music 325M, Counterpoint
Music 226G, Orchestration and Arranging
Music 226J, Orchestration and Instrumentation
Music 226 K , Orchestration and Instrumentation
Music 226N, Choral Arranging
Music 228G, Jazz Theory I
Music 228J, Intermediate Jazz Improvisation
Music 228K, Beginning Jazz Piano Techniques
Music 228L, Jazz Theory II
Music 328M, Studio Arranging
Music 228P, Jazz Composition
Music 329E, Introduction to Electronic Media
Music 329F, Projects in Electronic Media
Music 329G, Intermediate Electronic Composition
Music 329J, Introduction to Computer Music
Music 329M, Intermediate Computer Music
Music 164L, Advanced Ear Training
Music 368L, Review of Music Theory
Music 376J, Special Topics in Music Theory
Music 178J , Music 278J , Music 378J, Independent Study: Music Theory

The abbreviations used for performance courses are included in Appendix B.

## Department of Theatre and Dance

The Department of Theatre and Dance affords students opportunities for scholarship and practice in all the principal areas of theatre and dance. Students may choose programs of study leading to a variety of academic and professional goals, including teacher certification in both theatre and dance.

The facilities of the department are among the best available to university programs in the United States. In addition to the performance areas, studios, and shops of Texas Performing Arts, the department has the B. Iden Payne Theatre, the Oscar Brockett Theatre (a flexible space black box theater), a 100 -seat laboratory theater, two workshop performance spaces, an extensive costume collection, five dance studios, a drafting studio, a design studio, as well as numerous classrooms and rehearsal studios in the F. Loren Winship Drama Building. Of special interest to students pursuing theatre research is the Performing Arts Collection, housed in the Harry Ransom Humanities Research Center, which contains one of the world's most important collections of theatre material.

## Programs of study

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
- Theatre and dance
- Bachelor of Fine Arts
- Acting
- Dance
- Students who plan to pursue certification to teach dance in Texas public schools should follow the dance education option under the dance program.
- Theatre education
- Students who plan to pursue certification to teach theatre arts in Texas public schools should follow the theatre education program.


## Courses

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.

## 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 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 12 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 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 Student Affairs as to whether the credit may be applied toward a degree and for information about procedures and deadlines. This ruling should be obtained before registering for the coursework.

No more than 10 percent of the semester hours required for any degree offered in the College of Fine Arts may be completed by correspondence.

## UTeach-Fine Arts 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 (p. 17). The University maintains approved programs for visual arts, theatre arts, dance, and music. Students interested in one of these teaching areas ordinarily pursue the degree program in fine arts education: art education (p. 159), theatre (p. 159) education (p. 159), dance (p. 159), or music studies (p.162). Students seeking teacher certification must be approved by the College of Education for the Professional Development

Sequence (PDS) and must complete additional state exams and fingerprinting requirements. See State Board for Educator Certification (SBEC) at http://www.tea.texas.gov for details. Field observations and practical classroom teaching in community and school environments are required of all students in the program. Coursework meets the state requirements for teacher certification in all-level (early childhood through grade 12 ) art, music, or theatre and in secondary (grades six through 12) dance.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

## Professional Development Sequence

## For those seeking certification for art education, all-level:

| Requirements | Hours |  |
| :--- | :--- | :--- |
| EDC 331S | School Organization and Classroom <br> Management in Secondary Schools | 3 |
| EDC 332S | Designs for Instruction | 3 |
| EDC 370S | Secondary School Subjects | 3 |
| EDC 951W | All Level Teaching Practicum (Topic <br> 2) | 9 |
| PSY 301 | Introduction to Psychology | 3 |
| ALD 322 | Individual Differences | 3 |
| Three credit hours in human development chosen from the | 3 |  |
| following: | Introduction to Child Psychology | 3 |
| PSY 304 | Personality |  |
| PSY 309 | Child Development |  |
| HDF 313 | and Child Development Laboratory |  |
| \& HDF 113L | Adolescent Development |  |
| EDP 350G |  |  |

## For those seeking certification for theatre education, all-level:



## For those seeking certification for dance education, secondary:

| Requirements | Hours |  |
| :--- | :--- | :--- |
| EDC 331S | School Organization and Classroom <br> Management in Secondary Schools | 3 |
| EDC 332S | Designs for Instruction | 3 |


| EDC 370S | Secondary School Subjects | 3 |
| :--- | :--- | :--- |
| EDC 951 W | All Level Teaching Practicum (Topic | 9 |
|  | 3) | 3 |
| PSY 301 | Introduction to Psychology | 3 |
| ALD 322 | Individual Differences | 3 | following:


| PSY 304 | Introduction to Child Psychology |
| :--- | :--- |
| PSY 309 | Personality |
| HDF 313 | Child Development |
| \& HDF 113L | and Child Development Laboratory |
| EDP 350G | Adolescent Development |

## For those seeking certification for music studies, all-level:

Requirements Hours

EDC 331S
School Organization and Classroom Management in Secondary Schools Designs for Instruction
EDC 332S Designs for Instruction 3
EDC 370S Secondary School Subjects 3

EDC 951W All Level Teaching Practicum (Topic 9 4)
PSY 301 Introduction to Psychology 3
MUS 354C Children's Music Literature and 3
Performance I

Three credit hours in human development chosen from the 3
following:

| PSY 304 | Introduction to Child Psychology |
| :--- | :--- |
| PSY 309 | Personality |
| HDF 313 | Child Development |
| \& HDF 113L | and Child Development Laboratory |
| EDP 350G | Adolescent Development |

## Bachelor of Fine Arts

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic advisor.

## Studio Art Major

## Major Requirements

1. Studio art: 60 semester hours, consisting of
a. Studio Art 311C, 312C, 313C, and 314C
b. Twelve semester hours of lower-division Studio Art courses, consisting of three hours from four of the following five areas:
i. Transmedia
ii. Photography
iii. Print
iv. Painting and drawing
v. Sculpture
c. Thirty-three additional semester hours of studio art, of which at least 21 hours must be upper-division
d. Studio Art 350P
2. Art history: 12 semester hours, consisting of
a. Art History 302 and 303
b. Six semester hours of upper-division coursework in art history, three semester hours of which may also be counted toward the visual and performing arts requirement of the core curriculum

## Electives

Six semester hours chosen from courses either within or outside the Department of Art and Art History. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BFA with a major in studio art: 120 semester hours as outlined above.

## Design Major

## Major Requirements

1. Design courses: 38 semester hours, consisting of
a. Design 304, 305, and 306
b. Design 309
c. Design 360
d. Design 374 with a grade of at least $C$ -
e. Design 375 with a grade of at least $C$ -
f. Seventeen additional semester hours of upper-division courses in design. Design 336 and 337 may not be counted.
2. Supportive courses in design, related technologies, and the visual arts: 15 semester hours of approved supportive courses in Design (DES) or related fields. The School of Design and Creative Technologies' advising office maintains a list of pre-approved supportive courses
3. Art/design history/theory/criticism courses: 12 semester hours consisting of
a. Art History 303
b. Design 308
c. Design 336 or 337 (Topic 1: History of Graphic Design)
d. Three additional semester hours of courses in Art History or approved art/design history/theory/criticism courses in related fields. The School of Design and Creative Technologies' advising office maintains a list of pre-approved supportive courses
4. Performance review: Design 131. A design major must register for the performance review course during the second semester of sophomore year, and present a portfolio of his or her works for review by designated design faculty at the end of the semester. The works
to be included for review are specified by the design faculty. In order to enroll in courses numbered Design 340 or higher, the student must pass this performance review.

Several of the courses which may be used to complete requirement 3 are also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

Twelve semester hours chosen from courses either within or outside the School of Design and Creative Technologies. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BFA with a major in design: 120 semester hours as outlined above.

## Art Education Major

The major in art education is a preprofessional academic program recommended for students seeking all-level (early childhood through grade 12) teacher certification in art or planning to pursue undergraduate or graduate training for visual art careers in community art programs. Students seeking teacher certification must adhere to current state requirements in addition to the degree requirements described in this catalog. Students should contact the College of Education for current state certification requirements. See Preparation for Teacher Certification (p. 17) for additional information.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

## Major Requirements

1. Studio art: 30 semester hours, consisting of
a. Studio Art 311C, 312C, 313C, and 314C
b. Nine semester hours, consisting of three hours from each of the following three areas:
i. Area A: Drawing, life drawing, painting
ii. Area B: Printmaking and photography
iii. Area C: Transmedia and sculpture
c. Nine additional semester hours of coursework in studio art, all of which must be upper-division
2. Art history: 12 semester hours, consisting of a. Art History 302 and 303
b. Six semester hours of upper-division coursework in art history, three semester hours of which may also be counted toward the visual and performing arts requirement of the core curriculum.
3. Visual art studies: 12 semester hours of coursework in visual art studies
4. 12 semester hours approved by the art education advisor.

## Professional Development in Education

Please see the UTeach-Fine Arts (p. 155) section of this catalog for more information.

## Approved Electives

Twelve semester hours of coursework approved by the art education advisor. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BFA with a major in art education: 120 semester hours as outlined above.

## Theatre Education Major

The major in theatre education is a preprofessional academic program recommended for students seeking all-level teacher certification in theatre arts. Students seeking teacher certification must adhere to current state requirements in addition to the degree requirements described in this catalog. Students should contact the College of Education for current state certification requirements. See Preparation for Teacher Certification (p. 17) for additional information.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

## Major Requirements

1. Theatre and dance core: 18 semester hours, consisting of Theatre and Dance 311C, 313C, 314M, 314Q, 317C, and 317D
2. Theatre education emphasis: At least 33 semester hours, consisting of
a. Acting and directing: Theatre and Dance 313D, 316D, and 323D
b. Design and technical production: six semester hours chosen from topics of Theatre and Dance 324 or 354T, including one course in two of the following three areas: costume, lighting, and scenery
c. Theatre education: Theatre and Dance 326C, 326D, 326Q, and 626E
d. Theatre and Dance 326F
3. Six additional upper-division semester hours of coursework in theatre and dance, excluding production courses

Several of the courses which may be used to complete requirement 1 are also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Professional Development in Education

Please see the UTeach-Fine Arts (p. 155) section of this catalog for more information.

## Approved Electives

Twenty-four semester hours of coursework approved by the theatre education advisor. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BFA with a major in theatre education: 120 semester hours as outlined above.

## Dance Major

The option in Dance Education is a preprofessional academic program recommended for students seeking all-level teacher certification in dance. Students seeking teacher certification must adhere to current state requirements in addition to the degree requirements described in this catalog. Students should contact the College of Education for current state certification requirements. See Preparation for Teacher Certification (p. 17) for additional information.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must
adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

## Major Requirements

1. Theatre and dance core: 15 semester hours, consisting of Theatre and Dance 311C, 312M, 314P, 317M, and 317N
2. Physical Practice:
a. Contemporary dance technique: Nine semester hours, consisting of two semesters of Theatre and Dance 312C and one semester of either 312D or 352T
b. Ballet technique: Nine semester hours, consisting of two semesters of Theatre and Dance 312F and one semester of either 312G or 352T
3. Creative Practice: Six semester hours, consisting of Theatre and Dance 312N and 332M
4. Somatic Practice: Five semester hours, consisting of Theatre and Dance 212 and 352
5. Pedagogical Practice: Theatre and Dance 332R
6. Performance Practice: Four semester hours, consisting of Theatre and Dance 212P and 222P
7. Option in either Dance or Dance Education:
a. For Option in Dance: 27 semester hours, consisting of
i. Physical Practice: Theatre and Dance 312D and 312G
ii. Creative Practice: Theatre and Dance 332N
iii. Somatic Practice: Theatre and Dance 352T
iv. Performance Practice: Theatre and Dance 212P, 222P, and 232P
v. Electives: Three hours chosen from an approved list of topics in history, theory, criticism, or cultural diversity, and six hours chosen from Theatre and Dance 322E, 322J, 352P, or 352T
b. For Option in Dance Education: 27 or 28 semester hours, consisting of
i. Performance Practice: Theatre and Dance 222P or 232P
ii. Academic Studies: Theatre and Dance 152P
iii. Professional Development: Applied Learning and Development 322, Curriculum and Instruction (EDC) 332S, 331S, 370S, 951W, and one of the following:
8. Human Development and Family Sciences 313 and 113L
9. Educational Psychology 350G
10. Psychology 304

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. Students choosing the Option in Dance must be registered for dance technique each long-session semester in residence. To continue in this degree program, the student must pass an annual evaluation by the dance faculty. Students whose progress in dance technique is judged unsatisfactory by the faculty will be dismissed from the program.

## Professional Development in Education (Dance Education option)

Please see the UTeach-Fine Arts (p. 155) section of this catalog for more information.

## Electives

Elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Requirements

For the BFA with a major in dance: at least 120 or 121 semester hours as outlined above.

## Acting Major

## Major Requirements

1. Theatre and dance core: 18 semester hours, consisting of Theatre and Dance 311C, 314M, 314P, 317C, 317D, and 324P
2. Acting Emphasis: At least 48 semester hours, consisting of
a. Lower-division acting emphasis: Theatre and Dance 313C, 313D, 313E, 313F, 313G, 313K, 313L, 313M, and 313N
b. Upper-division acting emphasis: Theatre and Dance 323F, 320J, 321P or 323P, 353C, 353D, 353Q, and 353K or 353T

## Approved Electives

12 semester hours of approved electives within the Department of Theatre and Dance chosen from the following:

1. Industry Internship: Theatre and Dance 372, 672, or 972
2. Theatre and Dance 353E, 353R, 353T, or additional upper-division semester hours in the Department of Theatre and Dance approved by the acting advisor

## Total Minimum Requirements

For the BFA with a major in acting: at least 120 semester hours as outlined above.

## Bachelor of Music

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic advisor.

## Voice Performance Major

## Major Requirements

1. Performance: 26 semester hours, consisting of four semesters of Voice 210, two semesters of Voice 362, Music 420R, Music 460R, Music 210K and approval of the faculty, and Music 223J
2. Music literature and music theory: Music 605, 411, 612, 312C, 213M, $213 \mathrm{~N}, 321 \mathrm{~J}, 230 \mathrm{~L}$, and three hours chosen from Music 325L, 325M, $331 \mathrm{~J}, 334,337,342,343 \mathrm{~J}, 376 \mathrm{~J}$ and 379 K
3. Diction: Music 111E, 311F, 311G, and 311J
4. Music pedagogy: Music 271P (Topic 3: Pedagogy: Voice 1)
5. Music ensemble: At least eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 155)

When taken in residence, Music 312C may either be counted toward the visual and performing arts requirement of the core curriculum or toward the three-semester-hour writing flag portion of the core curriculum English composition requirement Music 334 which may be used to complete requirement 2 is also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

Four semester hours chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in voice performance: 120 semester hours as outlined above.

## Piano Performance Major

## Major Requirements

1. Performance: With the recommendation of the faculty, given in advance, students may choose either of the following two options.
a. Normally suggested for students who wish to emphasize performance: 32 semester hours, consisting of four semesters of Piano 312, two semesters of Piano 362, Music 420R, two semesters of Music 271P (Topic 1 and Topic 2), 460R, and 222J or 223J
b. Normally suggested for students who wish to emphasize pedagogy: 32 semester hours, consisting of four semesters of Piano 312, two semesters of Piano 260, 362, two semesters of Music 271P (Topic 1 and Topic 2), 460R, 366P, and 222J or 223J
2. Music literature and music theory: Music $605,411,612,312 \mathrm{C}, 213 \mathrm{M}$, $213 \mathrm{~N}, 321 \mathrm{~J}, 325 \mathrm{M}, 230 \mathrm{~L}$; two semesters of Music 259N; and three hours chosen from Music 325L, 331J, 334, 337, 342, 343J, 376J, and 379 K
3. Music ensemble: Eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 155)

When taken in residence, Music 312C may either be counted toward the visual and performing arts requirement of the core curriculum or toward the three-semester-hour writing flag portion of the core curriculum English composition requirement.. Music 334 which may be used to complete requirement 2 is also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

Three semester hours to be chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in piano performance: 120 semester hours as outlined above.

## Organ or Harpsichord Performance Major Major Requirements

1. Performance and pedagogy: 30 semester hours, consisting of four semesters of major instrument course 312, two semesters of major instrument course 362 , Music 420R, 460R, 275T, and 222J or 223J
2. Music literature and music theory: Music $605,411,612,312 \mathrm{C}, 213 \mathrm{M}$, $213 \mathrm{~N}, 321 \mathrm{~J}, 325 \mathrm{~L}, 325 \mathrm{M}, 230 \mathrm{~L}$, and three semester hours chosen from Music 331J, 334, 337, 342, 343J, 376J, and 379K
3. Music ensemble: Two semesters of Music 259 N and eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 155)

When taken in residence, Music 312C may either be counted toward the visual and performing arts requirement of the core curriculum or toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 which may be used to complete requirement 2 is also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

Two semester hours chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in organ or harpsichord performance: 120 semester hours as outlined above.

## Harp Performance Major <br> Major Requirements

1. Performance and pedagogy: 30 semester hours, consisting of four semesters of Harp 312, two semesters of Harp 362, Music 420R, 460R, 275T, and 222J
2. Music literature and music theory: Music $605,411,612,312 \mathrm{C}, 213 \mathrm{M}$, $213 \mathrm{~N}, 321 \mathrm{~J}, 230 \mathrm{~L}$; three semester hours chosen from Music 331J, $334,337,342,343 \mathrm{~J}, 376 \mathrm{~J}$, and 379 K ; and two courses chosen from the following: Music $214 \mathrm{C}, 325 \mathrm{~L}, 325 \mathrm{M}, 226 \mathrm{~J}$, and 226 K
3. Music ensemble: Two semesters of Music 259 N and eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 155)

When taken in residence, Music 312C may either be counted toward the visual and performing arts requirement of the core curriculum or toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 which may be used to complete requirement 2 is also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

Two to four semester hours to be chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in harp performance: 120 semester hours as outlined above.

## Orchestral Instrument Performance Major

This program is offered in the following instruments: violin, viola, violoncello, double bass, flute, oboe, clarinet, bassoon, saxophone, trumpet, French horn, euphonium, trombone, tuba, percussion, and guitar.

## Major Requirements

1. Performance and pedagogy:
a. Thirty-two semester hours, consisting of four semesters of major instrument course 312, two semesters of major instrument course 362 , Music 420R, 460 R, 222J, 275T, and 210 K and approval of the faculty
b. For violin majors, proficiency in viola equivalent to Viola 201 and approval of the faculty
c. For euphonium majors, proficiency in trombone equivalent to Trombone 201 and approval of the faculty
2. Music literature and music theory:
a. Music $605,411,612,312 \mathrm{C}, 213 \mathrm{M}, 213 \mathrm{~N}, 321 \mathrm{~J}, 226 \mathrm{~J}$, and 230 L
b. Two semesters chosen from Music 259C, 259E, 259N, 259R, or 259W
c. One of the following options, chosen with the consent of the undergraduate advisor:
i. Two additional semesters of Music 259C, 259E, 259N, 259R, or 259 W
ii. One semester of Music 325L, 325M, 331J, 334, 337, 342, $343 \mathrm{~J}, 376 \mathrm{~J}$, or 379 K
d. Three hours chosen from Music 325L, 325M, 331J, 334, 337, 342, 343J, 376J, or 379K
3. Music ensemble: Eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 155)

When taken in residence, Music 312C may either be counted toward the visual and performing arts requirement of the core curriculum or toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 which may be used to complete requirement 2 is also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

One or more hours of additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in orchestral instrument performance: 120 semester hours as outlined above.

## Jazz Major

This program is offered in the following instruments: double bass, drum set, guitar, piano, saxophone, trombone, and trumpet.

## Major Requirements

1. Music literature and music theory: Music $605,411,612,312 \mathrm{C}, 213 \mathrm{M}$, $213 \mathrm{~N}, 321 \mathrm{~J}, 226 \mathrm{~J}, 228 \mathrm{G}, 228 \mathrm{~J}, 228 \mathrm{~L}, 328 \mathrm{M}, 230 \mathrm{~L}, 343 \mathrm{~J}$, and 319D; majors and principals in instruments other than piano must also complete Music 228K.
2. Music ensemble: Eight semester hours of music ensemble courses as explained in Butler School of Music Special (p. 155) Requirements (p. 155)
3. For concentration in Performance:
a. Piano: 22 semester hours, consisting of:
i. Two semesters of Piano 212 and two semesters of Piano 212 J with faculty approval; or four semesters of Piano 212 J with faculty approval
ii. Two semesters of Piano 362J
iii. Music 420J
iv. Music 460J
b. Drum set: 24 semester hours, consisting of:
i. Two semesters of Percussion 212 and two semesters of Drum Set 212J with faculty approval; or four semesters of Drum Set 212 J with faculty approval
ii. Two semesters of Drum Set 362J
iii. Music 210 J with faculty approval
iv. Music 420J
v. Music 460J
c. Other instruments: 24 semester hours, consisting of:
i. Two semesters of principal instrument course 212 and two semesters of principal instrument course 212J with faculty approval; or four semesters of principal instrument course 212 J with faculty approval
ii. Two semesters principal instrument course 362J
iii. Music 210 J with faculty approval
iv. Music 420J
v. Music 460J
4. For concentration in Composition:
a. Piano: 23 semester hours, consisting of:
i. Music 214C
ii. Three semesters of Music 228P
iii. Two semesters of Piano 212 and two semesters of Piano 212 J with faculty approval; or four semesters of Piano 212J with faculty approval
iv. Piano 362J
v. Music 420J
b. Other instruments: 25 semester hours, consisting of:
i. Music 214C
ii. Three semesters of Music 228P
iii. Two semesters of principal instrument course 212 and two semesters of principal instrument course 212J with faculty approval; or four semesters of principal instrument course 212J with faculty approval
iv. Principal instrument course 362J
v. Music 210J with faculty approval
vi. Music 420J

Each student must also complete a recital of compositions and/or arrangements. This recital is given in the senior year and must be approved by the jazz faculty.

When taken in residence, Music 312C may either be counted toward the visual and performing arts requirement of the core curriculum or toward the three-semester-hour writing flag portion of the core curriculum English composition requirement.

## Electives

For emphasis in performance: two to four semester hours chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

For emphasis in composition: one to three semester hours chosen from courses either within or outside the Butler School of Music. Additional
elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in jazz: 120 semester hours as outlined above.

## Composition Major <br> Major Requirements

1. Performance: At least six semester hours, consisting of two semesters of Piano 202 or Piano 210 and approval of the faculty, and Music 222J or 223J.
2. Music literature and music theory. Music $605,411,612,312 \mathrm{C}, 213 \mathrm{M}$, $213 \mathrm{~N}, 321 \mathrm{~J}, 325 \mathrm{~L}, 325 \mathrm{M}, 226 \mathrm{~J}, 226 \mathrm{~K}, 230 \mathrm{~L}, 164 \mathrm{~L}$, and three semester hours chosen from Music 331J, 334, 337, 342, 343J, 376J, and 379K.
3. Composition: Three semesters of Music 224G, at least three semesters of 224 J and approval of the music theory and composition faculty, 319D, and three semester hours chosen from Music 350S, 329E, 329F, 329G, 329J, and 329M. 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 three semesters of Music 224J.
4. Recital: Music 160C. Upon approval of the music theory and composition faculty, a composition major must present a recital of his or her works. The recital must be approximately thirty minutes in length and must consist of works approved by the student's composition instructor. It is normally given during the student's last semester of Music 224J. It is graded by a jury of designated music theory and composition faculty members. The student must receive from the jury an average grade of at least $B$ - for the recital; if the average grade is less than $B$, the student, upon approval of the music theory and composition faculty, must present another composition recital.
5. Music ensemble: Eight semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 155).

When taken in residence, Music 312C may either be counted toward the visual and performing arts requirement of the core curriculum or toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 which may be used to complete requirement 2 is also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

Three semester hours to be chosen from courses either within or outside the Butler School of Music. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BMusic with a major in composition: 120 semester hours as outlined above.

## Music Studies Major

The major in music studies is a preprofessional academic program recommended for students seeking all-level teacher certification in music or intending to pursue graduate preparation for careers in areas such as music and human learning, music therapy, music management, music
merchandising, music publishing, and community music development. Students seeking teacher certification must adhere to current state requirements in addition to the degree requirements described in this catalog. Students should contact the College of Education for current state certification requirements. See Preparation for Teacher Certification (p. 17) for additional information.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

## Major Requirements

1. Performance: 12 to 16 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 201 M and Music 201F or equivalent proficiency, and approval of the faculty. Music 201F or equivalent proficiency is required of all music studies majors, regardless of principal instrument. In addition to these requirements, the student must make a recital appearance as described in Butler School of Music Special Requirements (p. 155).
2. Music theory and literature: Music 605, 411, 612, 312C, 213M, 213N, 230L.
3. Conducting: Four semester hours, consisting of either Music 222J and 222 K , or 223 J and 223 K .
4. Choral or instrumental music techniques, literature, and performance practices: 15 to 17 semester hours in one of the following areas of emphasis.
a. Choral music emphasis:
i. Music 354C, 255 V , and 456 G .
ii. Music 354D or three semester hours approved by the music studies advisor.
iii. Two semester hours chosen from Music 255D (strings), 255E (brasses), and 255F (woodwinds).
iv. One semester hour chosen from Music 115D (violin), 115E (trumpet), 115F (clarinet), 115G, and 155C. The course used to fulfill this requirement must involve the study of a family of instruments different from that used to fulfill the preceding requirement.
b. Instrumental music emphasis: Music 354C, 155C, 255D, 255E, 255 F , and 356 J ; and, with the approval of the music studies advisor, four semester hours chosen from 115D, 115E, 115F, and 255M.
5. Music ensemble: Six semester hours of music ensemble courses as explained in Butler School of Music Special Requirements. (p. 155)

When taken in residence, Music 312C may either be counted toward the visual and performing arts requirement of the core curriculum or toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. In addition, Music 312C is also approved to fulfill the visual and performing arts requirement of the core curriculum.

## Professional Development in Education

Twenty-one semester hours of coursework as currently required by the State of Texas for teacher certification. Should a student decide, in the course of their studies, to pursue this degree without seeking teacher certification, additional elective coursework may be selected up to 120 hours.

Please see the UTeach-Fine Arts (p. 155) section of this catalog for more information.

## Total Minimum Requirements

For the BMusic with a major in music studies: 120-125 semester hours as outlined above.

## Bachelor of Arts

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic advisor.

## Studio Art Major

## Prescribed Work

1. Foreign language: Beginning level proficiency in a foreign language.
2. Social and behavioral sciences: Six semester hours chosen from the following areas: anthropology, economics, geography, government, history, linguistics, psychology, and sociology. A course counted toward this requirement may not also be counted toward any core curriculum requirement.
3. General culture: Three semester hours chosen from the following areas: architecture, classics (including classical civilization, Greek, Latin), comparative literature, humanities, philosophy, and interdisciplinary fields outside the Department of Art and Art History such as American studies, African and African diaspora studies, Asian studies, Latin American studies, Mexican American studies, and women's and gender studies. The student is encouraged to choose coursework of a multicultural nature. Courses outside the Department of Art and Art History that are cross-listed with courses in the department may not be used to fulfill this requirement. A course used to fulfill this requirement may not also be counted toward any core curriculum requirement.
4. Science, technology, and mathematics: Six semester hours of coursework. Courses must be chosen from computer science, mathematics, and the fields of study included in the science and technology, part I, requirement of the core curriculum. A course counted toward this requirement may not also be counted toward any core curriculum requirement.

## Major Requirements

1. Studio art: 30 semester hours, consisting of Studio Art 311C, 312C, 313 C , and 314C, and 18 additional semester hours of studio art, of which at least 12 hours must be upper-division.
2. Art history: 12 semester hours, consisting of Art History 302, 303 and six hours of upper-division coursework in art history. Several of the courses which may be used to complete this requirement are also
approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

Nine to 15 semester hours chosen from courses either within or outside the Department of Art and Art History. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BA with a major in studio art: 120 semester hours as outlined above.

## Art History Major

## Prescribed Work

1. Foreign language: Intermediate level proficiency in a foreign language.
2. Social and behavioral sciences: Six semester hours chosen from the following areas: anthropology, economics, geography, government, history, linguistics, psychology, and sociology. A course counted toward this requirement may not also be counted toward any core curriculum requirement.
3. General culture: Three semester hours in one of the following areas: a. Architecture
b. Classics, including classical civilization, Greek, Latin (but excluding any courses in Greek or Latin that are used to fulfill the language requirement)
c. Music
d. Philosophy
e. Radio-television-film
f. Theatre and dance
g. Programs of special concentration, such as women's and gender studies and Latin American studies

A course used to fulfill requirement 3 may not also be counted toward any core curriculum requirement.

## Major Requirements

1. Studio Art 311C or 312C
2. Art history: 36 semester hours, consisting of
a. Art History 302, 303, 304, 321, and 375
b. Twelve semester hours of upper division art history courses chosen to meet:
i. Four of the following geographical areas:
3. Europe \& the Mediterranean
4. Asia \& Pacific
5. Middle East \& Africa
6. The Americas
7. Diaspora \& Transcultural
ii. And one in each of the following three periods:
8. Prehistoric - 400
9. $400-1500$
10. 1500 -present
iii. Coursework chosen to fulfill requirement ii may simultaneously satisfy requirement $i$.
c. Nine additional semester hours of art history, of which six must be upper division

Several of the courses which may be used to complete requirement 2 are also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

Twelve to 18 semester hours chosen from courses either within or outside the Department of Art and Art History. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BA with a major in art history: 120 semester hours as outlined above.

## Design Major

## Prescribed Work

Foreign language: Intermediate level proficiency in a foreign language.

## Major Requirements

1. Design courses: 32 semester hours, consisting of:
a. Design 304, 305, and 306
b. Design 309
c. Design 374 with a grade of at least $C$ -
d. Seventeen semester hours of design courses, of which at least eight hours must be upper division. Design 336 and 337 may not be counted.
2. Art/design history/theory/criticism courses: Nine semester hours chosen from
a. Art History 303
b. Design 308
c. Design 336 or 337 (Topic 1: History of Graphic Design)
3. Performance review: Design 131. A design major must register for the performance review course during the second semester of sophomore year, and present a portfolio of his or her works for review by designated design faculty at the end of the semester. The works to be included for review are specified by the design faculty. In order to enroll in courses numbered Design 340 or higher, the student must pass this performance review.

Several of the courses which may be used to complete requirements 1 and 2 are also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

Eighteen semester hours chosen from courses either within or outside the School of Design and Creative Technologies. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the BA with a major in design: 120 semester hours as outlined above.

## Bachelor of Arts in Theatre and Dance

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In the process of fulfilling the core curriculum and other degree
requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic advisor.

## Prescribed Work

1. Foreign language: Intermediate level proficiency in a foreign language.
2. General culture: Three semester hours chosen from the following areas: architecture, classics (including classical civilization, Greek, Latin), comparative literature, humanities, philosophy, and interdisciplinary fields outside the Department of Theatre and Dance such as American studies, African and African diaspora studies, Asian studies, Latin American studies, Mexican American studies, and women's and gender studies. The student is encouraged to choose coursework of a multicultural nature. Courses outside the Department of Theatre and Dance that are cross-listed with theatre and dance courses may not be used to fulfill this requirement. A course used to fulfill this requirement may not also be counted toward any core curriculum requirement.

## Major Requirements

1. Theatre and dance core: 21 semester hours, consisting of the following courses: Theatre and Dance 311C, 311D, 314M, and 314P; two semesters of Theatre and Dance 324P; and three semester hours chosen from Theatre and Dance 351S, 357T, and 375H.
2. Choice of emphasis in:
a. Playwriting and directing: Theatre and Dance 313C, 315, 316D, 317C, 317D, and 321P; six semester hours chosen from Theatre and Dance 325, 325P, 351T, or 355T; six semester hours chosen from Theatre and Dance 323D, 323P, 355T, or 626E; and six lower- or upper-division semester hours of additional theatre and dance courses.
b. Performer's process: Theatre and Dance 306, 313C, 313D, 313E or $315,316 \mathrm{D}, 321 \mathrm{P}, 323 \mathrm{D}$, and 353T, either 317C and 317D, or 317M and 317 N ; and six upper-division semester hours of additional theatre and dance courses.
c. History, literature, and dramaturgy: Theatre and Dance 313C, 316D, 317C, 317D, 317M, 317N, 321P, and 357D; and 12 semester hours of additional theatre and dance courses, of which at least nine must be upper-division.
d. Theatre for youth and communities: Six semester hours chosen from Theatre and Dance 302T, 313C, 313D, 314C, or 316D; either 317 C and 317D, or 317M and 317N; Theatre and Dance 321P, 326C, 326D, and 351F; and 12 semester hours of additional theatre and dance courses, of which at least three must be upper-division.
e. Design and technology: Theatre and Dance 313C, 314C, and 321 P ; either 317C and 317D, or 317 M and 317 N ; and 21 semester
hours of additional theatre and dance courses, of which at least 12 must be upper-division.
f. Dance: Theatre and Dance 112P, 212, 317M, 317N; either 322C and 322D or 322F and 322G; six hours chosen from Theatre and Dance 222P, 322C, 322D, 322E, 322F, 322G, 322J, or 352T; and 15 semester hours of additional theatre and dance courses, of which at least nine must be from the dance program and three must be upper-division.

## Electives

Zero to six semester hours chosen from courses either within or outside the Department of Theatre and Dance. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

Students considering graduate study should consult their advisors about the most appropriate choice of courses.

## Total Minimum Requirements

For the Bachelor of Arts in Theatre and Dance: 120 semester hours as outlined above.

## Bachelor of Arts in Music

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic advisor.

## Prescribed Work

1. Foreign language: Intermediate level proficiency in a foreign language.
2. General culture: Three semester hours chosen from the following areas: architecture, classics (including classical civilization, Greek, Latin), comparative literature, humanities, philosophy, and interdisciplinary fields outside the Butler School of Music such as American studies, African and African diaspora studies, Asian studies, Latin American studies, Mexican American studies, and women's and gender studies. The student is encouraged to choose coursework of a multicultural nature. Courses outside the Butler School of Music that are cross-listed with music courses may not be used to fulfill this requirement. A course used to fulfill this requirement may not also be counted toward any core curriculum requirement.

## Major Requirements

1. Performance: At least 12 semester hours, consisting of four semester hours of music ensemble courses as explained in Butler School of Music Special Requirements (p. 155); and Music 201N (completed to the satisfaction of faculty) for students whose principal instrument is not piano
a. Emphasis in Music: Four semesters of principal instrument course 210 and approval of the faculty
b. Emphasis in Composition: Two semesters of Music 224G, Intermediate Composition, two semesters of Music 224J, Advanced Composition, and approval of the music theory and composition faculty
2. Music: Music 605, 411, 612, 312C, 213M, 213N, and 230L
3. Fifteen semester hours in a concentration of music courses approved by the coordinator of the Bachelor of Arts in Music program, at least 11 hours of which must be upperdivision, and including at least three hours chosen from Music $321 \mathrm{~J}, 325 \mathrm{~L}, 325 \mathrm{M}, 331 \mathrm{~J}, 334,337,342,343 \mathrm{~J}, 376 \mathrm{~J}$, or 379 K

When taken in residence, Music 312C (in requirement 2) may either be counted toward the visual and performing arts requirement of the core curriculum or toward the three-semester-hour writing flag portion of the core curriculum English composition requirement. Music 334 which may be used to complete requirement 3 is also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Secondary Field of Study

The secondary field of study must be approved by the coordinator of the Bachelor of Arts in Music program, include twelve semester hours of coursework outside the Butler School of Music, and must include at least six hours of upper-division coursework.

## Electives

Two or more hours of additional elective coursework may be needed to provide the total number of semester hours required for the degree. Courses that are crosslisted with music courses may not be counted toward this requirement.

## Total Minimum Requirements

For the Bachelor of Arts in Music: 120 semester hours as outlined above.

## Advancement to Upper-Division Standing

To advance to upper-division standing in the program, the student must meet the following requirements:

1. Upper-division standing at the University
2. A grade point average of at least 2.50 for all coursework taken in residence at the University
3. Completion of the following courses or their equivalents with a grade point average of at least 2.50: Music 201 N (required only for students whose principal instrument is not piano), 605A, 605B, $411 \mathrm{~A}, 411 \mathrm{~B}$, $612 \mathrm{~A}, 612 \mathrm{~B}, 312 \mathrm{C}, 213 \mathrm{M}$, and 213 N
4. Approval of the coordinator of the Bachelor of Arts in Music program

When taken in residence, Music 312C (in requirement 3) may also be counted toward the three semester-hour-writing flag portion of the core curriculum English composition requirement.

## Bachelor of Science in Arts and Entertainment Technologies

## Core Curriculum

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic advisor.

## Major Requirements

1. Foundations: 18 semester hours, consisting of the following courses: Arts and Entertainment Technologies 304 and 310; and twelve semester hours of lower-division coursework in Arts and Entertainment Technologies.
2. Advanced coursework: 33 upper-division semester hours chosen from Arts and Entertainment Technologies with approval of advisor.
3. Capstone or Senior Design Project: six semester hours chosen from Arts and Entertainment Technologies 372, 373, 376, or 377

Arts and Entertainment Technologies 304 is also approved to fulfill the visual and performing arts requirement of the core curriculum and may be used to fulfill both.

## Electives

Twenty-four semester hours, of which at least nine must be upperdivision. Additional elective coursework may be needed to provide the total number of semester hours required for the degree.

## Total Minimum Requirements

For the Bachelor of Science in Arts and Entertainment Technologies: 120 semester hours as outlined above.

## Minor and Certificate Programs

## Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minor and Certificate Programs (p. 13) section of the Undergraduate Catalog.

## Art History Minor

The Art History Minor requirements are:

Requirements
Hours
Fifteen semester hours of coursework in art history, including at least 12 hours of upper-division coursework.

Please Note:
All classes must be taken on the letter-grade basis. The student must earn a combined grade point average of at least 2.50 in minor coursework.

## Arts Management and Administration Minor

The Arts Management and Administration Minor requirements are:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| F A 362 | Foundations of Arts Management | 3 |
| F A 340 | Fine Arts Internship | 3 |
| Three of the following courses, of which at least one must be FA: |  | 9 |
| F A 363 | Arts Entrepreneurship and New Venture Creation |  |
| F A 364 | Developing and Reaching Audiences |  |
| F A 365 | Fundraising in the Arts |  |
| F A 366 | Managing Arts Organizations |  |
| F A 367 | Philanthropy and Arts Organizations |  |
| F A 368 | Cultural Policy and Participation |  |
| F A 369 | The Entrepreneurial Artist |  |
| F A 370 | Longhorn Startup Seminar |  |
| F A 371 | Special Topics in Arts Management and Administration (Any topic) |  |
| $\begin{aligned} & \text { ACC } 310 F \\ & \quad \text { or ACC } 312 \end{aligned}$ | Foundations of Accounting <br> Fundamentals of Managerial Accou |  |
| MAN 320 F <br> or MAN 336 | Foundations of Management and Organizational Behavior <br> Organizational Behavior |  |
| MKT 320F or MKT 337 | Foundations of Marketing Principles of Marketing |  |
| FIN 320F or FIN 357 | Foundations of Finance Business Finance |  |
| LEB 320F | Foundations of Business Law and Ethics |  |
| or LEB 323 | Business Law and Ethics |  |
| I B 320F <br> or I B 350 | Foundations of International Business International Trade |  |

Please Note:
A 2.50 overall grade point average in minor coursework is required. All courses must be taken on the letter-grade basis.

## Minor in Studio Art

The Minor in Studio Art requirements are:

## Requirements

Hours
15 semester hours of coursework in studio art, chosen from
the following:

| ART 352E | Figure Drawing for Nonmajors |
| :--- | :--- |
| ART 352F | Print for Nonmajors |
| ART 352G | Sculpture for Nonmajors |
| ART 352K | Transmedia for Nonmajors |

Please Note:
All courses must be taken on the letter-grade basis.

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed at the college level: Fine Arts (F A).

For courses offered by each department within the College of Fine Arts, please see the corresponding department page in the following sections.

## Department of Art and Art History

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Art and Art History: Art Education (AED), Art History (ARH), Studio Art (ART), and Visual Art Studies (VAS).

## Department of Theatre and Dance

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Theatre and Dance: Theatre and Dance (T D).

## Sarah and Ernest Butler School of Music

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the School of Music: Bassoon (BSN), Clarinet (CLA), Conducting (CON), Double Bass (D B), Drum Set (DRS), Ensemble (ENS), Euphonium (EUP), Flute (FLU), French Horn (F H), Guitar (GUI), Harp (HAR), Harpsichord (HSC), Music (MUS), Music Business (MBU), Music Recording Technology (MRT), Oboe (OBO), Opera (OPR), Organ (ORG), Percussion (PER), Performance (PRF), Piano (PIA), Recorder (REC), Saxophone (SAX), Trombone (TRO), Trumpet (TRU), Tuba (TBA), Vibraphone (VIB), Viola (VIA), Violin (VIO), Violoncello (V C), and Voice (VOI)

## School of Design and Creative Technologies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the School of Design and Creative Technologies: Arts and Entertainment Technologies (AET), Design (DES), and Integrated Design (ITD).

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

Claudia Mora, PhD, Dean<br>Chris Bell, PhD, Associate Dean, Academic Affairs<br>David Mohrig, PhD, Associate Dean, Research<br>http://www.jsg.utexas.edu/

## General Information

## Mission

As civilization enters an era of increasing challenge, it is imperative that leaders, professionals, and citizens be well educated, competently and realistically able to address issues of local to global scope. With regard to the origin, history, structure, and processes of the planet Earth, and the use and management of its resources, the John A. and Katherine G. Jackson School of Geosciences aims to provide such an education. The objective of every natural science, including geological sciences, is to understand the realm of physical nature. Geological sciences, or geosciences, is a synthetic subject that examines the Earth through such traditional subdisciplines as geophysics, hydrogeology, paleontology, petrology, stratigraphy, and structural geology. Geoscientists also draw upon discoveries from mathematics, geography, archaeology, engineering, and the other sciences to meld an approach that is interdisciplinary, yet uniquely geological.

The need for well-educated geoscientists in industry, government, and education promises a bright future for geoscience professionals in the coming decades. As the human population expands, it is essential to develop sufficient resources and to maintain a livable environment. Geoscientists understand the dynamics of the Earth and its systems -the occurrence of natural resources and the diverse time scales of natural and human-induced change.

Every university seeks to enrich the education of its student body generally. Study of geosciences enhances a liberal arts or arts and sciences education. Geosciences uses experiments and observations to explore origins and processes, whether of the Earth itself, of geologic phenomena, or of the history of life. It operates in the conventional three dimensions of space and in the fourth dimension of deep geologic time. Both in the laboratory and in the field, it examines the Earth on all scales, from atomic nuclei, to a hand sample of rock, to an entire landscape, to continents and oceans, to the planet as a whole.

## Vision

The Jackson School of Geosciences at The University of Texas at Austin is among the most established and well-regarded geosciences programs in the world. The school includes the University's Department of Geological Sciences, one of the country's oldest geological sciences departments, and two world-renowned research units, the Institute for Geophysics and the Bureau of Economic Geology. The school is home to the world's largest academic geosciences community of alumni, research scientists, and faculty members as well as one of the largest combined graduate and undergraduate enrollments of any major geoscience program.

The Jackson School is both old and new. It traces its origins to the Department of Geology founded in 1888 but became a separate unit at the level of a college on September 1, 2005. The school's formation resulted from one of the most generous gifts in the history of higher
education when the late John A. and Katherine G. Jackson bequeathed endowments and assets toward "the subjects of geology; geophysics; energy, mineral and water resources; as well as the broad areas of the earth sciences, including the Earth's environment." The charge of their gift and the responsibilities that come with it are reflected in the school's vision:

To become the preeminent geosciences program in the country with international prominence in geology, geophysics, energy, mineral and water resources, and in the broad areas of the earth sciences, including the Earth's environment. To realize this vision, the Jackson School will pursue initiatives that:

- Place the school at the forefront of research.
- Place the school at the forefront of education, student services, and student opportunities.
- Create the fabric of a great college.
- Increase competitiveness for top talent.


## Financial Assistance Available through the School

Through the Geology Foundation, the Jackson School of Geosciences (JSG) is able to provide financial assistance to its students through funds established by individuals, foundations, and industrial or research organizations. Scholarships are currently awarded on the basis of academic standing and performance including, but not limited to, grade point average, progress towards degree, and hours completed. Additional scholarship opportunities that may be available while enrolled in the Jackson School include recruitment scholarships, academic support scholarships and field course financial assistance. All students may also seek financial assistance through the University's Office of Scholarships and Financial Aid. Additional information for all of the JSG Financial Assistance programs is available online.

## Student Services

The mission of the Jackson School of Geosciences Student Services Office is to facilitate students' development and advancement in the Jackson School community and beyond. Services provided to all Jackson School majors and non-majors such as professional academic advising and career counseling are available to students year-round.

## Academic Advising

The JSG Academic Advising office, located in the Holland Family Student Center serves the undergraduate students of the Jackson School by offering academic advising and guidance. Each undergraduate student is expected to meet with a JSG academic advisor at least once per semester to review his/her academic progress and prepare to register for the next semester. Information related to JSG academic programs and opportunities is frequently distributed to students via email which is considered an official form of communication by the University. Students are responsible for reading this information and taking the necessary actions in a timely manner. JSG Student Services staff is available to meet with students throughout the year to address any issues or questions they may have.

## Counseling and Referral Services

The Jackson School of Geosciences Student Services office advises and counsels students about problems or concerns they have about their academic work or life in the school. In addition, University counseling services are available from the Counseling and Mental Health Center, the Telephone Counseling Service, the Sanger Learning Center, and

University Health Services. These offices are described in the General Information Catalog

## Career Services

The Jackson School of Geosciences (JSG) Career Services Office, located in the Holland Family Student Center, serves the undergraduate and graduate students of the Jackson School by offering career development workshops, job search resources, and opportunities to network with alumni, recruiters and members of industry.

The JSG Career Services Office assists Jackson School students in researching, preparing for and identifying opportunities for full-time or part-time jobs and internships. The staff posts job opportunities throughout the year and hosts company information sessions as well as on-campus interviews with recruiters each fall and spring. The Jackson School of Geosciences Career Fair, which brings students and employers together every fall, provides another forum for geosciences students to learn about different career opportunities.

Career services for students who plan to teach are provided by Education Career Services in the College of Education and by UTeach-Natural Sciences. See Preparation for Teacher Certification (p. 17) for additional information.

## Admission and Registration

## Admission

Admission and readmission of undergraduate students to the University is the responsibility of the director of admissions. All students who wish to major in geological sciences must be admitted to the University according to the procedures given in the General Information Catalog.

Students admitted to the University with deficiencies in high school units must remove the deficiencies as prescribed in the General Information Catalog.

Admission to the Jackson School is granted for the fall semester only. All freshmen and external transfer students are expected to attend New Student Orientation the summer before they enter the school.

## Admission to the Geological Sciences Program

## Freshman Admission

Freshman applicants seeking admission to the Jackson School must meet the published University admissions requirements for the major by the official admissions application deadline. More information about admission requirements are available through the University Admissions Office or online.

Applicants to the Jackson School of Geosciences must use the ApplyTexas online application and select geological sciences, entry-level as a first-choice major. When selecting a second-choice major, freshman applicants may choose from one of the many other majors offered at the University. Those students interested in applying to the environmental science or geosystems engineering and hydrogeology degree programs should refer to the information provided below.

## External Transfer Admission

Students who wish to transfer to the University from another college or university must apply to the Office of Admissions as described in the General Information Catalog. External transfer applicants seeking admission to the Jackson School of Geosciences must meet all published University admission requirements for the major and
submit a complete application by the official admissions application deadline. External transfer applicants to the Jackson School must use the ApplyTexas online application and select geological sciences, entrylevel as a first-choice major.

Only courses listed in the student's geosciences degree program, or equivalent courses approved by the Associate Dean for Academic Affairs, may be counted toward a geosciences degree. A course may therefore be accepted for transfer credit but not be applicable toward a geosciences degree. Prospective students are encouraged to consult the geological sciences degree plans and transfer course equivalency information available online.

## Internal Transfer Admission

Students enrolled in another college or school at the University may apply in early spring to be considered for admission to the Jackson School of Geosciences the following fall semester. A cumulative inresidence grade point average of 3.0 or higher is generally recommended to be competitive for admission. The following minimum requirements for consideration are in addition to the requirements to transfer from one division to another given in the General Information Catalog.

1. Completion of at least 24 semester hours of coursework in residence at the University. Credit by exam and correspondence, extension and transfer hours may not be counted toward this requirement.
2. Completion of, or enrollment in, the following courses or their equivalent at the time of application. A grade of $C$ - or higher required in completed courses to fulfill this requirement.

- For students with less than 30 semester hours of coursework in residence at the University at the completion of the spring semester in which they apply; Mathematics 408C or 408K and 408L. For students with 30 hours or more: Mathematics 408D or 408M.
- Geological Sciences 401 or 303.
- Chemistry 301.

Additional information for all internal transfer applicants:

- Only currently enrolled students may apply.
- Students may apply during the semester they are completing the minimum requirements to be eligible for consideration.
- Interested students are encouraged to attend a Jackson School internal transfer information session prior to the spring they intend to submit an application for internal transfer. A schedule of information sessions as well as additional information about the application process, online application, and submission deadlines are available on the Jackson School undergraduate website.


## Internal Transfer within the Jackson School

A geological sciences student interested in transferring to a different degree program within the Jackson School must submit an application in early spring for admission review. Students must meet the same minimum requirements as students applying to transfer from another division of the University to be eligible for consideration.

Students in the BS Geosystems Engineering and Hydrogeology and BS Environmental Science degree programs may have an active student status in more than one college or school over the course of their degree program. These arrangements are in place to provide students access to required courses not offered in their primary college or school. The Cockrell School of Engineering is the primary school for the GEH degree and the College of Liberal Arts, College of Natural Sciences, or Jackson

School for the EVS degree. Therefore, students in these degree programs interested in transferring to a geological sciences degree program in the Jackson School must submit an internal transfer application for consideration as outlined in this section.

## Admission to the Geosystems Engineering and Hydrogeology Program

The Bachelor of Science in Geosystems Engineering and Hydrogeology (GEH) is offered jointly by the Cockrell School of Engineering and the Jackson School of Geosciences. Students are simultaneously registered in both schools once accepted.

## Freshmen Admission

Freshmen applicants seeking admission to the GEH degree program are admitted through the Jackson School of Geosciences. Applicants must meet the calculus readiness requirement by the official admissions application deadline. More information about calculus readiness is available through the University admissions office or online.

Applicants to the GEH program should use the ApplyTexas online application and select geosystems engineering and hydrogeology as a first-choice major. When selecting a second-choice major, freshman applicants may choose from one of the many other majors offered at the University.

## External Transfer Admission

Students who wish to transfer to the University from another college or university must apply to the Office of Admissions as described in the General Information Catalog. External transfer applicants are admitted through the Cockrell School of Engineering and should use the ApplyTexas online application and select geosystems engineering and hydrogeology as a first-choice major. Requirements for admission as a transfer student vary, but all transfer applicants must submit transcripts of all college and high school coursework.

External transfer applicants will be required to meet the following minimum criteria to be considered for admission to the geosystems engineering and hydrogeology major.

- Completion of Mathematics 408L, 408M, or 408D,
- Completion of Physics 303K and 103M,
- Completion of a minimum of four technical courses. Technical courses include courses offered in mathematics, physics, chemistry, biology, geology, computer science, and engineering.

Admission applications that are not complete by the March 1st deadline may be held to a higher admissions standard than those that are complete, if enrollment limits are reached.

## Internal Transfer Admissions

Students interested in transferring to the GEH program from another division of the University must apply through the Cockrell School of Engineering. Please refer to the General Information Catalog as well as the Cockrell School of Engineering portion of the Undergraduate Catalog for minimum requirements, application deadlines, and other information regarding internal transfer admissions for the geosystems engineering and hydrogeology degree program.

## Registration

The General Information Catalog 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 each semester and summer session,
contains registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and General Information Catalog are published on the registrar's website.

## Academic Policies and Procedures

## Mathematics Placement

Mathematics, in the form of calculus or statistics, is required for all geological sciences degrees. To enroll in a calculus or statistics course at the University, students must first take the mathematics placement exam per the College of Natural Sciences, Department of Mathematics. All Jackson School students are required to complete the placement exam immediately before the semester they intend to enroll in a calculus or statistics course. First-year incoming students are required to complete this placement exam during summer orientation.

## Consent of Instructor

Some courses in the Jackson School of Geosciences require that consent of instructor be obtained prior to registering. To be able to register for such a course, the student must first ask for and receive the instructor's written consent. Consent of Instructor forms are available in the JSG Student Services Office. The student is responsible for turning the instructor's written approval in to a JSG advisor and then adding the course to their semester schedule by the published deadlines.

## 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 $C R$ 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 course used to fulfill any of the requirements for the degree. For more information about grades and the grade point average, see the General Information Catalog.

## Academic Probation and Dismissal

Students are expected to make continuous progress toward the degree while maintaining the University minimum scholastic requirements. A student is placed on academic probation if his or her grade point average falls below 2.00. University regulations on scholastic probation and dismissal are given in the General Information Catalog.

Students on academic probation are expected to focus on academic improvement and thus are not allowed to hold student offices (elected or appointed) or to receive college stipends for travel to professional meetings or other college-sponsored events.

Students in the Bachelor of Science in Geosystems Engineering and Hydrogeology (GEH) degree program must maintain the scholastic requirements of the Cockrell School of Engineering. Although GEH students have an active student status in the Jackson School, they are subject to the academic policies and procedures of the Cockrell School of Engineering.

## Satisfactory Progress

Students are expected to make continuous progress toward the degree by completing required geological sciences coursework each semester, as outlined in the suggested arrangement of courses for each degree plan. Students who fail to take required geological sciences coursework
for two consecutive long semesters will be transferred into the Bachelor of Arts degree plan. Students will be notified before this action is taken; they must meet with a JSG academic advisor upon being notified.

## 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 from the Associate Dean for Academic Affairs. The symbol $Q$ or $W$ counts as an enrollment unless it has been approved by the Associate Dean for Academic Affairs as nonacademic.

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 towards the degree.

## Concurrent Enrollment

Concurrent enrollment is enrollment simultaneously at the University and at another educational institution or in any combination of correspondence, extension and online or distance education courses. During a long semester students enrolled in the Jackson School of Geosciences are not allowed to take courses at another school or institution or by correspondence or extension at the University unless approved in advance by the Associate Dean for Academic Affairs.

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.

## Undergraduates in a Graduate Course

The Jackson School encourages undergraduates who excel academically and would benefit from further challenges to enroll in graduate courses. With permission, undergraduates may count graduate courses toward their undergraduate degrees or may reserve them for graduate credit. To enroll in a graduate course, undergraduates must meet the University's eligibility requirements and must receive permission from the course instructor, the graduate advisor for the offering department, and the dean's office. Undergraduates reserving courses for graduate credit must also receive permission from the graduate dean. More information is available in the section Coursework in the Graduate School and the School of Law (p. 18).

## Petitions for Degree Requirements

Petitions for modifications to degree requirements, with the exception of the University-wide Core Curriculum, are handled through the JSG Student Services Office. Students must meet with an advisor to submit their petition before the 12th class day of the semester. An academic advisor initiates the petition on the student's behalf and routes it through the review process. Final decisions on all petitions are made by the Jackson School dean's office.

## Attendance

Jackson School 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 attendance requirements; these should be made known to students during the first week of classes. With the approval of the dean,
a student may be dropped from a course with a grade of $F$ for repeated unexcused absences.

## Portable Computing Devices

Students entering the geological sciences major are required to have access to a portable computing device capable of running the software tools required for undergraduate computational sciences analyses (MATLAB, Word, etc.) and accessing the remote server for the department. This device may not need to be brought to campus on a daily basis, but individual courses may require that the device be brought to certain labs, lectures, and/or exams. Minimum and recommended specifications may be found on the department website and/or in the course syllabus.

## Honors

## University Honors

Each fall and spring semester, undergraduates who complete a full course load and earn outstanding grades, are recognized on the fall or spring University Honors list, respectively. Students are notified on the semester grade report of their inclusion on the list. The Jackson School hosts an event each spring to recognize JSG University Honors students in conjunction with University-wide Honors Day.

Additional information on University Honors is available in the General Information Catalog.

## School Honors Program

The Jackson School offers a departmental honors program to its majors. Students who wish to participate in the program should submit an application to the JSG Student Services Office when they have completed 60 semester hours of coursework, including at least 12 semester hours of upper-division coursework in geological sciences. The Jackson School of Geosciences Honors Program receives an increasing number of qualified applications each year and not all applicants are guaranteed acceptance.

Minimum requirements for the completion of this program are:

1. A cumulative University grade point average of at least 3.00, and a grade point average in geological sciences of at least 3.50 ,
2. Geological Sciences $171 \mathrm{H}, 172 \mathrm{H}$, and 173 H with a grade of at least $B$ in each,
3. Geological Sciences 379 H , with a grade of at least $B$-,
4. Completion at the University of at least 60 semester hours of coursework counted toward the degree.

An honors student who completes all program requirements will receive the designation "Special Honors in Geological Sciences" on his or her transcript and be recognized at the Jackson School commencement ceremony.

## Graduation

## Special Requirements of the School

All students must fulfill the general requirements (p. 19) for graduation. Students in the Jackson School must also fulfill the following requirements:

1. All University students must have a grade point average of at least 2.00 to graduate. Jackson School students must also have a grade point average in geological science courses of at least 2.00.

Students in the Geological Sciences Departmental Honors Program must have a University grade point average of at least 3.00 and a grade point average in geological science courses of at least 3.50 .
2. The University requires that students complete at least 60 semester hours of the coursework counted toward the degree in residence. For the Bachelor of Arts in Geological Sciences, these 60 hours must include at least 18 hours in geological sciences.
3. The University requires that at least six semester hours of advanced coursework in the major be completed in residence. Options I, II, and III of the Bachelor of Science in Geological Sciences require at least 18 hours of upper-division coursework in geological sciences be completed in residence; Option $V$ requires at least 12 hours.

## Degree Audit

All Jackson School students are expected to monitor their degree progress through regular use of the University's Interactive Degree Audit (IDA) system. IDA provides the students with a report of their progress toward completion of requirements for a specific degree program. The degree audit normally provides an accurate statement of requirements, but the student is responsible for knowing the requirements of the degree as stated in the undergraduate catalog under which the student is eligible to graduate and for registering so as to fulfill all requirements. The student should consult with a JSG academic advisor before registering if in doubt about any requirement.

## Applying for Graduation

A student is eligible to graduate if their Jackson School degree audit is 100 percent complete. If an eligible student fails to submit a graduation application by the semester deadline given in the academic calendar, a graduation application may be submitted by the academic dean or designee. An application submitted under these circumstances cannot be cancelled without a successful appeal to the Office of the Provost. Refer to the Graduation Appeal Application for further information.

In the semester or summer session in which a student is eligible to graduate, the student must be registered at the University and must file a graduation application form with the JSG Student Services Office. This should be done at the beginning of the semester in which the student intends to graduate; it must be done by the deadline to apply for an undergraduate degree, which is noted in the official academic calendar.

An official degree audit must be on file when the student submits the graduation application. A student who applies for graduation but does not receive the degree must promptly contact a JSG academic advisor to discuss next steps. The student will be required to submit a new graduation application in the semester they intend to graduate.

The student must be registered at the University in 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 must consult the JSG Student Services office no later than the second week of the semester in which the student intends to graduate.

Course credit received by credit-by-exam, correspondence, or transfer does not fulfill the residence requirement. Students planning to receive credits by any of these means are expected to monitor their academic record to ensure all documentation is received before the semester in which the student intends to graduate.

No degree will be conferred unless all requirements have been fulfilled and all deadlines met.

## Commencement

The Jackson School of Geosciences graduation ceremony is held each spring in conjunction with the University-wide commencement ceremony. Students graduating with University Honors, School Honors and Jackson Scholars are recognized at the school's ceremony. Participation in the commencement ceremony does not constitute applying to graduate or official completion and receipt of a degree.

Students who complete all degree requirements in the fall or summer of the same academic year as the school's ceremony may be eligible to participate in the school's spring ceremony. Whereas all spring graduates must submit an application to graduate, fall graduates and prospective summer graduates must submit an application to walk by the published deadline. Final decisions regarding eligibility to participate will be determined by the dean's office if needed.

## Degrees and Programs

## Degrees

The Jackson School offers the Bachelor of Arts in Geological Sciences, the Bachelor of Science in Environmental Science, the Bachelor of Science in Geological Sciences, and, in partnership with the Cockrell School of Engineering, the Bachelor of Science in Geosystems Engineering and Hydrogeology. Whichever degree they pursue, geological sciences students must take courses in the Jackson School of Geosciences (JSG), the College of Natural Sciences, and the College of Liberal Arts. These units work together to meet students' individual needs and to ensure that they receive a superior education. Graduation from an accredited program is an advantage when applying for a position in industry, membership in a professional society or for registration as a professional geologist.

## Core Curriculum

Each student must complete the University's Core Curriculum. The Core Curriculum includes the first-year signature course and courses in English composition, American and Texas government, American history, mathematics, science and technology, visual and performing arts, humanities, and social and behavioral sciences. The core is an integral part of all geosciences degree programs so graduates will be aware of their social responsibilities and the effects of technology on society.

## Flags

In the process of fulfilling geosciences degree requirements, students must also complete two courses beyond Rhetoric and Writing 306, or its equivalent, with writing flags, one quantitative reasoning flag, one global cultures flag, one cultural diversity in the United States flag, one ethics flag, and one independent inquiry flag. Courses that may be used to fulfill flag requirements are identified in the Course Schedule and may be used simultaneously to fulfill other requirements, unless otherwise specified.

## 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. This requirement may be fulfilled by either completion of the two high school units in a single foreign language that are required for admission to the University as a freshmen or by earning college level foreign language credit to meet beginning level proficiency. Students who enter the University with fewer than two high school units in a single foreign language must remove that deficiency as specified in the General Information Catalog. The foreign language courses/credit used to address
that deficiency may not be counted toward the total number of semester hours required for a degree.

Individual degree programs may include additional foreign language requirements.

## Undergraduate Research Courses

The Jackson School supports undergraduate research through numerous programs specifically for undergraduate geological sciences majors. Undergraduates have the opportunity to take part in research experiences that enrich their academic studies and career trajectories. Participating students may be eligible to earn University credit, special departmental honors for exceptional research, and recognition at spring graduation depending on the undergraduate research program they complete.

In order to be eligible to earn University credit for undergraduate research work, students must be enrolled in the BS Geological Sciences Option I, II, or III degree program and have a complete undergraduate research contract on file with the JSG Student Services Office prior to registration. Students may count up to six semester hours of geological sciences research courses, as listed below, toward the required total upperdivision elective hours in geological sciences.

- Choice 1: Geological Sciences 371C and up to three credit hours of Geological Sciences 171C, and 271C; or
- Choice 2: Restricted to students enrolled in the Geological Sciences Departmental Honors Program, Geological Sciences 171H, 172H, 173H, and 379H.
- Students may not earn course credit for research work completed as a paid undergraduate research assistant.


## Simultaneous Majors

A student in the Jackson School may pursue two majors simultaneously. The student must follow all procedures and meet all requirements outlined in the General Information Catalog as well as those associated with both majors. A JSG student may not pursue any two geosciences majors, including the BS Environmental Science degree option, simultaneously.

The simultaneous major option is available only to undergraduates who have completed 30 hours of coursework in residence at the University and who have been admitted to both degree programs.

## Length of Degree Program

An eight-semester arrangement of courses leading to the bachelor's degree is given for each of the geological sciences degree plans. The order in which the courses are taken is critical due to the prerequisites for required courses and schedule when courses are offered. A student who registers for fewer than the indicated number of hours for each semester or skips prerequisite courses may 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 the student will take the following semester.

## Applicability of Certain Courses <br> Physical Activity Courses

Physical activity (PED) courses and Kinesiology 119 may not be counted toward a degree in the Jackson School. However, they are counted as courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

The Departments of Air Force Science, Military Science, and Naval Science maintain ROTC units on campus. Information about each program is available from the chair of the department concerned.

Nine semester hours of coursework in air force science, military science, or naval science may be counted toward any degree in the Jackson School. Such credit may be used only as electives or to fulfill the writing requirement, and only by students who are commissioned by the University ROTC program.

## Correspondence and Extension Courses

During a long semester students enrolled in the Jackson School are not allowed to take courses at another school or institution or by correspondence or extension at the University unless approved in advance by the Associate Dean for Academic Affairs. Students must submit a concurrent enrollment petition and meet with a JSG academic adviser for approval well in advance of the start of the requested course.

No more than 30 percent of the semester hours required for any degree in the Jackson School may be completed online, by correspondence, or through distance learning, including University Extension courses. These courses are not included in certain metrics, such as total hours, residency status, etc., and therefore may affect students' eligibility for some JSG programs.

## Pass/Fail

All courses required for all geological sciences degrees must be taken for a letter grade unless the course is offered only on the pass/fail basis. A student may elect to take courses that do not count toward the degree or are being taken to remove a deficiency on the pass/fail basis rather than for a letter grade. To elect the pass/fail system of grading a student must have received at least 30 hours of college credit before registering for any course on the pass/fail basis, unless the course is offered only on the pass/fail basis. Complete rules on registration on the pass/fail basis are given in the General Information Catalog.

## Bible Courses

No more than 12 semester hours of Bible courses may be counted toward a degree.

## Bachelor of Arts in Geological Sciences

The Bachelor of Arts in Geological Sciences is a classical arts and sciences degree that gives students a great deal of flexibility in their choice of upper-division courses. Students must complete courses in the natural sciences, the social and behavioral sciences, and the humanities. This diversity of subjects provides an opportunity to learn about basic differences in outlook among different disciplines, the ways questions are raised and answered, and the ways the answers are validated and made relevant in practical use.

Students who plan to become professional geoscientists should pursue one of the BS Geological Sciences degree options. The BS Geological Sciences, Option V: UTeach is available for students interested in pursuing a career teaching math and science at the middle and secondary school level.

## Additional Requirements Specific to the BA Geological Sciences

The coursework counted toward the degree may include no more than 36 hours in any one field of study in the College of Liberal Arts or the College of Natural Sciences; and no more than 36 hours in any other single college or school of the University, including the Jackson School.

At least 18 semester hours of coursework in geological sciences, including six hours of upper-division coursework, must be completed in residence at the University. As long as all residence rules are met, credit may be earned by examination, by extension, by correspondence (up to 30 percent of the semester hours required for the degree), or, with the approval of the dean, by work transferred from another institution.

Degree requirements are divided into three categories: universitywide undergraduate degree requirements such as the University Core Curriculum and flag requirements, prescribed work for the degree, and major requirements. In addition, the student must fulfill the University's general requirements and the requirements of the Jackson School of Geosciences.

## Prescribed Work

## BA Geological Sciences

1. Foreign Language Requirement: The BA, Geological Sciences degree requires that students achieve Intermediate-level proficiency in a foreign language as part of the degree requirements. The foreign language requirement is the attainment of a certain proficiency, rather than the completion of a specified number of hours. The number of semesters and total number of hours required vary by language. 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. Consult the Intermediate-level language proficiency course list to see which classes are required to complete this degree requirement for a specific language. Students are encouraged to consult with their academic adviser about fulfilling the foreign language degree requirement.
2. Social Science: Three semester hours in social science, in addition to the course counted toward the social and behavioral sciences requirement of the core curriculum. The course must be chosen from the following fields and it must be in a different field from the course used to fulfill the Core Curriculum social and behavioral sciences requirement.
a. Anthropology
b. Economics
c. Geography
d. Linguistics
e. Psychology
f. Sociology
3. Natural Science: Six semester hours in natural sciences, in addition to the courses counted toward the science and technology requirements of the Core Curriculum. Courses must be chosen from the following fields; no more than three hours may be in either the history of science or the philosophy of science.
a. Astronomy
b. Biology
c. Chemistry
d. Marine science
e. Nutrition
f. Physical science
g. Physics
h. Mathematics
i. Computer science
j. Experimental psychology
k. Physical anthropology
I. Physical geography
m. Philosophy (courses in logic)
n. History of science and philosophy of science
4. General Culture: Three semester hours in addition to the course counted toward the visual and performing arts requirement of the Core Curriculum. Courses in the following fields may be used:
a. Architecture
b. Classical civilization, Greek, Latin
c. Art history, design, ensemble, fine arts, instruments, music, studio art, theatre and dance, visual art studies
d. Philosophy (excluding courses in logic)
5. Interdisciplinary Studies: 12 semester hours, of which at least six must be upper-division courses, in any one of the disciplines listed below. These courses must be in addition to those counted toward the Core Curriculum requirements, prescribed work or major requirements.
a. Anthropology
b. Astronomy
c. Biology
d. Business
e. Computer science
f. Chemistry
g. Education
h. Engineering
i. Geography
j. Mathematics
k. Physics
I. Other disciplines may be chosen with submission and approval of a petition through the JSG Student Services Office.
6. Enough additional upper-division coursework to total 36 semester hours.

## Major Requirements <br> BA Geological Sciences

1. Geological Sciences 401 or $303,405,416 \mathrm{~K}, 416 \mathrm{M}$, and 420 K .
2. Six semester hours in biology.
3. Chemistry 301 and 302.
4. Three semester hours in physics.
5. Enough additional coursework to total 32 semester hours in geological sciences.
6. A total of 120 hours of coursework including core, prescribed and major work.

## Suggested Arrangement of Courses BA Geological Sciences

First Year
First Term
GEO 401 or 303
Mathematics

Hours | Second Term |
| :---: |
|  |
| 3 GEO 405 |
|  |
| 3 Biology |

Hours

3 Biology

| CH 301 | 3 CH 302 |  | 3 |
| :---: | :---: | :---: | :---: |
| UGS 302 or 303 |  | 3 RHE 306 | 3 |
| General Culture |  | 3 GEO 012N | 0 |
|  | 15 |  | 13 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| GEO 416K |  | 4 GEO 420K | 4 |
| GEO 416M |  | 4 PHY 302K or 303K | 3 |
| Biology |  | 3 US History | 3 |
| Foreign Langauge |  | 5 Foreign Language | 5 |
|  | 16 |  | 15 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| GEO Upper-division Elective |  | 4 GEO Upper-division Elective | 3 |
| GEO Upper-division Elective |  | 3 GEO Upper-division Elective | 3 |
| E 316L, 316M, 316N, or 316P |  | 3 GOV 310L | 3 |
| Social Science (core) |  | 3 Social Science (major) | 3 |
| Interdisciplinary Studies |  | 3 Interdisciplinary Studies | 3 |
|  | 16 |  | 15 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| GEO Upper-division Elective |  | 3 GEO Upper-division Elective | 3 |
| Interdisciplinary Studies Upperdivision |  | 3 GEO Upper-division Elective | 3 |
| GOV 312L |  | 3 US History | 3 |
| Upper-division Elective |  | 3 Visual / Perf Arts | 3 |
| Upper-division Elective |  | 3 Interdisciplinary Studies Upperdivision | 3 |
|  |  | 5 | 15 |

Total credit hours: 120

## Bachelor of Science in Environmental Science

## Admission to the Environmental Science Program

All freshmen and external transfer students majoring in environmental science (EVS) are first admitted to the University as entry-level EVS majors in the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences. After completing a minimum of 24 hours in residence, students may select the EVS degree plan that best suits their long-term interests and, if necessary, transfer to the appropriate college/school in accordance with the regulations and procedures set forth in that college or school's General Information Catalog.

## Freshman Admission

Freshmen applicants seeking admission to the EVS major through the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences must meet the calculus readiness requirement by the official admissions application deadline. More information about the calculus readiness requirement is available through the University Admissions Office or online.

Freshmen applicants to the EVS major from all three colleges/schools are reviewed and admitted as a single cohort. Applicants should use the ApplyTexas online application and select the "Environmental Science, Entry-Level" major option listed in the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences as a firstchoice major. Applicants should apply to the EVS program in the college
that best suits their anticipated area of focus (geological sciences, or geographical sciences, or biological sciences, respectively).

## External Transfer Admission

Students who wish to transfer to the University from another college or university must apply to the Office of Admissions as described in the General Information Catalog. External transfer applicants seeking admission to the Environmental Science (EVS) Degree Program through the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences must demonstrate calculus readiness by the official admissions application deadline. Details regarding transfer calculus readiness are available through the University Admissions Office or online.

External transfer applicants to the EVS major from all three colleges/ schools are reviewed and admitted as a single cohort. Applicants should use the ApplyTexas online application and select the "Environmental Science, Entry-Level" major option listed in the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences as a first-choice major. Applicants should apply to the EVS program in the college that best suits their anticipated area of focus (geological sciences, geographical sciences, or biological sciences, respectively).

## Internal Transfer Admission

Internal transfer, entry-level applications submitted to the EVS major through the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences are reviewed and admitted as a single cohort. All internal transfer applicants should use the online EVS Program Transfer Application and must meet the requirements for internal transfer given in the General Information Catalog.

To be competitive for admission, internal transfer applicants should have a grade point average of at least 3.00 in Biology 311C, Chemistry 301, Mathematics 408 C or 408 N or 408 K , and Geological Sciences 401 or 303.

Additional Information for all internal transfer applicants:

- Application Deadline: March 1st for entry the following academic year.
- Only currently enrolled students in good academic standing with their college of residence may apply.
- Students may apply during the semester they are completing the minimum requirements to be eligible for consideration.
- Entry-level admission to all Environmental Science majors is offered as a space is available to the students who are best qualified. Decisions are based on the student's grade point average in the introductory science and math courses listed above, University grade point average, and other factors including, but not limited to, difficulty of course load, course repetitions, proven mathematical ability, and interest in the field of Environmental Science.

Students should consult with an Academic Adviser for additional information on the application process and deadlines.

## The Bachelor of Science in Environmental Science

The Bachelor of Science in Environmental Science degree program is designed for students interested in an interdisciplinary scientific perspective on environmental and sustainability issues, analysis, and management. The degree program provides the broad foundation in physical, life, and social sciences needed for a career or graduate study in environmental science and related fields such as climate change, ecology, and conservation. Students who complete the program
successfully will be able to assess environmental issues critically from multiple perspectives; perform field, laboratory, and computer analyses; and conduct original research. The program is designed to prepare graduates for careers in local, state, and federal government laboratories and nonprofit agencies, environmental consulting firms, environmental education and outreach agencies, and universities and other research settings. The degree is offered by the Jackson School with a major in geological sciences, by the College of Liberal Arts with a major in geographical sciences, and by the College of Natural Sciences with a major in biological sciences. The degree programs share common prescribed work, but each major has its own specific requirements. Students may earn only one Bachelor of Science in Environmental Science degree from the University.

The Bachelor of Science in Environmental Science curriculum consists of 126 semester hours of coursework. All students must complete the University's core curriculum. The specific degree requirements consist of prescribed work, major requirements, and electives. In some cases, a course that is required for the degree may also be counted toward the core curriculum.

A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills any other requirement may also be used to fulfill a flag requirement unless otherwise specified.

In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the following Skills and Experience flags:

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent; students in the College of Natural Sciences and the Jackson School of Geosciences must complete only two flagged writing courses. For students in the College of Natural Sciences and the College of Liberal Arts, at least one writing flag must be from an upper-division course.
2. Quantitative reasoning: one flagged course.
3. Global cultures: one flagged course.
4. Cultural diversity in the United States: one flagged course.
5. Ethics: one flagged course.
6. Independent inquiry: one flagged course.

## Prescribed Work Common to All Environmental Science Majors

1. Mathematics: Mathematics 408 C , or 408 N and 408 S , or 408 K and 408L
2. Chemistry: Chemistry 301 or 301 H ; Chemistry 302 or 302 H ; and Chemistry 204
3. Physics: Physics 317 K and 117 M , Physics 303 K and 103 M , or Physics 301 and 101L
4. Biological Sciences: Biology 311C and 311D, or 315H
5. Ecology:
a. Biology 373 or Marine Science 320. Marine Science 320 may not be used to satisfy both requirement 5 a and requirement 10 c . Environmental Science majors in the College of Natural Sciences must choose Biology 373.
b. Biology 373L or Marine Science 120L. Environmental Science majors in the College of Natural Sciences must choose Biology 373L
6. Geological Sciences: Geological Sciences 401 or 303 or Geography 401C; Geological Sciences 346C; and an approved geological sciences course in sustainability.
7. Geography: Geography 335N
8. Field experience and research methods: Environmental Science 311 and 121
9. Capstone Research Experience: one of the following pairs:
a. Environmental Science 271 and 371 or Environmental Science 171 and 471
b. Environmental Science 172C and 472D or Environmental Science 272C and 372D
c. Environmental Science 271 or Marine Science 370, and one of the following: Chemistry 320M, Geography 460G, 368C, 462K, Geological Sciences 327G, Mathematics 408D, 408M, Statistics and Data Sciences 321 or 328M. Note: Geography 460G, 462K, and Geological Sciences 327G may not be used to satisfy both requirement 9c and 10b. Statistics and Data Sciences 321 and 328 M may not be used in this requirement by students in the College of Natural Sciences. Biology 377 may substitute for Environmental Science 271 with prior approval of the faculty advisor. Tutorial Course 660 HA and 660 HB may substitute for Environmental Science 271 and 371 with prior approval of the faculty advisor. Geological Sciences $172 \mathrm{H}, 173 \mathrm{H}$ and 379 H may substitute for Environmental Science 271 and 371 with prior approval of the faculty advisor. Natural Sciences 323 and 371 may substitute for Environmental Science 271 and 371 with prior approval of the faculty advisor.
10. Environmental and sustainability themes: One course in each of the following thematic areas:
a. Environmental and sustainability policy, ethics, and history: Geography 323K, 331K, 334, 336C, 339K, 340D, 342C, 344K, 356C, History 350R (Topic 7), Journalism 346F, Marine Science 367K, or Philosophy 325D. Biology 337, Geography 356, 356T, or Sociology 321 K may be counted with prior approval of the faculty advisor.
b. Geographic information systems: Geography 460G, 462K, Geological Sciences 327G
c. Climates and oceans: Biology 456L, Geography 333K, Geological Sciences 338J, 347D, 347G, 377P, Marine Science 320, 440, 354Q, 354T, 356. Marine Science 320 may not be used to satisfy both requirement 5 and 10. Marine Science 356 may not be used to satisfy both requirement 10c and requirement 14 in Option 1. Marine Science 356 may not be used to satisfy both requirement 10c and requirement 18 in Option II. Biology 337, 437, Geography 356, 356T, Geological Sciences 371C, 371 T, Marine Science 352 or 353 may count with prior approval of the faculty advisor.
d. Environmental economics, sustainability, and business: Economics 304K, 330T, Advanced Placement credit for Economics 304L may be used to satisfy this requirement.
11. Environmental Science 141 and 151

## Major Requirements

## BS EVS: Geological Sciences

The following 36 semester hours of coursework are required; these hours must include at least 12 hours of approved upper-division work in geological sciences.

1. Geological Sciences $405,416 \mathrm{~K}, 416 \mathrm{M}$ and 420 K
2. Mathematics 408D or 408M
3. Four semester hours of physics in one of the following second semester sequences: Physics 317 L and 117 N, 303L and 103N, or 316 and 116 L .
4. One of the following courses on climate and water: Geological Sciences 338J, 347D, 347G, 376E, 476K, 476M, 376S, 377P.

Geological Sciences 371T may count with prior approval of the faculty advisor. (Note: The same course may not be used to satisfy both requirement 4 of the major requirements and requirement 10 c of the prescribed work).
5. Nine additional semester hours of upper division elective coursework in geological sciences not otherwise used to satisfy either prescribed or other major requirements.
6. Enough additional coursework to make a total of 126 semester hours.

## Special Requirements

Students must fulfill the University-wide General Requirements, the Special Requirements of the Jackson School, and the Requirements for All Geological Sciences Degree Plans given earlier in this section. They must also earn a grade of at least $C$ - in each course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under the honors option, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the program honors adviser, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available online.

## Suggested Arrangement of Courses <br> BS Environmental Science: Geological Sciences

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| UGS 303 |  | 3 EVS 311 | 3 |
| GEO 401 or 303 |  | 3 BIO 311C | 3 |
| CH 301 |  | 3 CH 302 | 3 |
| M 408C |  | $4 \mathrm{M} \mathrm{408D}$ | 4 |
| RHE 306 |  | 3 Visual / Perf Arts | 3 |
|  |  | 6 | 16 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| BIO 311D |  | 3 GEO 405 | 4 |
| PHY 317K |  | 3 GEO 346C | 3 |
| PHY 117M |  | 1 GeoSci Sustainability | 3 |
| GOV 310L |  | 3 EVS 121 | 1 |
| E 316L, 316M, 316 N , or 316P |  | 3 Env Eco \& Bus | 3 |
| Social Science |  | 3 CH 204 | 2 |
|  |  | 6 | 16 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| GEO 416K |  | 4 GEO 420K | 4 |
| GEO 416M |  | 4 PHY 317L | 3 |
| GRG 335N |  | 3 PHY 117N | 1 |
| GEO Upper-division |  | 3 EVS 271 | 2 |
| Elective |  | 2 GEO Upper-division | 3 |
|  |  | History | 3 |
|  |  | 6 | 16 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| EVS 141 |  | 1 EVS 151 | 1 |
| EVS 371 |  | 3 Climate \& Oceans | 3 |
| Geographic Information Systems |  | 3 Env Policy \& Politics | 3 |
| MNS 320 |  | 3 GOV 312L | 3 |
| MNS 120L |  | 1 History | 3 |

Climate \& Water
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## 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.

Degree requirements are divided into three categories: university-wide undergraduate degree requirements (the University core curriculum) and flag requirements, prescribed work for the degree, and major requirements. Taken together, these courses constitute a degree option, a degree plan with a particular concentration or emphasis. Thus, students may develop intellectually challenging yet different plans of study according to their personal interests and goals.

Students seeking the Bachelor of Science in Geological Sciences degree must choose one of four options--I: General Geology, II: Geophysics, III: Hydrogeology, or V: Teaching. (Option IV: Environmental Science and Sustainability is no longer offered.)

## Requirements for All Geological Sciences Degree Plans

Each student must complete the University's core curriculum. In the process of completing core curriculum and geological sciences degree requirements, students must also earn credit for seven flags including: two writing flags, one quantitative reasoning flag, one global cultures flag, one cultural diversity in the United States flag, one ethics flag, and one independent inquiry flag. In some cases, a course required for the degree/major may also be counted toward the core curriculum. Flags may be added to courses periodically; courses that may be used to fulfill flag requirements are identified in the Course Schedule. Students are encouraged to discuss options for completing flag requirements with their academic advisor.

A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work or major requirement; the only exception to this rule is that a course that fulfills any other requirement may also be used to fulfill a core curriculum requirement, or a flag requirement if the course carries that flag, unless otherwise specified.

GPA Requirements: A cumulative grade point average of at least 2.00 is required on all work undertaken at the University for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded. In addition, a grade point average of at least 2.00 is required in geological sciences courses counted toward the major requirement.

Course Grades: A grade of at least $C$ - is required in each course used to fulfill any of the requirements for the degree. 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 the student's academic standing in the Jackson School of Geosciences.

In-residence Coursework: All University students must complete at least 60 semester hours of the coursework counted towards the degree in residence. Individual degree(s) or degree options may contain additional course residency requirements.

In addition, the student must fulfill the University's general requirements and the requirements of the Jackson School of Geosciences.

## Additional Requirements Specific to the BS Geological Sciences, Options I, II, \& III

In-residence Coursework: Every student in the BS Geological Sciences, Option I, II or III degree plan must complete at least 36 semester hours of upper-division coursework in residence at the University. At least 18 of these upper-division hours must be in geological sciences and at least 12 hours must be from areas outside of geological sciences.

Technical Coursework: Students in the BS Geological Sciences, Option I, II or III must complete at least two-thirds of all technical coursework required for the degree (calculus, chemistry, and physics) at the University. Requests to take required technical coursework at another school, online, by correspondence or extension at the University must be approved by the JSG Academic Affairs Office prior to registration. Coursework completed outside of the University without approval may not be used to fulfill degree or school scholarship eligibility requirements.

Total Degree Hours: A total of 126 hours of coursework including core, prescribed, and major work is required.

## Prescribed Work

## BS Geological Sciences, Option I, II \& III

1. Mathematics 408C and 408D; or 408K, 408L, and 408M. Mathematics 408 C or 408 K also meets the mathematics requirement of the core curriculum. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward the total number of semester hours required for the degree.
2. Physics 301, 101L, 316, and 116L; or Physics 303K, 103M, 303L, and 103N.
3. Chemistry 301 and 302. Together, requirements 2 and 3 also meet parts I and II of the science and technology requirement of the core curriculum.
4. Geological Sciences 401 or $303,416 \mathrm{~K}, 416 \mathrm{M}, 420 \mathrm{~K}, 325 \mathrm{G}$ and 428.
5. Technical Electives: Twelve semester hours of approved science and engineering courses with no more than six semester hours of lower-division courses. These courses may be coordinated with recommended upper-division GEO elective courses to form a geoscience course concentration. A list of approved courses is available in the JSG Advising Office.
6. Foreign language/culture: Students must complete one of the following options: (a) Second-semester proficiency in a foreign language; (b) First-semester level proficiency in a foreign language, and a three-hour course in the culture of the same language area (from approved list), or; (c) Two three-hour courses chosen from one foreign culture category (from approved list). A list of approved cultural courses is available in the JSG Advising Office. Courses that fulfill this requirement must be in addition to courses counted toward the core curriculum or flag requirements.

## Option I: General Geology

## Major Requirements

1. Geological Sciences 405 and 426P.
2. Six semester hours of approved field coursework. This requirement may be met by Geological Sciences 660A and 660B. All field coursework should be completed during the same summer semester.
3. Fifteen additional hours of approved upper-division coursework in geological sciences.

## Suggested Arrangement of Courses

 BS Geological Sciences, Option I: GeneralGeology Geology

| First Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |  |  |
| GEO 401 or 303 |  | 4 GEO 405 |  | 4 |  |
| M 408C |  | $4 \mathrm{M} \mathrm{408D}$ |  | 4 |  |
| CH 301 |  | 3 CH 302 |  | 3 |  |
| UGS 302 or 303 |  | $\begin{aligned} & 3 \mathrm{E} 316 \mathrm{~L}, 316 \mathrm{M}, 316 \mathrm{~N} \text {, } \\ & \text { or } 316 \mathrm{P} \end{aligned}$ |  | 3 |  |
| RHE 306 |  | 3 |  |  |  |
|  |  | 7 |  | 14 |  |
| Second Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours |  |  |
| GEO 416K |  | 4 GEO 420K |  | 4 |  |
| GEO 416M |  | 4 GEO 426P |  | 4 |  |
| PHY 303K |  | 3 PHY 303L |  | 3 |  |
| PHY 103M |  | 1 PHY 103N |  | 1 |  |
| US History |  | 3 Visual/Performing Arts |  | 3 |  |
|  |  | 5 |  | 15 |  |
| Third Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours | Summer Term | Hours |
| GEO 428 |  | 4 GEO 325G |  | 3 GEO 660A | 3 |
| US History |  | 3 GEO Elective, Upperdivision |  | 3 GEO 660B | 3 |
| GEO Elective, Upperdivision |  | 3 Elective, Upperdivision |  | 3 |  |
| Tech Elective |  | 3 Tech Elective |  | 3 |  |
| Culture |  |  |  |  |  |
|  |  | 6 |  | 12 | 6 |
| Fourth Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours |  |  |
| GOV 310L |  | 3 GOV 312 L |  | 3 |  |
| GEO Elective, Upperdivision |  | 3 Social/Behavioral Science |  | 3 |  |
| GEO Elective, Upperdivision |  | 3 GEO Elective, Upperdivision |  | 4 |  |
| Tech Elective, Upperdivision |  | 3 Tech Elective, Upperdivision |  | 3 |  |
| Foreign Language or Culture |  | 3 Elective, Upperdivision |  | 3 |  |
| 15 |  |  |  | 16 |  |

Total credit hours: 126

## Option II: Geophysics

## Major Requirements

1. Mathematics 427J and 427L
2. Physics 315 and 115L
3. Geological Sciences 325K, 354, 365P, 465K, 366M
4. Six semester hours of approved field coursework. This requirement may be met by Geological Sciences $348 \mathrm{~K}, 660 \mathrm{~A} / 660 \mathrm{~B}, 661 \mathrm{~A} / 661 \mathrm{~B}$, or 679 G . All field coursework should be completed during the same summer semester.
5. Three additional hours of approved upper-division coursework in geological sciences.

## Suggested Arrangement of Courses

BS Geological Sciences, Option II: Geophysics

| First Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |  |  |
| GEO 303 |  | $\begin{aligned} & 3 \mathrm{E} 316 \mathrm{~L}, 316 \mathrm{M}, 316 \mathrm{~N} \text {, } \\ & \text { or } 316 \mathrm{P} \end{aligned}$ |  | 3 |  |
| M 408C |  | $4 \mathrm{M} \mathrm{408D}$ |  | 4 |  |
| CH 301 |  | 3 CH 302 |  | 3 |  |
| UGS 302 or 303 |  | 3 PHY 301 |  | 3 |  |
| RHE 306 |  | 3 PHY 101L |  | 1 |  |
|  |  | 6 |  | 14 |  |
| Second Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours |  |  |
| GEO 416K |  | 4 GEO 420K |  | 4 |  |
| GEO 416M |  | 4 GEO 325G |  | 3 |  |
| PHY 316 |  | 3 PHY 315 |  | 3 |  |
| PHY 116L |  | 1 PHY 115L |  | 1 |  |
| M 427J |  | 4 M 427 L |  | 4 |  |
|  |  | 6 |  | 15 |  |
| Third Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours | Summer Term | Hours |
| GEO 325K |  | 3 GEO 365P |  | 3 Field Coursework | 6 |
| GEO 428 |  | 4 Visual/Performing Arts |  | 3 |  |
| GEO 465K |  | 4 Social/Behavioral Science |  | 3 |  |
| Tech Elective |  |  |  | 3 |  |
|  |  | Foreign Language/ Culture |  | 3 |  |
|  |  | 4 |  | 15 | 6 |
| Fourth Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours |  |  |
| GEO 366M |  | 3 GEO 354 |  | 3 |  |
| GOV 310L |  | 3 GOV 312L |  | 3 |  |
| US History |  | 3 US History |  | 3 |  |
| Tech Elective, Upperdivision |  | 3 GEO Elective, Upperdivision |  | 3 |  |
| Foreign Language/ <br> Culture |  | 3 Tech Elective, Upperdivision |  | 3 |  |
| 15 |  |  | , | 15 |  |

Total credit hours: 126

## Option III: Hydrogeology

## Major Requirements

1. Mathematics 427 J
2. Chemistry 204
3. Geological Sciences 476K, 476M, and 376S
4. Six semester hours of approved field coursework that must include Geological Sciences 376L and an additional three semester hours of approved field coursework. This requirement may be met by Geological Sciences 660A/660B, or 377K. All field coursework should be completed during the same summer semester.
5. Nine additional semester hours of approved upper-division coursework in geological sciences.

## Suggested Arrangement of Courses

BS Geological Sciences, Option III: Hydrogeology

| First Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |  |  |
| GEO 401 or 303 (plus 1 additional elective hour) |  | 4 E 316L, 316M, 316N, or 316P |  | 3 |  |
| M 408C |  | 4 M 408 D |  | 4 |  |
| CH 301 |  | 3 CH 302 |  | 3 |  |
| UGS 302 or 303 |  | 3 CH 204 |  | 2 |  |
| RHE 306 |  | 3 US History |  | 3 |  |
|  |  | 17 |  | 15 |  |
| Second Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours |  |  |
| GEO 416K |  | 4 GEO 420K |  | 4 |  |
| GEO 416M |  | 4 GEO 325G |  | 3 |  |
| PHY 303K |  | 3 M 427 J |  | 4 |  |
| PHY 103M |  | 1 PHY 303L |  | 3 |  |
| US History |  | 3 PHY 103N |  | 1 |  |
|  |  | 15 |  | 15 |  |
| Third Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours | Summer Term | Hours |
| GEO 428 |  | 4 GEO 476M |  | 4 GEO 376L | 3 |
| GEO 476K |  | 4 GOV 312P |  | 3 Field Course | 3 |
| GOV 310L |  | 3 Elective, Upperdivision |  | 3 |  |
| Tech Elective |  | 3 GEO Elective, Upperdivision |  | 3 |  |
|  |  | Tech Elective |  | 3 |  |
|  |  | 14 |  | 16 | 6 |
| Fourth Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours |  |  |
| GEO 376S |  | 3 GEO Elective, Upperdivision |  | 3 |  |
| GEO Elective, Upperdivision |  | 4 Social/Behavioral Science |  | 3 |  |
| Foreign Language/ Culture |  | 3 Foreign Language/ Culture |  | 3 |  |
| Tech Elective, Upperdivision |  | 3 Tech Elective, Upperdivision |  | 3 |  |
|  |  | Visual/Performing Arts |  | 3 |  |
|  |  | 13 |  | 15 |  |

Total credit hours: 126

## Option V: Teaching

The BS Geological Sciences, Option V: Teaching is designed to fulfill the course requirements for composite science teacher certification for middle school or secondary with geological sciences as the primary teaching field.

## Additional Requirements Specific to the BS Geological Sciences, Option V: Teaching

Students must meet the following requirements to graduate and be recommended for certification.

- University grade point average of at least 2.50
- Earned a grade of at least $C$ - in each of the professional development courses and supporting courses listed below as well as all coursework required for the geological sciences degree.
- Successful passing of final teaching portfolio review, conducted by the UTeach-Natural Sciences program. Information about the portfolio review and additional certification requirements is available from the UTeach-Natural Sciences academic advisor.
- Composite certification requires 24 semester hours of coursework in the primary field, 12 hours in a second field, and six hours each in two additional fields.
- In addition, students must fulfill the University's general requirements and the requirements of the Jackson School of Geosciences.

Students must adhere to the current certification requirements, even if they differ from those listed in the University catalog

## Prescribed Work

1. Professional Development Sequence:
a. Curriculum and Instruction 651S
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
e. UTeach-Natural Sciences 101, 110, and 170
2. Supporting Courses:
a. Biology 337 (Topic 2: Research Methods: UTeach), Chemistry 368
(Topic 1: Research Methods: UTeach), or Physics 341 (Topic 7: Research Methods: UTeach)
b. History 329U or Philosophy 329U
3. Middle grades certification: Students seeking middle grades certification, must also complete the following coursework:
a. Educational Psychology 350G, or both Psychology 301 and 304
b. Curriculum and Instruction 339E

## Major Requirements

1. Mathematics 408C. This course also meets the mathematics requirement of the core curriculum. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward the total number of semester hours required for the degree.
2. To meet the requirements of composite certification, the student must complete the following courses. In meeting this requirement, the student also fulfills parts I and II of the science and technology requirement of the core curriculum.
a. Biology 311C and 311D
b. Chemistry 301 and 302
c. Physics 303K and 103M or Physics 303L and 103N; or an equivalent sequence
d. Enough additional approved coursework in biology, chemistry, or physics to provide the required 12 semester hours in a second field
3. Astronomy 303,307 , or 367 M
4. Marine Science 307
5. Geological Sciences 401 or $303,405,416 \mathrm{~K}, 416 \mathrm{M}$, and 420 K or 320L
6. Enough upper-division coursework to total at least 28 semester hours in geological sciences.
7. Enough additional coursework to total 126 semester hours including core, prescribed and major work.

## Suggested Arrangement of Courses

 BS Geological Sciences, Option V: Teaching, Senior Grades| First Year |  |  |
| :--- | :--- | ---: |
| First Term | Hours | Second Term |
| GEO 401 or 303 (plus 1 additional | 4 GEO 405 | Hours |
| hour of upper-division science <br> elective) |  | 4 |
| M 408C | 4 BIO 311C |  |
| CH 301 | 3 CH 302 | 3 |
| UTS 101 | 1 UTS 110 | 3 |
| UGS 302 or 303 | 3 Humanities | 1 |
| RHE 306 | 3 Government | 3 |
|  | 18 | 3 |

Second Year
First Term
GEO 416K
GEO 416M
BIO 311D
Science Elective
History
Hours Second Term
Hours
4 GEO 420K 4
4 HIS 329U or PHL 329U 3
3 EDC 365C or UTS 3503
3 GEO Elective, upper-division 4
3 History 3

Third Year
First Term Hours Second Term Hours
PHY 303L
3 EDC 365E or UTS 3603
1 PHY 303K 3
3 PHY 103M 1
3 Government 3

4 GEO Elective, Upper-division 4
3 Elective 3
Fourth Year

| First Term | Hours | Second Term |
| :--- | :--- | ---: |
| MNS 307 | 3 EDC 651S | Hours |
| AST 303, 307, or 367M | 3 UTS 170 | 6 |
| Visual/Performing Art | 3 | 1 |
| Science Elective, Upper-division | 4 |  |
| Science Elective, Upper-division | 3 |  |
|  | 16 | 7 |

Total credit hours: 126

## Suggested Arrangement of Courses BS Geological Sciences, Option V: Teaching, Middle Grades

| First Year |  |  |  |
| :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours |
| GEO 401 or 303 (plus 1 additional hour of upper-division science elective) |  | 4 GEO 405 | 4 |
| M 408C |  | 4 BIO 311C | 3 |
| CH 301 |  | 3 CH 302 | 3 |
| UTS 101 |  | 1 UTS 110 | 1 |
| UGS 302 or 303 |  | 3 Humanities | 3 |
| RHE 306 |  | 3 Government | 3 |
|  |  | 18 | 17 |
| Second Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| GEO 416K |  | 4 GEO 420K | 4 |
| GEO 416M |  | 4 EDC 365C or UTS 350 | 3 |
| BIO 311D |  | 3 HIS 329U or PHL 329U | 3 |
| EDP 350G or PSY 301 and PSY 304 |  | 3 GEO Elective, Upper-division | 4 |


| History |  | 3 History | 3 |
| :---: | :---: | :---: | :---: |
|  | 17 |  | 17 |
| Third Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| EDC 365D or UTS 355 |  | 3 EDC 365E or UTS 360 | 3 |
| PHY 303L |  | 3 EDC 339E | 3 |
| PHY 103N |  | 1 PHY 303K | 3 |
| BIO 377 (Topic 2), CH 368 (Topic 1), or PHY 341 (Topic 7) |  | 3 PHY 103M | 1 |
| GEO Elective, Upper-division |  | 4 GEO Elective, Upper-division | 4 |
| Social/Behavioral Science |  | 3 Government | 3 |
|  | 17 |  | 17 |
| Fourth Year |  |  |  |
| First Term | Hours | Second Term | Hours |
| MNS 307 |  | 3 EDC 651S | 6 |
| AST 303, 307, or 367M |  | 3 UTS 170 | 1 |
| Science Elective, Upper-division |  | 4 |  |
| Science Elective, Upper-division |  | 3 |  |
| Visual/Performing Art |  | 3 |  |
| 16 |  |  | 7 |

Total credit hours: 126

## Bachelor of Science in Geosystems Engineering and Hydrogeology

Geosystems engineers and hydrogeologists are concerned with the development and use of engineering approaches in the management of natural resources from the earth's surface and subsurface, environmental restoration of subsurface sites, and other processes related to the earth sciences. This degree program, offered jointly by the Cockrell School of Engineering and the Jackson School of Geosciences, is designed to teach students the geological and engineering principles needed to solve subsurface resource development and environmental problems. The curriculum includes a fundamental sequence of engineering and geological sciences courses in such areas as multiphase fluid flow, physical hydrology, heat and mass transfer, field methods, and engineering design. This interdisciplinary systems approach, combining engineering and geological sciences, is increasingly required to address complex real-world problems such as characterization and remediation of aquifers. The degree program is designed to prepare graduates for employment with environmental, water resource management, and energy companies in addition to many government agencies. 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 (including carbon dioxide sequestration), oil and gas production and services, or similar pursuits. Graduates are expected to understand the fundamental principles of science and engineering behind the technology of geosystems engineering and hydrogeology to keep their education from becoming outdated and to give them the capability of self-instruction after graduation. They should also be prepared to serve society by applying the ideals of ethical behavior, professionalism, and environmentally responsible stewardship of natural resources.

Containing the following elements, the technical curriculum provides both breadth and depth in a range of topics.

- A combination of college-level mathematics and basic sciences (some with experimental work) that includes mathematics through differential equations, physics, chemistry, and geology
- Basic engineering and geologic topics that develop a working knowledge of fluid mechanics, strength of materials, transport phenomena, material properties, phase behavior, and thermodynamics
- Engineering and geosciences topics that develop competence in characterization and evaluation of subsurface geological formations and their resources using geoscientific and engineering methods, including field methods; design and analysis of systems for producing, injecting, and handling fluids; application of hydrogeologic and reservoir engineering principles and practices for water and energy resource development and management; contamination evaluation and remediation methods for hydrologic resources; and use of project economics and resource valuation methods for design and decision making under conditions of risk and uncertainty
- A major capstone design experience that prepares students for engineering and hydrogeologic practice, based on the knowledge and skills acquired in earlier coursework and incorporating engineering and geological standards and realistic constraints


## ABET Student Outcomes:

1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
2. an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
3. an ability to communicate effectively with a range of audiences
4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
5. an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
6. an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
7. an ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

## Portable Computing Devices

Students entering Geosystems Engineering and Hydrogeology are required to have access to a portable computing device capable of running programs suitable for use in the classroom and on the university wireless network. The use of this device will be necessary in many required courses, and individual instructors may require the device be brought to class or lab sessions. For a list of minimum system requirements see http://www.pge.utexas.edu/future/undergraduate/ program.

## Curriculum

Course requirements include courses within the Cockrell School of Engineering and other required courses. In addition, each student must complete the University's Core Curriculum (p. 22). In some cases, a course that fulfills one of the following requirements may also be counted toward core curriculum or flag requirements; these courses are identified below.

In the process of fulfilling engineering degree requirements, students must also complete coursework to satisfy the following flag
requirements: one independent inquiry flag, one course with a quantitative reasoning flag, one ethics flag, one global cultures flag, one cultural diversity in the US flag, and two writing flags. The independent inquiry flag, the quantitative reasoning flag, the ethics flag, and both writing flags are carried by courses specifically required for the degree; these courses are identified below. Courses that may be used to fulfill flag requirements (p. 23) are identified in the Course Schedule.

Courses used to fulfill technical and nontechnical elective requirements must be approved by the petroleum and geosystems engineering faculty and the geological sciences faculty before the student registers for them.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Petroleum and | $m$ Engineering Courses |  |
| PGE 310 | Formulation and Solution of Geosystems Engineering Problems | 3 |
| PGE 322K | Transport Phenomena in Geosystems | 3 |
| PGE 323K | Reservoir Engineering I: Primary Recovery | 3 |
| PGE 323L | Reservoir Engineering II: Secondary and Tertiary Recovery | 3 |
| PGE 326 | Thermodynamics and Phase Behavior | 3 |
| PGE 333T | Engineering Communication (writing flag and ethics flag) | 3 |
| PGE 365 | Resource Economics and Valuation | 3 |
| PGE 358 | Principles of Formation Evaluation | 3 |
| PGE 373L | Geosystems Engineering Design and Analysis (independent inquiry flag) | 3 |
| PGE 424 | Petrophysics | 4 |
| PGE 427 | Properties of Petroleum Fluids <br> (Properties of Petroleum Fluids) | 4 |

## Chemistry

CH 301
CH 302
Civil Engineering
C E 357
Engineering Mechanics
E M 306
EM 319
Geological Sciences

## Mathematics

M 408C

| GEO 303 | Introduction to Geology | 3 |
| :--- | :--- | :--- |
| GEO 376L | Field Methods in Groundwater <br> Hydrology | 3 |
| GEO 376S | Physical Hydrology | 3 |
| GEO 416K | Earth Materials | 4 |
| GEO 416M | Sedimentary Rocks | 4 |
| GEO 420K | Introduction to Field and <br> GEO 428 | Stratigraphic Methods |
| GEO 476K | Structural Geology | 4 |
|  | Groundwater Hydrology (writing <br> flag) | 4 |

Principles of Chemistry I (part II science and technology) Principles of Chemistry II

Geotechnical Engineering

Statics
Mechanics of Solids 3

Introduction to Geology 3
Field Methods in Groundwater

Physical Hydrology3444


1. Some sections of the English humanities courses (E 316L,
$316 \mathrm{M}, 316 \mathrm{~N}, 316 \mathrm{P}$ ) carry a global cultures or cultural diversity flag.
2. Some sections carry a cultural diversity flag.
3. Some sections carry a global cultures and/or cultural diversity flag.
4. In UGS 302, all sections carry a writing flag. In UGS 303,
some sections carry a writing flag.
Total Hours
132

## Suggested Arrangement of Courses

 BS Geosystems Engineering and HydrogeologyFirst Year

| First Term | Hours | Second Term |
| :--- | :--- | :---: | Hours | CH 301 |
| :--- |
| CH 302 |

Second Year
First Term
GEO 416K


## Minor and Certificate Programs

## Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minors and Certificate Programs (p. 13) section of the Undergraduate Catalog.

Students admitted to transcript-recognized minors must contact their academic advisors to have approved minors added to their degree audit profiles. This allows progress toward the credential to be tracked and ensures that minors are added to official transcripts upon graduation, if all requirements are met.

## Minors for Geosciences Majors

While a minor is not required as part of any geological sciences degree program, students may choose to complete a minor in a field of study other than their major and to which they gain entry. Students may declare only one minor or certificate to supplement their Jackson School major.

Jackson School students must declare their minor/certificate intentions before they have completed 65 percent of their degree requirements, as indicated on the Interactive Degree Audit (IDA). Exceptions to these policies require prior approval by the dean.

## Minors for Non-Geosciences Majors

The minors offered by the Jackson School of Geosciences promote the understanding of Earth as a system, its resources, and environment, for the lasting benefit of humankind. Any non-geosciences student with a University grade point average of at least 2.5 may apply to a JSG minor. Students must apply for admission to the minor, have it added to their
degree profiles, successfully complete all requirements, and apply to graduate for it to appear on their transcript.

The Jackson School reserves the right to limit the number of students accepted to the minor. If demand exceeds space, students will be selected based on review of a student's academic record. Acceptance into the minor does not come with preferences or guarantee of a seat in any GEO course. Registration for any of these courses will require that existing prerequisite course requirements are adequately met.

For more information, please visit the Minor and Certificate Programs section in The University chapter.

## Computational Geosciences Minor

The Computational Geosciences Minor provides a selection of courses that will establish an understanding of computational methods in geosciences. The courses in this minor emphasize the understanding of geophysical and geochemical laws and their equations. Students completing this minor will gain knowledge on how to solve such equations, both analytically and numerically, to solve specific geoscience problems (e.g., transport in porous media to study pollutant plumes, wave equation to study earthquakes and seismic methods). Students will use high-level programming tools (e.g., MATLAB, Python).

The Computational Geosciences Minor requires 15 credit hours as follows:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| GEO 303 | Introduction to Geology | 3 or 4 |
| or GEO 401 | Physical Geology |  |
| GEO 354 | Physics of Earth | 3 |
| One of the following four courses: |  | 3 |
| GEO 325G | Computational Applications in the Geosciences |  |
| GEO 325K | Computational Methods |  |
| GEO 325M | Numerical Modeling in the Geosciences |  |
| GEO 366M | Mathematical Methods in Geophysics |  |
| Two upper-division GEO courses: |  | 6 or 7 |
| GEO 344U | Quantitative Seismic Interpretation |  |
| GEO 347G | Climate System Modeling |  |
| GEO 355G | Geodynamics of the Lithosphere and Mantle |  |
| GEO 360G | Construction and Interpretations of 3-D Stratigraphy |  |
| GEO 365N | Seismic Data Processing |  |
| GEO 365P | Potential Field Applications in Geophysics |  |
| GEO 465K | Seismic Exploration |  |
| List of additional upper-division course options available on the JSG website. |  |  |
| Please Note: |  |  |
| Registration for any of these courses requires that existing prerequisite course requirements are adequately met. |  |  |
| Petitions to substitute another course to use toward any requirement must be submitted to the JSG Advising Office prior to the start of the semester in question. |  |  |

## Geosciences Minor

The Geosciences Minor provides a selection of courses that will establish an understanding of the Earth's history, evolution, and its
properties. The courses in this minor emphasize the chemical, physical, and biological processes that shape the Earth system. Students completing this minor will gain knowledge in the methods geologists use to characterize geological processes, such as identifying rocks, minerals, and fossils. They will also examine the role of geological processes on geological hazards (e.g. volcanos, tsunami) and water and energy resources. The opportunity to gain skills analyzing data from laboratory and field settings supplement multiple other areas of study such as engineering, education, and business.

The Geosciences Minor requires 16 credit hours as follows:
Requirements
Hours
GEO 303 or GEO 401

## Introduction to Geology

 3 or 4One of the following three courses:

| GEO 405 | Life through Time |
| :--- | :--- |
| GEO 416K | Earth Materials |
| GEO 416M | Sedimentary Rocks |

Three upper-division GEO courses: 9

| GEO 320L | Introductory Field Geology |
| :--- | :--- |
| GEO 325G | Computational Applications in the <br> Geosciences |
| GEO 339T | Continental Tectonics |
| GEO 346C | Introduction to Physical and <br> Chemical Hydrogeology |
| GEO 347K | Gems and Gem Minerals |

List of additional upper-division course options available on the JSG website.

Please Note:
Registration for any of these courses requires that existing prerequisite course requirements are adequately met.
Petitions to substitute another course to use toward any requirement must be submitted to the JSG Advising Office prior to the start of the semester in question.

## Hydrology Minor

The Hydrology Minor provides a selection of courses that will establish an understanding of the water cycle and associated hydrological processes. The courses in this minor emphasize physical and chemical processes that control the movement of water through the Earth system and water quality. Students completing this minor will gain knowledge in the methods hydrologists use to characterize hydrological processes, including environmental monitoring data and aquifer properties.

The Hydrology Minor requires 16 credit hours as follows:

## Requirements

Hours
GEO 303
or GEO 401
GEO 346C

Two upper-division GEO courses:

| GEO 372S | Geochemical Problem Solving with <br> Atoms and lons |
| :--- | :--- |
| GEO 376S | Physical Hydrology |
| GEO 476M | Aqueous Geochemistry |
| GEO 476W | Hydrogeophysics |
| GEO 377K | Applied Karst Hydrogeology |

List of additional upper-division course options available on the JSG website.

## Please Note:

Registration for any of these courses requires that existing prerequisite course requirements are adequately met.

Petitions to substitute another course to use toward any requirement must be submitted to the JSG Advising Office prior to the start of the semester in question.

## Sedimentology and Earth Surface Processes Minor

The Sedimentology and Earth Surface Processes Minor provides a selection of courses that will establish an understanding of the processes that shape the Earth's surface, the rock record results, and interactions with other systems over time. Students completing this minor will gain an understanding of the changing character of the surface environment of the Earth which is critical for understanding the past and future trajectories for life on Earth.

The Sedimentology and Earth Surface Processes Minor requires 16 credit hours as follows:

| Requirements |  | Hours |
| :--- | :--- | ---: |
| GEO 303 | Introduction to Geology | 3 or 4 |
| or GEO 401 | Physical Geology |  |
| GEO 416 M | Sedimentary Rocks | 4 |
| or GEO 416K | Earth Materials |  |

Three of the following upper-division GEO courses: 9 or 10

| GEO 322J | Transitions in the History of Life |
| :--- | :--- |
| GEO 330K | Energy Exploration |
| GEO 344U | Quantitative Seismic Interpretation |
| GEO 355G | Geodynamics of the Lithosphere <br> and Mantle |
| GEO 360G | Construction and Interpretations of <br> 3-D Stratigraphy |
| GEO 365Q | Geomorphology Process and Form |
| GEO 369E | Evolution of Reef Ecosystems |

List of additional upper-division course options available on the JSG website.
Please Note:
Registration for any of these courses requires that existing prerequisite course requirements are adequately met.
Petitions to substitute another course to use toward any requirement must be submitted to the JSG Advising Office prior to the start of the semester in question.

## Certificate Programs

## Computational Science and Engineering Certificate

The Computational Science and Engineering Certificate program is sponsored by the Cockrell School of Engineering, the Jackson School of Geosciences, the College of Liberal Arts, and the College of Natural Sciences; it is administered by the Institute for Computational Engineering and Sciences (ICES). Information regarding the specific requirements of the Certificate can be found in the Cockrell School of Engineering's Minor and Certificates (p. 146) section of the Undergraduate Catalog.

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Geological Sciences: Environmental Science (EVS) and Geological Sciences (GEO).

## School of Information

Eric T. Meyer, PhD, Dean<br>Soo Young Rieh, PhD, Associate Dean for Education Anthony Grubesic, PhD, Associate Dean for Research<br>Mary Carla Criner, PhD, Assistant Dean<br>http://www.ischool.utexas.edu/

## General Information

The School of Information (also called the iSchool) offers the Bachelor of Arts with a major in Informatics*, the Bachelor of Science in Informatics*, the Master of Science in Information Studies, the Master of Science in Information Security and Privacy and the Doctor of Philosophy. In addition, the School of Information offers a Minor in Informatics designed to complement many other undergraduate degree programs at The University of Texas at Austin. Students also have the option of tailoring the Informatics Minor sequence to focus their studies on Human-Computer Interaction or Digital Humanities. Please contact the advising office in your home department for details about adding a minor.

## Our Vision

The goal of the The University of Texas at Austin's School of Information is to be the premier research and education program for the 21 st century field of information. We are changing the future by engaging the present and preserving the past. Research and teaching at the iSchool changes the ways that we interact with information and technology, changes how information can make the world a better and fairer place, and changes the ways we protect and preserve our collective memory.

## Core Values

Information serves humanity. At the School of Information, we are committed to making a positive difference in people's lives through excellence in research, teaching, and public engagement. We understand that information technologies must serve the needs of people, and that access to reliable and trustworthy information is essential to a functioning civil society. Information technologies and systems must be designed to augment and enhance human and organizational capabilities; doing so requires bringing people into the process from the start. All emerging technologies raise ethical and social issues that require study, research, and intervention. Multidisciplinary and transdisciplinary approaches such as those that are central to the School of Information offer the best hope for building information systems and shaping information practices that will serve the public interest.

These core values underpin our efforts to shape the field of information for human and social benefit by:

- Discovering new and vital knowledge about information
- Educating the next generation of leaders in the information professions
- Developing new scholars who will advance knowledge
- Improving society through service and collaboration
- Applying human-centered values to all our work


## History

What is now the School of Information was founded in 1948 to educate information professionals. Since that time, the name of the School and of the degrees offered have changed several times, but we have always balanced the values of information access as a human and social benefit
with the intellectual and technical skills needed to lead developments in the information age.

The School has offered master's degrees since 1948, and doctoral degrees since 1970. Undergraduate teaching has been part of the School for many years, but 2021 marks the inaugural year that students will be able to earn a complete undergraduate degree (either a B.A. or a B.S. in informatics*) from the School of Information.

## Facilities

The School of Information provides students with a wide variety of workspaces, labs, and equipment. Some labs are open regular hours and others require a reservation, but all are available for student use and students are encouraged to make full use of them.

## The Information eXperience Lab

The Information eXperience Lab is a research facility dedicated to the science of information studies, the empirically-based design of humaninformation interaction, and the education of students in the process of both. This state-of-the-art lab is used to conduct experiments on humaninformation processing and usability, accessibility, and other studies of the interaction between humans and information sources.

## The Digital Archaeology Lab

The Digital Archaeology Lab is a significant part of the School of Information's research and education in digital archiving. The facility provides multiple computer platforms, including a complete forensic workstation, a variety of media drives, and current and legacy software for the purpose of recovering digital objects from noncurrent environments for transfer into a preservation environment. Students and faculty carry out research to develop extraction protocols and to test efficient and safe means of treating legacy media and formats.

## The Information Retrieval and Crowdsourcing Lab

The Information Retrieval and Crowdsourcing Lab was established to advance the state-of-the-art methodologies for search and human computation/crowdsourcing. The aim is to integrate crowdsourcing with automatic algorithms to improve search engine experiences, capabilities, and evaluation.

## The Conservation Lab

The Conservation Lab contains a large variety of tools and equipment for examination, analysis, photo documentation, and conservation treatment of books and paper. A thorough sample collection, including more than 10,000 photographs and many other materials, is available for student use.

## The IT Lab

The IT Lab offers desktop computers (Windows \& Mac), a wide variety of software utilized in iSchool and UT courses, printing services, computer and a/v equipment borrowing, and a variety of IT teaching resources. IT Lab attendants assist students, faculty, and staff.

## The Digitization Suite

The Digitization Suite is used in digitization coursework. It can also serve as a small classroom for specialized course sessions, and provides a cross section of current and legacy digitization equipment for text, slides, audio, and video.

## Sound Rooms

The sound rooms are small individual rooms with higher-end equipment where people can record and edit audio, edit movies, create tutorials, or experiment with the latest voice recognition software.

## Student Services

Our students are a vital part of our scholarly community, and we provide services to facilitate students' development and enrichment year-round. Our student support staff is available to help majors and non-majors with their academic and career questions.

## Academic Advising

The academic adviser's office is responsible for providing information and advice to undergraduate students. The students are also advised to consult their Degree Audit (p. 189) on a regular basis in order to keep track of their own academic progress.

## Career Development

The iSchool Career Development Office is a collaborative partnership with faculty and staff to empower students to achieve their dreams beyond academics. The Career Development Office supports the students and alumni of the School of Information by offering career development and job search resources, connecting them to employers, mentors, and key professionals. The iSchool Career Development Office is located on the fifth floor of the UT Administration Building (UTA 5.338).

* Informatics degree programs were approved by the Texas Higher Education Coordinating Board on October 22, 2020 and are effective with the fall 2021 semester.


## Admission and Registration

## Admission

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

## Admission Policies of the School

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

## Registration

The General Information Catalog gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule, 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 Catalog are published on the registrar's website.

## Academic Policies and Procedures

## Honors

## University Honors

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

## Graduation with University Honors

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

## School Honors

Students wishing to pursue School of Information honors must meet all Bachelor of Arts* or Bachelor of Science in Informatics* degree requirements as well as the following:

- Minimum grade point average of 3.5 across all informatics coursework
- Complete an Honors Thesis in Informatics in lieu of the traditional Capstone
- Complete an additional three hours of Informatics elective coursework
* Informatics degree programs were approved by the Texas Higher Education Coordinating Board on October 22, 2020 and are effective with the fall 2021 semester.


## Graduation

## Special Requirements of the School of Information

All students must fulfill the General Requirements for graduation. In addition, students in the School of Information must be registered in the School 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.

## Degree Audit

An electronic degree audit is created for each student each semester. Students should view the audit through IDA, the University's Interactive Degree Audit system, on a regular basis. The degree audit tells the student the courses they must take and the requirements they must fulfill to receive the degree. While the degree audit normally provides an accurate statement of requirements, students are responsible for knowing the requirements for their degree as stated in a catalog under which they are eligible to graduate and for registering so as to fulfill all these requirements. If in doubt about any requirement, students should always speak with a School of Information academic advisor prior to registration.

## Applying for Graduation

Each student seeking a degree* from the School of Information must meet with a School of Information advisor prior to registering for the last semester of the degree program to review their degree audit. Students must also meet with a School of Information advisor during the semester in which they intend to graduate for an official degree audit. The degree audit is essential to ensure that the student is on track to meet all the degree requirements given in a catalog under which they are eligible to graduate.

In the final semester or summer session, a candidate for graduation must apply for the degree by the deadline given in the official academic calendar.

* Informatics degree programs were approved by the Texas Higher Education Coordinating Board October 22, 2020 and are effective with the fall 2021 semester.


## Degrees and Programs

Bachelor of Arts*<br>Bachelor of Science in Informatics*

## Degrees

The School of Information offers the Bachelor of Arts with a major in Informatics* and the Bachelor of Science in Informatics*. Within each degree, students are offered a choice from six concentration tracks:

## Concentration in Cultural Heritage Informatics

Throughout human history, cultural heritage institutions have played a critical role in ensuring that people have access to data, information, and technology, and that data, information, and technology are passed on to the next generation. These skills are also very much in demand in industry. The Cultural Heritage Informatics concentration of the B.S.I./B.A. with a major in Informatics* will prepare you for a career managing, describing, organizing, preserving, and providing access to data and information in a wide range of technological forms. Choosing the concentration in Cultural Heritage Informatics will prepare you for a career working in cultural heritage organizations such as galleries, libraries, archives, and museums, or applying the same skills within corporations that face challenges in managing, describing, preserving, and accessing data and information.

## Concentration in Health Informatics

Delivering and managing high-quality healthcare requires expertise in data, information, and technology. The Health Informatics concentration of the B.S.I./B.A. with a major in Informatics* will prepare you for a career applying expertise in health informatics in the healthcare industry, including designing and using information technologies to improve healthcare delivery, healthcare management, and health outcomes.
Choosing the concentration in Health Informatics will prepare you for a career in which you leverage data, information, and technology to improve healthcare delivery, healthcare management, and health outcomes.

## Concentration in Human-Centered Data Science

Data is one of the most valuable commodities in the information society, and workers who can use data to gain new insights are in great demand. Diverse skills are required to collect, manage, and analyze data, as well as consideration of the great ethical responsibility that comes with collecting, managing, and analyzing data, and the importance of critical thinking skills. The Human-Centered Data Science concentration of the B.S.I./B.A. with a major in Informatics* will prepare you for a career involving artificial intelligence, machine learning, information retrieval, data curation, and data analysis. Choosing the concentration in HumanCentered Data Science will prepare you for a career in which you leverage data, information, and technology to benefit society.

## Concentration in Social Informatics

Data, information, and technology are revolutionizing how organizations work. The Social Informatics concentration of the B.S.I./B.A. with a major in Informatics* will prepare you for a career leveraging data, information, and technology to improve the efficiency and effectiveness of people and organizations where information, technology, and people intersect, while also providing a more ethical and humane environment for workers and society more broadly. Choosing the concentration in Social Informatics will prepare you for a career in which you play a critical role in shaping information policies, improving organizational
efficiency and effectiveness, enhancing societal sustainability, and advocating for responsibility and the public interest.

## Concentration in Social Justice Informatics

Data, information, and technology have the potential to reduce or eliminate inequalities in society, but they can also lead to exacerbating existing inequalities or creating new ones. The Social Justice Informatics concentration of the B.S.I./B.A. with a major in Informatics* will prepare you for a career leveraging data, information, and technology for societal good, helping to ensure a level playing field for everyone in the information age. Choosing the concentration in Social Justice Informatics will prepare you for a career that involves leveraging data, information, and technology to empower individuals within society and to eliminate inequalities and injustices within society.

## Concentration in User Experience Design

Design of data, information, and technology systems needs to be rooted in the user experience and the broader societal impacts of design. The User Experience Design concentration of the B.S.I./B.A. with a major in Informatics will prepare you for a career in user experience, interaction design, human factors, and web and mobile app design. Choosing the concentration in User Experience Design will give you the skills to design cutting-edge information technologies that will benefit users and society.

## Applicability of Certain Courses

## Physical Activity Courses

Physical activity (PED) courses are offered by the Department of Kinesiology and Health Education. Up to three semester hours of physical activity coursework may be counted as electives toward any School of Information 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

The Departments of Air Force Science, Military Science, and Naval Science maintain ROTC units on campus. Information about each program is available from the chair of the department concerned.

Twelve semester hours of coursework in air force science, military science, or naval science may be counted toward any degree* in the School of Information. Such credit may be used only as electives or to fulfill the writing requirement, and only by students who are commissioned by the University ROTC program.

## Courses Taken on the Pass/Fail Basis

No more than 12 semester hours taken on the pass/fail basis may be counted toward School of Information degrees*. In general, courses taken on the pass/fail basis will count as general electives. Coursework required for School of Information major requirements cannot be taken pass/fail. Complete rules on registration on the pass/fail basis are given in the General Information Catalog.

## 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 Information unless specifically approved in advance by the dean. For additional information about correspondence work by resident students, see the General Information Catalog.

In the semester they plan to graduate, students may not take any course to be counted toward the degree at another institution or through University Extension; students who plan to graduate at the end of the
summer session may request approval to take transfer work only in the first summer term.

## Bible Courses

Bible courses may be counted as lower-division electives in School of Information degree programs* that have room for such electives. No more than 12 semester hours of such work may be counted toward any degree offered by the University.

* Informatics degree programs were approved by the Texas Higher Education Coordinating Board October 22, 2020 and are effective with the fall 2021 semester.


## Bachelor of Arts*

A total of 120 semester hours is required. Thirty-six hours must be in upper-division courses. At least 60 hours, including 21 hours of upper-division coursework, must be completed in residence at the University; at least 24 of the last 30 hours must be completed in residence at the University. Provided residence rules are met, credit may be earned with the approval of the dean by examination, by extension, by correspondence, or by work transferred from another institution. Up to 12 semester hours of classroom and/or correspondence coursework may be taken on the pass/fail basis; this coursework may be counted only as electives.

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic adviser.

The specific requirements for the Bachelor of Arts with a major in Informatics* consist of prescribed work, the major, and electives. Only in the following cases may a single course be counted toward more than one requirement:

1. A course that fulfills a core curriculum requirement may also be counted toward any specific requirement of the Informatics major unless otherwise stated below.
2. Courses counted toward the prescribed work may also be counted toward the Informatics major.
3. A course that fulfills another requirement may also be used to fulfill a flag requirement.

## Prescribed Work

1. Informatics 302, Academic Success in the Digital University
2. Informatics 372, Career Success in the Digital Organization
3. Research Methods and Statistics: six credit hours from an approved list of courses.
4. Informatics 303, Ethical Foundations for Informatics, or equivalent coursework from an approved list.
5. Programming: Beginning-level programming proficiency, Informatics 304, Programming for Informatics or another course from an approved list.
6. Foreign Language: Beginning-level proficiency coursework, or the equivalent, in a foreign language.
7. Six credit hours of additional Liberal Arts coursework or equivalent from an approved list.

## Major Requirements

## Cultural Heritage Informatics Concentration

1. Informatics 301, Introduction to Informatics
2. Introductory Concentration course: Informatics 310C
3. Additional introductory concentration course: Informatics 310D, $310 \mathrm{~J}, 310 \mathrm{M}, 310 \mathrm{~S}$, or 310 U .
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320C, Topics in Cultural Heritage Informatics.
5. Informatics 379C, Capstone (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis).
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## Human-Centered Data Science Concentration

1. Informatics 301, Introduction to Informatics
2. Introductory Concentration course: Informatics 310D
3. Additional introductory concentration course: Informatics 310C, 310J, 310M, 310S, or 310U.
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320D, Topics in Human-Centered Data Science.
5. Informatics 379C, Capstone, (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis).
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## Social Justice Informatics Concentration

1. Informatics 301, Introduction to Informatics
2. Introductory Concentration course: Informatics 310 J
3. Additional introductory concentration course: Informatics 310C, 310D, 310M, 310S, or 310U.
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320J, Topics in Social Justice Informatics.
5. Informatics 379C, Capstone (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis).
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## Health Informatics Concentration

1. Informatics 301, Introduction to Informatics
2. Introductory Concentration course: Informatics 310M
3. Additional introductory concentration course: Informatics 310C, 310D, 310J, 310S, or 310U.
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320M, Topics in Health Informatics.
5. Informatics 379C, Capstone (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis).
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## Social Informatics Concentration

1. Informatics 301, Introduction to Informatics
2. Introductory Concentration course: Informatics 310 S
3. Additional introductory concentration course: Informatics 310C, 310D, 310J, 310M, or 310U.
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320S, Topics in Social Informatics.
5. Informatics 379C, Capstone (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis ).
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## User Experience Design Concentration

1. Informatics 301, Introduction to Informatics
2. Introductory Concentration course: Informatics 310 U
3. Additional introductory concentration course: Informatics 310C, 310D, 310J, 310M, or 310S.
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320U, Topics in User Experience Design.
5. Informatics 379C, Capstone (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis).
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## Electives

In addition to the core curriculum, prescribed work, and major, students must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than 12 hours of designated coursework in air force science, military science, or naval science; 12 hours completed on the pass/fail basis; and 36 hours in any other single college or school of the University.

## Minors and Certificates

Students may choose to pursue a minor and/or certificate to offset elective credit. The minor or certificate consists of a specific number of semester hours of coursework completed outside the student's major field. The requirements of the minor or certificate are established by the offering department. Only one minor may be declared per major. Before planning to use a course to fulfill the minor or certificate requirement, the student should consult the department that offers the course.

* Informatics degree programs were approved by the Texas Higher Education Coordinating Board October 22, 2020 and are effective with the fall 2021 semester.


## Bachelor of Science*

A total of 120 semester hours is required. Thirty-six hours must be in upper-division courses. At least 60 hours, including 21 hours of upperdivision coursework, must be completed in resident at the University;
at least 24 of the last 30 hours must be completed in residence at the University. Provided residence rules are met, credit may be earned with the approval of the dean by examination, by extension, by correspondence, or by work transferred from another institution. Up to 12 semester hours of classroom and/or correspondence coursework may be taken on the pass/fail basis; this coursework may be counted only as electives.

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic adviser.

The specific requirements for the Bachelor of Science in Informatics* consist of prescribed work, the major, and electives. Only in the following cases may a single course be counted toward more than one requirement:

1. A course that fulfills a core curriculum requirement may also be counted toward any specific requirement of the Informatics major unless otherwise stated below.
2. Courses counted toward the prescribed work may also be counted toward the Informatics major.
3. A course that fulfills another requirement may also be used to fulfill a flag requirement.

## Prescribed Work

1. Informatics 302, Academic Success in the Digital University,
2. Informatics 372, Career Success in the Digital Organization,
3. Research Methods and Statistics: six credit hours from an approved list of courses
4. Informatics 303, or equivalent coursework from an approved list.
5. Programming: Beginning-level programming proficiency, Informatics 304, Programming for Informatics, or another course from an approved list.
6. Foreign Language: Beginning-level proficiency coursework, or the equivalent, in a foreign language
7. Six additional credit hours in science, technology, engineering, and math from an approved course list.

## Major Requirements <br> Cultural Heritage Informatics Concentration

1. Informatics 301, Introduction to Informatics,
2. Introductory concentration course: Informatics 310C
3. Additional introductory concentration course: Informatics 310D, $310 \mathrm{~J}, 310 \mathrm{M}, 310 \mathrm{~S}$, or 310U.
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320C, Topics in Cultural Heritage Informatics,
5. Informatics 379C, Capstone (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis)
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## Human-Centered Data Science Concentration

1. Informatics 301, Introduction to Informatics
2. Introductory concentration course: Informatics 310D.
3. Additional introductory concentration course: Informatics 310C, $310 \mathrm{~J}, 310 \mathrm{M}, 310 \mathrm{~S}$, or 310 U .
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320D, Topics in Human-Centered Data Science.
5. Informatics 379C, Capstone (Students pursuing the School of Information Honors distinction may substitutelnformatics 679H, Honors Thesis)
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## Social Justice Informatics Concentration

1. Informatics 301, Introduction to Informatics
2. Introductory concentration course: Informatics 310J
3. Additional introductory concentration course: 310C, 310D, 310M, 310 S , or 310 U .
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320J, Topics in Social Justice Informatics.
5. Informatics 379C, Capstone, (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis)
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## Health Informatics Concentration

1. Informatics 301, Introduction to Informatics
2. Introductory concentration course: Informatics 310 M
3. Additional introductory concentration course: Informatics 310C, $310 \mathrm{D}, 310 \mathrm{~J}, 310 \mathrm{~S}$, or 310 U .
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320M, Topics in Health Informatics.
5. Informatics 379C, Capstone (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis).
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## Social Informatics Concentration

1. Informatics 301, Introduction to Informatics
2. Introductory concentration course: Informatics 310 S
3. Additional introductory concentration course: Informatics 310C, $310 \mathrm{D}, 310 \mathrm{~J}, 310 \mathrm{M}$, or 310 U .
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320S, Topics in Social Informatics.
5. Informatics 379C, Capstone (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis)
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## User Experience Design Concentration

1. Informatics 301 , Introduction to Informatics
2. Introductory concentration course: Informatics 310 U
3. Additional introductory concentration course: Informatics 310C, $310 \mathrm{D}, 310 \mathrm{~J}, 310 \mathrm{M}$ or 310 S .
4. Advanced concentration coursework: Nine credit hours of advanced topics coursework in Informatics 320U, Topics in User Experience Design.
5. Informatics 379C, Capstone, (Students pursuing the School of Information Honors distinction may substitute Informatics 679H, Honors Thesis).
6. Informatics elective: Three hours of Informatics elective coursework in the School of Information.

## Electives

In addition to the core curriculum, prescribed work, and major, students must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than 12 hours of designated coursework in air force science, military science, or naval science; 12 hours completed on the pass/fail basis; and 36 hours in any other single college or school of the University.

## Minors and Certificates

Students may choose to pursue a minor and/or certificate to offset elective credit. The minor or certificate consists of a specific number of semester hours of coursework completed outside the student's major field. The requirements of the minor or certificate are established by the offering department. Only one minor may be declared per major. Before planning to use a course to fulfill the minor or certificate requirement, the student should consult the department that offers the course.

* Informatics degree programs were approved by the Texas Higher Education Coordinating Board October 22, 2020 and are effective with the fall 2021 semester.


## Minor and Certificate Programs

## Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minors and Certificate Programs (p. 13) section of the Undergraduate Catalog.

## Informatics Minor

Fifteen semester credit hours composed of:
Requirements
Hours

| 1301 | Introduction to Informatics <br> (Introduction to Informatics) | 3 |
| :--- | :--- | :--- |
| Six upper-division credit hours in Informatics | 6 |  |
| Six additional credit hours in Informatics | 6 |  |

Courses presented for the minor must have grades of at least $C$-.

## Certificate Programs

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

Students admitted to transcript-recognized certificates must contact their academic advisors to have approved certificates added to their degree audit profiles. This allows progress toward the credential to be tracked and ensures that certificates are added to official transcripts upon graduation, if all requirements are met.

To see a full list of certificates offered at the University, please see Minor and Certificate Programs (p. 15) section of the Undergraduate Catalog.

## Digital Humanities Certificate

The Digital Humanities Certificate is sponsored by the College of Liberal Arts and the School of Information; it is administered by the College of Liberal Arts. Information regarding the specific requirements of the minor can be found in the College of Liberal Arts' Minor and Certificate Programs (p. 238) section of the Undergraduate Catalog.

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the School of Information: Identity Management and Security (IMS), Informatics (I), Information Security and Privacy (ISP), and Information Studies (INF).

## College of Liberal Arts

Ann H. Stevens, PhD, Dean
Richard R. Flores, PhD, Senior Associate Dean, Academic Affairs Mia Carter, PhD, Associate Dean, Student Affairs Robert Crosnoe, PhD, Associate Dean, Research and Graduate Studies Joseph TenBarge, BA, Assistant Dean, Facilities and Technology https://liberalarts.utexas.edu/

## General Information

## Arts and Sciences Education

The academic program offered cooperatively by the College of Liberal Arts and the College of Natural Sciences provides what is sometimes referred to as a "liberal arts" or an "arts and sciences" education. No matter what area of knowledge a student intends to specialize in, the program of study will require courses in both colleges. The colleges work together to ensure that the individual interests and needs of the students pursuing an arts and sciences program are met

Guidelines for developing a coherent plan of study are provided by major requirements, by sequential prerequisites, and by optional patterns of emphasis. Departmental majors, areas of specialization, and interdepartmental programs are designed to enable every student to study at least one field in depth. These programs are sufficiently broad in scope to allow students in the same major to develop quite different plans of study in pursuit of their individual interests and goals. Each student should choose courses that are intellectually challenging and that contribute to his or her long-term objectives.

Arts and sciences students are required to take a certain number of courses in the natural sciences, the social and behavioral sciences, and the humanities. Consequently, whatever their fields of study, they have the opportunity to learn something about the basic differences in the ways questions are raised and answered in several fields of inquiry, and about the techniques for validating the answers and putting the results to use. At the same time, they may gain some of the philosophical and historical perspectives that illuminate and give form to general or specialized knowledge and help to reveal its relevance.

Both teachers and students sometimes make the assumption that independent and creative study is exclusively for the gifted. In fact, the primary requirement is that the student be highly motivated, although he or she must also demonstrate ability. The departments that make up the two arts and sciences colleges encourage all qualified students to work independently in special honors courses and seminars and in conference, studio, or laboratory work. The student is free to define a major, to determine whether a given assignment will be an adventure or a chore, free to develop its latent possibilities or merely satisfy its explicit demands. True creativity presupposes more than a gift for innovation; it requires an unceasing commitment to thinking and working at one's highest level.

As competence is gained in a chosen field, the mind should be progressively sharpened, disciplined, and enriched. The student who leaves arts and sciences studies with an enhanced understanding of self and humankind, of cultural and historical heritage, of the world and the universe, and of the moral values that make it possible to live a meaningful life, will have made the most of education, having gained something over and above the objective of vocational preparedness.

## Financial Assistance Available through the College

Special scholarships established by individuals and foundations are open to undergraduates in the College of Liberal Arts. Financial assistance is also available in many College of Liberal Arts departments, centers, and programs for specific undergraduate majors.

Students with financial need should apply for aid through the Office of Scholarships and Financial Aid. The Study Abroad Office also administers a number of awards designed to help qualified students participate in international programs.

Information on College of Liberal Arts scholarships is given online Information on scholarships awarded through individual departments, centers, and programs is published on their websites.

## Student Services

## Academic Advising

The assistant dean for the Student Division, under the guidance of the associate dean, oversees advising activity for all students in the College of Liberal Arts. The Student Division provides administrative and logistical support for all operations relating to students, including adviser training, official degree checks, and graduation certification.

Liberal Arts advisers embrace the idea that advising is teaching, and foster student development through partnerships and practices dedicated to student success. Advisers work with students to identify and achieve academic and life goals and establish a timely graduation plan, encourage critical thinking strategies, and stimulate intellectual and cultural development. In these ways, advisers teach the value of a liberal arts education for engaged, self-directed learners.

Departmental advisers work directly with their students regarding course selection. They also initiate petitions affecting the major or minor; encourage co- and extracurricular activities, including study abroad; and administer honors programs.

Students who have not yet declared a major work directly with Student Division advisers, who guide students through the process of selecting courses and exploring majors. Student Division advisers also work with students on withdrawing from classes, appeals for exceptions to standard policies and procedures, graduation applications, certifying all graduates' academic programs, and nonacademic issues.

Every student in the college has access to appropriate advisers throughout his or her academic career. In addition, students can create and view their own advising audits using IDA, the Interactive Degree Audit system. The advising audit is produced for advising purposes only and is not an official degree audit.

## Career Services

Liberal Arts Career Services (LACS) provides career assistance to current and newly graduated liberal arts students. The goal of the office is to connect College of Liberal Arts students with postgraduate and experiential learning opportunities throughout the world.

Through job search advising, résumé critiques, mock interviews, creditbased classes, and a variety of workshops and programs, LACS helps students develop the skills needed to succeed in the job search and in the workplace. LACS also provides comprehensive pre-law advising services, including application assistance and review and law school admission advising.

To connect students to the workplace, LACS manages job and internship postings, provides job and internship fairs and events, and manages an on-campus interviewing program involving a variety of employers and opportunities. Students have access to career management tools and resources with an online recruiting system, LiberalArts@Work. LACS maintains a resource room with books, DVDs, company literature, and job postings.

Hundreds of companies are assisted by LACS each year through computer-based résumé searches, information sessions, and on-campus interviewing. Résumé books for a variety of career fields are available to employers at no charge.

As a complement to the assistance available from LACS, the University's Sanger Learning Center and the Vick Center for Strategic Advising and Career Counseling in the School of Undergraduate Studies provide career services to all students. The centers offer professional assistance to students in choosing or changing their majors or careers, and planning for graduate study.

For liberal arts students who have completed a teacher certification program, Education Career Services in the College of Education assists with the education job search. Certification candidates must register with Education Career Services, George I. Sánchez Building 216, 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. See Preparation for Teacher Certification (p. 17) for additional information.

The University makes no promise to secure employment for each graduate.

## Foundation Scholars

The Foundation Scholars Program (FSP) is an academic transition program for highly motivated first-year students. Foundation Scholars are students who bring a demonstrated record of academic achievement and are strongly motivated to maintain a tradition of academic excellence at The University of Texas at Austin. The goal of FSP is to work with students to create community, develop leadership skills, and connect students to resources at the University. For more information, see https://liberalarts.utexas.edu/student-affairs/first-year-programs/ Foundation-Scholars-Program/.

## Admission and Registration

## Admission

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

## Admission to the Health and Society Major

## Freshman Admission

Applicants should use the ApplyTexas online application and select the Health and Society major listed in the College of Liberal Arts as a firstchoice major.

## External Transfer Admission

Students who wish to transfer to the University from another college or university must apply to the Office of Admissions as described in the General Information Catalog.

## Internal Transfer Admission

1. Minimum 2.75 cumulative GPA at the University with at least 12 hours in residence for a letter grade.
2. Must be prior to fifth long semester, cumulative, including transfer work. Students with four or more semesters in transfer credit may only apply in their first semester.
3. Compelling statement of interest in the major.

Applications will be accepted twice per year and will be reviewed after grades are posted. Decisions will be made prior to the start of the following long semester.

The admission committee may consider the following factors, among others, when considering applications:

- GPA trend relative to cumulative GPA
- Strength of essay
- Time to graduation
- Intent to declare health and society as a single major


## The Bachelor of Science in Environmental Science

Students must be admitted to the Bachelor of Science in Environmental Science degree program; they may apply for admission after completing the following requirements: The student must earn a grade of at least $C$ in Biology 311C, Chemistry 301, and Mathematics 408C or 408N; and a grade of at least $B$ - in Geological Sciences 401 or 303 . To be competitive for admission, the student must have a grade point average of at least 2.75 in these four courses.

Applications are evaluated after the end of each fall and spring semester. Students whose applications are denied may reapply through the supplemental admission process the following semester. Admission decisions are based on the student's grade point average in the basic sequence courses, his or her University grade point average, and other factors; these factors include, but are not limited to, the difficulty of the student's course load, course repetitions, and proven mathematical ability. Students should consult advisers in the College of Liberal Arts Student Advising Office, Dorothy Gebauer Building 2.200, for information about the application process and application deadlines. Once admitted to the degree program, students will be advised in the Department of Geography and the Environment.

More information about the degree program is given in Bachelor of Science in Environmental Science (p. 223).

## 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 the General Information Catalog are published on the registrar's website.

## Academic Policies and Procedures

## Repetition of a Course

Students in the College of Liberal Arts may not repeat any course in which they have earned a grade of $C$ - or better.

## Honors

University-wide honors are described in University Honors (p. 19) and in the General Information Catalog. In addition, the College of Liberal Arts provides recognition through the Dean's Honor List and the Plan I Honors Programs. Students may also graduate with departmental honors and earn membership in one or more of the honorary scholastic societies open to undergraduates.

## Dean's Honor List

The Dean's Honor List, prepared at the end of each long-session semester, gives official recognition and commendation to students whose grades for the semester indicate distinguished academic accomplishment. Both the quality and the quantity of work done are considered; a grade of $F$ in any course makes the student ineligible, regardless of other grades.

The Honor List is divided into five groups; according to the number of grade points they earn, students are listed under one of the following classifications:

- Summa cum Laude (67 or more grade points)
- Cum Laude Ampla et Magna (61-66 grade points)
- Magna cum Laude (58-60 grade points)
- Ampla cum Laude (55-57 grade points)
- Cum Laude (52-54 grade points)


## Liberal Arts Honors Programs, Plan I

Liberal Arts Honors Programs coordinates the various honors opportunities available to Plan I students in the college: the Freshman Honors Program, the departmental honors programs, and the Liberal Arts Honors Program. This array of choices is designed for students who seek flexibility and choice in their honors work and for those who want to pursue an honors degree in a particular discipline.

The Freshman Honors Program gives selected students access to honors sections of lower-division introductory courses. Each student admitted to the program is required to take an active part in three courses in the first year. Liberal Arts Honors 102H, The Idea of the Liberal Arts, Liberal Arts Honors 103H, The Ideas of Civic Engagement, and one designated honors writing course. The program serves as a preparation for departmental honors programs and for the upper-division Liberal Arts Honors Program. Students must apply to the Freshman Honors Program when they apply to the University. Admission decisions are based on the applicant's demonstrated commitment to the liberal arts, test scores, high school records, and an application essay.

The upper-division Liberal Arts Honors Program offers challenging and intensive interdisciplinary courses taught by distinguished faculty members. Students who have completed at least 60 semester hours of coursework and have earned a University grade point average of at least 3.50 are eligible to enroll in these courses. There is no application process.

The requirements for graduation with liberal arts honors are

1. Graduation from the College of Liberal Arts with any degree other than the Bachelor of Arts, Plan II
2. A University grade point average of at least 3.50 at graduation
3. Completion of at least three upper-division liberal arts honors (LAH) courses with at least a grade of $A$ - in two of the courses and a grade of at least $B$ in the third
4. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

The statement "Liberal Arts Honors" appears on the academic record of each graduate who fulfills these requirements. The student may earn both liberal arts honors and special honors in his or her major department.

The three upper-division liberal arts honors courses required for graduation with liberal arts honors may be used, with a fourth liberal arts honors course, to fulfill the 12 hour minor requirement for the Bachelor of Arts, Plan I, unless the work in the minor is specified by the student's major department.

## Departmental Honors Programs

Most departments in the College of Liberal Arts offer honors programs to their majors. Minimum requirements for departmental honors are

1. A University grade point average of at least 3.00
2. A three-semester-hour thesis or research project, or a reasonable equivalent, with a grade of at least $B$
3. Completion, with a grade point average of at least 3.50 , of the coursework required for a major in the field
4. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

Each department may establish additional or more rigorous requirements. Thesis coursework in one department's honors program may not be applied toward the requirements of an interdisciplinary program.

The statement "Special Honors in (name of field)" appears on the transcript of each graduate certified as having completed the honors program.

## African and African Diaspora Studies Honors Program

Majors who plan to seek special honors in African and African diaspora studies should apply to the undergraduate advisor for admission to the honors program at least two semesters before they expect to graduate. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors are

1. African and African Diaspora Studies 679 H , Honors Tutorial Course, with a grade of at least $B$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 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 advisor for admission to the honors program at least two semesters before they expect to graduate. A University grade point average of at least 3.00 is required for admission. In addition to the requirements of the major, requirements for graduation with special honors are

1. American Studies 679 H , Honors Tutorial Course, with a grade of at least $B$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 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 advisor for admission to the honors program no later than two semesters before they expect to graduate; the applicant must be recommended by the faculty member who will supervise the honors work. A University grade point average of at least 3.00 and a grade point average in anthropology of at least 3.50 are required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Anthropology 679 H , Honors Tutorial Course, with a grade of $A$ - in each half
2. Satisfactory performance on a comprehensive oral examination centered on the thesis completed in Anthropology 679H
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least 60 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 advisor 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 679 H , Honors Tutorial Course, with a grade of $A$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the concentration in Asian American studies and for honors
3. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## Asian Cultures and Languages Honors Program

Majors who plan to seek special honors in Asian cultures and languages should apply to the honors advisor by April 30 for admission to the honors program the following fall. If April 30 falls on a weekend or an official university holiday, the application is due on the next business day. Requirements for admission are completion of 60 semester hours of coursework at the University, a University grade point average of at least 3.00 , and a grade point average of at least 3.50 in Asian cultures and languages. Students must complete at least 12 semester hours of upperdivision coursework in the Department of Asian Studies before applying for admission to the honors program. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Asian Studies 678 H , Honors Tutorial Course, with a grade of $A$ in each half
2. A University grade point average of at least 3.00 , and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## Asian Studies Honors Program

Majors who plan to seek special honors in Asian studies should apply to the honors advisor by April 30 for admission to the honors program the following fall. If April 30 falls on a weekend or an official University holiday, the application is due on the next business day. Requirements for admission are completion of 60 semester hours of coursework at
the University, a University grade point average of at least 3.25, and a grade point average in Asian studies of at least 3.50. Students must complete at least 12 semester hours of upper-division coursework in the Department of Asian Studies before applying for admission to the honors program. The requirements for graduation with special honors are

1. Asian Studies 678 H , Honors Tutorial Course, with a grade of $A$ - in each half
2. A University grade point average of at least 3.25 , and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree
4. Completion of the Asian Studies degree plan, with the exception of Asian Studies 379

## Classical Studies Honors Program

Majors who plan to seek special honors in classical studies should apply to the honors advisor for admission to the honors program at least one full academic year before they expect to graduate. A University grade point average of at least 3.00 is required for admission, as is a grade point average of at least 3.50 in all coursework required for the major and specialization that the student has completed. Completion of Ancient History and Classical Civilization 378 or Classical Civilization 375 is highly recommended before applying for special honors. The requirements for graduation with special honors, which are in addition to the requirements of the major, are

1. Classical Civilization 679 H , Honors Tutorial Course with a grade of at least $A$ - in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## Classical Languages Honors Program

Majors who plan to seek special honors in Greek, special honors in Latin, or special honors in classics should apply to the honors advisor for admission to the honors program at least one full academic year before they expect to graduate. A University grade point average of at least 3.00 and a grade point average in Greek (for the Greek specialization), Latin (for the Latin specialization), or Greek, Latin, and classical civilization combined (for the classics specialization) of at least 3.50 are required for admission. Completion of Ancient History and Classical Civilization 378 or Classical Civilization 375 is highly recommended before applying for special honors. The requirements for graduation with special honors, which are in addition to the requirements of the major, are

1. Classical Civilization 679 H , Honors Tutorial Course with a grade of at least $A$ - in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 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 advisor for admission to the honors program before the first registration period for the first semester of their senior year. Students are encouraged to apply as early as the beginning of the first semester of their sophomore year. A University grade point average of at least 3.00 and a grade point average in economics of at least 3.50 are required for admission. Before a student registers for Economics 378 H , the student's
thesis proposal must be approved first by the supervising instructor and then by the honors advisor. The requirements for graduation with special honors are

1. At least 34 semester hours in economics
2. Economics 378H, Honors Tutorial Course I, and Economics 379H, Honors Tutorial Course II, with a grade of at least $B$ in each
3. Regular participation in designated honors courses
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## English Honors Program

Majors who plan to seek special honors in English should apply for admission to the honors program prior to their junior year. Application forms and information about the program are available in the English Advising Office, Parlin Hall 114, and on the Department of English website. The requirements for graduation with special honors are

1. Completion of the requirements for a major in English
2. Completion of three or more upper-division English honors courses with grades of at least $B+$; these courses may be counted toward the requirements of the major; two of these courses must be completed prior to enrolling in English 368 H
3. English 368 H, Honors Tutorial Course I and English 369H, Honors Tutorial Course II with a grade of at least $B+$ in each, resulting in the presentation and defense of a thesis judged to be worthy of honors
4. A University grade point average of at least 3.33 and a grade point average of at least 3.66 in the coursework required for the major and for honors

## French Studies Honors Program

Majors who plan to seek special honors may apply to the honors advisor for admission to the honors program during the semester in which they will complete 60 semester hours of coursework. To enter the program, a student must have completed at least 60 semester hours of coursework, including 12 hours of upper-division coursework in French. These 12 hours must include at least one course numbered 330 or above. A University grade point average of at least 3.00 and a grade point average in French of at least 3.50 are also required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. French 379 H , Honors Tutorial Course, with a grade of at least $B$
2. Satisfactory performance on an honors examination
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least 60 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 advisor 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 at least $A$ - in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 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 advisor for admission to the honors program upon completion of 30 semester hours; they must apply no later than upon completion of 90 semester hours. Admission is by means of a special examination; a University grade point average of at least 3.00 is also required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. German 679 H, Honors Tutorial Course, with a grade of at least $A$ - in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## German, Scandinavian, and Dutch Studies Honors Program

Majors who plan to seek special honors in German, Scandinavian, and Dutch studies should apply to the honors advisor for admission to the honors program upon completion of 30 semester hours; they must apply no later than upon completion of 90 semester hours. Admission is by means of a special examination; a University grade point average of at least 3.00 is also required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. German, Scandinavian, and Dutch Studies 679H, with a grade of at least $A$ - in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 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 advisor for admission to the honors program in the spring semester of their junior year. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors are

1. Thirty-three semester hours of government, including Government 679H, Honors Tutorial Course, with a grade of at least $B$ in each half
2. Regular participation in honors seminars
3. Satisfactory performance on a comprehensive oral or written honors examination
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## Health and Society Honors Program

For the Health and Society Honors Program, students complete a twosemester (six hours) honors thesis under the supervision of a faculty member. Students interested in writing an honors thesis should contact the honors advisor, preferably in the first semester of their junior year,
in order to discuss plans for the thesis and begin to lay the groundwork for their project. Students applying for the honors program must have a University grade point average (GPA) of at least 3.00, must have completed Health and Society 301 with a $B$ - or better, and must have a GPA of at least 3.50 in their core health and society courses at the time of the application. Students are also expected to identify a thesis supervisor at the time of application. The requirements for graduation with special honors are

1. Completion of liberal arts and health and society requirements, except for Health and Society 378
2. A University grade point average of at least 3.00
3. A health and society grade point average of at least 3.50
4. Health and Society 679H, Honors Thesis

## History Honors Program

History majors who plan to seek special honors in history should apply to the honors advisor for admission to the honors program in the fall semester of the junior year. Application forms and information about the program are available in the History Undergraduate Advising Office, Garrison Hall 1.140. The requirements for graduation with special honors, which are in addition to the requirements of the major, are

1. History 347L, Seminar in Historiography, normally taken in the spring semester of the junior year; this course may be counted toward the 30 hours in history required for the major
2. History 679 H , Honors Tutorial Course, with a grade of at least $B$ in each half
3. Satisfactory performance on an oral examination centered on the thesis completed in History 679HB
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

Normandy Scholar Program (NSP) students may substitute an approved upper-division NSP history course for the History 347L requirement.

## Human Dimensions Of Organizations Honors Program

Majors who plan to seek special honors in human dimensions of organizations should apply to the honors advisor 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. Human Dimensions of Organizations 359 H and 379 H , Honors Tutorial Courses, with approval of the student's thesis topic by the director of human dimensions of organizations, and a grade of at least $B$ in each half. Students will take these two courses instead of Human Dimensions of Organizations 379.
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 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 advisor for admission to the honors program no
later than the first semester of the junior year. The requirements for graduation with special honors are

1. A major in humanities
2. Humanities 679 H , Honors Tutorial Course, with a grade of at least $A$ - in each half
3. A grade of "Recommended for Special Honors" on an oral examination, conducted and graded by faculty members qualified in the student's area of work, covering the thesis completed in Humanities 679 H and a reading list
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## International Relations and Global Studies Honors Program

Majors who plan to seek special honors in international relations and global studies should apply to the honors advisor for admission to the honors program at least one full academic year before they expect to graduate. A University grade point average of at least 3.00 is required for admission, as is a grade point average of at least 3.50 in all coursework required for the major that the student has completed. The requirements for graduation with special honors are

1. International Relations and Global Studies 678 H , Honors Tutorial Course, with a grade of at least an $A$ - in each half
2. Satisfactory defense of the honors thesis completed in International Relations and Global Studies 678HB
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

The requirements for special honors are in addition to the requirements of the major, except that International Relations and Global Studies 678 H may be counted toward the major in place of International Relations and Global Studies 378, the capstone research course.

## Italian Studies Honors Program

Majors who plan to seek special honors in Italian Studies may apply to the honors advisor for admission to the honors program during the semester in which they will complete 60 semester hours of coursework. To enter the program, a student must have completed at least 60 semester hours of coursework, including 12 hours of upper-division coursework in Italian. These 12 hours must include Italian 365 or Italian Civilization 360. A University grade point average of at least 3.00 and a grade point average in Italian of at least 3.50 are also required for admission. The requirements for graduation with special honors, which are in addition to the requirements of the major, are

1. Italian 379 H , Honors Tutorial Course, with a grade of at least $B$
2. Satisfactory performance on an honors examination
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least 60 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 advisor 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 679 H , Honors Tutorial Course, with a grade of $A$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 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 advisor 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 679 H , Honors Tutorial Course, with a grade of at least $B$ in each half and approval of the thesis by both the student's supervisor and the honors advisor
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 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 advisor for admission to the honors program no later than the beginning of their last year. A University grade point average of at least 3.00 and a grade point average in linguistics coursework 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. Linguistics 679 H , Honors Tutorial Course, with a grade of at least $B$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 semester hours counted toward the degree

## Mexican American and Latina/o Studies Honors Program

Students who plan to seek special honors in Mexican American and Latina/o Studies should apply to the undergraduate advisor 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 of at least 3.50 in the required coursework. The requirements for graduation with special honors are

1. Thirty semester hours of coursework in Mexican American studies, including Mexican American Studies 679H, Honors Tutorial Course
2. A grade of at least $A$ in Mexican American Studies 361 or Mexican American Studies 362
3. Mexican American Studies 679 H , with a grade of at least $B$ in each half
4. Satisfactory performance on an oral presentation centered on the honors thesis completed in Mexican American Studies 679H
5. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the concentration and for honors
6. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## Middle Eastern Studies Honors Program

Middle Eastern studies majors who plan to seek special honors in Middle Eastern studies should apply to the honors advisor for admission to the honors program no later than two semesters before they expect to graduate. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Middle Eastern Studies 679HA, Honors Tutorial Course and 679HB, Honors Tutorial Course
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 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 advisor for admission to the honors program at least two semesters before they expect to graduate. Completion of at least nine semester hours of upper-division coursework in philosophy is required for admission, in addition to a University grade point average of at least 3.00 and a grade point average in philosophy of at least 3.50 . The requirements for graduation with special honors are

1. Philosophy 375 M with a grade of at least $B$
2. Philosophy 679 H , Honors Tutorial Course, with a grade of at least $B$ in both 679HA and 679HB
3. Satisfactory performance on an oral examination centered on the thesis completed in Philosophy 679H
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

Philosophy 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: Honors, at least two semesters before they expect to graduate. A University grade point average of at least 3.50 is required. The requirements for graduation with special honors are

1. Tutorial Course 660 H with a grade of at least $A$ in each half, or a departmental equivalent with a grade of at least $A$
2. Satisfactory performance on an oral honors examination centered on the thesis completed in Tutorial Course 660 H
3. A University grade point average of at least 3.50
4. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## Portuguese Honors Program

Honors will be awarded to students who successfully complete a significant scholarly essay (normally 30 to 50 pages in length). This project should be done in close collaboration with a department faculty
member. Majors wishing to graduate with honors should speak with the department professor with whom they want to work. The requirements for graduation with special honors are:

1. Portuguese 379 H , Honors Tutorial Course, with a grade of at least $A$. Portuguese 379 H is offered by individual instruction. It cannot be undertaken before the senior capstone requirement, but may be taken simultaneously. Students who are admitted to the honors program conduct individual research on a literary, linguistic, or cultural topic. A faculty member in the Department of Spanish and Portuguese will supervise the student's research and writing. A second reader is required and may be either in the Department of Spanish and Portuguese or outside of the department. Portuguese 379 H is taken in addition to the major requirements.
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors.
3. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree.

## Psychology Honors Program

Prospective candidates for special honors in psychology should apply to the honors advisor for admission to the honors program during the junior year. 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 420M with a grade of at least $C$, and two additional upper-division psychology courses
4. Consent of the honors advisor

The requirements for graduation with special honors are

1. Thirty-three semester hours of psychology, including Psychology 458, $158 \mathrm{H}, 359 \mathrm{H}$, and 379 H ; the student must earn grades of at least $B$ in Psychology 359H, Honors Research I, and Psychology 379H, Honors Research II
2. A University grade point average of at least 3.25 and a grade point average in all psychology courses of at least 3.50
3. Completion in residence at the University of at least 60 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 advisor 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 Honors Tutorial Course, with a grade of at least $B$
3. Religious Studies 679HB, Honors Tutorial Course Honors Tutorial Course, with a grade of at least $A$ and approval of the thesis by the chair of the Department of Religious Studies
4. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
5. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## Rhetoric and Writing Honors Program

Majors who plan to seek special honors in rhetoric and writing should apply to the honors advisor for admission to the program at the beginning of their third year; they must apply no later than a year before they expect to graduate. Application forms and information about the program are available from the rhetoric and writing advisor. A University grade point average of at least 3.00 is required for admission, as is a grade point average of at least 3.50 in all coursework required of the major that the student has completed.

The requirements for graduation with special honors are

1. Rhetoric and Writing 679 H , Honors Tutorial Course, with a grade of at least $A$ - in each half
2. A grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 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 advisor for admission to the honors program during the junior year or the first semester of the senior year. The application deadline is one week before the first registration period for the semester in which the student wants to enter the program. Requirements for graduation with special honors are

1. Russian, East European, and Eurasian Studies 679H, Honors Tutorial Course, with a grade of at least $B$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

Russian, East European, and Eurasian Studies 679H, Honors Tutorial Course is taken in addition to the requirements of the major.

## Sociology Honors Program

Majors applying for Sociology Honors should submit an application to the Sociology Honors Advisor. Consideration of applications for the fall semester begins on February $1^{\text {st }}$. Consideration of applications for the spring semester begins on September $15^{\text {th }}$. Applications will be considered until available slots have been filled. Requirements for admission are completion of 60 semester hours of coursework, a University grade point average of at least 3.00, and a grade point average in sociology of at least 3.50. Students must complete Sociology 302 and either 317 L or an approved equivalent before applying for admission to the honors program; they should be enrolled in Sociology 327M and 379 M no later than the semester in which they begin the honors thesis coursework. The requirements for graduation with honors in sociology are:

1. Sociology 679 H , Honors Tutorial Course, with a grade of at least $A$ - in each half
2. Satisfactory performance on an oral defense of the senior thesis completed in the second half of Sociology 679H
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## Spanish Honors Program

Honors will be awarded to students who successfully complete a significant scholarly essay (normally 30 to 50 pages in length). This project should be done in close collaboration with a department faculty member. Majors wishing to graduate with honors should speak with the department professor with whom they want to work. The requirements for graduation with special honors are:

1. Spanish 377 H , Honors Tutorial Course with a grade of at least $A$. Spanish 377 H is offered by individual instruction. It cannot be undertaken before the senior capstone requirement, but may be taken simultaneously. Students who are admitted to the honors program conduct individual research on a literary, linguistic, or cultural topic. A faculty member in the Department of Spanish and Portuguese will supervise the student's research and writing. A second reader is required and may be either in the Department of Spanish and Portuguese or outside of the department. Spanish 377 H is taken in addition to the major requirements.
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors.
3. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree.

## Sustainability Studies Honors Program

Majors who plan to seek special honors in sustainability studies should apply to the honors advisor 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 in addition to the requirements for the major; however, honors students may substitute Sustainability Studies 679H for Sustainability Studies 374. The requirements are

1. Sustainability Studies 679 H , Honors Tutorial Course, with a grade of at least $A$ - in each half
2. A University grade point average of at least 3.00 and a grade point average 3.50 in the coursework required for the major and for honors.
3. Completion in residence at the University of at least 60 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 advisor for admission to the honors program at the beginning of their third year; they must apply no later than a year before they expect to graduate. A University grade point average of at least 3.00 is required for admission. The requirements for graduation with special honors are in addition to the requirements for the major; however, honors students may substitute Urban Studies 679H for Urban Studies 370. The requirements are

1. Urban Studies 679 H , Honors Tutorial Course, with a grade of at least $A$ in each half
2. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
3. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## Women's and Gender Studies Honors Program

Majors who plan to seek special honors in women's and gender studies should apply to the honors advisor or undergraduate advisor for admission to the honors program no later than two semesters before
they expect to graduate; the applicant must be recommended by the faculty member who will supervise the honors work. A University grade point average of at least 3.00 and a grade point average in women's and gender studies of at least 3.50 are required for admission. The requirements for graduation with special honors, which are in addition to the requirements for the major, are

1. Women's and Gender Studies 679H, Honors Tutorial Course, with a grade of at least $A$ - in each half
2. Satisfactory performance on a comprehensive oral examination centered on the thesis completed in Women's and Gender Studies 679H, Honors Tutorial Course
3. A University grade point average of at least 3.00 and a grade point average of at least 3.50 in the coursework required for the major and for honors
4. Completion in residence at the University of at least 60 semester hours of coursework counted toward the degree

## Scholastic Honorary Societies

In addition to Alpha Lambda Delta and Phi Eta Sigma, honor societies for qualified freshman students in all academic fields, the University sponsors chapters of the following national organizations for which College of Liberal Arts students are eligible.

- Alpha Epsilon Delta. National honorary premedical fraternity for students who have completed at least three semesters of premedical work.
- Alpha Kappa Delta. National honorary sociology fraternity.
- Delta Phi Alpha. National honorary German fraternity.
- Dobro Slovo. National honorary Slavic fraternity.
- Eta Sigma Phi. National honorary classical languages fraternity.
- Gamma Theta Upsilon. National honorary geography fraternity.
- Iota lota Iota. National honorary Women's Studies society.
- Kappa Kappa Psi. National honorary band fraternity.
- Mortar Board. National honorary society for seniors.
- Omicron Delta Epsilon. National honorary economics fraternity.
- Omicron Delta Kappa. National honorary leadership fraternity.
- Phi Alpha Theta. National honorary history fraternity.
- Phi Beta Kappa. National honorary society recognizing academic achievement in the arts and sciences.
- Phi Kappa Phi. National honor society open to students in all academic fields.
- Pi Delta Phi. National honorary French fraternity.
- Pi Sigma Alpha. National honorary political science fraternity.
- Psi Chi. National honorary psychology fraternity.
- Sigma Delta Pi. National honorary Spanish fraternity.
- Sigma Tau Delta. National honorary English society.
- Tau Beta Sigma. National honorary band society.


## Graduation

## Special Requirements of the College

All students must fulfill the General Requirements (p. 19) for graduation. Students in the College of Liberal Arts must also fulfill the following requirements.

1. The University requires that the student complete in residence at least 60 semester hours of the coursework counted toward the degree. For the Bachelor of Arts, Plan I, the Bachelor of Science in Environmental Science, and the Bachelor of Science in Psychology,
these 60 hours must include at least 18 hours in the major. For the Bachelor of Arts, Plan II, 30 of these 60 hours must be taken in the College of Liberal Arts or the College of Natural Sciences.
2. The University requires that at least six semester hours of advanced coursework in the major be completed in residence. Additional requirements of the College of Liberal Arts are given later in this chapter with the requirements of the college's four degrees.

## Degree Audit and Applying for Graduation

A student in the College of Liberal Arts is expected to declare a major by the time he or she has completed 60 semester hours of coursework. The student must initiate major declaration in the department housing the major.

An official degree audit compares a student's coursework with degree requirements for a particular degree, major, and catalog. The degree audit normally provides an accurate statement of requirements, but the student is responsible for knowing the requirements for the degree as stated in a catalog under which he or she is entitled to graduate and for registering so as to fulfill these requirements. The student should seek an official ruling in the major department or in the Student Division before registering, if in doubt about any requirement.

Students are strongly encouraged to schedule an official degree check with a Student Division advisor once they are one semester away from graduating.

In the semester or summer session in which the degree is to be conferred, the candidate must be registered at the University and must file a graduation application form either online or in the Student Division. This must be done by the deadline to apply for an undergraduate degree, which is given in the official academic calendar. No degree will be conferred unless the graduation application form has been filed on time.

## Degrees and Programs

The College of Liberal Arts offers four degree programs: the Bachelor of Arts, Plan I; the Bachelor of Arts, Plan II; the Bachelor of Science in Environmental Science with a major in geographical sciences; and the Bachelor of Science in Psychology. The requirements of the Bachelor of Arts, Plan I are described in Bachelor of Arts, Plan I (p. 208). The Bachelor of Arts, Plan II, a broad liberal arts honors program for outstanding students, is described in Bachelor of Arts, Plan II (p. 220).

The Bachelor of Science in Environmental Science, offered by the College of Liberal Arts, the College of Natural Sciences, and the Jackson School of Geological Sciences, is designed for students interested in an interdisciplinary scientific perspective on environmental issues, analysis, and management. Students pursuing the degree through the College of Liberal Arts major in geographical sciences. The requirements for the degree are given in Bachelor of Science in Environmental Science (p. 223).

The Bachelor of Science in Psychology is designed to offer students a more extensive scientific program than the Bachelor of Arts with a major in psychology. The requirements for the BSPsy are given in Bachelor of Science in Psychology (p. 225).

A student may not earn more than one Bachelor of Arts degree from the University. A student may not earn more than one Bachelor of Science in Environmental Science degree from the University. A student may not earn both the Bachelor of Arts with a major in psychology and the Bachelor of Science in Psychology.

The title of a graduate's degree appears on their diploma, but the major does not. Both the degree and the major appear on the graduate's University transcript.

## Applicability of Certain Courses Physical Activity Courses

Physical activity (PED) courses and Kinesiology 119 may not be counted toward a degree in the College of Liberal Arts. However, they are counted as courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

ROTC units are maintained on campus by the Departments of Air Force Science, Military Science, and Naval Science. Information about each program is available from the chair of the department.

Nine semester hours of designated University of Texas at Austin coursework in air force science, military science, or naval science may be counted toward any degree in the College of Liberal Arts, except for students enrolled in the Military Leadership minor. However, cross-listed courses may be used as appropriate to fulfill other degree requirements. A list of approved ROTC courses is available in the College of Liberal Arts, Student Division, Dorothy Gebauer Building 2.200.

## Air Force Reserve Officer Training Corps (AFROTC)

The Air Force Reserve Officer Training Corps (AFROTC) was activated at the University of Texas in September, 1947. The program is designed to commission career-oriented officers who meet specific Air Force requirements. The AFROTC objective is to place on active duty lieutenants who demonstrate dedication to their assignments, willing acceptance of responsibility, critical and creative thinking, and the ability to speak and write effectively.

AFROTC courses are taught by Air Force officers and are approved for college credit toward the cadet's degree program in amounts determined by the college concerned.

AFROTC scholarships are available to selected cadets. Scholarships are awarded on the basis of overall merit, with particular attention paid to academic achievement. Recipients must maintain academic standards in order to retain the scholarships. Other scholarships are also available for upper-division cadets. Additional information is available from the chair of the department.

Extracurricular activities available through AFROTC include; intramural athletics, parades, ceremonies, formal military functions, field trips to Air Force installations, and membership in national military societies.

Air force science courses are designed to prepare selected students for a commission in the United States Air Force through the AFROTC program. Students who do not hold AFROTC scholarships may take lower-division courses with no military obligation. Scholarship students and selected students who elect to take upper-division courses are on contract. Upon graduation and commissioning he/she will enter active duty in the United States Air Force.

## Army Reserve Officers' Training Corps (ROTC)

The Army Reserve Officers' Training Corps (ROTC) was established at the University of Texas in September, 1947. As a senior division unit, it is designed to provide a course of military instruction that will permit qualified students to prepare themselves for commissions as
second lieutenants while they pursue other academic courses leading to baccalaureate or advanced degrees from the University.

Upon being commissioned a second lieutenant, each student has the opportunity to serve in the active Army, Army Reserve, or National Guard.

The Army ROTC program, in addition to providing a basic foundation in military subjects, is designed to develop the highest qualities of leadership, character, and citizenship through the wide variety of extracurricular activities it sponsors. Such activities include parades, ceremonies, social events, a Ranger detachment, and intramural athletic teams.

The Army ROTC program is normally a four-year program divided into a basic course and an advanced course. The basic course is conducted during the first two years and the advanced course during the last two years. Certain students may qualify for advanced placement in the program based on previous military training in Junior ROTC, a service academy, active duty in a military service, credit for other college courses, or completion of a special four-week summer camp, normally between the sophomore and junior year.

The Department of the Army has determined that a need exists for all Army ROTC cadets to have a demonstrated proficiency in selected disciplines. These courses are called Professional Military Education (PME) and must be completed prior to graduation. A list of courses that fulfill PME requirements is available from the chair of the Department of Military Science.

Two-, three-, and four-year scholarship programs are offered to selected cadets. The four-year scholarship program is administered by the Department of the Army, but selection is based on the Professor of Military Science Order of Merit List (OML). Applicants must apply while in high school. The remaining programs are administered directly through the Department of Military Science.

Scholarship students receive $\$ 300$ to $\$ 500$ a month for up to ten months for each year of their scholarship. The scholarship pays for required tuition and mandatory fees, laboratory expenses, and books. Nonscholarship students receive $\$ 450$ to $\$ 500$ a month during the advanced course. For additional information, contact the scholarship and enrollment officer at arotc@uts.cc.utexas.edu or https:// liberalarts.utexas.edu/arotc/.

## Naval Reserve Officers Training Corps (NROTC)

The Naval Reserve Officers Training Corps (NROTC) was established at the University of Texas in September, 1940, to offer the naval science courses necessary to qualify University students for commissions in the United States Navy or Marine Corps.

Qualified students may apply for the four-year or two-year Navy-Marine Scholarship Program or college program (nonscholarship) and earn a commission in the Navy or Marine Corps.

NROTC scholarship students are appointed midshipmen, United States Naval Reserve, by the Secretary of the Navy, and granted the compensation and benefits authorized by law. While students attend the University, the Navy pays tuition, the cost of textbooks, fees of an instructional nature, and a subsistence allowance of $\$ 250$ to $\$ 450$ a month during the academic year. During drill periods and summer training periods, midshipmen wear government-furnished uniforms. Students should submit scholarship applications to a naval recruiting station before December 1 of each year or to the Department of Naval Science after the first semester of enrollment in the college program. Additional information is available from the chair of the department.

## Conference Courses and Internship Courses

No more than six semester hours of credit earned in conference courses may be counted toward a single major in the College of Liberal Arts; no more than nine semester hours may be counted toward the degree.

No more than six semester hours of credit earned in internship courses may be counted toward a single major in the College of Liberal Arts; no more than nine semester hours may be counted toward the degree.

In addition, no more than nine semester hours of conference courses and internship courses combined may be counted toward a single major in the College of Liberal Arts; no more than 12 hours of conference courses and internship courses combined may be counted toward the degree.

## Bible Courses

Bible courses may be counted as lower-division electives in College of Liberal Arts degree programs that have room for such electives. No more than 12 semester hours of Bible courses may be counted toward any degree offered by the University.

## Admission Deficiencies

Students admitted to the University with deficiencies in high school units must remove them by the means prescribed in the General Information Catalog. Contact the dean's office for further information.

## Correspondence and Extension Courses

Credit that a University student in residence earns simultaneously by correspondence or extension from the University or elsewhere or in residence at another school will not be counted toward a degree in the College of Liberal Arts unless specifically approved in advance by the dean. In very special circumstances, the dean may allow a student in residence to take one or more courses by extension or correspondence. No more than 30 percent of the semester hours required for any degree offered in the College of Liberal Arts may be taken by correspondence. For additional information about correspondence work by resident students, see the General Information Catalog.

## Courses Taken on the Pass/Fail Basis

No more than 19 semester hours of coursework completed on the pass/ fail basis may be counted toward the Bachelor of Arts, Plan II; no more than 16 semester hours of such coursework may be counted toward the other degrees in the college. In general, only electives may be taken on the pass/fail basis. Complete rules on registration on the pass/fail basis are given in the General Information Catalog.

## Courses in a Single Field

No more than 36 semester hours ( 39 for the Bachelor of Arts, Plan I) may be counted in any one field of study, including the major, unless major requirements state otherwise. No more than 36 semester hours ( 39 for the Bachelor of Arts, Plan I) may be counted in any one college or school other than the College of Liberal Arts or the College of Natural Sciences.

## English Courses

Students are discouraged from taking more than six semester hours of coursework in English in a semester or summer term. No student may take more than nine semester hours of coursework in English in a semester.

## French and Italian Courses

In all French civilization and Italian civilization courses, both lectures and readings are in English. In French 301, lectures are in English and
readings are in French. All other courses are conducted primarily in the foreign language.

Students with knowledge of either language must take appropriate steps to determine at which level they may begin work at the University. Students with transfer credit for college work done at another institution may start at the next higher level here. All other students with knowledge of either language are required to take the placement test administered by Student Testing Services for placement in French or the departmentally administered classification test for placement in Italian.

Students are urged to consult departmental advisers about any problem either with placement or with credit by examination.

Students who wish to continue their study of French or Italian may consult departmental advisers about appropriate upper-division courses and prerequisites.

## Germanic Studies Courses

All students with some knowledge of German, however acquired, who enroll for the first time in a University of Texas at Austin German course have two options for placement in the appropriate course level: they can either take the German Language CLEP test and receive credit for their existing knowledge of German (recommended), or they can sign up for a Placement Interview with the Language Program Director, in the case that they do not wish to claim such credit.

German Language CLEP. Test results serve as the basis for awarding credit in one or more of the following courses: German 506, 507, 612. Placement tests, which are administered by Student Testing Services, will be given only at scheduled times immediately prior to registration and during summer orientation sessions. Contact the Student Testing Services for a schedule of test dates .

Placement Interview: Interviews allow for students who do not wish to claim credit but want to continue their language study to enroll in the appropriate course. The interview consists of a discussion of the student's language proficiency and may include a short conversation as well as a few short writing tasks in German. Please contact the Language Program Director, GermanicStudies@austin.utexas.edu, to schedule a placement interview at least one week prior to the beginning of classes. See the Department of Germanic Studies website for contact information.

## Greek and Latin Courses

No knowledge of Greek or Latin is required for courses in classical civilization or in ancient history and classical civilization. These courses may not be counted toward fulfillment of any foreign language requirement.

Unless otherwise indicated, all Greek courses are ancient Greek (including New Testament Greek). Students beginning ancient Greek normally follow the regular sequence: Greek 506, Greek 507, Greek 31 , and Greek 312 K . An intensive sequence is also available: Greek 804 and 412 , normally followed by 311.

Students beginning Latin normally follow the regular sequence: Latin $506,507,311,312 \mathrm{~K}$ or 316 . Students may instead follow an accelerated sequence; information about this sequence is available from the undergraduate departmental adviser. Students with high school or transfer credit in Latin usually begin University coursework at a higher level. To ensure proper placement, students should consult the undergraduate adviser for the Department of Classics before registering.

## Middle Eastern Studies Courses

Before enrolling for the first time in any language offered by the Department of Middle Eastern Studies, all students with knowledge of the language, however acquired, must be tested to determine the course for which they should register. Information about the tests is available from the departmental undergraduate adviser. The Department of Middle Eastern Studies considers students educated in a Middle Eastern language beyond the elementary school level to be native speakers of that language.

## Philosophy Courses

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 Philosophy 310) and the basic sequence in the history of philosophy (Philosophy 329K and 329L ), the courses listed below are of particular relevance to students who are interested in the indicated areas.

- Business: Philosophy 312, 322, and 325L
- Communications: Philosophy 311, 312, 313, and 332
- Computer science: Philosophy 313K, 344K, 358, 363, and 363L
- Law: Philosophy 311, 312, 313, 318, 325K, 342, and 347
- Linguistics: Philosophy 313K, 332, 344K, and 358
- Literature: Philosophy 349, 361K, and 366K
- Mathematics: Philosophy 313K, 344K, 344M, and 358
- Natural sciences: Philosophy 322 and 363
- Premedicine and predentistry: Philosophy 312, 318, 322, 325M, and 363
- Social sciences: Philosophy 322, 363, and 363L


## Rhetoric and Writing Courses

The Department of Rhetoric and Writing offers the required core course, Rhetoric and Writing 306, as well as lower-division and upper-division courses in rhetoric and writing, and a number of courses with a writing flag. The department also administers the Undergraduate Writing Center, which supports writing instruction in all undergraduate courses and the Digital Writing and Research Lab, which offers innovative approaches to writing in digital environments.

If a student has received either a passing or a failing grade or the symbol $Q$ in Rhetoric and Writing 306, they may not earn credit by examination for the course.

## Slavic and Eurasian Studies Courses

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 Testing and Evaluation Services, 512-232-2662. Information about testing in other languages is available from the Department of Slavic and Eurasian Studies office, Calhoun Hall 415, 512-471-3607.

## Spanish and Portuguese Courses

Unless otherwise noted in the catalog or Course Schedule, all upperdivision Portuguese courses are conducted in Portuguese, and all upperdivision Spanish courses are conducted in Spanish.

## UTeach-Liberal Arts

UTeach-Liberal Arts is a professional teacher preparation program for liberal arts students pursuing academic majors in Arabic, Chinese, economics, English, French, history, geography, German, government, Japanese, Latin, Middle Eastern Studies, Russian, and Spanish. Students may seek certification to teach middle school or secondary for the following certification areas:

1. Languages other than English, early childhood through grade 12
2. History, grades seven through 12
3. Social studies, grades four through eight or seven through 12
4. English language arts and reading, grades four through eight or seven through 12

UTeach-Liberal Arts offers a four-semester program for undergraduate students and a three-semester program for postbaccalaureate students. Admission into the program is required. Undergraduate students may enter the program as early as the second semester of their freshman year.

UTeach-Liberal Arts students benefit from an innovative program that emphasizes practical, hands-on field experience in local schools combined with intensive coursework. Students experience a firsthand glimpse into the world of teaching with a gradual increase in coursework requirements and internship hours throughout the length of the program. Key features of the program include cohort support, disciplinespecific pedagogical preparation, literacy training, and effective use of instructional technology. More information about UTeach-Liberal Arts and the admission process is available online.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

## Professional Development Sequence

All students seeking teacher certification must complete the following courses:

| Requirements | Hours |  |
| :--- | :--- | :---: |
| UTL 101 | Introduction to the Teaching <br> Profession | 1 |
| UTL 202 | Introduction to Teaching in the <br> Middle School | 2 |
| UTL 640 | Teaching in Secondary Schools | 6 |
| UTL 360 | Problems and Principles of <br> Secondary Education | 3 |
| UTL 670 | Directed Teaching in Secondary <br> Schools | 6 |
| ALD 322 | Individual Differences |  |
| EDP 350G | Adolescent Development | 3 |

For those seeking certification for languages other than English, early childhood through grade 12 :

## Requirements:

See the corresponding degree plan for the language you wish to teach for other required courses: Arabic (p. 217), Chinese (p. 211 ), French (p. 214), German (p. 214), Japanese (p. 211), Latin (p. 212), Russian (p. 218), and Spanish (p. 219).

For those seeking certification in history, grades seven through 12:

| Requirements | Hours |  |
| :--- | :--- | ---: |
| HIS 301F | The Premodern World | 3 |
| HIS 309L | Western Civilization in Modern <br> Times | 3 |
| HIS 315K | The United States, 1492-1865 | 3 |
| HIS 315L | The United States since 1865 | 3 |
| HIS 320E | Texas before 1900 | 3 |
| or HIS 320F | Texas, 1900 to the Present |  |

For those seeking certification in social studies, grades four through eight:

| Requirements | Hours |  |
| :--- | :--- | ---: |
| EDC 339F | Adolescent Literacy | 3 |
| Introduction to Economics Course | 3 |  |
| Cultural Geography Course | 3 |  |
| Physical Geography Courses | 6 |  |
| M 316K | Foundations of Arithmetic | 3 |
| M 316L | Foundations of Geometry, | 3 |
|  | Statistics, and Probability |  |
| HIS 301F | The Premodern World | 3 |
| HIS 309L | Western Civilization in Modern | 3 |
|  | Times | 3 |
| HIS 315K | The United States, 1492-1865 | 3 |
| HIS 315L | The United States since 1865 | 3 |
| HIS 320E | Texas before 1900 |  |
| or HIS 320F | Texas, 1900 to the Present | 3 |

For those seeking certification in social studies, grades seven through 12:


For those seeking certification in English, grades four through eight:
Requirements Hours

M 316K Foundations of Arithmetic 3
M 316L Foundations of Geometry, 3
Statistics, and Probability
Six additional hours from Natural Sciences (AST, BIO, CH, 6
GEO, PS, PHY, NTR may not duplicate)
EDC 339F Adolescent Literacy 3


For rhetoric and writing majors seeking certification in English, grades four through eight:

## 3 <br> 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 12-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.

## Bachelor of Arts, Plan I

The requirements for the Bachelor of Arts under Plan I are designed to give each student flexibility in the selection of courses to meet individual needs.

A total of 120 semester hours is required. Thirty-nine hours must be in upper-division courses. At least 60 hours, including 24 hours of upperdivision coursework, must be completed in residence at the University. Provided residence rules are met, credit may be earned by examination, by extension, by correspondence (up to 30 percent of the hours required for the degree), or, with the approval of the dean, by work transferred from another institution. Up to 16 semester hours of classroom and/or correspondence coursework may be taken on the pass/fail basis; this coursework may be counted only as electives.

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic adviser.

The specific requirements for the Bachelor of Arts, Plan I, consist of prescribed work, major and minor requirements, and electives. In some cases, a course that fulfills one of these requirements may also be counted toward the core curriculum; these courses are identified below.

Courses in the major and minor may also be used to fulfill prescribed work requirements unless expressly prohibited. A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that
a course that fulfills one requirement may also be used to fulfill a flag requirement.

The student must fulfill the University's General Requirements (p. 19) for graduation and the requirements of the College of Liberal Arts. University graduation requirements include a grade point average of at least 2.00 in all courses taken at the University (including credit by examination, correspondence, and extension) for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded; for the BA, Plan I, the student must also earn a grade point average of at least 2.00 in courses taken at the University and counted toward the major requirements. The student should also refer to the description of his or her major in the section Majors and Minors below, since some majors include higher minimum scholastic requirements.

More information about grades and the grade point average is given in the General Information Catalog.

## Prescribed Work

1. Writing and Literature: English 316L, 316M, or 316 N and two courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag. One of these courses must be upper-division. Courses that carry a writing flag are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
2. Foreign language: Proficiency in a language other than English is required.
The study of a second language contributes in an important way to a broad education for today's students, who live in a world where the overwhelming majority of people do not speak or read English and where much of the knowledge that is disseminated may never appear in English. Knowledge of a second language is important for an appreciation of the culture of the people using that language, and it also helps students to understand the structure and complexities of their own native language. Students with sufficient preparation may be able to use the second language for study in their chosen discipline. An intermediate level of competency as determined by the completion of any one of the following options:
a. Certified proficiency on a placement or credit-by-exam test.
b. Students with previous experience in the language they plan to use to meet the language requirement must take a language placement test. A student may not select for credit a language course below this placement level without departmental permission.
c. A passing grade in a language course listed below:

## Requirements

## Hours

| ASL 311D | American Sign Language III: <br> Intermediate | 3 |
| :--- | :--- | :--- |
| ARA 611C | Intensive Arabic II | 6 |
| BEN 312L | Second-Year Bengali II | 3 |
| CHI 612 | Accelerated Second-Year Chinese | 6 |
| CHI 312L | Second-Year Chinese II | 3 |
| CZ 611C | Intensive Czech II | 6 |
| CZ 412L | Second-Year Czech II | 4 |
| DAN 612 | Accelerated Second-Year Danish | 6 |
| DCH 612 | Accelerated Second-Year Dutch | 6 |
| FR 611C | Intermediate French | 6 |
| FR 412K | Intermediate French I | 4 |


| GER 612 | Accelerated Second-Year German: Readings in Modern German | 6 |
| :---: | :---: | :---: |
| GK 312K | Intermediate Greek II | 3 |
| GK 312L | Intermediate Greek II: Biblical Greek | 3 |
| GK 610C | Intermediate Modern Greek | 6 |
| GK 310K | Second-Year Modern Greek II | 3 |
| HEB 612C | Intensive Biblical Hebrew II | 6 |
| HEB 611C | Intensive Hebrew II | 6 |
| HIN 312L | Second-Year Hindi II | 3 |
| HIN 612 | Accelerated Second-Year Hindi | 6 |
| ITL 611C | Intermediate Italian | 6 |
| JPN 611D | Intermediate Japanese | 6 |
| KOR 312L | Second-Year Korean II | 3 |
| LAL 611C | Intensive Indigenous Language of Latin America II | 6 |
| LAT 511 K | Accelerated Intermediate Latin | 5 |
| MAL 312L | Second-Year Malayalam II | 3 |
| NOR 612 | Accelerated Second-Year Norwegian | 6 |
| PRS 611C | Intensive Persian II | 6 |
| PRS 612C | Intensive Persian for Heritage Speakers | 6 |
| POL 611C | Intensive Polish II | 6 |
| POL 312L | Second-Year Polish II | 3 |
| POR 611D | Second-Year Portuguese | 6 |
| RUS 611C | Intensive Russian II | 6 |
| RUS 412K | Second-Year Russian I | 4 |
| SAN 312L | Second-Year Sanskrit II | 3 |
| S C 312 L | Second-Year Bosnian/Croatian/ Serbian II | 3 |
| SAL 312L | Second-Year South Asian Languages II | 3 |
| SEL 611C | Intensive Slavic and Eurasian Languages II | 6 |
| SEL 312L | Second-Year Slavic and Eurasian Languages II | 3 |
| SPN 311 | Intermediate Spanish | 3 |
| SPN 611D | Second-Year Spanish | 6 |
| SPN 311J | Intermediate Spanish for Heritage Learners | 3 |
| SWA 611C | Intensive Swahili II | 6 |
| SWE 612 | Accelerated Second-Year Swedish | 6 |
| TAM 312L | Second-Year Tamil II | 3 |
| TEL 312L | Second-Year Telugu II | 3 |
| TUR 611C | Intensive Turkish II | 6 |
| URD 312L | Second-Year Urdu II | 3 |
| UKR 312L | Second-Year Ukrainian II | 3 |
| YID 612 | Accelerated Second-Year Yiddish | 6 |
| YOR 611C | Intermediate Yoruba | 6 |

d. Students who wish to meet the requirement with proficiency in a language not listed in the table above should contact the Texas Language Center.
3. Social science: three semester credit hours in a social science field, in addition to the course taken to satisfy the Social and Behavioral

Science requirement of the Core Curriculum. Courses that are approved to count toward any core curriculum area other than social and behavioral sciences may not be counted toward this requirement.

A list of approved courses is available each semester in the Student Division on the College of Liberal Arts website.
4. Mathematics: Three semester hours in mathematics, excluding Mathematics 301, 316K, and 316L. Some courses that fulfill this requirement may also be counted toward the mathematics requirement of the core curriculum.
5. Cultural expression, human experience, and thought: Three semester hours chosen from a list of approved courses. The course(s) must be in a field of study taught in the College of Liberal Arts. A course counted toward any requirement of the core curriculum may not also be counted toward this requirement

A list of approved courses is available each semester in the Student Division and on the College of Liberal Arts website.

## Electives

In addition to the core curriculum, prescribed work, and major and minor, the student must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than 12 hours of conference courses and internship courses combined as described in Conference Courses and Internship Courses (p. 205); 12 hours of Bible courses; nine hours of designated coursework in air force science, military science, or naval science, except for students enrolled in the Military Leadership minor; 16 hours completed on the pass/fail basis; 39 hours in any one field of study in the College of Liberal Arts or the College of Natural Sciences, unless major requirements state otherwise; and 39 hours in any other single college or school of the University. Mathematics courses at the level of college algebra may not count toward elective hours.

## Majors and Minors

## Major Requirements

The Bachelor of Arts, Plan I, requires the completion of all requirements for one major. The number of semester hours required in the major varies with the field selected. Unless the requirements of the major state otherwise, a major consists of at least 24 but no more than 45 semester hours, with at least 15 hours in upper-division courses. Of these 15 hours, six must be taken in residence. At least 18 hours of coursework in the major, including six hours of upper-division coursework, must be completed in residence at the University.

## Minors

All students pursuing a major under the BA Plan I, with the exception of International Relations and Global Studies majors, must complete a minor. There are three types of minor:

1. A minor offered by a department or center
2. A Liberal Arts multi-disciplinary minor in the Social and Behavioral Sciences
3. A Liberal Arts multi-disciplinary minor in Cultural Expression, Human Experience, and Thought

Only one minor may be declared per major. Before planning to use a course to fulfill the minor requirement, the student should consult the department that offers the course.

At least nine of the hours required for the minor must include coursework not used to satisfy the requirements of the student's major. Courses used to fulfill the requirements for a minor must be taken on the lettergrade basis, and half of the required semester hours must be taken in residence.

## African and African Diaspora Studies

## Major

Twenty-four semester hours of coursework in African and African diaspora studies, including at least 15 hours of upper-division coursework. The following courses are required:

1. African and African Diaspora Studies 303, Introduction to Black Studies
2. African and African Diaspora Studies 375, Community Internship
3. African and African Diaspora Studies 376, Senior Seminar
4. Three upper-division courses (at least nine semester hours) chosen from one of the following tracks:
a. Critical race, gender, and sexuality theories
b. Performance, music, art, and literature
c. Language, history, and behavioral and social sciences
d. Law, education, health, and policy
5. Six additional semester hours of African and African diaspora studies coursework

A list of courses for each track is available from the undergraduate advisor. Coursework used in requirements 4 and 5 must cover at least two geographical regions of the African diaspora, identified as Africa, the Caribbean, Latin America, and the United States. A list of courses with their geographical affiliation is available in the departmental advising office.

## American Studies

## Major

Twenty-seven semester hours of coursework in American studies, including at least 15 hours of upper-division coursework. The following courses are required:

1. American Studies 310, Introduction to American Studies
2. American Studies 311 S, Introductory Seminar in American Studies
3. American Studies 355, Main Currents of American Culture to 1865 and American Studies 356, Main Currents of American Culture since 1865
4. Nine semester hours chosen from topics of American Studies 370, Seminar in American Culture
5. Three additional hours of American studies coursework
6. Liberal Arts 320 or three additional hours of American studies coursework.

## Anthropology

## Major

Thirty-three semester hours of anthropology, including at least 18 hours of upper-division coursework, consisting of

1. Anthropology $301,302,304$, and 307
2. At least three semester hours of upper-division coursework in each of the following areas
a. Theory: Anthropology 330C or an approved alternate course
b. Methods: Anthropology 453, 662, 462M, or an approved alternate course
c. Culture/geographic area
3. Twelve additional hours, including at least nine hours of upperdivision coursework

A list of the courses in each area of requirement 2 is available from the anthropology adviser.

## Asian American Studies

## Major

1. Asian American Studies 301 or 312.
2. Three semester credit hours, chosen from one of the following:
a. Asian American Studies 310 (approved topics)
b. Asian American Studies 314
3. Fifteen semester hours, of upper-division coursework in Asian

American Studies, divided between two of the following tracks
(Courses in each track are available at the Center for Asian American Studies):
a. Culture, Literature, and Media Studies
b. Economics, History, and Government
c. Social Sciences
d. Public Policy
4. Asian American Studies 377

## Asian Cultures and Languages

The Bachelor of Arts with a major in Asian cultures and languages is offered with specialization in Chinese, Japanese, Korean, Hindi/Urdu, Bengali, Malayalam, Sanskrit, or Tamil.

## Major

Twenty-four semester hours, including 21 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. No more than three hours of internship coursework may be counted toward the major. NOTE: Twenty-four semester hours, including 18 hours of upper-division coursework, are required for the specialization in Japanese.

1. Chinese
a. Chinese 322 or 341
b. Three semester hours chosen from Chinese 320L and 340
c. Six additional semester hours of upper-division coursework in Chinese
d. Twelve additional semester hours in Asian studies courses related to China, at least six hours of which must be upperdivision
2. Japanese
a. Japanese 317C
b. Japanese 320 K and 320L
c. Japanese 330
d. Three additional semester credit hours of upper-division coursework in Japanese
e. Nine additional semester credit hours in Asian studies courses related to Japan, at least six hours of which must be upperdivision
3. Korean
a. Asian Studies 302D
b. Twelve semester hours of upper-division coursework in Korean
c. Nine additional upper-division semester hours in Asian studies courses related to Korea
4. Hindi/Urdu
a. Twelve semester hours of upper-division coursework in Hindi and/or Urdu
b. Twelve additional semester hours in Asian studies courses related to South Asia, at least six hours of which must be upperdivision. Three semester hours of upper-division coursework in Hindi, Urdu, or Sanskrit may be counted toward this requirement.
5. Bengali
a. Nine semester hours of upper-division coursework in Bengali
b. Fifteen additional semester hours in Asian studies courses related to South Asia, six hours of which must be upper-division. Three semester hours of upper-division coursework in Tamil, Sanskrit, Bengali, or Malayalam may be counted toward this requirement.
6. Malayalam
a. Nine semester hours of upper-division coursework in Malayalam
b. Fifteen additional semester hours in Asian studies courses related to South Asia, at least six hours of which must be upperdivision. Three semester hours of upper-division coursework in Malayalam, Sanskrit, Bengali, or Tamil may be counted toward this requirement.
7. Sanskrit
a. Nine semester hours of upper-division coursework in Sanskrit
b. Fifteen additional semester hours in Asian studies courses related to South Asia, six hours of which must be upper-division. Three semester hours of upper-division coursework in Sanskrit, Hindi, or Urdu may be counted toward this requirement.
8. Tamil
a. Nine semester hours of upper-division coursework in Tamil
b. Fifteen additional semester hours in Asian studies courses related to South Asia, six hours of which must be upper-division. Three semester hours of upper-division coursework in Tamil, Sanskrit, Bengali, or Malayalam may be counted toward this requirement.

## Asian Studies

## Major

Twenty-four semester hours of Asian studies coursework, at least 18 of which must be upper-division, in one of the two areas of specialization listed below. Students specializing in East Asia must choose either the general track or the Taiwan track. No more than six hours of internship coursework may be counted toward the major. Courses counted toward the foreign language requirement may not also be counted toward the major unless otherwise noted. A list of courses that fulfill the requirements of the areas of specialization is available in the Department of Asian Studies.

1. East Asia
a. General track
i. At least three semester hours of coursework in East Asian history
ii. A three-hour Asian studies course related to South Asia
iii. Asian Studies 379
iv. Fifteen additional semester hours in Asian studies courses related to East Asia, preferably in more than one East Asian cultural area. Six semester hours of upper-division coursework in Chinese, Japanese, or Korean language may be counted toward this requirement.
v. Two years of Chinese, Japanese, or Korean to fulfill the foreign language requirement
b. Taiwan track
i. At least three semester hours of coursework in Taiwanese history
ii. A three-hour Asian studies course related to South Asia
iii. Asian Studies 379
iv. Fifteen additional semester hours in Asian studies courses related to East Asia, including at least six hours related to Taiwan, three hours related to China, three hours related to Japan, and three hours in upper-division Asian studies courses related to East Asia or in upper-division Chinese language courses
v. Two years of Chinese language to fulfill the foreign language requirement, focusing in these courses on the traditional characters used in Taiwan
2. South Asia
a. At least three semester hours of coursework in South Asian history
b. A three-hour Asian studies course related to East Asia
c. Asian Studies 379
d. Fifteen additional semester hours in Asian studies courses related to South Asia. Six semester hours of upper-division coursework in Bengali, Hindi, Malayalam, Pashto, Sanskrit, Tamil, Telugu, or Urdu language may be counted toward this requirement.
e. Two years of Bengali, Hindi, Malayalam, Pashto, Sanskrit, Tamil, Telugu, or Urdu to fulfill the foreign language requirement

## Classical Languages

## Major

Twenty-four semester hours in the languages and cultures of one of the following areas of specialization: Classics, Greek, or Latin.

1. Classics
a. Six hours of upper-division Greek
b. Six hours of upper-division Latin
c. Classical Civilization 375, Greek 365, or Latin 365
d. Nine additional hours of Greek, Latin, classical civilization, and Ancient History and Classical Civilization 325 or 378, including at least three upper-division hours
2. Greek
a. Twelve hours of upper-division Greek, including Greek 365
b. Twelve hours of Latin, classical civilization, and Ancient History and Classical Civilization 325 or 378 , including at least nine in upper-division coursework
3. Latin
a. Fifteen hours of upper-division Latin, including Latin 324 and Latin 365
b. Nine hours of Greek, classical civilization, and Ancient History and Classical Civilization 325 or 378 , including at least six in upper-division coursework

## Classical Studies

## Major

Thirty-six semester hours of coursework, at least 21 of which must be upper-division, in one of the two areas of specialization, ancient history or classical archaeology, listed below. Coursework counted toward the foreign language requirement may not also be counted toward the major.

1. Ancient History
a. Six hours of premodern history, chosen from topics of Ancient History and Classical Civilization 310 and 330.
b. Nine hours of upper-division Greek and/or Roman history, chosen from topics of Ancient History and Classical Civilization 325.
c. Twelve hours of classical civilization, Greek, Latin, or topics of Ancient History and Classical Civilization 325 and 378.
d. Six hours of upper-division coursework in Greek and/or Latin.
e. Ancient History and Classical Civilization 378.
2. Classical Archaeology
a. Nine hours of coursework in classical archaeology chosen from Classical Civilization 307C, 307D; 317 and 340.
b. Three hours of approved coursework in archaeological techniques and analysis. A list of approved courses is available in the Department of Classics.
c. Three hours of upper-division coursework in Greek or Roman history, chosen from topics of Ancient History and Classical Civilization 325 and 378.
d. Three hours of approved upper-division coursework in ancient art history. A list of approved courses is available in the Department of Classics.
e. Six hours of upper-division coursework in either Greek or Latin.
f. Twelve additional hours of coursework chosen from Anthropology 304, 304T, approved topics of Middle Eastern Studies 342, Religious Studies 354D, Greek, Latin, and the areas listed in requirements (2a) through (2e).
g. Fieldwork experience approved by the classical studies faculty adviser.

## Economics

All economics majors must earn grades of at least $C$ - in Mathematics 408 K and 408L. The following combinations of courses alternatively satisfy the math requirement, with a grade of at least a C-in each course: Mathematics 408C and 408D, Mathematics 408 N and 408S, Mathematics 408 K and 408S, Mathematics 408C and 408L, Mathematics 408 C and 408 S , or Mathematics 408 N and 408L. Mathematics 403 K and 403L (and transfer equivalents) may not be substituted for the required mathematics courses.

## Major

At least 31 semester hours of economics, consisting of Economics $304 \mathrm{~K}, 304 \mathrm{~L}, 420 \mathrm{~K}, 320 \mathrm{~L}, 329,441 \mathrm{~K}$, and 12 additional hours of upperdivision coursework. At least six of the additional semester hours of upper-division coursework must be in courses for which a grade of at least $C$ - in Economics 420 K is a prerequisite. Economics $420 \mathrm{~K}, 320 \mathrm{~L}$, 329 , and 441 K must be completed in residence. Economics majors must take Economics 420 K at least two semesters prior to completion of the degree. All economics majors must earn a grade of at least $C$ - in each course counted toward fulfillment of the major requirements, except Economics 329, in which a grade of at least C is required. Economics 329 with a grade of at least $C$ is a prerequisite for Economics 420K. A
minimum grade point average of at least 2.00 in all courses taken at the University and counted toward the major is also required.

No student may register for more than 11 semester hours of economics in any one semester without approval of an undergraduate advisor in the Department of Economics.

## English

Major
Thirty-three semester hours of English, including at least 21 semester hours of upper-division coursework consisting of the following:

1. An introductory literary skills course, chosen from English 314J , 314L , 314T, or 314V
2. An introductory literary survey course, chosen from English 316L , 316M , 316N , or 316P
3. A diverse perspectives course
4. A course in literature or language from 1940 to the present
5. An upper-division course in literature or language from 1830 to 1940
6. An upper-division course in literature or language from 1630 to 1830
7. An upper-division course in literature or language prior to 1630
8. An upper-division single- or dual-author course
9. Nine additional semester hours of upper-division coursework in English

A list of courses that may be used to fulfill requirements is available in the English Advising Office, Parlin Hall 114, and on the Department of English website.

The student must make a grade of at least $C$ - in each course counted toward fulfillment of the major requirements. A minimum grade point average of 2.00 in courses taken at the University and counted toward the major is also required.

Students are discouraged from taking more than six semester hours of coursework in English in a semester. No student may take more than nine hours of coursework in English in a semester.

## Ethnic Studies

The ethnic studies program is administered by the Center for Asian American Studies. The director and executive committee of this center advises students, prescribes groups of courses that fulfill content requirements, and authorizes course substitutions when appropriate. Students majoring in ethnic studies must meet the requirements of the concentration as outlined in Asian American Studies (p. 211).

## European Studies

Students select one of three tracks: (I) European studies with a focus on pre-1700 Europe, (II) European studies with a focus on post-1700 Europe, or (III) European studies with a focus on European thought. The tracks are interdisciplinary in nature and draw on courses in many departments and allow students considerable opportunity to shape their coursework around their interests.

Students majoring in European studies must complete six semester hours of upper-division coursework in one of the following languages: Czech, Danish, Dutch, French, German, modern Greek, Italian, Norwegian, Polish, Portuguese, Serbian/Croatian, Spanish, or Swedish. With permission from the director of the Center for European Studies, however, students may study other languages for their major-such as Arabic, Persian, Hindi, Hebrew, Turkish, Russian, Latin, or ancient Greek-when
an application of those language skills will significantly enhance their work as distinctly European studies scholars in their track. Courses taught in English may not be used. Courses used to fulfill the European studies language requirement will be counted toward the major.

## Major

Thirty semester hours of coursework in European studies, at least 24 of which must be upper-division, consisting of the following. No more than nine hours of coursework counted toward the major may focus on a single country or culture.

## 1. European Studies 305, Introduction to European Studies

2. European Studies 350, Governments and Politics of Western Europe or Government 351D, The Theoretical Foundations of Modern Politics
3. Completion of one of the following tracks:
A. Track I: European studies with a focus on pre-1700 Europe
i. Three hours in each of the following two areas:
a. European Studies 306, Introductory Topics in European Anthropology, Geography, History, and Sociology; or European Studies 346, Topics in European Anthropology, Geography, History, and Sociology, chosen from an approved list
b. European Studies 307, Introductory Topics in European Culture, Literature, Art, Music, and Media; or European Studies 347, Topics in European Culture, Literature, Art, Music, and Media, chosen from an approved list
ii. Nine additional hours of European studies coursework chosen from an approved list on the Center's website, only three hours of which may be lower-division
B. Track II: European studies with a focus on post-1700 Europe
i. Three hours in each of the following three areas:
a. European Studies 306, Introductory Topics in European Anthropology, Geography, History, and Sociology; or European Studies 346, Topics in European Anthropology, Geography, History, and Sociology, chosen from an approved list
b. European Studies 307, Introductory Topics in European Culture, Literature, Art, Music, and Media; or European Studies 347, Topics in European Culture, Literature, Art, Music, and Media, chosen from an approved list
c. European Studies 308, Introductory Topics in European Economics, Government, Business, and Policy; or European Studies 348, Topics in European Economics, Government, Business, and Policy
ii. Six additional hours of European studies coursework chosen from an approved list on the Center's website, only three hours of which may be lower-division
C. Track III: European studies with a focus on European thought
i. Three hours in each of the following three areas:
4. European intellectual history or philosophy, chosen from History 309K or 309L, Philosophy 349, or an approved list.
5. Religion, chosen from Core Texts and Ideas 304, History 343, Religious Studies 304, 318, or from an approved list.
6. History of science, mathematics, technology, or medicine chosen from History 322D, 322G, 322M, or from an approved list.
ii. Six hours of additional coursework in European thought, chosen from an approved list on the Center's website, only three hours of which may be lower-division.
7. European Studies 375, Capstone Research in European Studies, in which the student prepares a thesis
8. Participation in an approved study abroad program or in an approved internship in Europe selected from a list available from the European studies faculty advisor

## French Studies

## Major

Twenty-four semester hours of upper-division French, including

1. French 320E, 322E
2. Six hours of French courses chosen from French 325C, Crisis and Conflict; French 325D, Self and Society; and French 325E, Representing Difference. No more than six hours chosen from item 2 may be counted for the major. No more than three hours from item 2 may be counted for the major for students with credit for either French 326K, Introduction to French Literature I: From the Middle Ages through the Eighteenth Century; or French 326L, Introduction to French Literature II: From the French Revolution to the Present. Students with credit for French 326K and 326L may not count the courses in item 2 toward the major.
3. Six hours of French courses numbered 350 or above
4. Six hours of additional French upper-division. Up to three hours of French Civilization may be counted for three hours of additional French upper-division. Up to three hours of Liberal Arts 320 may be counted for three hours of additional French upper-division.

Only one may be counted for the Major: Liberal Arts 321F, three hours of French Civilization, French 349P, French 358Q.

## Geography

## Major

Thirty semester hours of geography, at least 18 of which must be upperdivision, including

1. An 18 hour core requirement consisting of:
a. Geography 301C and one other course in physical geography
b. Geography 305 and one other course in human geography
c. Two geography courses in methods/techniques
2. At least nine semester hours in one of the following tracks:
a. Geographic information science
b. Cultural geography
c. Sustainability
d. General geography (designed for students who do not wish to specialize at the undergraduate level)
e. Urban geography
f. Earth science
g. Landscape ecology and biogeography

Courses used to fulfill the core geography requirement may not be counted toward the completion of a track. Lists of courses that fulfill the core geography requirement and of courses in each track are available in the Department of Geography and the Environment.

## German

## Major

Twenty-four semester hours of upper-division coursework in German, consisting of:

1. German 328
2. Three semester hours: German 330C or 331L
3. Nine semester hours from German 340C, 343C, 346L, 347L, or 348D
4. Six semester hours from German $363 \mathrm{~K}, 369,373$, or 379
5. Three semester hours of any upper-division German or German, Scandinavian, and Dutch studies course.

Eighteen of the 24 semester hours must be taken in residence. German 149T, 249T, and 349T may not be counted toward a major in German.

## Government

## Major

Thirty semester hours of government, at least 18 of which must be upper-division.

Students may satisfy the requirements of the major by taking one of the following two sequences:
I. At least one upper-division course from each of three of the seven 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
6. international relations
7. research methods
II. At least 12 hours in one of four tracks:
8. political and legal thought
9. US politics and policy
10. world politics
11. methods of inquiry

The political and legal thought track includes courses in fields 1 and 3; the US politics and policy track includes courses in fields 2 and 4; the world politics track includes courses in fields 5 and 6; and the methods of inquiry track includes courses in field 7.

Lower division hours other than Government 310L, 312L, and 312P may be used to satisfy the required 12 hours in a track.

Government majors must also take at least one three hour research seminar or internship course in government.

All Government courses that satisfy the Independent Inquiry Flag count as government research seminars.

Government internship courses include Government 362L, Government Research Internship; Government 662L, Government Research Internship; Government 371N, Administrative Internship; Government 372N,

Campaigns and Elections Internship; Government 373N, Legislative Internship; and Government 374N, Political Internship.

Government majors must also complete at least three semester hours in a tools course, chosen from Government 339L, Research Methods in Government; Government 341M, Decision Theory; Government 342N, Public Choice ; and Government 350K, Statistical Analysis in Political Science.

Students may choose to satisfy the tools course requirement by completing one of the following non-government course options; these courses may not be counted toward the semester hours and grade point average required for the major.
a. Three semester hours of statistics chosen from Economics 329; Educational Psychology 371; Psychology 418; Social Work 318; Sociology 317L; Statistics 309; Statistics and Data Sciences 301, 302, 304, 305, 306
b. Three semester hours of logic, chosen from Philosophy 312, 313, 313K, 313Q; Tutorial Course 310 (for Plan II students)
c. Six semester hours of upper-division coursework in one foreign language, excluding courses conducted in English

All government majors must earn a grade of at least $C$ - in each course counted toward fulfillment of the major requirements. A minimum grade point average of 2.00 in courses taken at the University and counted toward the major is also required.

No more than six hours of internship coursework may be counted toward the major, including transfer credit earned in internship courses at other institutions of higher education.

No student may register for more than nine semester hours of government in one semester without the consent of an undergraduate advisor in the Department of Government.

## Health and Society

## Major

Thirty semester credit hours, including at least 15 hour of upper-division coursework, consisting of:

1. Health and Society 301, Introduction to Health and Society
2. Three semester hours in each of the following:
a. Biology: three semester hours in Biology 311C, Introductory Biology I
b. Social/behavioral epidemiology: three semester hours in Health Education 343, Foundations of Epidemiology
c. Methods and statistics: three semester hours, chosen from an approved list
d. Social justice and health: three semester hours, chosen from an approved list
3. Nine semester hours, chosen from an approved list, in one of the following tracks:
a. Health and behavior
b. Cultural aspects of health
c. Health care and the economy
d. Population health
4. Three additional semester hours, chosen from any course offered from any of the tracks listed above.
5. Health and Society 378, Seminar in Health and Society; or, for students seeking special honors, Health and Society 679HA and 679HB, Honors Tutorial Course

## History

## Major

Thirty semester hours of history, at least 15 hours of which must be upper-division and 21 hours of which must be in residence, including

1. History 320W, Thinking Like a Historian. History methods course
2. At least six semester hours in United States history, of which at least three hours must be completed in residence
3. At least 12 semester hours of history chosen from each of four of the following specific geographic areas: Africa; Asia; Europe; Latin America; Middle East; or Transnational
4. At least six semester hours must be designated as Pre-1800 history
5. History 378W, Capstone in History

## Human Dimensions of Organizations

## Major

Thirty semester hours of human dimensions of organizations, at least 18 of which must be upper-division, including:

1. Human Dimensions of Organizations 301
2. Human Dimensions of Organizations 320
3. At least three hours in each of the following four fields, three hours of which must be upper-division. Lists of courses are available in the advisor's office:
a. Data and analytical methods
b. Qualitative reasoning
c. Creativity and innovation
d. Culture and communication
4. Nine additional upper-division semester hours from a single field from item 3, above
5. Human Dimensions of Organizations 379

## Humanities

## Major

Forty-two semester hours, including at least 30 hours of upper-division coursework, arranged by contract in consultation with the humanities advisor. None of these 42 hours may be counted toward the core curriculum or the prescribed work for the Bachelor of Arts degree.

Students normally enter the program in the sophomore or junior year. In developing the contract, the student and the advisor 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 advisor, the student chooses one of the following tracks:

1. Track One
a. Nine semester hours in a single field of study in the College of Liberal Arts
b. Nine hours in one or more other fields of study in the College of Liberal Arts
c. Nine hours in any field or fields outside the College of Liberal Arts
d. Nine additional hours in any field or fields at the University
e. Six hours of upper-division coursework in humanities, including Humanities 370
2. Track Two
a. Twelve semester hours in a single field of study in the College of Liberal Arts
b. Nine hours in a second field of study in the College of Liberal Arts
c. Fifteen additional hours in any field or fields at the University
d. Six hours of upper-division coursework in humanities, including Humanities 370

Students in the Humanities Honors Program must use Humanities 679 HA and 679 HB to fulfill requirements 1 e or 2 d .

## International Relations and Global Studies

## Major

Forty-five semester hours of coursework, at least 30 of which must be upper-division, consisting of the following:

1. Twelve hours in the following five core courses in the major. a. International Relations and Global Studies 301
b. A three-semester-hour course chosen from Economics 301, Introduction to Economics, Economics 304K, Introduction to Microeconomics or Economics 304L, Introduction to Macroeconomics
c. Geography 305, This Human World: An Introduction to Geography
d. A three-semester-hour course chosen from Anthropology 302, Cultural Anthropology or Sociology 302, Introduction to the Study of Society
2. International Relations and Global Studies 320F, Foundations of International Relations and Global Studies
3. Nine hours, including six upper-division, in a single area: Asian Studies, European Studies, Latin American Studies, Middle Eastern Studies, Russian, Eurasian, and East European Studies, approved list of African studies, or another regional area approved by IRG director.
4. Twelve hours of upper-division coursework in one of the following tracks, chosen from a list of approved courses available in the advising office:
a. Culture, media, and the arts
b. International security
c. Science, technology, and environment
d. International political economy
5. Six hours of upper-division coursework in a single foreign language
6. International Relations and Global Studies 378, Capstone Research in International Relations and Global Studies; or, for students seeking special honors, International Relations and Global Studies 678 H , Honors Tutorial Course

International relations and global studies majors must participate in an approved study abroad program. A list of approved programs is available from the faculty advisor. A student who graduated from an international high school may petition to be excused from this requirement. Documentation is required, and the petition must be approved by the faculty adviser and the associate dean for academic affairs.

A grade of at least C- is required for International Relations and Global Studies 301, Introduction to International Relations and Global Studies, International Relations and Global Studies 320F, Foundations of International Relations and Global Studies, and International Relations and Global Studies 378, Capstone Research in International Relations and Global Studies.

## Italian Studies

## Major

Twenty-four semester hours of upper-division coursework in Italian, including:

1. Italian 320
2. Three hours in Italian courses chosen from Italian 321 or 325 C or 328
3. Three hours in Italian Civilization
4. Fifteen hours in additional Italian upper-division. Up to three hours of Italian Civilization may be counted for three hours of additional Italian upper-division. Up to three hours of Liberal Arts 320 may be counted for three hours of additional Italian Civilization

Only one may be counted for the Major. Liberal Arts 321J, three hours of additional Italian Civilization, Italian 349P, Italian 358Q.

## Jewish Studies

## Major

Twenty-seven semester hours of coursework in Jewish studies, including 18 hours in-residence, Jewish Studies 304M or 304N, at least three additional hours of lower-division coursework, and 18 hours of upperdivision coursework. Students must complete each of the following areas:

1. Humanities and arts: six hours of Jewish Studies 363
2. History and social science: six hours of Jewish Studies 364, or six hours of Jewish Studies 365, or three hours of each.
3. Nine additional hours of Jewish studies coursework are required, six of them upper-division. These hours can include:
a. Liberal Arts 320J, Jewish Studies Internship, or the nine hours required for the Option in Israel Studies (OIS), see below. Students are encouraged but not required to use Hebrew or Yiddish to fulfill the foreign language requirement.
b. Jewish studies majors can earn an Option in Israel Studies. To earn the OIS, students must complete six semester credit hours of upper-division coursework focused on Israel (these courses may also count toward the Jewish Studies major) and three semester credit hours content course in Middle Eastern studies not in Israel, chosen from approved lists.

Students in the OIS are encouraged but not required to use Hebrew or Arabic to fulfill the foreign language requirement.

## Latin American Studies <br> Major

Twenty-seven semester hours, at least 18 hours of which must be upperdivision, including:

1. Latin American Studies 301
2. Latin American Studies 337M
3. One of the following social sciences: Latin American Studies 315, $319,324 \mathrm{~L}, 325,330,355$
4. Latin American Studies 366
5. Three hours, chosen from the following: Latin American Studies 326, $327,328,370 \mathrm{P}$, or 370 S
6. Nine additional hours of Latin American studies, of which six must be upper-division
7. Latin American Studies 378

Students must achieve an intermediate level of competency in Spanish, Portuguese, or an indigenous language of Latin America. Credit used to fulfill this requirement may also be used to fulfill the foreign language requirement.

## Linguistics

## Major

Twenty-seven semester hours of coursework in linguistics, consisting of Linguistics 306, 344K, 345, 372K, 372L, and 12 additional hours of coursework in linguistics, nine hours of which must be upper-division. Students should consult the undergraduate advisor for information about counting other courses toward the major requirements.

## Mexican American and Latina/o Studies

## Major

Twenty-seven semester credit hours total, including 18 hours upperdivision and 18 hours in residence:

1. Mexican American Studies 301, Introduction to Mexican American and Latina/o Studies
2. Three semester credit hours, chosen from Mexican American Studies 307, Introduction to Mexican American Cultural Studies, Mexican American Studies 308, Introduction to Mexican American Policy Studies, or Mexican American Studies 309, Bilingualism in the Americas
3. Three semester credit hours, chosen from Mexican American Studies 361, Mexican American Cultural Studies Seminar, Mexican American Studies 362, Mexican American Policy Studies Seminar, and Mexican American Studies 363, Sociolinguistics in Mexican American and Latina/o Studies
4. Capstone, Mexican American Studies 378
5. Completion of one of the following is required.
a. Internship
b. Study Abroad (approved)

Students majoring in Mexican American and Latina/o Studies must achieve, at a minimum, an intermediate level of proficiency in Spanish, Portuguese, or a relevant Indigenous language.

## Middle Eastern Studies

## Major

Thirty-six semester hours of coursework in Middle Eastern studies, 27 of which must be upper-division coursework, consisting of the following:

1. Six semester credit hours, chosen from Middle Eastern Studies $301 \mathrm{~J}, 301 \mathrm{~K}, 301 \mathrm{~L}, 310 \mathrm{C}, 310 \mathrm{R}$, Islamic Studies 310
2. Middle Eastern Studies 301C
3. Six semester hours of upper-division coursework in a Middle Eastern language (Arabic, Hebrew, Persian, or Turkish)
4. Three semester hours of upper-division coursework in each of the following areas:
a. Social science: Middle Eastern Studies 341, Topics in the Middle East: Social Science.
b. Arts and humanities: Middle Eastern Studies 342, Topics in the Middle East: Arts and Humanities.
c. History: Middle Eastern Studies 343, Topics in the Middle East: History.
5. Nine upper-division hours chosen from a single track, consisting of one of the following (courses used to fulfill this requirement must be in addition to items 3 and 4):
a. Arabic
b. Hebrew
c. Turkish
d. Persian
e. Ancient Near East
f. Islamic Studies
g. History
h. Literature
6. Middle Eastern Studies 323C

## Philosophy

## Major

Thirty semester hours of philosophy, at least 18 of which must be upperdivision, including

1. Three hours of symbolic logic: Philosophy $313,313 \mathrm{~K}$, or 313 Q
2. Philosophy 329 K or 329 L , which may also be counted toward requirement 3 or 4 below
3. Three hours of ancient philosophy: Philosophy 301 K or 329 K
4. Three hours of early modern philosophy: Philosophy 301L or 329L
5. Six hours chosen from Philosophy $321 \mathrm{~K}, 323 \mathrm{~K}, 323 \mathrm{M}, 323 \mathrm{~S}, 325 \mathrm{~K}$, and 332

## Portuguese

1. Three semester hours of advanced grammar and writing: Portuguese 327C
2. One introductory course in language and linguistics in society: Portuguese 330L
3. One introductory course in literatures and cultures: Portuguese 328C
4. One upper-division course in Spanish (SPN) or Spanish Civilization (SPC, taught in English)
5. Fifteen additional semester hours of coursework in upper-division Portuguese

## Psychology

## Major

Twenty-eight semester hours of psychology, at least 19 of which must be upper-division, including Psychology 301 and 420M with a grade of at least $C$ in each. No more than six hours of lower-division psychology may be taken beyond Psychology 301 and no less than 15 hours of upper-division beyond Psychology 420M. Students may take courses from a variety of areas within the field of psychology, including clinical psychology, cognition, developmental psychology, evolutionary psychology, language, neuroscience, perception, and social psychology.

Psychology 420M and at least six hours of upper-division coursework must be completed in residence at the University. Psychology majors must earn a grade of at least $C$ in Psychology 420M to register for upperdivision psychology courses. Students may not enroll in Psychology 420M more than twice.

Psychology 357 and 359 are offered on the pass/fail basis only; they may not be counted toward the 28 hours in psychology required for the major.

No student may register for more than 10 semester hours of psychology in any one semester without approval of an undergraduate advisor in the Department of Psychology.

## Race, Indigeneity, and Migration <br> Major

Twenty-seven semester credit hours, including 15 upper-division and 18 in residence.

1. Three semester hours of Race, Indigeneity, and Migration 301
2. Six semester hours of gateway courses:
a. Three hours of Historical Foundations chosen from African and African Diaspora Studies 301, Asian American Studies 301, American Studies 3150, History 317L (Topic 8: Introduction to Native American Histories), Mexican American Studies 301, Women's and Gender Studies 303, or 305
b. Three hours of Race, Indigeneity, and Migration 350
3. Nine semester hours, chosen from an approved list, in one of the following tracks. At least three of these hours must include a course that offers training in "tools":
a. Critical and comparative race
b. Migration and refugee flows
c. Indigeneity
d. Gender, Sexuality and Justice
e. Teaching Race, Indigeneity, and Migration
4. Six additional semester hours, chosen from any course offered from any of the tracks listed above
5. Three hours of the capstone course Race, Indigeneity, and Migration 378

## Religious Studies

## Major

Thirty semester hours of religious studies coursework, of which at least 18 hours must be upper-division. A single course may not be counted toward more than one of the following requirements. The 30 hours of coursework must include

1. In each of the following areas, at least three semester hours chosen from a list of courses available from the religious studies adviser:
a. Area I: Religions of Asia
b. Area II: Religions of Europe, the Middle East, and Africa
c. Area III: Religions of the Americas
d. Area IV: Approaches to the study of religion and comparative studies of religion
2. Primary area: Six additional hours of upper-division coursework in one of these four areas chosen in consultation with the religious studies advisor
3. Religious Studies 375S, Advanced Seminars in Religious Studies

## Rhetoric and Writing

## Major

Twenty-seven semester hours of coursework in rhetoric and writing, at least 18 of which must be upper-division, consisting of

1. Rhetoric and Writing 306, Rhetoric and Writing
2. Rhetoric and Writing 321, Principles of Rhetoric
3. Each of the following courses (any topic):
a. Rhetoric and Writing 330C, Advanced Studies in Digital Rhetoric
b. Rhetoric and Writing 330D, History of Rhetoric
c. Rhetoric and Writing 330E, Rhetorical Theory and Analysis
4. Three hours chosen from Rhetoric and Writing 310, 325M, 328 (any topic), 368C, or 368E
5. Nine additional semester hours in rhetoric and writing, including six hours of upper-division coursework

## Russian, East European, and Eurasian Studies

## Major

Students select one of two tracks. Both tracks are designed to allow students considerable opportunity to shape their coursework around their interests:

1. Russian, East European, and Eurasian area studies, consisting of: a. Russian, East European, and Eurasian Studies 301
b. Russian, East European, and Eurasian Studies 301L
c. Six hours of upper-division coursework in a Slavic, Central Asian, or East European language
d. Fifteen semester hours of upper-division coursework, which must include one Russian, East European, and Eurasian Studies 325, and either a Russian, East European, and Eurasian Studies 335 or a Russian, East European, and Eurasian Studies 345.

Students pursuing track 1 area studies, must complete a total of three years of language study in a Slavic, Central Asian, or East European language
2. Russian, East European, and Eurasian area studies with a language concentration, consisting of:
a. Russian, East European, and Eurasian Studies 301
b. Russian, East European, and Eurasian Studies 301L
c. Twelve hours of upper-division coursework in a Slavic, Central Asian, or East European language
d. Nine semester hours of upper-division coursework in Russian, East European, and Eurasian Studies, which must include one Russian, East European, and Eurasian Studies 325, and either a Russian, East European, and Eurasian Studies 335 or a Russian, East European, and Eurasian Studies 345.

Students pursuing track 2 area studies with a language concentration, are encouraged to study their chosen language over the summer or to take a fourth year.

## Sociology

## Major

At least 30 semester hours of coursework in sociology, including Sociology 302, 317 L (or approved substitution), 327 M , and 379 M . At least 18 semester hours must be in upper-division courses. Sociology majors must earn grades of at least $C$ in Sociology 302, 317L (or approved substitution), and 327M. To enroll in Sociology 327M for a second time, a student must have the consent of a sociology undergraduate advisor. Students may not enroll in Sociology 327M more than twice. Sociology 327 M and 379 M must be taken in-residence.

If the student completes an approved substitute course instead of Sociology 317 L , that course is counted toward the 30 hours required for the major and is included in the major grade point average.

## Spanish

1. Three semester hours of grammar and writing: Spanish 327C or Spanish 327N
2. One introductory course in language and linguistics in society. Spanish 330L
3. One introductory course in literatures and cultures: Spanish 328C
4. One upper-division course in Portuguese (POR) or Portuguese Civilizations (PRC, taught in English)
5. Twelve additional semester hours of upper-division coursework in Spanish
6. One Capstone Seminar: Spanish 379C or Spanish 379L

## Sustainability Studies <br> Major

Thirty-nine semester credit hours, including 18 upper division, consisting of the following:

1. Geography 404E, 309C, or Sustainability Studies 301.
2. Nine hours of sustainability foundations, consisting of:
a. Three hours in humanities and social science, chosen from Anthropology 302, Geography 305, 319, Social Science 302E, Sociology 302, and Urban Studies 301
b. Three hours in environment and earth sciences, chosen from Geography 401C, 301K, and Geological Sciences 302C
c. Three hours in economics and development, chosen from Economics 301, 304K, 304L, Geography 350K , 342C, and Social Science 302E
3. Nine hours of sustainability theories and context, consisting of:
a. Three hours in research design and methods, chosen from Anthropology 340C, Geography 410C, 324E, 460G, 373F, Psychology 418, Sociology 317L, and Urban Studies 315
b. Three hours communication, chosen
from Advertising 324, Anthropology 307, Business Administration 324, Communication Studies 306M, $310 \mathrm{~K}, 315 \mathrm{M}, 332 \mathrm{~K}, 334 \mathrm{~K}$, Geography 320M, and Journalism 346F.
c. Three hours in politics and policy, chosen from Business, Government, and Society 370 (Topic 1: Energy Technology and Policy), Communication Studies $322 \mathrm{E}, 332,333,338,340 \mathrm{~K}, 342 \mathrm{~K}, 345,345 \mathrm{P}$, Geography 306C, and 340D
4. Twelve hours in a thematic concentration, chosen from an approved list:
a. Trajectories to sustainability
b. Sustainable choices in a diverse world
c. Natural resources management
5. One course in experiential learning, chosen from Bridging Disciplines 325K, Sustainability Studies 379L, and Urban Studies 360
6. At least one capstone experience course chosen
from Anthropology 662, Bridging Disciplines 320K, Geography 323K,
367D, 368D, Sustainability Studies 374, and Urban Studies 370

## Urban Studies

The Urban Studies degree program is administered by the Department of Geography and the Environment. Students must be admitted to the degree program. They may apply for admission after completing the following requirements: Mathematics 408C, 408K, 408L, or 408N with a grade of at least $C+$; Statistics and Data Sciences 301, 302, 304, or 306 with a grade of at least $C+$. Other comparable courses may be used if approved.

## Major

Twenty-four semester hours of coursework, consisting of:

1. Urban Studies 301,315 , and 360
2. Urban Studies 370 or an approved equivalent course
3. Twelve additional hours of upper-division coursework in urban studies

## Women's and Gender Studies

## Major

Thirty semester hours of coursework in women's and gender studies, 18 hours of which must be upper-division. It is recommended that six semester hours be taken in women's and gender studies courses originating from outside the College of Liberal Arts. The 30 required semester hours must include the following:

1. Women's and Gender Studies 301, Introductory Topics in Women's and Gender Studies or Women's and Gender Studies 305, Introduction to Women's and Gender Studies
2. Women's and Gender Studies 340, Cross-Cultural Topics in Women's and Gender Studies
3. Three semester credit hours, chosen from a topic of Women's and Gender Studies 340 different from the one used for 2, above, or Women's and Gender Studies 335
4. Women's and Gender Studies 350, Feminist Theory, or another feminist theory course chosen from a list of courses approved by the Center for Women's and Gender Studies
5. Women's and Gender Studies 356, Introduction to Feminist Research Methods, or another research methods course chosen from a list of courses approved by the Center for Women's and Gender Studies
6. Women's and Gender Studies 379L, Internship in Women's and Gender Studies, or Women's and Gender Studies 360, Research and Thesis in Women's and Gender Studies
7. Women's and Gender Studies 379S, Senior Seminar
8. Nine additional hours women's and gender studies, including six upper-division

## 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 https://admissions.utexas.edu/apply.

The Plan II Honors Program is not available to transfer applicants. Disappointed transfer applicants interested in the liberal arts are encouraged to seek departmental honors tracks in the College of Liberal Arts. More information about departmental honors programs is available in the Academic Policies and Procedures (p. 196) section.

The Plan II Honors Program includes the basic coursework required of Plan I students, but much of this work is done in small sections that are restricted to Plan II students and taught by professors selected for their excellent teaching records. Additional required courses explore the humanities, the natural sciences, and the social sciences and provide considerable opportunity for individual research, writing, and speaking. The remainder of the student's program is made up of approved electives.

The academic programs of most Plan II students include 36 semester hours or more of elective coursework. The student may use electives to pursue a second major in the College of Liberal Arts or the College of Natural Sciences. Dual degree programs are available in conjunction with most other undergraduate colleges.

Qualified students who are accepted into both the Plan II Honors Program and the Cockrell School of Engineering may pursue a curriculum leading to both the Bachelor of Arts, Plan II, and a bachelor's degree in engineering. Students interested in this dual degree program must apply both to Plan II and to the Cockrell School. Further information is available from the director of Plan II and from the Office of Student Affairs in the Cockrell School.

Qualified students who are accepted into both the Plan II Honors Program and the McCombs School of Business may pursue a curriculum leading to both the Bachelor of Arts, Plan II, and the Bachelor of Business Administration. Students interested in this dual degree program must apply both to Plan II and to the McCombs School of Business. Further information is available from the director of Plan II and from the McCombs School.

A dual degree program is also available that leads to the degrees of Bachelor of Arts, Plan II, and Bachelor of Architecture. Students must apply both to Plan II and to the School of Architecture. Additional information is available from the director of Plan II and from the School of Architecture.

In addition to the following requirements, the student must fulfill the University's General Requirements (p. 19) and the requirements of the

College of Liberal Arts given in Special Requirements of the College (p. 203).

## Special Requirements

Students who fail to maintain a University grade point average of at least 3.0 will be considered for academic dismissal from Plan II. All students whose grade point average falls below 3.0 but not below 2.50 will be put on academic review. Students whose grade point average falls below 2.50 at any point after their first semester in Plan II will be dismissed from the program. In addition, any student who fails to earn a final grade of at least a $C$ - in any of the following required courses will be dismissed from the program: English 303C, 303D, Philosophy 610QA/610QB, Social Science 302C, 302D, 302E, 302F, Tutorial Course 302, 303C, 303D, 358, 359T, 660HA/660HB. Students may only register for Tutorial Course 660 H or 359T if their University grade point average is 3.0 or higher. Lastly, students who are not enrolled at The University of Texas at Austin for four consecutive long semesters and therefore fail to make satisfactory progress toward the degree will be automatically dismissed from the Plan II Honors Program. All of these stipulations may be appealed and exceptions may be made on a case-by-case basis by the director of Plan II in consultation with the associate director, assistant director, and academic advisors. A student who is academically dismissed from the Plan II program is eligible to continue to enroll in the College of Liberal Arts in another academic program if the student fulfills the academic requirements for the Bachelor of Arts, Plan I, and the scholastic standards for continuance in the University given in the General Information Catalog. Students in scholastic difficulty should discuss their problems with a Plan II academic advisor and the director

## Choice of Work

A degree program must include at least 120 semester hours, including at least 36 hours of upper-division coursework. Without special permission from the director and the dean, no more than 39 hours in one field of study in the College of Liberal Arts or the College of Natural Sciences and no more than 36 hours in courses offered in any other college or school may be counted toward the degree.

Plan II students may use credit by examination to fulfill certain program requirements. More information on testing policies and credit by examination is available from a Plan II academic advisor.

Tutorial Course 302 and two semesters of Tutorial Course 358 are required. Tutorial Course 660 H is required of students seeking special honors in Plan II, students pursuing the Plan II degree alone, and students writing creative theses. In exceptional situations, students completing dual degree programs may be approved by the Plan II associate director to enroll in Tutorial Course 359T, Essay Course, in lieu of Tutorial Course 660H. Other requirements for the Bachelor of Arts, Plan II, are outlined below. All courses offered in the Plan II Honors Program are subject to approval by the Plan II Faculty Advisory Committee; in some areas the committee will prescribe certain courses for all students in the program. Current information on these matters is available in the Plan II office.

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic advisor.

The following are the specific requirements of the Plan II program. In some cases, a course that is required for the BA, Plan II, may also be counted toward the core curriculum; these courses are identified below.

1. English 303C and 303D, or Tutorial Course 303C and 303D. Each set of courses also meet the English composition and humanities requirements of the core curriculum.
2. Two courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag. One of these courses must be upperdivision. Courses that carry a writing flag are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. Proficiency in a language other than English is required. The study of a second language contributes in an important way to a broad education for today's students, who live in a world where the overwhelming majority of people do not speak or read English and where much of the knowledge that is disseminated may never appear in English. Knowledge of a second language is important for an appreciation of the culture of the people using that language, and it also helps students to understand the structure and complexities of their own native language. Students with sufficient preparation may be able to use the second language for study in their chosen discipline. An intermediate level of competency as determined by the completion of any one of the following options:
a. Certified proficiency on a placement or credit-by-exam test.
b. Students with previous experience in the language they plan to use to meet the language requirement must take a language placement test. A student may not select for credit a language course below this placement level without departmental permission.
c. A passing grade in a language course listed below:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| American Sign |  |  |
| ASL 311D | American Sign Language III: Intermediate | 3 |
| Arabic |  |  |
| ARA 611C | Intensive Arabic II | 6 |
| Bengali |  |  |
| BEN 312L | Second-Year Bengali II | 3 |
| Chinese |  |  |
| CHI 612 <br> or CHI 312L | Accelerated Second-Year Chinese <br> Second-Year Chinese II | 3-6 |
| Czech |  |  |
| $\begin{aligned} & \text { CZ } 611 \mathrm{C} \\ & \text { or CZ } 412 \mathrm{~L} \end{aligned}$ | Intensive Czech II Second-Year Czech II | 4-6 |
| Danish |  |  |
| DAN 612 | Accelerated Second-Year Danish | 6 |
| Dutch |  |  |


| DCH 612 | Accelerated Second-Year Dutch | 6 |
| :---: | :---: | :---: |
| French |  |  |
| FR 611C | Intermediate French | 4-6 |
| or FR 412K | Intermediate French I |  |
| German |  |  |
| GER 612 | Accelerated Second-Year German: Readings in Modern German | 6 |
| Greek |  |  |
| GK 312K | Intermediate Greek II | 3 |
| GK 312L | Intermediate Greek II: Biblical Greek | 3 |
| GK 610C | Intermediate Modern Greek | 3-6 |
| or GK 310K | Second-Year Modern Greek II |  |
| Hebrew |  |  |
| HEB 612C | Intensive Biblical Hebrew II | 6 |
| HEB 611C | Intensive Hebrew II | 6 |
| Hindi |  |  |
| HIN 312L | Second-Year Hindi II | 3-6 |
| or HIN 612 | Accelerated Second-Year Hindi |  |
| Italian |  |  |
| ITL 611C | Intermediate Italian | 6 |
| Japanese |  |  |
| JPN 611D | Intermediate Japanese | 6 |
| Korean |  |  |
| KOR 312L | Second-Year Korean II | 3 |
| Indigenous Languages of Latin America |  |  |
| LAL 611C | Intensive Indigenous Language of Latin America II | 6 |
| Latin |  |  |
| LAT 511K | Accelerated Intermediate Latin | 5 |
| Malayalam |  |  |
| MAL 312L | Second-Year Malayalam II | 3 |
| Norwegian |  |  |
| NOR 612 | Accelerated Second-Year Norwegian | 6 |
| Persian |  |  |
| PRS 611C | Intensive Persian II | 6 |
| or PRS 612C | Intensive Persian for Heritage Speakers |  |
| Polish |  |  |
| POL 312L | Second-Year Polish II | 3 |
| POL 611C | Intensive Polish II | 6 |
| Portuguese |  |  |
| POR 611D | Second-Year Portuguese | 6 |
| Russian |  |  |
| RUS 611C | Intensive Russian II | 6 |
| RUS 412K | Second-Year Russian I | 4 |
| Sanskrit |  |  |
| SAN 312L | Second-Year Sanskrit II | 3 |
| Bosnian/Croatian/Serbian |  |  |
| S C 312L | Second-Year Bosnian/Croatian/ Serbian II | 3 |
| Slavic \& Eurasian Languages |  |  |
| SEL 611C | Intensive Slavic and Eurasian Languages II | 3-6 |
| or SEL 312L | Second-Year Slavic and Eurasian Langua II |  |


d. Students who wish to meet the requirement with proficiency in a language not listed in the table above should contact the Texas Language Center.
4. Three hours of Honors Social Science selected from Social Science 302C, 302D, 302E, and 302F. All Honors Social Science courses also meet the social and behavioral sciences requirement of the core curriculum.
5. Six semester hours of non-United States history in the same geographic area.
6. Eighteen semester hours of coursework as outlined below. To satisfy the core curriculum and the mathematics and natural science requirement of the BA, Plan II, a student may count (1) no more than 12 hours in mathematics, computer science, and statistics and scientific computation combined; and (2) no more than nine hours in any single field of study. Substitutions do exist for some of the requirements outlined below; Plan II students should each meet with a Plan II academic advisor to discuss their individual academic plan.
a. Mathematics 310P. This course also meets the mathematics requirement of the core curriculum. Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward this requirement. Students who enter the University with fewer than three units of high school mathematics at the level of Algebra I or higher must take Mathematics 301 or 303D without degree credit to remove their deficiency.
b. A three-hour course in logic or modes of reasoning designated for Plan II students, currently Tutorial Course 310 or Philosophy 313Q.
c. Six hours of coursework in astronomy, biology, chemistry, geological sciences, physical science, or physics. This coursework may be used to fulfill the science and technology, part I, requirement of the core curriculum.
d. Biology 301E. Biology 301E may also be used to fulfill the science and technology part I or part II requirement of the core curriculum.
e. Physics 321 or an approved alternative natural science course as designated by Plan II. Physics 321 may also be used to fulfill the science and technology part I or part II requirement of the core curriculum.
f. Any remaining courses needed to provide 18 hours of work must be chosen from the following fields. No more than three hours may be in the history of science or the philosophy of science. A list of approved alternative courses (items 10 and 11 below) is available in the Student Division and on the College of Liberal Arts website
i. Astronomy
ii. Biology
iii. Chemistry
iv. Geological sciences
v. Marine science
vi. Nutrition
vii. Physical science
viii. Physics
ix. Mathematics, computer science, and statistics and data sciences
x. Other alternative science courses approved by the dean
xi. Approved alternative courses in history of science and philosophy of science
7. Philosophy 610Q.
8. An approved three-hour course in art history, music history, or history of theatre and dance; or a three-hour upper-division course in classical civilization, humanities, literature, or philosophy.

## Electives

In addition to the core curriculum and the preceding specific requirements, the student must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than 12 hours of conference courses and internship courses combined as described in Conference Courses and Internship Courses (p. 205); nine hours of designated coursework in air force science, military science, or naval science, except for students enrolled in the Military Leadership minor; 19 hours completed on the pass/fail basis; 36 hours in any one field of study in the College of Liberal Arts or the College of Natural Sciences; and 36 hours in any other single college or school of the University. Mathematics courses at the level of college algebra may not count toward elective hours.

## Order of Work

The usual order of work for students in Plan II is outlined below, although it is possible to make exceptions when there is good reason for doing so. There is some variation in the order of work for students in premedical, predental, and dual degree programs, for teacher certification candidates, and for students concentrating in science. Students in these areas should consult the director or an academic advisor.

## Suggested Four-Year Plan

First Year:

- Tutorial Course 303C and 303D, or English 303C and 303D
- Biology 301E, Mathematics 310P, and Philosophy 313Q or Tutorial Course 310
- Six semester hours of non-United States history
- Foreign language courses
- Tutorial Course 302
- A three-semester-hour elective


## Second Year:

- Philosophy 610Q
- Three semester hours in mathematics or natural science
- Government 310L and 312L
- Foreign language courses
- Social Science 302C, 302D, 302E, or 302F
- A three-semester-hour elective


## Third and Fourth Years:

- Three semester hours in the visual and performing arts
- Three semester hours of humanities or courses in the history of fine arts
- Six semester hours of American history
- Six semester hours of Tutorial Course 358
- Tutorial Course 359T or 660H
- Physics 321, or an approved alternative, and three additional hours of science
- Elective courses sufficient to make a total of at least 120 semester hours, with only upper-division courses usually being approved for third- and fourth-year students


## Bachelor of Science in Environmental Science

The Bachelor of Science in Environmental Science is designed for students interested in an interdisciplinary scientific perspective on environmental and sustainability issues, analysis, and management. The degree program provides the broad foundation in physical, life, and social sciences needed for a career or graduate study in environmental science and related fields such as climate change, ecology, and conservation. Students who complete the program successfully will be able to assess environmental issues critically from multiple perspectives; to perform field, laboratory, and computer analyses; and to conduct original research. The program is designed to prepare graduates for careers in local, state, and federal government laboratories and nonprofit agencies, environmental consulting firms, environmental education and outreach agencies, and universities and other research settings. The degree is offered by the Jackson School of Geosciences with a major in geological sciences, by the College of Liberal Arts with a major in geographical sciences, and by the College of Natural Sciences with a major in biological sciences. The degree programs share common prescribed work, but each major has its own specific requirements. Students may earn only one Bachelor of Science in Environmental Science degree from the University.

The Bachelor of Science in Environmental Science curriculum consists of 126 semester hours of coursework. All students must complete the University's Core Curriculum (p. 23). The specific degree requirements consist of prescribed work, major requirements, and electives. In some cases, a course that is required for the degree may also be counted toward the core curriculum.

A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills one requirement may also be used to fulfill a flag requirement, unless otherwise specified.

In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete courses with content in the following Skills and Experience flags:

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent; students in the College of Natural Sciences and the Jackson School of Geosciences must complete only two flagged writing courses. For students in the College of Natural Sciences and the College of Liberal Arts, at least one writing flag must be from an upper-division course.
2. Quantitative reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent inquiry: one flagged course

## Prescribed Work Common to All Environmental Science Majors

1. Mathematics: Mathematics 408 C , or 408 N and 408 S , or 408 K and 408L
2. Chemistry: Chemistry 301 or $301 \mathrm{H} ; 302$ or 302 H ; and 204
3. Physics: Physics 317 K and 117M. Physics 303 K and 103M, or Physics 301 and 101L
4. Biological sciences: Biology 311C and 311D, or 315H

## 5. Ecology:

a. Biology 373 or Marine Science 320. Marine Science 320 may not be used to satisfy both requirement 5a and requirement 10c. Environmental Science majors in the College of Natural Sciences must choose Biology 373
b. Biology 373L or Marine Science 120L. Environmental science majors in the College of Natural Sciences must choose Biology 373L
6. Geological sciences: Geological Sciences 401 or 303 or Geography 410C; Geological Sciences 346C, and an approved geological sciences course in sustainability
7. Geography: Geography 335N
8. Field experience and research methods: Environmental Science 311 and 121
9. Capstone Research Experience: one of the following pairs:
a. Environmental Science 271 and 371 or Environmental Science 171 and 471
b. Environmental Science 172C and 472D or Environmental Science 272C and 372D
c. Environmental Science 271 or Marine Science 370, and one of the following: Chemistry 320M, Geography 460G, 368C, 462K, Geological Sciences 327G, Mathematics 408D, 408M, Statistics and Data Sciences 321 or 328M . Note: Geography 460G, 462K, and Geological Sciences 327G may not be used to satisfy both requirement 9c and 10b. Statistics and Data Sciences 321 and 328 M may not be used in this requirement by students in the College of Natural Sciences. Biology 377 may substitute for Environmental Science 271 with prior approval of the faculty advisor. Tutorial Course 660HA and 660HB may
substitute for Environmental Science 271 and 371 with prior approval of the faculty advisor. Geological Sciences $172 \mathrm{H}, 173 \mathrm{H}$, and 379 H may substitute for Environmental Science 271 and 371 with prior approval of the faculty advisor. Natural Sciences 323 and 371 may substitute for Environmental Science 271 and 371 with prior approval of the faculty advisor.
10. Environmental and sustainability themes: One course in each of the following thematic areas:
a. Environmental and sustainability policy, ethics, and history: Geography 323K, 331K, 334, 336C, 339K, 340D, 342C, 344K, 356C, History 350R (Topic 7), Journalism 346F, Marine Science 367K, or Philosophy 325D. Biology 337, Geography 356, 356 T , or Sociology 321 K may be counted with prior approval of the faculty advisor.
b. Geographic information systems: Geography 460G, 462K, Geological Sciences 327G
c. Climates and oceans: Biology 456L, Geography 333K, Geological Sciences 338J, 347D, 347G, 377P, Marine Science 320, 440, 354Q, 354T, 356. Marine Science 320 may not be used to satisfy both requirement 5 and requirement 10 . Biology 337, 437, Geography 356, 356T, Geological Sciences 371C, 371 T, Marine Science 352 or 353 may count with prior approval of the faculty advisor.
d. Environmental economics, sustainability, and business: Economics $304 \mathrm{~K}, 330 \mathrm{~T}$. Advanced Placement credit for Economics 304L may be used to satisfy this requirement.
11. Environmental Science 141 and 151

## Admission to the Environmental Science Program

All freshmen and external transfer students majoring in environmental science (EVS) are first admitted to the University as entry-level EVS majors in the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences. After completing a minimum of 24 hours in residence, students may select the EVS degree plan that best suits their long-term interests and, if necessary, transfer to the appropriate college/school in accordance with the regulations and procedures set forth in that college or school's General Information.

## Freshman Admission

Freshmen applicants seeking admission to the EVS major through the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences must meet the calculus readiness requirement by the official admissions application deadline. More information about the calculus readiness requirement is available through the University Admissions Office.

Freshmen applicants to the EVS major from all three colleges/schools are reviewed and admitted as a single cohort. Applicants should use the ApplyTexas online application and select the "Environmental Science, Entry-Level" major option listed in the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences as a firstchoice major. Applicants should apply to the EVS program in the college that best suits their anticipated area of focus (geographical sciences, biological sciences, or geological sciences, respectively).

## External Transfer Admission

Students who wish to transfer to the University from another college or University must apply to the Office of Admissions as described in General Information. External transfer applicants seeking admission to the Environmental Science (EVS) Degree Program through the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences must demonstrate calculus readiness by the official
admissions application deadline. Details regarding transfer calculus readiness are available through the University Admissions Office.

External transfer applicants to the EVS major from all three colleges/ schools are reviewed and admitted as a single cohort. Applicants should use the ApplyTexas online application and select the "Environmental Science, Entry-Level" major option listed in the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences as a first-choice major. Applicants should apply to the EVS program in the college that best suits their anticipated area of focus (geographical sciences, biological sciences, or geological sciences, respectively).

## Internal Transfer Admission

Internal transfer, entry-level applications submitted to the EVS major through the Jackson School of Geosciences, the College of Liberal Arts, and the College of Natural Sciences are reviewed and admitted as a single cohort. All internal transfer applicants should use the online EVS Program Transfer Application and must meet the requirements for internal transfer given in the General Information.

To be competitive for admission, internal transfer applicants should have a grade point average of at least 3.0 in Biology 311C, Chemistry 301, Mathematics 408 C or 408 N or 408 K , and Geological Sciences 401 or 303.

Additional Information for all internal transfer applicants:

- Application Deadline: March 1st for entry the following academic year.
- Only currently enrolled students in good academic standing with their college of residence may apply.
- Students may apply during the semester they are completing the minimum requirements to be eligible for consideration.
- Entry-level admission to all Environmental Science majors is offered as space is available to the students who are best qualified. Decisions are based on the student's grade point average in the introductory science and math courses listed above, University grade point average, and other factors including, but not limited to, difficulty of course load, course repetitions, proven mathematical ability, and interest in the field of Environmental Science.

Students should consult with an Academic Advisor for additional information on the application process and deadlines.

## Additional Prescribed Work

1. Writing and Literature: English 316L, 316M, 316N, or 316P, and three courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag. One of these courses must be upper-division. Courses that carry a writing flag are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
2. Foreign language/culture: One of the following foreign language/ culture choices:
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area chosen from a list of approved courses available in the Student Division or from the undergraduate advisor.

Courses taken to attain a certain level of proficiency in a foreign language are not electives and cannot be taken on the pass/fail basis.
3. Social science: Three semester credit hours in a social science field, in addition to the course taken to satisfy the Social and Behavioral Science requirement of the Core Curriculum.

A list of approved courses is available each semester in the Student Division and on the College of Liberal Arts website.
4. Cultural expression, human experience, and thought: Three semester hours of approved coursework. The course must be in a field of study taught in the College of Liberal Arts. A course counted toward any requirement of the core curriculum may not also be counted toward this requirement.
A list of approved courses is available each semester in the Student Division and on the College of Liberal Arts website.

## Major Requirements

The following 30 semester hours of coursework are required; these hours must include at least 18 hours of upper-division coursework.

1. Geography 401C
2. Twenty-six additional hours of coursework in geography, selected from Geography 301K, 404E, 410C, 333C, 333K, 334K, 334L, 335C, 335K, 335N, 338C, 339, 346, 356 (approved topics), 356T (approved topics), 357, 460G, 462K, 464K, 366C, 366K, 367K, 368C, 470C, and 476T (approved topics)
3. A grade point average of at least 2.00 in the 30 hours of geography coursework required for the major

## Electives

In addition to the core curriculum, prescribed work, additional prescribed work, and major requirements, the student must complete enough elective coursework to provide the 126 semester hours required for the degree. These 126 hours may include no more than 12 hours of conference courses and internship courses combined as described in Conference Courses and Internship Courses (p. 205); 12 hours of Bible courses; nine hours of designated coursework in air force science, military science, or naval science, except for students enrolled in the Military Leadership minor; 16 hours completed on the pass/fail basis; 39 hours in any one field of study offered in the College of Liberal Arts or the College of Natural Sciences, unless major requirements state otherwise; and 36 hours in courses offered in any other single college or school of the University. Mathematics courses at the level of college algebra may not count toward elective hours.

## Bachelor of Science in Psychology

As an alternative to the Bachelor of Arts degree, the Bachelor of Science in Psychology is designed to offer students a more extensive scientific program that may better prepare them for graduate study or employment in research fields. Students interested in mathematicsbased or physiology-based areas of psychology have the opportunity to develop more breadth and depth in the fields that complement their area of interest within psychology. To accomplish this goal, the curriculum for the Bachelor of Science in Psychology puts more emphasis on natural sciences and less on language arts.

A student may not earn both the Bachelor of Arts with a major in psychology and the Bachelor of Science in Psychology.

A total of 120 semester hours is required. Thirty-six hours must be in upper-division courses. At least 60 hours, including 18 hours of upper-division coursework, must be completed in residence at the University. Provided these residence rules are met, credit may be earned by examination, by extension, by correspondence (up to 30 percent of the hours required for the degree), or, with the approval of the dean, by work transferred from another institution. Up to 16 semester hours of classroom and/or correspondence coursework may be taken on the pass/fail basis; this coursework may be counted only as electives.

Students in this degree program may pursue any of the honors programs available to Bachelor of Arts, Plan I, students. These programs are described in the section Liberal Arts Honors Programs, Plan I (p. 196).

All students must complete the University's Core Curriculum. In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the Skills and Experience flags:

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent
2. Quantitative Reasoning: one flagged course
3. Global Cultures: one flagged course
4. Cultural Diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent Inquiry: one flagged course

Courses that may be used to fulfill core curriculum and flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity and global cultures flags from the same course. Students are encouraged to discuss options with a departmental academic advisor.

The specific requirements for the Bachelor of Science in Psychology consist of prescribed work, the major, the minor, and electives. Only in the following cases may a single course be counted toward more than one requirement:

1. A course that fulfills a core curriculum requirement may also be counted toward any specific requirement of the BSPsy unless otherwise stated below.
2. Courses counted toward the prescribed work may also be counted toward the major.
3. Up to three hours of coursework counted toward the prescribed work or toward the core curriculum may also be counted toward the minor.
4. A course that fulfills another requirement may also be used to fulfill a flag requirement.

The student must fulfill the University's General Requirements (p. 19) for graduation and the requirements given in the sections Special Requirements of the College of Liberal Arts (p. 203) and Applicability of Certain Courses (p. 204). University graduation requirements include a grade point average of at least 2.00 in all courses taken at the University (including credit by examination, correspondence, and extension) for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded; for this degree, the student must also earn a grade point average of at least 2.00 in courses taken at the University and counted toward the major requirement.

More information about grades and the grade point average is given in the General Information Catalog.

## Prescribed Work

1. Writing and Literature: English 316L, 316M, 316N, or 316P, and two courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag. One of these courses must be upper-division. Courses that carry a writing flag are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
2. Foreign language/culture: Students must complete one of the following options:
a. Second-semester-level proficiency, or the equivalent, in a foreign language.
b. First-semester-level proficiency, or the equivalent, in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-hour foreign culture courses chosen from a list available in the college's Student Division and the Department of Psychology.
Courses taken to attain the required level of proficiency in a foreign language are not electives and may not be taken on the pass/fail basis.
3. Social science: Three semester credit hours in a social science field, in addition to the course taken to satisfy the Social and Behavioral Science requirement of the Core Curriculum. Courses that are approved to count toward any core curriculum area other than social and behavioral sciences may not be counted toward this requirement.

A list of approved courses is available each semester in the Student Division and on the College of Liberal Arts website.
4. Mathematics and natural science: At least 25 semester hours of coursework as outlined below. Some of the courses that fulfill this requirement may also be counted toward the requirements of the core curriculum. No course may be counted toward both requirement 4 c and 4 d .
a. Mathematics 408 C or 408 K or a more advanced calculus course
b. Statistics and Data Sciences 301, 302, 303, 304, 305, 306, 321, 328M, 332, 352, 378, African and African Diaspora Studies 302M , Educational Psychology 371 or a more advanced Math course in probability
c. 16 to 18 hours, consisting of two of the following sequences:
i. Biology 311C, 311D, and 325
ii. Chemistry 301, 302, and 204
iii. Computer Science 303E, 313E, and one of the following: Computer Science 323E, 324E, 326E, 327E, 329E
iv. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N ; or 301, 101L, 316, and 116 L ; or $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or $302 \mathrm{~K}, 102 \mathrm{M}, 302 \mathrm{~L}$, and 102N
d. One of the following:
i. Three additional hours in mathematics. Mathematics 301, $302,303 \mathrm{D}, 303 \mathrm{~F}, 316 \mathrm{~K}$, and 316 L may not be used to fulfill this requirement.
ii. Three hours in biology, chemistry, computer science, or physics. Only the courses listed in requirement 4 c above and more advanced courses may be used to fulfill this requirement.
5. Cultural expression, human experience, and thought: Three semester hours of approved coursework. The course must be in a field of study taught in the College of Liberal Arts. A course counted toward any requirement of the core curriculum may not also be counted toward this requirement. A course counted toward the foreign language/
culture requirement, above, may not also be counted toward this requirement.

A list of approved courses is available each semester in the Student Division and on the College of Liberal Arts website.

## Major Requirements

Twenty-eight semester hours of psychology, at least 19 of which must be upper-division, including Psychology 301 and 420M with a grade of at least $C$ in each. No more than six hours of lower-division psychology may be taken beyond Psychology 301 and no less than 15 hours upper-division beyond Psychology 420M. Also included in these 28 hours must be at least six hours in each of the following two categories. A list of the courses in each area is available at https:// liberalarts.utexas.edu/psychology/ or from the Burdine Advising Office (BUR 230) for psychology majors. .

1. Clinical/social/developmental/evolutionary psychology
2. Cognition/language/neuroscience/perception

Psychology 420M and at least six hours of upper-division coursework must be completed in residence at the University. Psychology majors must earn a grade of at least $C$ in Psychology 420M to register for upperdivision psychology courses. Students may not enroll in Psychology 420M more than twice.

Psychology 357 and 359 may not be counted toward the 28 hours in psychology required for the major.

No student may register for more than 10 semester hours of psychology in any one semester without approval of an undergraduate advisor in the Department of Psychology.

## Minors

Students must also fulfill the requirements of a minor.
There are three types of minor.

1. A minor offered by a department or center
2. A Liberal Arts multi-disciplinary minor in the Social and Behavioral Sciences
3. A Liberal Arts multi-disciplinary minor in the Humanities

Only one minor may be declared per major. Before planning to use a course to fulfill the minor requirement, the student should consult the department that offers the course.

At least nine of the hours required for the minor must include coursework not used to satisfy the requirements of the student's major. Courses used to fulfill the requirements for a minor must be taken on a lettergrade basis, and half of the required semester hours must be taken in residence.

## Electives

In addition to the core curriculum, prescribed work, major, and minor, the student must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than 12 hours of conference courses and internship courses combined as described in Conference Courses and Internship Courses (p. 204); 12 hours of Bible courses; nine hours of designated coursework in air force science, military science, or naval science, except for students enrolled in the Military Leadership minor; 16 hours completed on the pass/fail basis; 39 hours in any one field of study in the College of Liberal Arts or the College of Natural Sciences (including
psychology); and 36 hours in any other single college or school of the University. Mathematics courses at the level of college algebra may not count toward elective hours.

## Minor and Certificate Programs <br> Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minor and Certificate Programs (p.13) section of the Undergraduate Catalog.

Transcript-recognized undergraduate minors in foreign languages require a minimum of 15 hours of coursework in the minor area, but may not require more than 21 hours. None of the specified coursework from the minor can include unnumbered topics courses. Minors must include a minimum of nine hours beyond first-year competence in the language, including at least three hours of upper-division coursework. At least half of the required course work in the minor must be completed in residence at The University of Texas at Austin.

## African and African Diaspora Studies Minor

Fifteen semester hours of African and African Diaspora Studies, including:

| Requirements | Hours |
| :--- | :--- |
| AFR 303 |  |
| AFR 304 | Introduction to Black Studies |$\quad 3$

## American Sign Language Minor

## by admission only

Student must have completed American Sign Language 610D and demonstrate Intermediate-Low to Intermediate-Mid proficiency following ACTFL speaking guidelines before applying to the minor

Twenty-one semester credit hours, including the following or their equivalents:

| Requirements | Hours |  |
| :--- | :--- | ---: |
| ASL 601D | American Sign Language I: <br> \& ASL 610D | Beginning <br> and American Sign Language II: <br> Beginning |
| ASL 311D | American Sign Language III: <br> Intermediate | 3 |
| Six hours upper-division American Sign Language | 6 |  |

Please Note:

Candidates must apply for the ASL minor, and certification of completion of the requirements for the minor will be made by the ASL program director.

## American Studies Minor

Fifteen semester credit hours, including:

| Requirements | Hours |  |
| :--- | :--- | ---: |
| AMS 310 | Introduction to American Studies | 3 |
| AMS 311S | Introductory Seminar in American | 3 |
|  | Studies |  |
| AMS 355 | Main Currents of American Culture | 3 |
| or AMS 356 | to 1865 | 3 |
| AMS 370 | Main Currents of American Culture since 1865 |  |
| Three additional semester credit hours of American studies | 3 |  |
| Please Note: | Seminar in American Culture | 3 |
| Must include nine hours of upper-division courses |  |  |

## Anthropology Minor

Fifteen semester credit hours, including:

## Requirements <br> Hours

Two of the following courses

| ANT 301 | Biological Anthropology |
| :--- | :--- |
| ANT 302 | Cultural Anthropology |
| ANT 304 | Introduction to Archaeological |
|  | Studies: Prehistoric Archaeology |
| ANT 307 | Culture and Communication |

Nine additional hours upper-division anthropology
Please Note:
A minimum of nine hours must be completed in residence.
A student must earn a grade point average of at least 2.00 in courses taken at the University and counted toward the minor requirements.

## Arabic Minor

Eighteen semester credit hours in Arabic, consisting of the following or their equivalents:

| Requirements | Hours |  |
| :--- | :--- | :--- |
| ARA 601C | Intensive Arabic I | 6 |
| ARA 611C | Intensive Arabic II | 6 |
| Six hours upper-division Arabic | 6 |  |

## Archaeology Minor

Fifteen semester credit hours, including:

## Requirements <br> Hours

ANT 304
Introduction to Archaeological
or ANT 304T Studies: Prehistoric Archaeology Introduction to Texas Archaeology

Three semester credit hours from the following courses:

| ANT 324L | Topics in Anthropology ${ }^{1}$ |
| :--- | :--- |
| ANT 453 | Archaeological Analysis |
| ANT 353E | Archaeological Laboratory Analysis |
| ANT 662 | Field Archaeology |
| ANT 462M | Archaeological Techniques |

Nine hours of upper-division courses, chosen from an approved list available in the department office

1. Chosen from one of the three following topics: Topic 3: Primitive Technology, Topic 33: Geographical Information Systems and Remote Sensing for Archaeology and Paleontology, or Topic 58: Digital Data Systems in Archaeology

## Asian American Studies Minor

Fifteen semester hours, including:
Requirements
Hours
AAS 301
Introduction to Asian American Studies
or AAS 312 Introduction to Asian American History
Nine hours of upper-division coursework
Three additional semester credit hours of Asian American studies

## Asian Religions Minor

Fifteen semester hours, including:

| Requirements | Introduction to the Study of <br> R S 310 |
| :--- | :--- |
| Religion <br> ANS 301 R |  |
| History of the Religions of Asia <br> Nine hours (at least six upper-division) chosen from an |  |
| Chinese Minor |  |

## Requirements

Hours
First-Year Chinese Requirement 6 or 12

| CHI 606 | First-Year Chinese I |
| :--- | :--- |
| $\&$ CHI 607 | and First-Year Chinese II |
| or CHI 604 | Accelerated First-Year Chinese |

Second-Year Chinese Requirement 6 or 12

$$
\begin{array}{ll}
\text { CHI } 312 \mathrm{~K} & \text { Second-Year Chinese I } \\
\& \mathrm{CHI} 312 \mathrm{~L} & \text { and Second-Year Chinese II } \\
\text { or CHI } 612 & \text { Accelerated Second-Year Chinese }
\end{array}
$$

Three hours upper-division Chinese

## Classical Studies Minor

Seventeen semester credit hours, including:

| Requirements | Hours |  |
| :--- | :--- | ---: |
| GK 506 First-Year Greek I <br> or LAT 506 First-Year Latin I | 5 |  |
| Twelve hours from the following: ${ }^{1}$ | 12 |  |
| Any Classical Civilization course or |  |  |
| AHC 325 | Topics in Ancient History |  |
| or AHC 378 | Undergraduate Seminar in Ancient History |  |

1. At least six of these hours must be upper-division

Fifteen semester credit hours, including:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| C L 301 | Introduction to Comparative Literature | 3 |
| CL315 | Masterworks of World Literature | 3 |
| Six semester c Topics in Comp linguistic area | s of Comparative Literature 323, terature, in a single regional or | 6 |
| Three additiona Literature 323, | er hours of any Comparative Comparative Literature | 3 |

## Core Texts and Ideas Minor

Fifteen semester credit hours, including:
Requirements HoursFifteen hours of Core Texts and Ideas courses ${ }^{1}$15

1. Must include at least six hours of upper-division courses and at least nine hours in residence

## Cultural Anthropology Minor

Fifteen semester credit hours, including:

| Requirements | Hours |  |
| :--- | :--- | :--- |
| ANT 302 | Cultural Anthropology | 3 |
| ANT 305 | Expressive Culture | 3 |
| Nine upper-division semester credit hours chosen from an | 9 |  | approved list

## Cultural Expression, Human Experience, and Thought Minor

Fifteen semester credit hours, including:

## Requirements <br> Hours

Fifteen semester credit hours ${ }^{1}$

1. Must be chosen from a list of Cultural Expression, Human Experience, and Thought courses and must include six upperdivision hours.

## Economics Minor

The transcript-recognized minor in economics allows students not majoring in economics to master an important and useful set of concepts, simple models, and analytical skills in economics. Students may focus on analytical skills and quantitative methods by taking theory courses and courses in economic statistics and econometrics; or they may take a cluster of upper-division economics courses in order to explore a field of economics in some depth.

To fulfill the requirements of the transcript-recognized minor in economics, students must complete at least 15 semester hours of coursework as described below. All of the upper-division economics courses must be taken in residence at The University of Texas at Austin. All courses must be taken on a letter-grade basis. Up to three of the upper-division hours may be from an approved list of courses offered by a different department at The University of Texas at Austin. A substitute for Economics 329 may satisfy the prerequisite for Economics 420K but
may not count toward upper-division economics hours applied to the minor in economics.

The transcript-recognized minor in economics requirements are:

| Requirements | Hours |  |
| :--- | :--- | ---: |
| ECO 304 K | Introduction to Microeconomics | 3 |
| ECO 304 L | Introduction to Macroeconomics | 3 |
| $\begin{array}{llr}\text { One of the following: }\end{array}$ | 3 or 4 |  |
| ECO 420K | Microeconomic Theory |  |
| or ECO 421K | Microeconomic Theory For Business |  |$]$

## English Minor

Fifteen semester credit hours in English, including:

## Requirements

## Hours

$\begin{array}{ll}\text { Fifteen semester hours in English }{ }^{1} & 15\end{array}$
Please Note:
A grade of C - or higher is required in each course counted toward fulfillment of the minor.
---

1. Must include at least nine hours of upper-division coursework and nine hours in residence.

## European Studies Minor

Fifteen semester credit hours, including:

| Requirements | Hours |  |
| :--- | :--- | :--- |
| EUS 305 | Introduction to European Studies | 3 |
| EUS 350 | Governments and Politics of | 3 |
| or GOV 351D | Western Europe |  |
|  | The Theoretical Foundations of Modern |  |
|  | Politics |  |

One of the following courses:

| EUS 346 | Topics in European Anthropology, <br> Geography, History, and Sociology |
| :--- | :--- |
| EUS 347 | Topics in European Culture, <br> Literature, Art, Music, and Media |
| EUS 348 | Topics in European Economics, <br> Government, Business, and Policy |

Six additional hours of upper-division European Studies

## Evolutionary and Functional Anatomy Minor

by admission only
Fifteen semester credit hours, including:
Requirements

## Hours

ANT 301 Biological Anthropology 3
Twelve hours from the following courses:

ANT 432L
ANT 348
ANT 348K

Primate Anatomy
Human Origins and Evolution
Current Topics in Biological
Anthropology (Topic 8: Evolutionary
Anatomy of the Head and Neck)

| ANT 348K | Current Topics in Biological <br> Anthropology (Topic 11: Early <br> Hominid Evolution) |
| :--- | :--- |
| ANT 349C | Human Variation |
| ANT 350C | Primate Sensory Ecology |
| ANT 351E | Primate Evolution |
| ANT 366 | Anatomy and Biology of the Human <br> Skeleton |

Please Note:
A minimum of nine hours must be upper-division.
A minimum of nine hours must be completed in residence.
A student must earn a grade point average of at least 2.00 in courses taken at the University and counted toward the minor requirements.

## French Studies Minor

Twenty-one semester credit hours, including:
Either.

| Requirements | Hours |  |
| :--- | :--- | :--- |
| FR 601C | Beginning French | 6 |
| FR 611C | Intermediate French | 6 |
| FR 317C | Enhancing French Skills | 3 |
| FR 320E | Advanced French I | 3 |
| Three additional semester credit hours of upper-division | 3 |  |
| French |  |  |

Or.

| Requirements | Hours |  |
| :--- | :--- | :--- |
| FR 406 | Introductory French I |  |
| \& FR 407 | and Introductory French II | 8 |
| FR 412K | Intermediate French I | 4 |
| FR 317C | Enhancing French Skills | 3 |
| FR 320E | Advanced French I | 3 |
| Three additional semester credit hours of upper-division | 3 |  |
| French |  |  |

## Geography Minor:

A minimum of 15 hours in Geography, including:

| Requirements | Hours |  |
| :---: | :---: | :---: |
| GRG 301C/401C | The Natural Environment ${ }^{1}$ | 3/4 |
| or GRG 301 K | Weather and Climate |  |
| GRG 305 | This Human World: An Introduction to Geography | 3 |
| GRG 310C | Spatial Data and Analysis | 3 or 4 |
| or GRG 460G | Environmental Geographic Information Systems |  |
| or GRG 462K | Introduction to Remote Sensing of the Environment |  |
| Six additional semester credit hours of upper-division geography |  | 6 |
| --- |  |  |
| 1. Course is GRG beginning Fall 20 | w and becomes GRG 401C |  |

## German, Scandinavian and Dutch Studies Minor

A minimum of 15 hours German, Scandinavian, and Dutch Studies coursework:

## Requirements

Hours
Fifteen hours of German, Scandinavian, and Dutch Studies ${ }^{1}$

1. Must include at least nine hours of upper-division coursework

## Global Interreligious Dynamics Minor

Fifteen semester credit hours, including:

| Requirements | Hours |
| :--- | :--- |
| R S 307 | Introduction to Interreligious <br> Dynamics |
| R S 375S | Advanced Seminars in Religious <br> Studies |
| Nine additional hours from approved list, including six hours <br> upper-division. |  |

## Government Minor

Eighteen semester hours, including:

| Requirements | Hours |
| :--- | ---: |
| Eighteen hours of coursework in government ${ }^{1}$ | 18 |
| -- |  |
| 1. Must include at least nine hours of upper-division |  |
| coursework and at least nine hours in residence. |  |

## Greek Minor

At least 19 semester credit hours in Greek, including:

| Requirements |  | Hours |
| :--- | :--- | ---: |
| GK 506 | First-Year Greek I | 10 |
| \& GK 507 | and First-Year Greek II |  |
| GK 311 | Intermediate Greek I | 3 |
| GK 312K | Intermediate Greek II | 3 |
| or GK 312L | Intermediate Greek II: Biblical Greek |  |
| GK 324 | Advanced Greek | 3 |

## Hebrew Minor

At least 15 hours of Hebrew, including:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| First-Year Hebrew Requirement |  | 6 or 10 |
| HEB 506 <br> \& HEB 507 <br> or HEB 601C | First-Year Hebrew I and First-Year Hebrew II Intensive Hebrew I |  |
| Second-Year Hebrew Requirement |  | 6 or 8 |
| HEB 412 K <br> \& HEB 412L <br> or HEB 611C | Second-Year Hebrew I and Second-Year Hebrew II Intensive Hebrew II |  |
| Three hours upper-division Hebrew |  | 3 |

## History Minor

Fifteen semester credit hours, including:
(-

Requirements
Hours
Fifteen hours of coursework in history ${ }^{1}$

1. Must include at least six hours of upper-division.

## Holocaust and Genocide Studies Minor

Fifteen semester credit hours, including six upper-division.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| J S 307 | Introduction to Holocaust and Genocide Studies | 3 |
| Twelve additio | rom the following courses: | 12 |
| AFR 302M | Numbering Race |  |
| AFR 360 | Race, Law, and United States Society |  |
| AMS 321 | Studies in American Societies (Topic 4: America and the Holocaust) |  |
| AMS 321P | Race And Place |  |
| C L 323 | Topics in Comparative Literature (Topic 19: Women and the Holocaust) |  |
| C L 323 | Topics in Comparative Literature (Topic 40: Holocaust Aftereffects) |  |
| GOV 360R | Civil Wars and Ethnic Violence |  |
| GSD 361L | Anti-Semitism in History and Literature |  |
| HIS 317L | Topics in United States History (Topic 8: Introduction to Native American Histories) |  |
| HIS 322R | Biology, Behavior, and Injustice |  |
| HIS 322S | The History of Genetics and Eugenics |  |
| HIS 337N | Germany in the Twentieth Century |  |
| HIS 350L | Undergraduate Seminar in History (Topic 56: Germany Since Hitler) |  |
| HIS 350L | Undergraduate Seminar in History (Topic 73: Race, Science, and Racism) |  |
| HIS 350L | Undergraduate Seminar in History (Topic 79: World War II in Eastern Europe) |  |
| HIS 350L | Undergraduate Seminar in History (Topic 83: Writing Violence in History) |  |
| HIS 350R | Undergraduate Seminar in United States History (Topic 23: TwentiethCentury Native American History) |  |
| HIS 362D | Introduction to the Holocaust |  |
| HIS 366N | Topics in History (Topic 15: AntiSemitism) |  |
| J S 304N | Jewish Civilization: 1492 to the Present |  |
| L A 320J | Jewish Studies Internship ${ }^{1}$ |  |
| MAS 374 | Special Topics (Topic 35: Race and Citizenship in United States History) |  |

1. The internship must include content related to the minor and must be pre-approved by the Jewish Studies faculty advisor.

## Italian Studies Minor

Eighteen semester credit hours of Italian, including:

| Requirements | Hours |  |
| :--- | :--- | :--- |
| ITL 601C | Beginning Italian | 6 |
| ITL 611C | Intermediate Italian | 6 |
| ITL 320 | Advanced Italian | 3 |
| Three additional semester credit hours of upper-division | 3 |  |
| Italian |  |  |
| Please Note: |  |  |
| Six of the credit hours must be upper-division. |  |  |

## Jewish Studies Minor

Fifteen semester credit hours, including:

| Requirements | Hours |  |
| :--- | :--- | :--- |
| J S 304M | Jewish Civilization: Beginnings to | 3 |
| or J S 304N | Jewish Civilization: 1492 to the Present |  |
| Twelve additional hours of Jewish studies courses, of which <br> nine must be upper-division. Of these nine hours, three hours <br> must be in humanities and three hours in history and social <br> science. | 12 |  |

## Korean Minor

At least 15 semester credit hours Korean, including:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| First-Year Korean Requirement |  | 6 or 12 |
| KOR 606 <br> \& KOR 607 <br> or KOR 604 | First-Year Korean I and First-Year Korean II Accelerated First-Year Korean |  |
| Second-Year Korean Requirement |  | 6 |
| KOR 312K <br> \& KOR 312L <br> or KOR 612 | Second-Year Korean I and Second-Year Korean II Accelerated Second-Year Korean |  |
| Three hours upper-division Korean |  | 3 |

## Language, Culture, and Communication Minor

Fifteen semester credit hours, including:
Requirements Hours

| ANT 302 | Cultural Anthropology | 3 |
| :--- | :--- | :--- |
| ANT 307 | Culture and Communication | 3 |
| Nine upper-division credit hours chosen from an approved list | 9 |  |

## Latin Minor

Eighteen semester credit hours in Latin, consisting of:

## Requirements

Hours
LAT 506
\& LAT 507

First-Year Latin I 10

LAT 511 K
Accelerated Intermediate Latin

## Law, Justice, and Society Minor

Eighteen semester credit hours of coursework, consisting of:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Eighteen credit hours chosen from the following: ${ }^{1}$ |  |  |
| Six hours of Government |  | 6 |
| GOV 312P | Constitutional Principles: Core Texts |  |
| GOV 314D | Human Rights Theories and Practices |  |
| GOV 320K | United States Constitutional Development: Structures |  |
| GOV 320N | United States Constitutional Development: Rights |  |
| GOV 331L | Law and Society |  |
| GOV 335D | Natural Law Theory |  |
| GOV 335Q | Global Justice |  |
| GOV 337D | Law and Democracy in Latin America |  |
| GOV 351C | The Classical Quest for Justice |  |
| GOV 357L | Judicial Process and Behavior |  |
| GOV 357M | Topics in Public Law (any topic) |  |
| GOV 365S | Comparative Legal Systems |  |
| GOV 365W | Human Rights and World Politics |  |
| Three hours of Sociology |  | 3 |
| SOC 307D | Capital Punishment in America |  |
| SOC 307T | Punishment and Society |  |
| SOC 318 | Juvenile Delinquency |  |
| SOC 321D | Demography of Crime and Punishment |  |
| SOC 323C | Policing |  |
| SOC 325K | Criminology |  |
| SOC 325L | Sociology of Criminal Justice |  |
| SOC 336P | Social Psychology and the Law |  |
| SOC 340D | Violence |  |
| SOC 366 | Deviance |  |

Nine hours from the following:
Additional Government courses from the list above.
Additional Sociology courses from the list above.

| AFR 360 | Race, Law, and United States <br> Society |
| :--- | :--- |
| C C 375 | Seminar in Classical Studies (Topic <br> 1: Roman Law) <br> CTI 326C <br> EUS 346 |
|  | Topics in European Anthropology, <br> Geography, History, and Sociology <br> (Topic 4: Law and Society in Early <br> Modern Europe) <br> Undergraduate Seminar in <br> HIS 350R |
|  | United States History (Topic <br> 4: Constitutional Issues in the <br> Twentieth-Century United States) |
|  | United States Constitutional History |
| HIS 355S | Comparative Legal Systems |
| LAH 369H |  |


| PHL 342 | Political Philosophy (Topic 1: <br> Natural Law Theory) | MAS 362 |
| :--- | :--- | :--- | | Mexican American Policy Studies |
| :--- |
| Seminar |

## Lesbian, Gay, Bisexual, Transgender, and

 Queer/Sexualities Studies Minorby admission only

| Fifteen semester-credit hours, including: |
| :--- |
| Requirements  <br> WGS 303 Introduction to Lesbian, Gay, <br> Bisexual, Transgender, and Queer <br> Studies <br> or WGS 305 <br> Introduction to Women's and Gender Studies  <br> WGS 335 Topics in Lesbian, Gay, Bisexual, <br> Six semester credit hours from the following courses:  <br> WGS 335 Transgender, and Queer Studies |

An upper-division WGS course

Another course approved by Research Cluster chair

## Medieval Studies Minor

Fifteen semester credit hours, including:

## Requirements

Hours
Three hours of coursework in literary approaches to the Middle Ages, chosen from an approved list.
Three hours of course work in historical approaches to the Middle Ages, chosen from an approved list.
Nine additional hours, chosen from either of the above two lists.

Please Note:
Must include nine hours upper-division and nine hours in residence.

## Mexican American and Latina/o Studies Minor

Fifteen semester credit hours total, including:
Requirements Hours

| MAS 301 | Introduction to Mexican American <br> and Latina/o Studies |
| :---: | :--- |
| One of the following courses: | 3 |
| MAS 307 | Introduction to Mexican American <br> Cultural Studies |
| MAS 308 | Introduction to Mexican American <br> Policy Studies |
| MAS 309 | Bilingualism in the Americas |
| One of the following courses: | 3 |

MAS 361 Mexican American Cultural Studies Seminar

## Middle Eastern Studies Minor

Fifteen semester credit hours, consisting of:

## Requirements <br> Hours

| MES 301 K | Introduction to the Middle East: <br> Religious, Cultural, and Historical <br> Foundations | 3 |
| :---: | :--- | :---: |
| MES 301L | Introduction to the Middle East: <br> Adjustment and Change in Modern <br> Times | 3 |
| Nine hours of upper-division MES coursework chosen from: |  |  |
| MES 341 | Topics in the Middle East: Social <br> Science | 9 |
| MES 342 | Topics in the Middle East: Arts and <br> Humanities |  |
| MES 343 | Topics in the Middle East: History |  |

## Military Leadership Minor

Fifteen semester credit hours, including:

Requirements

Hours

Fifteen semester credit hours, chosen from air force science, 15 naval science, and military science ${ }^{1}$

3

1. Must include six upper-division hours in a single field of study

## Persian Minor

At least 15 semester credit hours of Persian, including:
Requirements Hours

For students new to the Persian language:
PRS 601C Intensive Persian I 6
PRS 611C Intensive Persian II 6
PRS 322K Intermediate Persian I 3

PRS 329 Topics in Persian Language, 3
Literature, and Culture
For heritage speakers of Persian:
PRS 612C Intensive Persian for Heritage 6
Speakers
PRS 322K Intermediate Persian I 3
Six semester credit hours of Persian 329, Topics in Persian 6
Language, Literature, and Culture
Please Note:
Must include at least six hours of upper-division courses.

## Philosophy Minor

Fifteen semester hours, including:
Requirements Hours

Fifteen hours of coursework in philosophy ${ }^{1}$

1. Must include at least six hours of upper-division and at least nine hours in residence.

## Philosophy of Law Minor

Eighteen credit hours, including:

## Requirements

PHL 304
\& PHL 347
One of the following courses:

| PHL 312 | Introduction to Logic |
| :--- | :--- |
| PHL 313 | Introductory Symbolic Logic |
| PHL 313Q | Logic and Scientific Reasoning |

One of the following courses:

| PHL 318 | Introduction to Ethics |
| :--- | :--- |
| PHL 318K | Introduction to Political Philosophy |

Six hours chosen from the following courses:

| PHL 318 | Introduction to Ethics ${ }^{1}$ |
| :--- | :--- |
| PHL 318K | Introduction to Political Philosophy |
| PHL 322K | History of Ethics |
| PHL 325D | Environmental Ethics and |
| PHL 325J | Health and Justice |
| PHL 325K | Ethical Theories |
| PHL 325L | Business, Ethics, and Public Policy |
| PHL 325M | Medicine, Ethics, and Society |
| PHL 325N | Political Philosophy |
| PHL 342 | Origins of Liberalism |
| PHL 342L | Philosophy of Race and Gender |
| PHL 342R |  |
| $--~$ |  |

1. If not taken for three hours, above.

## Philosophy of Mind and Language Minor

Fifteen semester credit hours, including:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| PHL 332 | Philosophy of Language | 3 |
| PHL 313 or PHL 313Q | Introductory Symbolic Logic Logic and Scientific Reasoning | 3 |
| $\begin{aligned} & \text { PHL } 303 \mathrm{M} \\ & \text { or PHL } 323 \mathrm{M} \end{aligned}$ | Mind and Body <br> Philosophy of Mind | 3 |
| Six additional ho | sen from the following courses: | 6 |
| PHL 303M | Mind and Body ${ }^{1}$ |  |
| PHL 323M | Philosophy of Mind ${ }^{1}$ |  |
| PHL 332M | Interpretation and Meaning |  |
| PHL 344K | Intermediate Symbolic Logic |  |
| PHL 358 | Philosophical Logic |  |
| PHL 365 | Selected Problems in Philosophy (Topic 2: Introduction to Cognitive Science) |  |
| PSY 305 | Introduction to Cognitive Psychology |  |

## Hours

| LIN 306 | Introduction to the Study of <br> Language |
| :--- | :--- |
| LIN 353N | Natural Language Processing |
| LIN 372L | Syntax and Semantics: The <br> Structure and Meaning of <br> Utterances |
| - 1. If not taken above. |  |




| Requirements |  | Hours |
| :--- | :--- | ---: |
| POR 610D | First-Year Portuguese II | 6 |
| POR 311C | Portuguese Conversation and <br> Culture | 3 |
| POR 314C | Intermediate Writing and Grammar <br> in Context | 3 |
| One of the following: | Advanced Grammar and Writing in <br> POR 327C | Context <br> Introduction to Literatures and <br> Cultures |
| POR 328C | Introduction to Language and <br> Linguistics in Society | 3 |
| Three additional hours of upper-division coursework in | 3 |  |
| Portuguese |  |  |

## Portuguese

Or:

| Requirements | Hours |
| :--- | :--- | :--- |
| POR 610S | Portuguese for Spanish Speakers I |$\quad 6$

## Primatology Minor

by admission only
Fifteen credit hours, including:

## Requirements Hours

ANT 301 Biological Anthropology 3

Twelve hours from the following courses: 12

| ANT 310L | Introductory Topics in Anthropology <br> (A list of approved topics is <br> available from the Anthropology <br> Academic Advisor) |
| :--- | :--- |
| ANT 432L | Primate Anatomy |
| ANT 346L | Primate Social Behavior |
| ANT 346M | Comparative Primate Ecology |
| ANT 347C | Methods in Primate Biology <br> Current Topics in Biological <br> Anthropology (Topic 10: Primate <br> Conservation) |
| ANT 348K | Current Topics in Biological <br> Anthropology (Topic 12: Sex and <br> Human Nature) |
| ANT 348K | Primate Sensory Ecology |
| ANT 350C | Primate Evolution |

## Religious Studies Minor

Students may not earn a minor in the same field of study as their major, and at least nine of the hours required for the minor must include coursework not used to satisfy the requirements of the student's major. However, courses in the minor may fulfill other degree requirements such as general education requirements or required elective hours.

| Requirements | Hours |  |
| :--- | :--- | :--- |
| RS 310 | Introduction to the Study of <br> Religion | 3 |
| Twelve hours of coursework from an approved list | 12 |  |

## Please Note:

Must include at least six hours of upper-division coursework.
Fifty percent of coursework must be taken in residence.
Specified coursework cannot include unnumbered topics.

## Rhetoric and Writing Minor

Fifteen hours, including:

## Requirements Hours

| RHE 321 | Principles of Rhetoric | 3 |
| :---: | :---: | :---: |
| One of the following courses: |  | 3 |
| RHE 330C | Advanced Studies in Digital Rhetoric |  |
| RHE 330D | History of Rhetoric |  |
| RHE 330E | Rhetorical Theory and Analysis |  |
| One of the following upper-division courses: |  | 3 |
| RHE 330C | Advanced Studies in Digital Rhetoric |  |
| RHE 330D | History of Rhetoric |  |
| RHE 330E | Rhetorical Theory and Analysis |  |
| RHE 325M | Advanced Writing |  |
| RHE 328 | Topics in Professional and Technical Writing for Liberal Arts Majors |  |


| RHE 360M | Rhetoric and Writing for Teachers <br> of English |
| :--- | :--- |
| RHE 368E | Editing for Publication |
| Two additional courses, either upper-division (see list above) |  |
| or lower-division (see list below): |  |$\quad 6$

Please Note:
Must include at least nine hours of upper-division coursework

## Russian Minor

At least 15 semester credit hours in Russian, including:

| Requirements |  | Hours |
| :--- | :--- | ---: |
| RUS 506 | First-Year Russian I | $6-10$ |
| \& RUS 507 | and First-Year Russian II |  |
| $\quad$ or RUS 601C | Intensive Russian I |  |
| RUS 412K | Second-Year Russian I <br> \& RUS 412L | and Second-Year Russian II <br> or RUS 611C |
| Intensive Russian II | $6-8$ |  |
| RUS 324 | Third-Year Russian I |  |

Please Note:
Must include three hours of upper-division coursework.

## Russian, East European, and Eurasian Studies Minor

Fifteen credit hours, including:
Requirements
Hours

| REE 301 | Introduction to Russian, East European, and Eurasian Studies | 3 |
| :---: | :---: | :---: |
| REE 301L | Introduction to Russian Literature | 3 |
| REE 325 | Topics in Language, Literature, and Culture | 3 |
| Six additional semester hours of upper-division coursework in Russian, East European, and Eurasian Studies |  | 6 |

## Slavic and Eurasian Languages Minor

The Slavic language minor is for students wishing to pursue the study of Bosnian-Croatian-Serbian, Czech, Polish (or another Slavic or Eurasian language, such as Ukrainian) at intermediate and advanced levels.

## Requirements

Hours
For Bosnian-Croatian-Serbian:

| S C 506 | First-Year Bosnian/Croatian/ <br> Serbian I | 5 |
| :--- | :--- | ---: |
| S C 507 | First-Year Bosnian/Croatian/ <br> Serbian II | 5 |
| S C 312K | Second-Year Bosnian/Croatian/ <br> \& S 312L | Serbian I <br> and Second-Year Bosnian/Croatian/ <br> Serbian II |
| S C 325 | Third-Year Bosnian/Croatian/ <br> Serbian I | 6 |
|  | Ser | 3 |



## Social and Behavioral Sciences Minor

Fifteen semester credit hours, including:

## Requirements

Hours
Fifteen semester credit hours, including six upper-division ${ }^{1}$

1. Must be in at least two but no more than three fields of study in the social and behavioral sciences.

## Sociology Minor

Fifteen semester hours, including:

## Requirements

## Hours

SOC 302
Introduction to the Study of Society
Twelve additional hours of sociology coursework12

Please Note:
At least six hours must be upper-division coursework.
Nine of the required semester hours must be taken in residence.

## Spanish Minor

Eighteen semester credit hours, including:

| Requirements | Hours |  |
| :---: | :--- | :---: |
| SPC 320 C | Topics in Iberian or Latin American <br> Studies | 3 |
| One of the following: |  | 3 |
| SPN 327C | Advanced Grammar and Writing in <br> Context |  |
| or SPN 327N | Academic Writing for Heritage Speakers |  |$\quad 3$

$\begin{array}{ll}\text { or SPN 330L } & \begin{array}{l}\text { Introduction to Language and Linguistics in } \\ \text { Society }\end{array}\end{array}$
Nine additional semester credit hours of upper-division 9 coursework in Spanish

## Turkish Minor

Between 15 and 21 hours of Turkish, including:

| Requirements |  | Hours |
| :--- | :--- | ---: |
| TUR 506 | First-Year Turkish I |  |
| \& TUR 507 | and First-Year Turkish II <br> or TUR 601C | Intensive Turkish I |
| TUR 412K <br> \& TUR 412L <br> or TUR 611C | Second-Year Turkish I <br> and Second-Year Turkish II <br> Intensive Turkish II | $6-8$ |
| Three hours upper-division Turkish |  |  |

## UTeach-Liberal Arts Minor

by admission only
The University recommends students for teacher certification to TEA. To be recommended for a certificate to teach in secondary school, an undergraduate student must earn a degree as well as complete an approved teacher certification program, of which the coursework below is only a part.

Admissions Requirements

- The UTeach-Liberal Arts undergraduate program requires at least a four long-semester commitment.
- The program is open to current undergraduates at The University of Texas at Austin and incoming transfer students.
- Students are eligible to enter the program second semester freshman year through senior year.
- Admission to UTeach-Liberal Arts requires a minimum overall GPA of 2.5 at the University.


## Application Process

1. Complete the UTeach-Liberal Arts Undergraduate Program Application. Our Program Advisor will notify you about your admissions status via email within 5-10 business days of your application submission.
2. Once Admitted, you will receive instructions on how to reserve a spot for UTL 101 "Introduction to Teaching", the first UTeach course.

Once you have reserved a spot, you may register for the course during your normal registration access period. Failure to register for your spot will result in losing your reservation in UTL 101.

Fifteen semester hours of required UTeach coursework must be completed as follows:

| Requirements | Hours |  |
| :--- | :--- | :---: |
| UTL 101 | Introduction to the Teaching <br> Profession | 1 |
| UTL 202 | Introduction to Teaching in the <br> Middle School | 2 |
| EDP 350G | Adolescent Development | 3 |
| Six hours chosen from: |  | 6 |
| UTL 640 | Teaching in Secondary Schools <br> (LOTE) |  |
|  |  |  |


| UTL 640 | Teaching in Secondary Schools <br> (English) |
| :--- | :--- |
| UTL 640 | Teaching in Secondary Schools <br> (Social Studies) |

Three hours chosen from:

| ALD 322 | Individual Differences (SEC) |
| :--- | :--- |
| ALD 322 | Individual Differences |

Please Note:
Coursework for the UTeach-Liberal Arts program is dictated by the State Coordinating Board for Higher Education and the State Board for Educator Certification, not by University catalogs. Therefore, changes in requirements may be independent of major and university requirements and may take place at any time.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

## Women's and Gender Studies Minor

## by admission only

Fifteen credit hours, including:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| One of the following courses: |  | 3 |
| WGS 301 | Introductory Topics in Women's and Gender Studies |  |
| WGS 303 | Introduction to Lesbian, Gay, <br> Bisexual, Transgender, and Queer Studies |  |
| WGS 305 | Introduction to Women's and Gender Studies |  |
| WGS 340 | Cross-Cultural Topics in Women's and Gender Studies | 3 |
| WGS 340 | Cross-Cultural Topics in Women's and Gender Studies (Different WGS 340 topic from that counted above, or other upper-division course in Women's and Gender Studies) | 3 |
| WGS 350 | Feminist Theory (or other upperdivision courses in Women's and Gender Studies) | 3 |
| Three additional hours of Women's and Gender Studies |  | 3 |

## Certificate Programs

The College of Liberal Arts offers several certificate programs, which are open to all degree-seeking University undergraduates. Undergraduates who complete certificate requirements in conjunction with their degree requirements or within one year after earning the degree receive recognition on the University transcript; students in integrated undergraduate/graduate programs must complete certificate requirements within one year after they complete their undergraduate degree requirements. A maximum of nine semester hours of certificate coursework may be taken after the student has earned the undergraduate degree. At least half of the required certificate coursework must be completed in residence at the University; some programs may require more work in residence.

Students may not earn a certificate in the same field as their major, and may not count the certificate towards their minor requirement if more
than six hours of the certificate's coursework may also be counted toward the requirements of the major. A certificate counted in place of a minor must meet the minimum requirements for a minor. However, certificate courses outside the major may be counted toward other degree requirements. For certificates not counting toward the minor requirement, at least one certificate course must be outside the requirements of the major.

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

Students outside the College of Liberal Arts should contact their dean's office for permission to complete a certificate program and for the applicability of certificate requirements toward their individual degrees. Students in the College of Liberal Arts may complete certificate programs offered through other colleges. These are described in Transcript-Recognized Certificate Programs (p. 13) and by each college that offers a transcript-recognized certificate program. Certificate programs that do not lead to transcript recognition are also described in the respective college's catalog section.

## African Studies Certificate

The African Studies Certificate allows students to engage with scholarship on African peoples, cultures, and history through the theoretical lens of black studies. Through the certificate, undergraduates develop interdisciplinary expertise in African studies related to the student's personal field of interest. The African and African Diaspora Studies undergraduate advisor (AADS) is available to steer certificate candidates towards areas of interest, which can include: expressive cultures, gender and sexuality studies, literature, language, history, politics, and society as these topics relate to theories of blackness on the African continent.

The certificate program requires 18 semester hours of coursework, including at least nine semester hours completed in residence.

Courses the student has completed at the time of application to the program may be counted toward the certificate. Students may not earn a certificate in the same field of study as their major and at least one course counting toward this certificate must be taken outside of the requirements of the student's undergraduate degree. Students apply for transcript-recognized undergraduate academic certificates at the time they complete their undergraduate degree or the certificate program, whichever comes later. Transcript recognition is awarded at that time.

Students must fulfill the following requirements:

## Requirements

## Hours

AFR 304 Introduction to the Study of Africa ${ }^{1} 3$
AFR $310 \mathrm{~K} \quad$ Introduction to Modern Africa ${ }^{1} 3$
Twelve additional semester hours (upper- or lower-division) 12
chosen from courses on an approved list or with prior
approval from AADS ${ }^{2}$
Please Note:
The student must earn a grade of at least $C$ in each of the courses taken to fulfill the African Studies Certificate requirements.
Each semester, the list of approved courses that meet the requirements above is available in the Department of African and African Diaspora Studies undergraduate advising office.

1. Or an alternative course taken with approval from AADS.
2. One of the courses must carry a writing flag from the School of Undergraduate Studies and/or place an emphasis on research and writing, such as African and African Diaspora Studies 372G or an alternative course taken with approval from AADS

## Business Spanish Certificate

Between 18 and 24 semester credit hours of Spanish, consisting of:

## Requirements

Hours
For non-heritage speakers:

| SPN 601D | First-Year Spanish I | 6 |
| :--- | :--- | :--- |
| SPN 610D | First-Year Spanish II | 6 |
| SPN 311 | Intermediate Spanish | 3 |
| SPN 314 | Spanish Conversation and Culture | 3 |
| SPN 327C | Advanced Grammar and Writing in | 3 |
| or SPN 327N | Context |  |
| SPN 367D | Academic Writing for Heritage Speakers |  |
|  | Business in Hispanic Life and | 3 |

## Requirements

Hours
For heritage speakers:

| SPN 604 | Accelerated Introductory Spanish <br> for Heritage Learners | 6 |
| :---: | :--- | :---: |
| SPN 311J | Intermediate Spanish for Heritage <br> Learners | 3 |
| SPN 314J | Writing and Culture in Context for <br> Heritage Learners | 3 |
| SPN 327C | Advanced Grammar and Writing in <br> Context | 3 |
| SPN 367D 327N | Academic Writing for Heritage Speakers | 3 |

## Computational Science and Engineering Certificate

The Computational Science and Engineering Certificate program is sponsored by the Cockrell School of Engineering, the Jackson School of Geosciences, the College of Liberal Arts, and the College of Natural Sciences; it is administered by the Oden Institute for Computational Engineering and Sciences. Information regarding the specific requirements of the Certificate can be found in the Cockrell School of Engineering's Minor and Certificates (p. 146) section of the Undergraduate Catalog.

## Core Texts and Ideas Certificate

The certificate program in core texts and ideas is designed to provide a coherent path through the University's core curriculum with an integrated, interdisciplinary sequence of courses on great works of philosophy, literature, science, and the arts that emphasizes debates about fundamental questions of enduring human concern. The program provides a grounding in the major ideas that have shaped the Western world and gives students the opportunity to study Eastern works as well. Students complete courses in four required areas and two elective areas. The four required areas are the philosophy and literature of the ancient world, especially Greece; major religious texts and their interpreters; the history of political philosophy; and the principles that formed the basis for the founding of the United States. Elective areas include philosophy,
the arts, history, literature, and the history and philosophy of science and mathematics.

The certificate program requires 18 semester hours of coursework, including at least six hours of upper-division coursework and at least 12 hours completed in residence. Students must fulfill the following requirements:

| Requirements |
| :--- |
| The requirements of an undergraduate major |
| Hours <br> The following 12 semester hours of coursework or approved <br> alternatives as listed on the CTI Certificate Plan: ${ }^{1}$ |
| CTI 301G 12 <br> CTI 302 302 Introduction to Ancient Greece <br> Classics of Social and Political <br> Thought  <br> GOV 312P World Religions: Traditions and <br> Texts <br> Constitutional Principles: Core |

Six additional semester credit hours of CTI coursework or 6 other courses chosen from a list of approved electives.
Please Note:
All courses must be taken on the letter-grade basis.
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1. The Certificate Plan and list of approved electives for each semester are available from the academic advisor in the Thomas Jefferson Center for the Study of Core Texts and Ideas.

## Creative Writing Certificate

The Creative Writing Certificate is intended for any University student interested in advanced study of creative writing, both as reader and as writer. Those who plan to pursue the certificate should apply to the program advisor for admission no later than the end of their sophomore year. More information about the Creative Writing Certificate is given at the Department of English website.

The certificate program requires 18 semester hours of coursework, including at least nine hours completed in residence. Students must fulfill the following requirements:

## Requirements

Hours
The requirements of an undergraduate major
Six semester hours of coursework from English, theatre and 6 dance, or radio-television-film.
One of the following courses:

| CRW 315D | Playwriting I |
| :--- | :--- |
| CRW 325F | Fiction Writing |
| CRW 325M | Creative Writing |
| CRW 325P | Poetry Writing |

One of the following courses:
CRW 340D Playwriting II

CRW 340F Short Story Workshop
CRW 340P Poetry Workshop
CRW 660A Intensive Creative Writing (Part A)
One of the following courses:
3
CRW 355D Playwriting III

CRW 355F Advanced Fiction Workshop
CRW 355P Advanced Poetry Workshop
CRW 660B Intensive Creative Writing (Part B)

Three additional hours of coursework chosen from a list of approved courses available from the program advisor

Please Note:
The student must earn a grade of at least C - in each course taken to fulfill the Creative Writing Certificate requirements.

## Honors Option

To earn an Honors Creative Writing Certificate, students must fulfill the following additional requirements:

1. Creative Writing 370 H , Honors Creative Writing Project, with a grade of at least A-
2. A University Grade Point Average (GPA) of at least 3.66 in the coursework required for the Creative Writing Certificate and a cumulative University GPA of at least 3.33.

## Digital Humanities Certificate

The digital humanities represent the area of study where humanities disciplines and studies in information engage digital tools, archives, artifacts, and information technologies. This certificate is designed to introduce students to the ideas, materials, and computational tools that underlie this field. It is open to students of all majors. Those who plan to pursue the certificate should apply to the program adviser for admission no later than the end of their sophomore year. More information about the Digital Humanities Certificate is given at the College of Liberal Arts Digital Humanities website.

Students take 18 credit hours from a selection of courses taught in different departments and colleges at The University of Texas at Austin and must earn a letter grade of $C$ - or better in all courses required for certification. Some courses required by the certificate may also fulfill degree requirements established by a student's major department.

Students must fulfill the following requirements:

## Requirements

| Introduction to Digital Stu | udies, or other approved course | 3 |
| :---: | :---: | :---: |
| E 310D | Introduction to Digital Studies |  |
| Three hours of coursewor as | rk in a methods-based course, such | 3 |
| AET 305 | Foundations of Music Technology |  |
| AET 306 | Foundations of Digital Imaging and Visualization |  |
| AET 323C | Screen Scoring |  |
| AET 325C | Introduction to 2D Animation |  |
| AET 326 | Digital Production Art 3-D |  |
| AET 327 | Advanced 3-D Modeling |  |
| ART 318C | Transmedia: Digital Time-Art I |  |
| ART 338C | Transmedia: Digital Time-Art II |  |
| ART 358C | Transmedia: Digital Time-Art III |  |
| I 320C | Topics in Cultural Heritage Informatics (any topic) |  |
| J 339T | Topics in Specialized Journalistic Skills (Topic 1: Mapping in Storytelling) |  |
| MUS 319D | Foundations of Digital Sound and Music |  |
| MUS 329J | Introduction to Computer Music |  |
| RHE 330C | Advanced Studies in Digital Rhetoric (Topic 7: Digital Storytelling) |  |


| RHE 330C | Advanced Studies in Digital <br> Rhetoric (Topic 8: Writing with <br> Sound) |
| :--- | :--- |

Or other courses from an approved list.
Nine hours of coursework in digital humanities and informatics topics, such as

| CMS 341 | Digital Communications |
| :---: | :---: |
| CMS 348K | Visual Media and Interaction |
| 1301 | Introduction to Informatics |
| 1303 | Ethical Foundations for Informatics |
| 1310 C | Introduction to Cultural Heritage Informatics |
| 1310 U | Introduction to User Experience Design |
| 1320 | Topics in Informatics (Topic 1: Information in Cyberspace) |
| 1320 | Topics in Informatics (Topic 3: Comics, Graphic Novels, and Manga) |
| I 320C | Topics in Cultural Heritage Informatics |
| J 336F | Social Media Journalism |
| J 355F | Living in the Information Age |
| MUS 329E | Introduction to Electronic Media |
| RHE 309K | Topics in Writing (approved topics) |
| RHE 330C | Advanced Studies in Digital Rhetoric (Topic 6: Networked Writing) |
| RHE 330C | Advanced Studies in Digital Rhetoric (Topic 9: Digital Self and Rhetoric) |
| RTF 326C | Tech Culture |
| RTF 331P | Topics in New Communication Technologies (Topic 3: Internet Cultures) |
| Or other courses from an approved list. |  |
| three-hour c | urse involving project-based Digital |

Humanities work

| UGS 320K | Undergraduate Research <br> Experience |
| :--- | :--- |
| UGS 320L | Undergraduate Research <br> Experience |

Or other courses from an approved list. ${ }^{1}$
Please Note:
At least twelve hours of course credit towards the certificate must be completed before the capstone course can be counted towards the certificate. Each semester, the list of approved courses that meet the requirements above is available in the Department of English's undergraduate advising office and online at the College of Liberal Arts Digital Humanities website.

1. Such as an approved Departmental Honors Program Honors Tutorial Course as listed on the College of Liberal Arts undergraduate Academic Policies and Procedures website at http://catalog.utexas.edu/undergraduate/liberal-arts/ academic-policies-and-procedures/

## German Certificate

At least 18 semester credit hours in German, including:

## Requirements

## Hours

Eighteen hours of German coursework ${ }^{1}$

1. At least six of which must be upper-division hours.

## History and Philosophy of Science Certificate

The History and Philosophy of Science Certificate provides students an opportunity to gain a coherent, cross-disciplinary command of the methods and findings that the liberal arts have contributed to our understanding of the sciences. Students analyze the dynamic development, concepts, and roles in society of various sciences, as well as the personal, dramatic struggles of famous scientists. Students must complete four courses in two required areas: history of science, and philosophy of science, as well two electives to be selected from a list of pre-approved courses in history, philosophy, astronomy, physics, or core texts and ideas.

The certificate program requires 18 semester hours of coursework, of which at least 12 semester hours of coursework must be upper-division, and including at least nine semester hours completed in residence.

Courses the student has completed at the time of application to the program may be counted toward the certificate. Students apply for transcript-recognized undergraduate academic certificates at the time they complete their undergraduate degree or the certificate program, whichever comes later. Transcript recognition is awarded at that time. More information is available at the Certificate on History and Philosophy of Science website: http://liberalarts.utexas.edu/hps/index.php

Students must fulfill the following requirements:

## Requirements

Hours
Six semester credit hours chosen from the following courses:

| HIS 322D | The Scientific Revolution of the <br> Seventeenth Century |
| :--- | :--- |
| HIS 322M | History of Modern Science |
| HIS 322G | History of the Modern Life Sciences |
| HIS 350L | History of the Atomic Bomb |
| HIS 350L | Undergraduate Seminar in History <br> (Topic 32: The Galileo Affair) |
| PHL 313 | Undergraduate Seminar in History <br> (Topic 64: Einstein in the Age of <br> Conflict) |
| or PHL 363 | Introductory Symbolic Logic <br> Scientific Method |

One of the following courses:

| PHL 316K | Science and Philosophy |
| :--- | :--- |
| PHL 322 | Science and the Modern World |
| PHL 363L | Topics in Philosophy of Science |

Six additional semester credit hours, chosen from an approved list

## Please Note:

Each semester, the list of approved courses that meet the requirements above is available in the Department of History undergraduate advising office.

## Ibero-American Cultural Diversity Certificate

Eighteen semester credit hours, consisting of:

## Requirements

Hours
Six hours chosen from the following courses:

| SPC 320C | Topics in Iberian or Latin American <br> Studies (Topic 1: Jewish Voices <br> from Latin America) |
| :---: | :--- |
| SPC 320C | Topics in Iberian or Latin American <br> Studies (Topic 2: Mediascapes: <br> Literature and Media in the <br> Caribbean) |
| Three hours chosen from one of the following courses: |  |
| PRC 320E | Topics in Brazilian Studies (Topic <br> 2: Global Brazil: Immigration and <br> Diaspora in Brazilian Culture) |
| PRC 320E | Topics in Brazilian Studies (Topic 3: <br> Afro-Luso-Brazilian Worlds) |
| Nine additional semester credit hours, chosen from an |  |
| approved list |  |

## Indigenous Studies Certificate

The main goal of the indigenous studies certificate program is to encourage active intellectual and community engagement with indigenous peoples and cultures. The program allows undergraduate students to develop interdisciplinary expertise in indigenous studies and comparative approaches to their primary field of interest.

Courses the student has completed at the time of application to the program may be counted toward the certificate. Upon completion of the course requirements, students write a three- to four-page essay that describes their intellectual work in the program and how the experience contributed to their academic career at the University.

The certificate program requires 18 semester hours of coursework, including at least nine semester hours completed in residence. Students must fulfill the following requirements:

## Requirements

Hours
The requirements of an undergraduate major
Three semester hours in a lower-division introductory or
foundational course with indigenous studies content, such
as:

| E 314V | Introduction to Literature and |
| :--- | :--- |
| Culture (Topic 5: Native American |  |
| HIS 317L | Literature and Culture) |
|  | Topics in United States History |
|  | (Topic 8: Introduction to Native |
| American Histories) |  |

Or other courses from an approved list
Three semester hours (one course) from a list of approved
upper-division capstone courses with $100 \%$ content related to
Native American and indigenous studies
Twelve semester hours (four courses) of classes with at
least 30\% content related to Native American and Indigenous Studies. ${ }^{1}$
Please Note:
Students will be given the opportunity to enroll in a 3-hour conference course that allows students to work with issues in Indigenous Texas or the Southwest. This course can count toward the above 12-hour requirement.

Each semester a list of approved courses that meet the requirements above is available on the website of the Native American and Indigenous Studies Program: https:// liberalarts.utexas.edu/nais/.
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1. At least nine hours must be from upper-division courses. At least six hours must be taken in a field of study outside the student's major department.

## Japanese Certificate

Twenty-four semester credit hours, consisting of the following (or their equivalents):

| Requirements |  | Hours |
| :--- | :--- | :--- |
| JPN 601D | Japanese I | 6 |
| JPN 610D | Japanese II | 6 |
| JPN 611D | Intermediate Japanese | 6 |
| JPN 317C | Japanese Grammar, Composition, <br> and Conversation | 3 |
| Three hours upper-division Japanese | 3 |  |

## Lesbian, Gay, Bisexual, Transgender, and Queer/Sexualities Studies Certificate

The certificate program requires 18 semester hours of coursework, including at least nine semester hours completed in residence.

Courses the student has completed at the time of application to the program may be counted toward the certificate. Students apply for transcript-recognized undergraduate academic certificates at the time they complete their undergraduate degree or the certificate program, whichever comes later. Transcript recognition is awarded at that time.

Students must fulfill the following requirements:

## Requirements

Hours
WGS 303

> Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies
or WGS 305 Introduction to Women's and Gender Studies
Six hours in the following course:
WGS 335
Topics in Lesbian, Gay, Bisexual, Transgender, and Queer Studies ${ }^{1}$
Nine additional upper-division semester hours chosen from the following courses: ${ }^{2}$

WGS 335
Topics in Lesbian, Gay, Bisexual,
Transgender, and Queer Studies
An upper-division WGS course
Another course approved by LGBTQ/Sexualities Research Cluster chair ${ }^{3}$
Please Note:
Each semester, the list of approved courses that meet the requirements above is available in the Center for Women's and Gender Studies undergraduate advising office. The list of courses known as the "Pink Book" is published on the Women's and Gender Studies website.
The student must earn a grade of at least a C in each of the courses taken to fulfill the LGBTQ/Sexualities Studies certificate requirements
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1. Choose any two topics from this course.
2. At least three of these hours must be taken from outside the student's major field of study.
3. See the listings in the Pink Book for suggested courses.

## Security Studies Certificate

The Certificate in Security Studies recognizes students who focus their studies on international and national security affairs. Through the certificate, students develop an interdisciplinary expertise and practical job experience in security studies, including: diplomacy, defense, intelligence, foreign policy, homeland security, international affairs, international development, human rights, war, conflict, peace, and related fields. Students are required to take 21 credits hours across at least two different departments, including at least nine completed in residence, and complete an internship in a field related to security studies.

This certificate is open to students in the College of Liberal Arts.

| Requirements | Hours |  |
| :--- | :--- | ---: |
| GOV 360D | International Security | 3 |
| GOV 362L | Government Research Internship | 3 |
| Fifteen additional credit hours total chosen from at least <br> two different departments, drawn from a list available on the | 15 |  |
| certificate's website |  |  |
| Please Note: |  |  |
| Students must take courses on a grade basis and earn a <br> combined grade point average of a 3.0 to fulfill certificate |  |  |
| requirements. |  |  |

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1. At least nine credit hours must be taken in residence at The University of Texas at Austin.

Internship:
Students must successfully complete an internship. Students will enroll in Government 362L, Government Research Internship, and will receive 3 credit hours for the internship.

- Students are responsible for identifying internship opportunities, applying for internships, informing the Faculty Committee of their internship plans, submitting a proposal for an internship to satisfy the certificate requirement, and submitting proof that the internship was completed.
- Internships must involve substantive work that exposes students to the professional work environment and offers opportunities for networking in their chosen career fields.
- Internships may be with government agencies, think tanks, NGOs, research centers, consulting firms, or other entities that offer professional job experience.
- Internships may be in the fields of diplomacy, defense, intelligence, foreign policy, national security, homeland security, international affairs, international development, human rights, and related fields.
- The Faculty Committee reviews students' internship experience to ensure it is relevant to security studies and was satisfactorily completed.
- Internships must last a minimum of six weeks of full-time work, or its equivalent (240 hours).
- Internships may be in the United States or abroad.
- Internships may be paid or unpaid.
- Students who accept unpaid internships are invited to apply for a stipend through the Clements Center for National Security's Summer Student Development Fund. Funds are limited and stipends are not guaranteed for certificate students.

Waivers: Students may waive the internship requirement if they are enrolled in ROTC; have prior military experience with no major disciplinary actions against them; or have extensive prior civilian job experience directly related to security studies. The Faculty Committee reviews applications to waive the internship requirement.

## Spanish for Medical Professions Certificate

Between 18 and 24 semester credit hours of Spanish, consisting of:

| Requirements |  |
| :--- | :--- |
| For non-heritage speakers: |  |
| SPN 601D | First-Year Spanish I |
| SPN 610D | First-Year Spanish II |
| SPN 311 | Intermediate Spanish |
| SPN 314 | Spanish Conversation and Culture |
| SPN 327C | Advanced Grammar and Writing in <br> Context <br> or SPN 327N |
| Academic Writing for Heritage Speakers  <br> SPN 367C Spanish for Health Care <br> Professions <br>   |  |


| Requirements <br> For heritage speakers: <br> SPN 604 | Accelerated Introductory Spanish <br> for Heritage Learners |
| :--- | :--- |
| SPN 311J | Intermediate Spanish for Heritage <br> Learners |
| SPN 314J | Writing and Culture in Context for <br> Heritage Learners |
| SPN 327C | Advanced Grammar and Writing in <br> Context |
| or SPN 327N | Academic Writing for Heritage Speakers <br> Spanish for Health Care |

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed at the college level: Cognitive Science (CGS), Core Texts and Ideas (CTI), Health and Society (H S), Human Dimensions of Organizations (HDO), Humanities (HMN), International Relations and Global Studies (IRG), Language Teaching Coordination (LTC), Liberal Arts (L A), Liberal Arts Honors (LAH), and UTeach-Liberal Arts (UTL).

## Department of African and African Diaspora Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of African and African Diaspora Studies: African and African Diaspora Studies (AFR), Swahili (SWA), and Yoruba (YOR).

## Department of American Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of American Studies: American Studies (AMS).

## Department of Anthropology

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Anthropology: Anthropology (ANT) and Science, Technology, and Society (STS).

## Department of Asian Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Asian Studies: Asian Studies (ANS), Bengali (BEN), Chinese (CHI), Hindi (HIN), Japanese (JPN), Korean (KOR), Malayalam (MAL), Sanskrit (SAN), South Asian Languages (SAL), Tamil (TAM), Telugu (TEL), Urdu (URD).

## Department of Classics

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Classics: Ancient History and Classical Civilization (AHC), Classical Civilization (C C), Greek (GK), and Latin (LAT).

## Program in Comparative Literature

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Program in Comparative Literature: Comparative Literature (CL).

## Américo Paredes Center for Cultural Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Américo Paredes Center for Cultural Studies: Cultural Studies (CLS).

## Department of Economics

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Economics: Economics (ECO).

## Department of English

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of English: Creative Writing (CRW) and English (E).

## Center for Asian American Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Center for Asian American Studies: Asian American Studies (AAS) and Race, Indigeneity, and Migration (RIM).

## Center for European Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Center for European Studies: European Studies (EUS).

## Department of French and Italian

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of French and Italian: French (FR), French Civilization (F C), Italian (ITL), and Italian Civilization (ITC).

## Department of Geography and the Environment

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Geography and the Environment: Geography (GRG), Sustainability Studies (SUS), and Urban Studies (URB).

## Department of Germanic Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Germanic Studies: Danish (DAN), Dutch (DCH), German (GER), German, Scandinavian, and Dutch Studies (GSD), Norwegian (NOR), Swedish (SWE), and Yiddish (YID).

## Department of Government

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Government: Government (GOV).

## Department of History

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of History: History (HIS).

## Schusterman Center for Jewish Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Schusterman Center for Jewish Studies: Jewish Studies (J S).

## Teresa Lozano Long Institute of Latin American Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Teresa Lozano Long Institute of Latin American Studies: Indigenous Languages of Latin America (LAL) and Latin American Studies (LAS).

## Department of Linguistics

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Linguistics: American Sign Language (ASL) and Linguistics (LIN).

## Department of Mexican American and Latina/o Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Mexican American and Latina/o Studies: Mexican American Studies (MAS).

## Center for Middle Eastern Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Center of Middle Eastern Studies: Middle Eastern Studies (MES).

## Department of Middle Eastern Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Middle Eastern Studies: Arabic (ARA), Hebrew (HEB), Islamic Studies (ISL), Middle Eastern Languages and Cultures (MEL), Persian (PRS), and Turkish (TUR).

## Department of Philosophy

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Philosophy: Philosophy (PHL).

## Plan II Honors Program

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Plan II Honors Program: Social Science (S S) and Tutorial Course (T C).

## Department of Psychology

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Psychology: Psychology (PSY).

## Department of Religious Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Religious Studies: Religious Studies (R S).

## Department of Rhetoric and Writing

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Rhetoric and Writing: Rhetoric and Writing (RHE).

## Department of Air Force Science

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Air Force Science: Air Force Science (AFS).

## Department of Military Science

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Military Science: Military Science (M S).

## Department of Naval Science

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Naval Science: Naval Science (NS).

## Center for Russian, East European, and Eurasian Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Center for Russian, East European, and Eurasian Studies: Russian, East European, and Eurasian Studies (REE).

## Department of Slavic and Eurasian Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Slavic and Eurasian Studies: Czech (CZ), Polish (POL), Russian (RUS), Serbian/ Croatian (S C), Slavic and Eurasian Languages (SEL), and Ukrainian (UKR).

## Department of Sociology

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Sociology: Sociology (SOC).

## Department of Spanish and Portuguese

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Spanish and Portuguese: Iberian and Latin American Languages and Cultures (ILA), Portuguese (POR), Portuguese Civilization (PRC), Spanish (SPN), and Spanish Civilization (SPC).

## Center for Women's and Gender Studies

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Center for Women's and Gender Studies: Women's and Gender Studies (WGS).

# College of Natural Sciences 

Paul Goldbart, PhD, Dean<br>David Vanden Bout, PhD, Senior Associate Dean, Undergraduate Education Dean R. Appling, PhD, Associate Dean, Research and Facilities Nataša Pavlović, PhD, Associate Dean, Faculty Affairs Daniel F. Knopf, PHD, Associate Dean, Graduate Education Melissa Taylor, PhD, Assistant Dean, Strategy and Planning Jennifer Moon, PhD, Assistant Dean, Non-tenure Track Faculty Ricardo Medina, MBA CPA, Assistant Dean, Business Services Susan C. Harkins, EdD, Assistant Dean, Diversity and Student Programs Michael W. Raney, PhD, Senior Assistant Dean, Student Affairs and First-Year Initiatives<br>http://cns.utexas.edu/

## General Information

## Arts and Sciences Education

The academic program offered cooperatively by the College of Natural Sciences and the College of Liberal Arts provides what is sometimes referred to as a "liberal arts" or an "arts and sciences" education. No matter what area of knowledge a student intends to specialize in, the program of study will require courses in both colleges. The colleges work together to ensure that the individual interests and needs of the students pursuing an arts and sciences program are met.

Guidelines for developing a coherent plan of study are provided by major requirements, by sequential prerequisites, and by optional patterns of emphasis. Departmental majors, areas of specialization, and interdepartmental programs are designed to enable every student to study at least one field in depth. These programs are sufficiently broad in scope to allow students in the same major to develop quite different plans of study in pursuit of their individual interests and goals. Each student should choose courses that are intellectually challenging and that contribute to his or her long-term objectives.

Arts and sciences students are required to take a certain number of courses in the natural sciences, the social and behavioral sciences, and the humanities. Consequently, whatever their fields of study, they have the opportunity to learn something about the basic differences in the ways questions are raised and answered in several fields of inquiry, and about the techniques for validating the answers and putting the results to use. At the same time, they may gain some of the philosophical and historical perspectives that illuminate and give form to general or specialized knowledge and help to reveal its relevance.

Both teachers and students sometimes make the assumption that independent and creative study is exclusively for the gifted. In fact, the primary requirement is that the student be highly motivated, although he or she must also demonstrate ability. The departments that make up the two arts and sciences colleges encourage all qualified students to work independently in special honors courses and seminars and in conference, studio, or laboratory work. The student is free to define a major, to determine whether a given assignment will be an adventure or a chore, free to develop its latent possibilities or merely satisfy its explicit demands. True creativity presupposes more than a gift for innovation; it requires an unceasing commitment to thinking and working at one's highest level.

As competence is gained in a chosen field, the mind should be progressively sharpened, disciplined, and enriched. The student who leaves arts and sciences studies with an enhanced understanding of
self and humankind, of cultural and historical heritage, of the world and the universe, and of the moral values that make it possible to live a meaningful life, will have made the most of education, having gained something over and above the objective of vocational preparedness.

## Financial Assistance Available through the College

A number of scholarship funds established by individuals, foundations, and industrial or research organizations are available to students in the college. Awards are made for reasons ranging from academic promise to financial need. More information about scholarships is given at http:// cns.utexas.edu/honors/scholarships/scholarship-policies.

## Student Services

## Academic Advising

Academic advising is a responsibility shared by advisers and students. Advisers help students clarify their values and goals, assist with the selection of courses, and monitor and evaluate students' progress toward their degrees. Each student is assigned an academic adviser in his or her proposed field of study; students are expected to communicate with their advisers before registration each semester.

## Career Services

Career Services is a multidisciplinary hub for students to explore the next phase of their professional or educational career. Additional information is given on the Career Services website.

## Study Abroad (International Study)

Students are encouraged to incorporate an international experience into their course of study. In addition to the traditional study abroad programs, students may take advantage of programs specifically designed for science study, including faculty-led courses, Maymester courses, and research abroad. The Texas Institute for Discovery Education in Sciences (TIDES) provides information sessions, one-on-one advising, and resources for science students interested in these programs. For more information, see https://cns.utexas.edu/ international-study.

## Student Programs

The College of Natural Sciences offers additional programs to supplement the degree plans. Additional information is given at https:// cns.utexas.edu/student-communities.

## Actuarial Studies Program

The Actuarial Studies Program at The University of Texas at Austin has a long and distinguished history of producing well-prepared students, many of whom have become leaders of the actuarial profession. In the Society of Actuaries classification of North American actuarial programs, our program qualifies as one of about 70 advanced undergraduate programs and as one of about 30 graduate education or graduate education and research programs - thus providing a thorough preparation for entering an actuarial career. For more information, see https://web.ma.utexas.edu/dev/actuarial/.

## Biology Scholars Program

The Biology Scholars Program (BSP) is designed to provide lowerdivision biochemistry and biology students with a broader understanding of the study of biology and a strong sense of community as they begin their academic careers. Throughout the two-year program, BSP provides academic support, resources for peer-led study, and community service opportunities. Each semester, BSP students take a specialized critical
thinking seminar on topics that range from the study of biological sciences to graduate and professional careers in biology. These classes emphasize working in small groups and help BSP students develop strong problem-solving and study skills.

## Cornerstones Program

All entering Natural Sciences majors, freshman or transfer, are eligible for participation in the Cornerstones Program. The guiding principles for students are to connect, acclimate, navigate, and explore. Each entering freshman joins a small learning community led by a faculty or staff adviser and a peer mentor. The key components of Cornerstones are creating small learning communities, gaining tools to succeed in college, learning about majors, and developing skills and experiences to launch successful careers upon graduation. Transfer students are given the option to join the program. More information is available at https:// cns.utexas.edu/student-communities/cns-cornerstones-communities.

## Emerging Scholars Program

The Emerging Scholars program was created to provide motivated students with an opportunity to study biology, calculus or chemistry in a small group environment that is based on academic interests and shared commitment to excellence. This program encourages excellence in academic achievement and fosters a community of students focused around shared intellectual interests and common professional goals. For more information, see https://cns.utexas.edu/students/support/ residential-halls-study-groups/64-about/departments/30-emergingscholars.

## Freshman Research Initiative

The Freshman Research Initiative in the Texas Institute for Discovery Education in Science (TIDES) introduces undergraduate students to the world of scientific research at the beginning of their academic careers by integrating a three-semester research experience into coursework required for the degree. All students begin with an introductory research methods course in the first semester, followed by two semesters of work on real, cutting-edge research projects in fields like biology, biochemistry, nanotechnology, molecular biology, astronomy, physics, mathematics, and computer science. After finishing the course sequence, interested students are assisted in joining faculty or other research laboratories for further work.

## Texas Interdisciplinary Plan

The Texas Interdisciplinary Plan (TIP) transforms the learning experience for its scholars by creating small academic communities that promote academic excellence and leadership. TIP offers students who have excelled in high school and are enrolled in the College of Natural Sciences a unique opportunity to continue their academic excellence through managed courses, mentoring, collaborative study, dedicated professional academic advising, and academic and social connections. More information is available from the TIP office and at https:// cns.utexas.edu.

## Undergraduate Research

One advantage that the University offers undergraduates is the opportunity to participate in state-of-the-art research with some of the world's most respected scientists. Each department in the College of Natural Sciences supports undergraduate research programs in which students may earn University credit. Students may also earn special departmental honors for exceptional research. The college holds an annual Undergraduate Research Forum to recognize and reward students who participate in research. Additional opportunities vary from
department to department; information is available in the Office for Honors, Research, and International Study.

## UTeach-Natural Sciences

UTeach-Natural Sciences is an innovative teacher preparation program that allows students to pursue middle school and secondary teacher certification within a four-year mathematics, science, or computer science degree program. While learning the subject matter of their majors, students also learn how to teach. Upon completing the program, students graduate with a bachelor's degree and are recommended for a middle school or secondary 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 math and science teachers, students learn quickly whether they are suited to the profession. More information about teacher certification requirements is given in the UTeach Natural Sciences Secondary Teaching Option Certificate (p. 291) and UTeach Teacher Certification section (p. 254) of this catalog. See Preparation for Teacher Certification (p. 17) for additional information.

## Women in Natural Sciences

The Women in Natural Sciences (WINS) Honors Residential Program is designed to promote the involvement and success of women in the sciences. Students live together in an honors dormitory during their first year and participate in socially and educationally enriching activities. In their first semester they take an innovative small seminar class in which they are introduced to faculty members in their areas of interest. Through the seminar and a wide range of academic, cultural, and social events, WINS students are connected with other students and faculty members who share their interest in science.

## Admission and Registration

## Admission Policies of the College

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

Freshman and transfer students wishing to enter the College of Natural Sciences must apply for admission with the Office of Admissions. The College of Natural Sciences works jointly with the Office of Admissions to identify applicants who have demonstrated preparation and interest in mathematics and sciences. A student must be admitted to the college to pursue a degree program described in this section. A student who is denied admission to the college may seek to enter another college or school.

## Freshman Admission

Applicants should be prepared to make the necessary placements scores on the placement exams for calculus or statistics upon admission into the college. Mathematics, in the form of calculus or statistics, is required for all natural sciences degrees. To enroll in a calculus or statistics course in college, students must first take the mathematics placement exam. Information about scores necessary for placement are posted by the Student Division.

## The Entry-Level Major

All new freshman and transfer students are admitted into the College of Natural Sciences in an entry-level major. After completing a specified set of entry-level mathematics and science courses required for the degree with a grade of at least $C$ - in each course, students are admitted to the major and option they plan to pursue unless the major or option has
special admission-to-major requirements. The computer science entrylevel major is restricted to students who are admitted to that major by the Office of Admissions.

Students admitted into the College of Natural Sciences through freshman admission or external transfer may change from one entrylevel major into the other, with the exception of the computer science and neuroscience entry-level majors. The computer science and neuroscience entry-level majors are restricted to students who are admitted by the Office of Admissions or through internal transfer.

## Internal Transfer

Students enrolled in other colleges or schools at the University may apply by April 15 to be considered for admission into an entry-level major in the following fall semester. If April 15 falls on a weekend or an official university holiday, the application is due on the next business day.

Admission to the college is limited and competitive. To be competitive, students should:

1. Complete a minimum of 24 semester hours in residence
2. Achieve a grade point average of at least 3.00 in residence
3. Complete one of the following courses in residence with a grade of at least $B$-: Mathematics $408 \mathrm{C}, 408 \mathrm{D}, 408 \mathrm{~K}, 408 \mathrm{~L}, 408 \mathrm{M}, 408 \mathrm{~N}, 408 \mathrm{~S}$, or Statistics and Data Sciences 302.
4. Complete two of the following courses in residence with grades of at least $B$-: Biology 311C, Chemistry 301, 302, Physics 303K, and 303L, or majors level equivalents.
5. Submit an essay describing how the intended major would impact achievement of the educational and career goals.

Students admitted through internal transfer who wish to change to a different major in the college must apply through internal transfer and be accepted in order to change majors. Public Health entry-level majors admitted through internal transfer who are not admitted to the Bachelor of Science in Public Health degree during its admission process may transfer into any Natural Sciences entry-level major other than computer science and neuroscience.

## External Transfer

Students enrolled at other universities or colleges who wish to enter the College of Natural Sciences must apply for transfer admission through the Office of Admissions. Students must meet transfer admission deadlines and requirements.
The college seeks applicants with excellent past performance in mathematics and science courses. Admission to the college is limited and competitive, and varies each year based on the applicant pool. Meeting all of the following criteria does not guarantee admission, and failing to meet all criteria does not eliminate applicants from consideration. All students are welcome to apply.
To be competitive, it is recommended that students:

1. Complete or be in progress to complete a minimum of 24 transferable semester hours when submitting the application;
2. Achieve a grade point average of at least 3.0 , however, the GPA to be competitive for admission is generally higher;
3. Transfer one of the following with a grade of at least $B$-: Mathematics 408C, 408D, 408K, 408L, 408M, 408N, 408S, Statistics and Data Sciences 301;
4. Transfer two of the following with a grade of at least $B$-: Biology 311C, 311D Chemistry 301, 302, Computer Science 311, 312, Physics $303 \mathrm{~K}, 303 \mathrm{~L}$ or majors level equivalents;
5. Utilize all aspects of the admissions application, including essays, resume, and optional letters of recommendation to express interest in the intended academic and career path in the sciences.

The University of Texas prioritizes transfer students who have completed fewer than 70 semester hours and who are able to remain on track to complete a degree in four years, including time spent at previous institutions.

Statistics regarding past admissions cycles are available at cns.utexas.edu/students/future/external-transfer\#transfer-statistics.

## Adding a Simultaneous Major or Changing Majors

Students interested in declaring a simultaneous major must first discuss the impact of the simultaneous major on their progress toward degree and develop a timely graduation plan with their academic advisers. Students eligible to pursue a simultaneous major must follow the application procedure and meet admission requirements that have been established for the simultaneous major. At minimum, students must complete 30 semester hours of coursework in residence at the University. Students interested in changing majors must meet the entrylevel or admission requirements of the major they wish to enter. Students admitted through internal transfer may not add a simultaneous major in the College of Natural Sciences unless they are admitted into the simultaneous major through internal transfer.

## Admission-to-Major Requirements The Major in Computer Science

Several programs are available to undergraduates who wish to major in computer science. Each program involves an admission process in addition to the student's application for admission to the University. All students may apply to the University as entry-level computer science majors and later seek admission to one of the computer science programs as described in this section; those seeking admission to the Turing Scholars program may also apply to that program when they apply for admission to the University.

Admission requirements for the Bachelor of Arts with a major in computer science, the Bachelor of Science and Arts with a major in computer science, the Bachelor of Science in Computer Science, Option I , and the Integrated Program are given below. Those for the Bachelor of Science in Computer Science, Option II, Turing Scholars Honors, and Option III, Computer Science Honors, are given in Academic Policies and Procedures (p. 249).

## Bachelor of Arts; the Bachelor of Science and Arts; and the Bachelor of Science in Computer Science, Option I and V

To apply for admission to the Bachelor of Arts with a major in computer science, the Bachelor of Science and Arts with a major in computer science, or the Bachelor of Science in Computer Science, Option I and Option V degree programs, the student must earn a grade of at least $C$ - in each of three entry-level courses: Computer Science 311 or 311 H , Computer Science 312, and 314 or 314 H . A student may attempt two of the three entry-level courses no more than twice. The third course may be attempted only once. Symbols of $C R, Q$, and $W$ count as course attempts.

It is recommended that he or she complete all of the entry-level courses in residence at the University. However, he or she may request that transfer courses taken prior to enrollment at The University of Texas at Austin be approved as substitutes for the entry-level courses. Upon
enrollment at The University of Texas at Austin, all remaining entrylevel courses must be taken in residence. The letter grades for approved transfer courses will be used in combination with entry-level courses taken in residence to calculate the grade point average required for admission to the major. He or she must earn a grade point average of at least 2.75 in the three entry-level courses taken in residence or out of residence, and a grade point average of at least 2.00 in all courses taken in residence.

A student who is not admitted to the major may submit an appeal to the department for consideration. If the appeal is approved, the student may enroll once in Computer Science 429. If the student makes a grade of at least $B$-, he or she will be admitted to the major to which he or she applied.

Students are evaluated after the end of each fall semester, spring semester, and summer session by the Department of Computer Science Admission Committee. Students should consult advisers in the College of Natural Sciences Department of Computer Science for information about admission to the major.

A student admitted to the major who cannot complete Computer Science 429,439 , and 331 with grades of at least a $C$ - within two attempts may be removed from the major and placed into the natural sciences undeclared major. Symbols of $C R, Q$, or $W$ from the university count as course attempts. A third and final attempt may be granted if the student is given a non-academic drop or non-academic withdrawal during the semester in which the course is taken.

## The Integrated Program in Computer Science

The Integrated Program is a curriculum of undergraduate and graduate coursework that allows the student to earn the Bachelor of Science in Computer Science and the Master of Science in Computer Science, the Master of Science in Information Studies, or the Master of Science in Computational Science, Engineering, and Mathematics degrees at the same time. The integrated Master of Science in Computer Science includes the same coursework as the traditional master's degree program, as well as the opportunity for research. The integrated Master of Science in Information Studies allows students to choose a pathway for completing a capstone and electronic portfolio comprised of a professional experience project, a master's report, or a thesis. The integrated Master of Science in Computational Science, Engineering, and Mathematics includes the same coursework as the traditional computational sciences, engineering and mathematics master's degree program and also offers opportunity for research.

Students in the Integrated Program are expected to become leaders in the profession. Highly motivated students with the personal qualities and intellectual capacity to establish successful careers in higher education and industry are encouraged to apply.

Undergraduates typically follow Option I, II, or III for their first three years, then enter the Integrated Program in their fourth year. Admission is granted only for the fall semester; May 1st is the application deadline for those who wish to begin the program the following fall. By the end of the spring semester in which they apply, students must have completed at least 60 semester hours of coursework, including Computer Science 429 or $429 \mathrm{H}, 439$ or 439 H , and 331 or 331 H .

Admission is based on the applicant's grade point average, letters of recommendation, statement of purpose, and SAT Reasoning Test or ACT scores, as well as other relevant examples of academic ability and leadership. An applicant with a University grade point average of less than 3.50 is unlikely to be admitted. Admission may be restricted by the availability of instructional resources. Application materials
and information about deadlines are published by the Department of Computer Science, available at http://www.cs.utexas.edu/.

Before beginning the fifth year, students in the Integrated Program must be admitted to the Graduate School and the graduate program in the Department of Computer Science, the School of Information, or the Institute of Computational Science, Engineering, and Mathematics. Application forms must be completed by January 2 of the student's fourth year. Before the application deadline, students must have completed the prescribed work common to all Bachelor of Science in Computer Science Options. They must earn an acceptable score on the Graduate Record Examinations General Test (GRE) and must have their test scores reported to the University. Students usually take the GRE in the fall semester of their fourth year.

## The Coordinated Program in Dietetics

Freshman and transfer applicants to the University who plan to enter the Coordinated Program in Dietetics (CPD) should begin in the entrylevel major in nutrition. When they have met the requirements described below, students may apply for admission to the CPD.

Prior to applying for admission to the CPD, students must complete at least 60 semester hours of the coursework required for the Bachelor of Science in Nutrition, Option I, including Biology 325 or 325 H , and 365 S ; Biochemistry 369; and Nutrition 307, 107L, 312 or $312 \mathrm{H}, 112 \mathrm{~L}$ or 312 R , 315 , and 326. A list of other recommended courses is available from the School of Human Ecology. Students must have a grade point average of at least 2.70 in coursework taken in residence at the University. Students should consult advisers in the School of Human Ecology for information about the application process and deadlines. Application materials are available from the school.

The number of applicants to the CPD may exceed the number that can be adequately instructed by the faculty and accommodated within available facilities. Admission decisions are based on the student's biology, chemistry, and nutrition grade point average, his or her University grade point average, and other factors. These factors include, but are not limited to, the difficulty of the student's coursework, work or volunteer experience, leadership, commitment to the profession of dietetics, and personal interview. Students whose applications are denied may reapply.

## The Bachelor of Science in Environmental Science

## Admission to the Environmental Science Program

All freshmen and external transfer students majoring in environmental science (EVS) are first admitted to the University as entry-level EVS majors in the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences. After completing a minimum of 24 hours in residence, students may select the EVS major that best suits their long-term interests and, if necessary, transfer to the appropriate college/school in accordance with the regulations and procedures set forth in General Information.

## Freshman Admission

Freshmen applicants seeking admission to the EVS major through the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences must meet the calculus readiness requirement by the official admissions application deadline. More information about the calculus readiness requirement is available through the University Admissions Office or online.

Freshmen applicants to the EVS major from all three colleges/schools are reviewed and admitted as a single cohort. Applications should use the Apply Texas online application and select the "Environmental

Science, Entry-Level" major Option listed in the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences as a first-choice major. Applicants should apply to the EVS program in the college that best suits their anticipated area of focus (geological sciences, geographical sciences, or biological sciences, respectively).

## External Transfer Admission

Students who wish to transfer to the university from another college or university must apply to the Office of Admissions as described in General Information. External transfer applicants seeking admission to the Environmental Science (EVS) Degree Program through the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences must demonstrate calculus readiness by the official admissions application deadline. Details regarding transfer calculus readiness are available through the University Admissions Office or online.

External transfer applicants to the EVS major from all three colleges/ schools are reviewed and admitted to as a single cohort. Applicants should use the Apply Texas online application and select the "Environmental Science, Entry-Level" major Option listed in the Jackson School of Geosciences, the College of Liberal Arts, or the College of Natural Sciences as a first-choice major. Applicants should apply to the EVS program in the college that best suits their anticipated area of focus (geological sciences, geographical sciences, or biological sciences, respectively).

## Internal Transfer Admission

Internal transfer, entry-level applications submitted to the EVS major through the Jackson School of Geosciences, the College of Liberal Arts, and the College of Natural Sciences are reviewed and admitted as a single cohort. All internal transfer applicants should use the online EVS Program Transfer Application and must meet requirements for internal transfer given in General Information.

To be competitive for admission, internal transfer applicants should have a grade point average of at least 3.0 in Biology 311C, Chemistry 301, Mathematics 408C or 408 N or 408 K , and Geological Sciences 401 or 303.

Additional Information for all internal transfer applicants:

- Application Deadline: March 1 for entry the following academic year.
- Only currently enrolled students in good academic standing with their college of residence may apply.
- Students may apply during the semester they are completing the minimum requirements to be eligible for consideration.
- Entry-level admission to all Environmental Science majors is offered as space is available to the students who are best qualified. Decisions are based on the student's grade point average in the introductory science and math courses listed above, University grade point average, and other factors including, but not limited to, difficulty of course load, course repetitions, proven mathematical ability, and interest in the field of Environmental Science.

Students should consult with an academic adviser for additional information on the application process and deadlines.

## The Bachelor of Human Development and Family Sciences

Registration for Human Development and Family Sciences 352, 652F, $352 \mathrm{~L}, 652 \mathrm{P}$, and 355 R is restricted to students whose practicum applications have been approved. Students who want to participate in an early childhood field experience/field practicum (Human Development
and Family Sciences 352L or 652P) must also complete Human Development and Family Sciences 338, 266C and 266L with grades of at least C-.Practicum applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.

## The Bachelor of Science in Neuroscience, Option I

Prior to applying for admission to the Bachelor of Science in Neuroscience, Option I, degree program, the student must earn a grade of at least $B$ - in Neuroscience 330. Neuroscience 330 must be taken in residence. The student must also complete any of the four following courses, with grades of at least $C$-: Biology 311C, 311D, $315 \mathrm{H}, 325 \mathrm{H}$; Chemistry 301, 301H, 302, 302H, and 204; Mathematics 408C, 408N, 408S; and Physics 301, 316, 303K, 303L, 317K, and 317L. To be competitive for admission, the student should have a combined grade point average of at least 3.0 in the five courses required for admission.

To apply, the student should consult advisers in the Center for First-Year Advising for information about the application process and deadlines. Applications are evaluated after the end of each fall and spring semester by the Department of Neuroscience. Students whose applications are denied may reapply twice through the supplemental admission process. Admission decisions are based on a number of factors including, but not limited to, the student's grade point average, course load difficulty, and written statement about their commitment to a future in the field of neuroscience.

## The Major in Public Health

To apply for admission to the public health degree program, the student must have earned a grade of at least $C$ - in Biology 311C and 311D or 315 H ; Chemistry 301 or 301 H and 302 or 302 H ; and Mathematics 408C or 408 N . To be competitive for admission, the student must have a grade point average of at least 2.75 in these five courses. Students who satisfy these requirements are conditionally admitted to the major, and are registered in Public Health 317 in the following semester. Students must earn a grade of at least $B$ - to be fully admitted to the major.

Applications are evaluated after the end of each fall and spring semester. Students whose applications are denied may reapply through the supplemental admission process the following semester. Admission decisions are based on the student's grade point average in the basic sequence courses, his or her University grade point average, and other factors; these factors include, but are not limited to, the difficulty of the student's course load, course repetitions, and proven mathematical ability. Students should consult advisers in the College of Natural Sciences Center for First-Year Advising for information about the application process and application deadlines.

Students who plan to follow Option II, Public Health Honors, must be admitted to the Dean's Scholars Honors Program.

To apply for admission to Option III, the student must already be admitted to Option I. The Option I student may apply for admission to Option III upon completion of the sixth semester with a grade point average of at least 3.40. The Option III student follows the admission schedule and policies of the School of Public Health at the University of Texas Health Sciences Center at Houston.

## The Bachelor of Science in Public Health, Option III

The Option I student may apply for admission to Option III upon completion of the sixth semester with a grade point average of at least 3.40. The Option III student follows the admission schedule and policies of the School of Public Health at the University of Texas Health Sciences Center at Houston.

## The Major in Textiles and Apparel Admission to the Field Experience Programs

All textiles and apparel students must complete a field experience. The internship experience facilitates learning through the blending of theory and practice. The program is a cooperative effort involving three major participants: the student, the sponsoring firm or site supervisor, and the faculty coordinator.

The primary purpose of the program is to provide students with a realistic view of their profession through actual work experience in a professional environment. Experiences in the field setting challenge the student developmentally by providing an opportunity for both cognitive and effective learning, as well as fundamental changes in attitude, work habits, and maturity level.

Before beginning the internship, students will be expected to participate in interviews with representatives from participating sites. These interviews are designed to prepare students for a competitive marketplace. To ensure a placement that best meets the professional needs of each student, the program partners with organizations and support industries over a wide geographic area. The program director must approve all sites prior to a student's acceptance of the internship. Once a student accepts an approved internship, the placement is binding. Depending on the policy of the host site, the intern may or may not receive compensation. During the internship, the student is responsible for all assignments given by the faculty coordinator and the internship site. The interning student is also responsible for housing, relocation arrangements, and expenses.

Materials, information about deadlines, and directions for application are available from the Director of Internships in Textiles and Apparel.

## Option I: Apparel, Functional, and Technical Design

## Application Process for Internship

Students must apply and be admitted to the Apparel, Functional, and Technical Design Internship Program the semester before they plan to participate in their internship.

Before applying to the internship program, students must complete the following courses with a grade of at least $C$ - in each: Textiles and Apparel 301, 205, 105L, 313, 214K, 214L, 316L, 164K (Topic 1: Flat Pattern), 264L
(Topic 1: Flat Pattern), and 355C.

## Internship Semester

Textiles and Apparel 352C. Students may opt to take additional coursework during this semester.

## Option II: Merchandising and Consumer Sciences Application Process for Internship

Students must apply and be admitted to the Merchandising and Consumer Sciences Internship Program the semester before they plan to participate in their merchandising and consumer sciences internship block.

Before applying to the internship program, students must complete the following courses with a grade of at least $C$ - in each: Textiles and Apparel 301, 205, 105L, 313, 214K, 214L, 316Q, 219C, 119L, 151, and 376. The merchandising and consumer sciences internship block is to be completed during the senior year, serving as the capstone experience for merchandising and consumer sciences majors.

## Internship Semester

The merchandising and consumer sciences internship block is comprised of four internship courses: Textiles and Apparel 353, 352M, 355P, and 377, as well as a placement in an approved field experience, all taken concurrently. Students may not enroll in additional coursework during the semester.

## Option IV: Textile Conservation and Museum Studies

## Application Process for Internship

Students must apply and be admitted to the Textile Conservation and Museum Studies Internship Program the semester before they plan to participate in their conservation internship.

Before applying to the internship program, students must complete the following courses with a grade of at least $C$ - in each: Textiles and Apparel $301,205,105 \mathrm{~L}, 313,214 \mathrm{~K}, 214 \mathrm{~L}, 151,354 \mathrm{C}, 354 \mathrm{D}, 354 \mathrm{E}, 354 \mathrm{~F}, 355 \mathrm{D}$. The Textile Conservation and Museum Studies Internship is to be completed during the senior year, serving as the capstone experience for textile conservation and museum studies majors.

## Internship Semester

Textiles and Apparel 652C. Students may opt to take additional course work during this semester.

## Academic Policies and Procedures

## Academic Standards

## Mathematics Placement

Mathematics, in the form of calculus or statistics, is required for all natural sciences degrees. To enroll in a calculus course in the college, students must first take the mathematics placement exam. Scores necessary for placement into specific mathematics courses are posted by the Student Division. More information about scores and course placement is available from academic advisors.

## Repetition of a Course

No student may enroll in any course in the College of Natural Sciences more than twice, even if the course is needed to meet degree requirements, without first obtaining the written consent of their major advisor 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.

Students may not repeat any course in which they have earned a grade of $C$ - or better.

Departments in the college may have additional requirements for students who repeat courses.

## Removal from the Major

A Natural Sciences student whose appeal to take a course in the College of Natural Sciences for a third time and is denied may be removed from the major if the course is required for the degree.
A student who is removed from the major will be placed in the undeclared major while the student examines options to pursue another major in the College of Natural Sciences or in another college. An academic advisor will work with the student to explore opportunities for academic success and graduation.
A student who transfers the course for which a repeat appeal was denied may appeal to re-enter the major from which the student was removed. Appeals to re-enter the major are reviewed by the Associate Dean for Undergraduate Education.

## Concurrent Enrollment

Concurrent enrollment is enrollment simultaneously at the University and at another educational institution or in University Extension. Math and science courses may not be taken concurrently during fall and spring semesters and will not be counted toward a degree unless they are specifically approved in advance by the College of Natural Sciences. The college permits concurrent enrollment during summers without prior approval and during fall and spring semesters with certain restrictions. Students must see their academic advisors to petition for approval. No more than 30 percent of the semester hours required for any degree in the college may be completed online with University Extension.

## Undergraduates in a Graduate Course

The College of Natural Sciences encourages undergraduates who excel academically and would benefit from further challenges to enroll in graduate courses. With permission, undergraduates may count graduate courses toward their undergraduate degrees or may reserve them for graduate credit. To enroll in a graduate course, undergraduates must meet the University's eligibility requirements and must receive permission from the course instructor, the graduate advisor for the field in which the course is offered, and the college. Undergraduates reserving courses for graduate credit must also receive permission from the graduate dean. More information is given in Coursework in the Graduate School and the School of Law (p. 18).

## Petitions for Degree Requirements

Petitions for exceptions to degree requirements, other than the University-wide core curriculum, are handled through an online petition system. Academic advisors initiate petitions on the student's behalf and route them through departmental faculty advisors. The most common reason for petitioning is to request the substitution of transfer coursework for a specific degree requirement. Final decisions on all petitions are made by the dean's office. Degree requirements are very rarely waived outright.

## Personal Computing Devices

Students entering the College of Natural Sciences majors are encouraged to have access to a portable computing device as individual courses may require the device for certain lectures and/or labs.

## Honors

There are several avenues available for undergraduates to achieve honors recognition for exemplary academic ability and performance. They include: University Honors, graduation with University Honors, college-wide honors programs, departmental honors degree options, and completion of departmental honors.

The College of Natural Sciences offers Bachelor of Science and Arts and Bachelor of Science honors degree options in three programs
that serve majors in the College of Natural Sciences: Dean's Scholars, Health Science Scholars, and Polymathic Scholars. Information about admission and requirements for each is available at CNS Honors \& Scholarships.

Honors degree options that are sponsored by departments include: Turing Scholars in Computer Science; Honors in Advanced Human Development and Family Sciences Program; and the Honors in Advanced Nutritional Sciences Program.

Lastly, students may earn departmental honors upon graduation through completion and approval of an undergraduate thesis.

## University Honors

University honors are earned on a semester by semester basis. Information relating to University Honors can be found in the General Information Catalog.

## Graduation with University Honors

The University recognizes no more than the top 20 percent of each college's May graduating class as graduating with University Honors. To be eligible, an undergraduate must have completed at least 60 semester hours of coursework in residence at the University. Graduation with University Honors is based on the average of all grades earned in courses taken in residence at the University, whether the courses were passed, failed, or repeated. Courses taken pass/fail are counted in the 60-hour minimum, but only letter grades (including $F$ in pass/fail courses) are used to determine the grade point average.

Detailed requirements for graduation from the College of Natural Sciences with University Honors are given in the General Information Catalog.

## Dean's Scholars Program

Dean's Scholars is a four-year honors degree program for highly motivated and talented students with a demonstrated interest in mathematics and/or scientific research. Students earn a Bachelor of Science degree with an honors option. This option is available in all majors offered by the College of Natural Sciences.

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.

Application to the Dean's Scholars Honors Program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available in the program office and on the Dean's Scholars website. Students may enter the program as freshmen or as college transfers prior to their fourth long semester of enrollment at the University.

Factors in the admission decision are the student's high school and/ or University grades, class rank, the rigor of the courses the student has taken, the quality of the required application essays, a strong recommendation from a mathematics or science instructor, and the student's interest in mathematics and/or scientific research as demonstrated by extracurricular activities.

To remain in good standing in the Dean's Scholars Honors Program, students are expected to maintain a minimum grade point average of 3.50. Students who do not may be dismissed from the program by the faculty director.

## Health Science Scholars Program

Health Science Scholars is a four-year honors degree program for exceptional students who are interested in the health professions and committed to community service. Students earn a Bachelor of Science and Arts degree with an honors major. An honors option is available in all majors offered under this degree by the College of natural Sciences.

The key features of the program are a first-semester research methods course; a six-credit-hour requirement in honors-level coursework in one or more science; a substantive health or service-related learning experience or laboratory research, undertaken in the third year; and an honors thesis based on their third-year project, written in the final year.

Application to the Health Science Scholars Program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available on the Health Science Scholars website. Students may enter the program as freshmen or as college transfers prior to their fourth long semester of enrollment at the University.

Factors in the admission decision are the student's high school and/or college grades, class rank, the rigor of the courses the student has taken, the quality of the required application essays, a strong recommendation from a mathematics or science instructor, and the student's interest in science, health and services as demonstrated by extracurricular activities.

To remain in good standing in the program, students are expected to maintain a minimum grade point average of 3.50 . Students who do not may be dismissed from the program by the faculty director.

## Polymathic Scholars Program

Polymathic Scholars is a four-year honors degree program for exceptional science majors who have compelling interests or talents beyond the natural sciences and wish to make them part of their undergraduate degree. Students earn a Bachelor of Science and Arts degree with an honors major. An honors option is available in all majors offered under this degree by the College of Natural Sciences.

The key features of the program are a first-semester research methods course; a six-credit-hour requirement in honors-level coursework in one or more science; a multidisciplinary field of study outside the student's major, conceived and designed by the student and including no fewer than four courses; and an honors thesis on a question within that field, written in the final year.

Application to the Polymathic Scholars Program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available on the Polymathic Scholars website. Students may enter the program as freshmen or as college transfers prior to their fourth long semester of enrollment at the University.

Factors in the admission decision are the student's high school and/ or college grades, class rank, the rigor of the courses the student has taken, the quality of the required application essays, a strong recommendation from a mathematics or science instructor, and the student's investment in science as well as in one or more areas beyond science, as demonstrated by extracurricular activities.

To remain in good standing in the program, students are expected to maintain a minimum grade point average of 3.50 . Students who do not may be dismissed from the program by the faculty director.

## Turing Scholars in Computer Science

The Department of Computer Science offers a comprehensive honors degree program for highly motivated and talented students. The key features of the program are an intensive, accelerated freshman- and sophomore-year program; special Turing Scholars sections of many advanced computer science courses; a second-semester freshmanyear course that introduces students to the research activities of the department; and at least two semesters of supervised research and writing. Upon completion of both a sequence of Turing Scholars courses, approved by the program director, and an approved thesis, students graduate as Turing Scholars in Computer Science.

Students in the Turing Scholars program pursue the Bachelor of Science in Computer Science, option II. Application to the program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available in the Department of Computer Science and on the Turing Scholars website. Students may enter the program either as freshmen or after they have enrolled at the University. Factors in the admission decision are the student's high school grades and class rank, the rigor of the courses the student has taken, the quality of the required application essays, and the student's interest and aptitude in math, science, and computing as demonstrated by extracurricular activities.

More information about the degree program is given in the Degrees and Programs ( p .271 ) section.

## Honors In Advanced Human Development and Family Sciences Program

The Department of Human Development and Family Sciences offers a comprehensive honors degree program for highly motivated and talented students. The key features of the program are a core of small, select Human Development and Family Sciences courses that expose students to the research activities of the department, and at least two semesters of supervised research and writing that culminates in an honors thesis and presentation of student research in an approved public forum. Application to the Human Development and Family Sciences Honors Program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available in the Department of Human Development and Family Sciences and online. Students may enter the program as freshmen, as transfer students, or after they have enrolled at the University. Factors in the admission decision are the student's high school and/or University grades, class rank, the rigor of the courses the student has taken, faculty recommendations, standardized test scores and the student's interest and aptitude in math and science as demonstrated by relevant extracurricular activities.

More information about the degree program is given in the Degrees and Programs ( p .278 ) section.

## Honors In Advanced Nutritional Sciences Program

The Department of Nutritional Sciences offers a comprehensive honors degree program for highly motivated and talented students. The key features of the program are a core of select nutrition courses that expose students to the research activities of the department; and at least two semesters of supervised research and writing that culminates in an honors thesis and presentation of student research in an approved public forum. Application to the Honors in Advanced Nutritional Sciences Program is separate from, and in addition to, application to the University. Application materials and information about deadlines are available in the Department of Nutritional Sciences and online. Students may enter the program as freshmen, as transfer students,
or after they have enrolled at the University. Factors in the admission decision are the student's high school and/or University grades, class rank, the rigor of the courses the student has taken, the quality of the required application essays, faculty recommendations, and the student's interest and aptitude in math and science as demonstrated by relevant extracurricular activities.

More information about the degree program is given in the Degrees and Programs (p. 284) section.

## College Honors

## Departmental Honors

Most departments in the College of Natural Sciences offer departmental honors programs to their majors. Minimum requirements for the completion of all such programs include (1) a University grade point average of at least 3.00; (2) a three-semester-hour thesis or research project, or a reasonable equivalent, with a grade of at least $B-$; some programs may require a higher grade; (3) completion, with a grade point average of at least 3.50 , of the coursework required for a major in the field in which the student seeks honors; and (4) completion at the University of at least 60 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

It is highly recommended that majors who plan to seek special honors in astronomy apply to the honors advisor for admission to the program by the end of the third year, and absolutely no later than the beginning of the fourth year; A University grade point average of at least 3.00 and a grade point average in physics and astronomy of at least 3.50 are required for admission to the honors program.

The requirements for graduation with departmental honors are (1) Astronomy 379H, Honors Tutorial Course, Natural Sciences 371, Capstone Thesis Seminar, Tutorial Course 660H, Thesis Course: Honors, or an alternative astronomy course approved by the faculty advisor, in which the student completes a supervised research project; (2) a written report and an oral or poster presentation of the research project approved by the research supervisor and the honors advisor; (3) a final University grade point average of at least 3.00 and a grade point average in physics and astronomy of at least 3.50; (4) completion at the University of at least 60 semester hours of coursework counted toward the degree.

## Biochemistry Departmental Honors

Majors who plan to seek special departmental honors in biochemistry should apply to the departmental honors advisor for admission to the honors program no later than the beginning of the senior year. A University grade point average of at least 3.00 and a grade point average in biochemistry and chemistry of at least 3.50 are required for admission.

The requirements for graduation with special departmental honors are (1) all requirements for the degree of Bachelor of Science in Biochemistry; (2) two semesters of Biochemistry 379H, Biochemistry 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 departmental honors advisor; (4) a University grade point average of at least 3.00 and a grade point average in biochemistry and chemistry of at least 3.50; (5) completion at the University of at least 60 semester hours of coursework counted toward the degree; and (6) approval of the honors advisor.

## Biology Departmental Honors

Majors who plan to seek special departmental honors in biology should apply to the departmental honors advisor for admission to the honors program no later than the beginning of the senior year. A University grade point average of at least 3.00 and a grade point average in biology of at least 3.50 are required for admission.

The requirements for graduation with special departmental honors, which are in addition to the requirements of the major, are (1) two semesters of Biology 379 H , Honors Tutorial Course; (2) a thesis based on original research and approved by the supervising faculty member and the honors advisor; 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, Senior Lecturer, or Associate or Full Professor of Instruction, in the Departments of Molecular Biosciences, or Integrative Biology; (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 60 semester hours of coursework counted toward the degree.

## Chemistry Departmental Honors

Majors who plan to seek special departmental honors in chemistry should apply to the honors advisor 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 advisor; (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 60 semester hours of coursework counted toward the degree; and (6) approval of the honors advisor.

## Computer Science Departmental Honors

Students seeking special departmental honors must meet with a faculty advisor at least two semesters before they plan to graduate to discuss potential research topics and the requirements for receiving special departmental honors.

The requirements for graduation with special departmental honors are (1) Computer Science 379 H , Computer Science Honors Thesis, with a grade of at least $B$-; (2) a University grade point average of at least 3.00 and a grade point average in computer science of at least 3.50 ; (3) a thesis and presentation based on research and approved by three faculty members, including the honors advisor; and (4) completion at the University of at least 60 semester hours of coursework counted toward the degree.

## Human Development and Family Sciences Departmental Honors

Majors who plan to seek special departmental honors in human development and family sciences should apply to the Departmental Honors Committee for admission to the honors program no later than the beginning of the senior year. The requirements for admission are a University grade point average of at least 3.00 and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree.

The requirements for graduation with special departmental honors are (1) all requirements for the degree of Bachelor of Science in Human

Development and Family Sciences; (2) Human Development and Family Sciences 379H, Honors Tutorial Course; (3) completion of an honors thesis and an accompanying presentation, both of which must be approved by a committee consisting of the research supervisor and another faculty member; (4) a University grade point average of at least 3.00, a grade point average in Human Development and Family Sciences 379 H of at least 3.00 , and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree and for honors; and (5) completion at the University of at least 60 semester hours of coursework counted toward the degree.

## Human Ecology Departmental Honors

Majors who plan to seek special departmental honors in human ecology must follow the requirements of the departmental honors program in human development and family sciences, nutrition, or textiles and apparel.

## Mathematics Departmental Honors

Majors who plan to seek special departmental honors in mathematics should apply to the honors advisor 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 379 H , 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 60 semester hours of coursework counted toward the degree. In order to fulfill the first requirement, students must meet the prerequisite of Mathematics 379 H -Mathematics 365C, 367K, 373 K , or 374 G with a grade of at least $A$-, and another of these courses with a grade of at least $B$-; and consent of the honors advisor.

## Neuroscience Departmental Honors

Majors who plan to seek special departmental honors in neuroscience should apply to the honors advisor for admission to the honors program no later than the beginning of their senior year. A University grade point average of at least 3.00 and a grade point average in neuroscience of at least 3.50 are required for admission.

The requirements for graduation with special departmental honors are (1) two semesters of neuroscience research coursework, including Neuroscience 379H, Honors Tutorial Course; (2) a thesis based on original research and approved by the supervising faculty member and the honors advisor; (3) a University grade point average of at least 3.00 and a grade point average in neuroscience of at least 3.50 ; and (4) completion at the University of at least 60 semester hours of coursework counted toward the degree.

## Nutrition Departmental Honors

Majors who plan to seek special departmental honors in nutrition should apply to the Departmental Honors Committee for admission to the honors program no later than the beginning of the senior year. The requirements for admission are a University grade point average of at least 3.00 and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree.

The requirements for graduation with special departmental honors are
(1) all requirements for the degree of Bachelor of Science in Nutrition;
(2) Nutrition 379 H , Honors Tutorial Course; this course may be repeated once for credit; (3) completion of an honors thesis and an accompanying
presentation, both of which must be approved by a committee consisting of the research supervisor and another faculty member; (4) a University grade point average of at least 3.00, a grade point average in Nutrition 379 H of at least 3.00 , and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree and for honors; and (5) completion at the University of at least 60 semester hours of coursework counted toward the degree.

## Physics Departmental Honors

Majors who plan to seek special departmental honors in physics should apply to the honors advisor for admission to the honors program near the end of the third year. A University grade point average of at least 3.00 and a grade point average in physics of at least 3.50 are required for admission.

The requirements for graduation with special departmental honors are (1) Physics 379 H , Honors Tutorial Course; (2) a written honors thesis approved by faculty readers assigned by the department; (3) a University grade point average of at least 3.00 and a grade point average in physics of at least 3.50 ; and (4) completion at the University of at least 60 semester hours of coursework counted toward the degree.

## Public Health Departmental Honors

Majors who plan to seek departmental honors in public health should apply to the honors advisor for admission to the honors program no later than the beginning of the senior year. Students are encouraged to apply as early as the beginning of the junior year. A University grade point average of at least 3.00 and a grade point average in public health 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 the Bachelor of Science in Public Health; (2) two semesters of Public Health 379 H , Honors Tutorial Course; (3) a thesis and presentation based on research and approved by the research supervisor and the honors advisor; (4) a University grade point average of at least 3.00 , a grade point average in public health of at least 3.50 , and grades of at least a B in Public Health 379 H ; and (5) completion at the University of at least 60 semester hours of coursework counted toward the degree.

## Textiles and Apparel Departmental Honors

Majors who plan to seek special departmental honors in textiles and apparel should apply to the Departmental Honors Committee for admission to the honors program no later than the beginning of the senior year. The requirements for admission are a University grade point average of at least 3.00 and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree.

The requirements for graduation with special departmental honors are (1) all requirements for the degree of Bachelor of Science in Textiles and Apparel; (2) Textiles and Apparel 379H, Honors Tutorial Course; this course may be repeated once for credit; (3) completion of an honors thesis and an accompanying presentation, both of which must be approved by a committee consisting of the research supervisor and another faculty member; (4) a University grade point average of at least 3.00, a grade point average in Textiles and Apparel 379H of at least 3.00, and a grade point average of at least 3.50 in coursework in the School of Human Ecology that is required for the degree and for honors; and (5) completion at the University of at least 60 semester hours of coursework counted toward the degree.

## Graduation

## Special Requirements of the College

All students must fulfill the General Requirements (p. 19) for graduation. Students in the College of Natural Sciences must also fulfill the following requirements:

1. The University requires that the student complete in residence at least 60 semester hours of the coursework counted toward the degree. For the Bachelor of Arts, Plan I, and the Bachelor of Science and Arts, these 60 hours must include at least 18 hours in the major.
2. The University requires that at least six semester hours of advanced coursework in the major be completed in residence. Additional hours in the professional or major sequence in many cases are required by individual natural sciences degree programs.
3. A candidate for a degree must be registered in the College of Natural Sciences either in residence or in absentia the semester the degree is to be awarded. Graduation applications must be submitted no later than the date given in the academic calendar. The application and supplemental in absentia instructions are available via the College of Natural Sciences website.

## Applying for Graduation

An electronic degree audit is created for each student each semester. The student should view the audit through IDA, the University's Interactive Degree Audit system. The degree audit tells the student the courses he or she must take and the requirements he or she must fulfill to receive the degree. The degree audit normally provides an accurate statement of requirements, but the student is responsible for knowing the requirements for the degree as stated in a catalog under which he or she is eligible to graduate and for registering so as to fulfill all these requirements. The student should speak with his or her assigned academic advisor before registering if in doubt about any requirement.

In the semester in which the degree is to be conferred, the candidate must be registered at the University and must file an online graduation application form via the graduation section of the College of Natural Sciences website. This should be done during the first week of classes, if possible, but in no event later than the deadline to apply for an undergraduate degree; this date is given in the official academic calendar. No degree will be conferred unless the graduation application form has been filed on time.

## Degrees and Programs

The College of Natural Sciences offers the following undergraduate degrees:

1. Bachelor of Science and Arts, with majors in astronomy, biochemistry, biology, chemistry, computer science, human development and family sciences, human ecology, nutrition, mathematics, neuroscience, and physics.
2. Bachelor of Science degrees in astronomy, biochemistry, biology, chemistry, computer science, environmental science, human development and family sciences, mathematics, medical laboratory science, neuroscience, nutrition, physics, public health, and textiles and apparel.
3. Bachelor of Arts, Plan I, with majors in astronomy, chemistry, computer science, mathematics, and physics.

The Bachelor of Science and Arts degree offers a cross-disciplinary experience for students who want to combine a strong core science experience with coursework in areas such as business, communications,
fine arts, and the liberal arts. Students choose a major of up to 55 hours of science and mathematics. Students choose either a transcriptrecognized minor outside of the sciences, 15 hours in a field of study outside of sciences, or an 18 to 24 hour transcript-recognized certificate. A full list of the minor and certificate programs offered at the University can be found in The University section (p.13) of the Undergraduate Catalog.

The Bachelor of Science degrees provide deep exploration of science fields for students preparing for graduate science programs and careers as specialized scientists. The degrees contain between 80 to 90 hours of science and mathematics, and typically have multiple specialized options that reflect niche areas of study.

The Bachelor of Arts, Plan I, is shared with the College of Liberal Arts.
A student may not earn more than one Bachelor of Arts, Bachelor of Science and Arts, or Bachelor of Science in Environmental Science degree from the University. A student may earn only one undergraduate degree in a particular field of study from the College of Natural Sciences. Biology, biochemistry, and neuroscience are considered one field of study. Biochemistry and Chemistry are considered one area of study. A student who holds a Bachelor of Arts or a Bachelor of Science and Arts degree from the University may earn a second major designation in another field of study that will appear on the University transcript.

The title of a graduate's degree appears on his or her diploma, but the major does not. The degree, the major, the transcript-recognized certificate, and the minor appear on the graduate's University transcript. A natural sciences student who wishes to add another major in the college must meet the criterion described in the Admission and Registration (p. 245) section.

## Applicability of Certain Courses Physical Activity Courses

Physical activity (PED) courses and Kinesiology 119 may not be counted toward a degree in the College of Natural Sciences. However, they are counted as courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

ROTC units are maintained on campus by the Departments of Air Force Science, Military Science, and Naval Science. Information about each program is available from the chair of the department.

Nine semester hours of designated University of Texas at Austin coursework in air force science, military science, or naval science may be counted toward any degree in the College of Natural Sciences.

## Courses Taken on the Pass/Fail Basis

No more than 16 semester hours taken on the pass/fail basis may be counted toward the Bachelor of Arts, Plan I. No more than six semester hours taken on the pass/fail basis may be counted toward the Bachelor of Science and Arts degree and the Bachelor of Science degrees. In general, only electives may be taken on the pass/fail basis. Complete rules on registration on the pass/fail basis are given in the General Information Catalog.

## Courses in a Single Field

For the Bachelor of Arts, Plan I, no more than 39 hours may be counted in any one field of study, including the major, unless major requirements state otherwise. Additionally, for the Bachelor of Arts, Plan I, no more
than 39 hours may be counted in any one college or school other than the College of Liberal Arts or the College of Natural Sciences.

## College Algebra

Algebra courses at the level of Mathematics 301 or the equivalent may not be counted toward a degree in the College of Natural Sciences.

## Chemistry

Students seeking the degree of Bachelor of Science in Chemical Engineering, Bachelor of Science in Chemistry, or Bachelor of Science in Physics must take The University of Texas at Austin Test for Credit in Chemistry 301 if they were admitted to the University with high school credit in chemistry. Engineering majors in areas other than chemical engineering are also encouraged to take the test. Students with three semesters or more of high school chemistry that included laboratory experience, or credit for Chemistry 301 or 301 H , are encouraged to take The University of Texas at Austin Test for Credit in Chemistry 302. These tests are offered only in Austin. Information about them is available at https://testingservices.utexas.edu/sts.

Each student planning to register for a chemistry course should consult an advisor in his or her major area to determine whether specific courses are required.

## Computer Science

An undergraduate may not enroll in any computer science course more than once without written consent of an undergraduate advisor in computer science. No student may enroll in any computer science course more than twice. No student may take more than three upperdivision computer science courses in a semester without written consent of an undergraduate advisor in computer science.

## Mathematics

The Department of Mathematics offers a wide variety of courses both for math majors and for non-majors. Students interested in mathematics as a first or second major should consult the advisors in the Mathematics, Physics, and Astronomy Advising Center, in RLM 4.101.

Course prerequisites are enforced. Most entry-level mathematics courses have an appropriate score on the mathematics placement exam as a prerequisite. In such courses, students must be prepared to present proof of their score immediately after classes have begun; those unable to meet the score will be dropped.

Students may check the current Course Schedule or go to the Department of Mathematics website for details about the prerequisite required for their course.

Students who plan to use transfer credit to meet the prerequisite of a mathematics course must submit an official transcript to the Office of Admissions so that the credit may be added to their official university record. In addition to sending a transcript, students are encouraged to retain hard copies of their grade reports for proof of prerequisite until their transcripts are processed.

Students who wish to enroll in conference courses in the Department of Mathematics must submit consent of instructor forms to the department before registering. Forms are available in the Advising Center.

The information in parentheses after a course number is the Texas Common Course Numbering (TCCN) designation. Only TCCN designations that are exact semester-hour equivalents of University courses are listed here. Additional TCCN information is given in Appendix A (p. 334).

## UTeach-Natural Sciences Teacher Certification

UTeach-Natural Sciences prepares students in the College of Natural Sciences, the Jackson School of Geosciences, and Cockrell School of Engineering for secondary teacher certification in Science, Technology, Engineering, and Mathematics (STEM). However, students in any major at the University may seek STEM teacher certification through UTeachNatural Sciences.

There are two ways undergraduate students can seek STEM teacher certification through UTeach-Natural Sciences:

1. Undergraduates 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 and online.

2. Undergraduates can consider the teaching options in biology
(p. 265), chemistry (p. 268), computer science (p. 270), geological sciences (p. 181), mathematics (p. 278), and physics (p. 286) degree programs.

- This option is strongly encouraged because these majors incorporate all courses required for teacher certification.

Degree holders and qualifying seniors may apply for the UTeach Accelerate track to teacher certification. This track has the same requirements as the undergraduate track, but in a more compressed form with class sections offered at non-traditional times, particularly in the evening. UTeach Accelerate is limited to degree-holders and seniors with no more that two (2) long semesters left to earn the undergraduate degree. In addition to admission to The University of Texas at Austin, students must be accepted into the UTeach Accelerate track.

The application requires the following:

- application form
- resume
- two letters of recommendation
- transcript
- essay
- interview

The courses required for teacher certification include a minimum of 30 field-based experience (FBE) hours prior to the clinical teaching experience. All students in these field experience courses, (UTS 101, 110, 211 [restricted to students on the Accelerate track], EDC 365C [restricted to students on the Accelerate track], EDC 365D, 365E, 665 [restricted to students on the Accelerate track], which are part of the Professional Development Sequence, are observed by and receive feedback from highly-qualified Professors of Practice and select in-service educators throughout each semester. Students must pass the field experience in order to pass these courses. During clinical teaching (UTS 170, EDC 651S), supervision and feedback are provided by Professors of Practice, field supervisors, and the cooperating teacher.

Upon transcript review, students on the Accelerate track may be required to take additional content courses so that they are prepared to pass the State-required certification exams and so that they meet State standards for secondary educators in the classroom. This review is conducted by faculty in the specific disciplines.

To complete the UTeach program and be recommended for teacher certification at the secondary level in the State of Texas, the student must have a University grade point average of at least 2.50. The student must have earned a grade of at least $C$ - in each of the professional
development courses and supporting courses listed below and must pass the final teaching portfolio review. Students on the Accelerate track must pass the T-Tess evaluation protocol, instead of the final portfolio review. Information about the portfolio review, T-Tess evaluation protocol, and additional certification requirements is available from the UTeachNatural Sciences academic advisor.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

## Undergraduate Professional Development Sequence

All students seeking teacher certification must complete the following courses:

| Requirements |  | Hours |
| :--- | :--- | :--- |
| UTS 101 | Secondary Teacher Education <br> Preparation: Step 1 | 1 |
| UTS 110 | Secondary Teacher Education <br> Preparation: STEP 2 | 1 |
| UTS 170 | Student Teaching Seminar | 1 |
| EDC 651S | Secondary School Teaching <br> Practicum | 6 |
| EDC 365C | Knowing and Learning in Math and | 3 |
| EDC 365D | Science |  |
| EDC 365E | Classroom Interactions | 3 |

## Supporting Courses

| Requirements |  | Hours |
| :---: | :---: | :---: |
| One of the following: |  | 3 |
| BIO 337 | Selected Topics in Biology (Topic 2: Research Methods: UTeach) |  |
| CH 368 | Advanced Topics in Chemistry (Topic 1: Research Methods: UTeach) |  |
| PHY 341 | Selected Topics in Physics (Topic 7: Research Methods: UTeach) |  |
| One of the following: |  | 3 |
| HIS 3294 | Perspectives on Science and Mathematics |  |
| PHL 329U | Perspectives on Science and Mathematics |  |
| UTeach Accelerate Professional Development |  |  |
| Sequence |  |  |
| All students seeking teacher certification must complete the following courses: |  |  |
| Requirements |  | Hours |
| UTS 211 | Secondary Teacher Education Prep: Advanced Steps | 2 |
| EDC 365C | Knowing and Learning in Math and Science | 3 |
| EDC 665 | Classroom Interactions and Project Based Instruction | 6 |
| UTS 170 | Student Teaching Seminar | 1 |

## Supporting Courses



## Bachelor of Arts, Plan I

The requirements for the Bachelor of Arts under Plan I are designed to give each student flexibility in the selection of courses to meet individual needs.

A total of 120 semester hours is required. 36 hours must be in upperdivision courses. At least 60 hours, including 21 hours of upper-division coursework, must be completed in residence at the University; at least 24 of the last 30 hours must be completed in residence at the University. Provided residence rules are met, credit may be earned by examination, by extension, by correspondence (up to 30 percent of the hours required for the degree), or, with the approval of the dean, by work transferred from another institution. Up to 16 semester hours of classroom and/or correspondence coursework may be taken on the pass/fail basis; this coursework may be counted only as electives.

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures
flags from the same course. Students are encouraged to discuss options with their academic advisers.

Courses in the major and additional coursework may also be used to fulfill prescribed work requirements unless expressly prohibited. A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills one requirement may also be used to fulfill a flag requirement. Courses that fulfill these flag requirements will be identified in the Course Schedule by the appropriate flags.

The student must fulfill both the University General Requirements (p. 19) for graduation and the Requirements of the College of Natural Sciences (p.254). University graduation requirements include a grade point average of at least 2.00 in all courses taken at the University (including credit by examination, correspondence, and extension) for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded; for the Bachelor of Arts, Plan I, the student must also earn a grade point average of at least 2.00 in courses taken at the University and counted toward the major requirement. The student should also refer to the description of his or her major in the section "Majors and Additional Coursework" below, since some majors include higher minimum scholastic requirements.

More information about grades and the grade point average is given in the General Information Catalog.

## Prescribed Work

1. Writing: Two courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag. One of these courses must be upper-division. Courses with a writing flag are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
2. Foreign language: Proficiency in a language other than English is required.
The foreign language requirement is the attainment of an intermediate level of competency as determined by the completion of any one of the following options:
a. Certified proficiency on a placement or credit-by-examination test;
b. A passing grade in a language course listed in the College of Liberal Arts section (p. 208);
c. Students who wish to meet the requirement with proficiency in a language not listed in the table found in the College of Liberal Arts section above should contact the Texas Language Center.
3. Social science: Three semester hours chosen from a list of approved courses, in addition to the course used to fulfill the social and behavioral sciences requirement of the core curriculum. The course(s) must be in a field of study taught in the College of Liberal Arts and must be in a different field of study from the course used to fulfill the social and behavioral sciences requirement of the core.

Courses on the approved list are primarily in anthropology, economics, geography, linguistics, psychology, and sociology, but not every course in these fields is approved. Courses that are approved to count toward any core curriculum area other than social and behavioral sciences may not be counted toward this requirement.

The list is available each semester in the Student Division and on the College of Liberal Arts website.
4. Mathematics: Three semester hours in mathematics, excluding Mathematics 301, 316K, and 316L
5. Natural science: Six semester hours in natural sciences, in addition to the courses counted toward the science and technology requirements of the core curriculum. Courses used to fulfill this requirement must be chosen from the fields of study listed below; no more than three hours may be in either the history of science or the philosophy of science.

To satisfy the mathematics and science and technology requirements of the core curriculum and the natural science requirement of the Bachelor of Arts, Plan I, a student may count
(1) no more than 12 hours in mathematics, computer science, and statistics and data sciences combined; and (2) no more than nine hours in any single field of study.
a. Astronomy
b. Biology
c. Chemistry
d. Geological sciences
e. Marine science
f. Nutrition
g. Physical science
h. Physics
i. Mathematics (excluding Mathematics 301), computer science, statistics and data sciences
j. Other alternative science courses approved by the dean
k. Approved alternative courses in history of science and philosophy of science
6. Cultural expression, human experience, and thought: Three semester hours chosen from a list of approved courses. The course(s) must be in a field of study taught in the College of Liberal Arts. A course counted toward any requirement of the core curriculum may not also be counted toward this requirement.

A list of approved courses is available each semester in the Student Division and on the College of Liberal Arts website.

## Electives

In addition to the core curriculum, prescribed work, and major and additional coursework, the student must complete enough elective coursework to provide the 120 semester hours required for the degree. These 120 hours may include no more than 12 semester hours of bible courses; nine hours of designated coursework in air force science, military science, or naval science; 16 hours completed on the pass/fail basis; 39 hours in any one field of study offered in the College of Liberal Arts or the College of Natural Sciences, unless major requirements state otherwise; and 39 hours in any other single college or school of the University.

## Majors and Additional Coursework Major Requirements

The Bachelor of Arts, Plan I, requires the completion of all requirements for one major.

The number of semester hours required in the major varies with the field selected. Unless the requirements of the major state otherwise, a major consists of at least 24 but no more than 39 semester hours, with at least 15 hours in upper-division courses. Of these 15 hours, six must be completed in residence. At least 18 hours of coursework in the major, including six hours of upper-division coursework, must be completed in residence at the University.

## Additional Coursework

Students in most majors must also fulfill the requirements of additional coursework. The requirements of the additional coursework are established by the major department and are given with the major requirements. Additional restrictions may be imposed by the academic department(s) in which the student takes the courses used to fulfill the requirements of the additional coursework; before planning to use a course to fulfill the additional coursework requirement, the student should consult the department that offers the course.

## Astronomy

## Major

The following coursework is required:

1. Physics 301 and 101L
2. Physics 316 and 116L (Prerequisites: Physics 301 and 101L)
3. Physics 315 and 115L (Prerequisites: Physics 316 and 116L)
4. Nine semester hours of upper-division coursework in astronomy, including at least two of the following courses: Astronomy 352K, 352L, 353, 358, 364P.
5. Six additional upper-division hours in astronomy and/or physics

## Additional Coursework

Completion of the following:

1. Six hours of coursework (other than astronomy, lower-division physics, lower-division mathematics, and Mathematics 427J or 427K) approved by the undergraduate adviser;
2. Six additional hours of upper-division physics, or six hours of upperdivision coursework approved by the undergraduate advisor.

Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00.

All astronomy majors should consult the astronomy undergraduate adviser regularly about the choice of appropriate courses in both the major and the additional coursework. Qualified students are encouraged to carry out a supervised research project by taking a conference course, such as Astronomy 375 or 379 H . No more than six of the hours counted toward the major requirement may be earned in conference courses.

## Chemistry

## Major

1. Chemistry 301 or 301 H
2. Chemistry 302 or 302 H
3. Chemistry 204 or 317
4. One of the following sequences:
a. Chemistry 220C, 320M, 320N; or
b. Chemistry $128 \mathrm{~K}, 128 \mathrm{~L}, 328 \mathrm{M}$, and 328 N
5. Chemistry 353
6. Chemistry 153 K
7. Chemistry 354 or 354 L
8. Chemistry 154 K
9. Chemistry 456
10. Chemistry 376K

## Additional Coursework

1. Mathematics 408C and 408D, or Mathematics 408N, 408S, and 408M
2. Eight semester hours of physics chosen from one of the following sequences:
a. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N
b. Physics 301, 101L, 316, and 116L
c. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N
3. Completion of one of the following sequences:
a. Twelve semester hours of majors-level coursework in biology, mathematics, or physics. Mathematics in requirement one or physics in requirement two may count toward the 12-hour total
b. Computer Science 303E, 313E, and six hours chosen from Computer Science 323E, 324E, 326E, 327E, and 329E. Students choosing this option may simultaneously fulfill some of the requirements of the Elements of Computing Certificate
c. With written consent of the department chair and approval of the dean, 12 semester hours in a field of study outside the College of Natural Sciences

Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00.

## Computer Science

An undergraduate may not enroll in any computer science course more than once without written consent of an undergraduate adviser in computer science. No student may enroll in any computer science course more than twice. No student may take more than three upperdivision computer science courses in a semester without written consent of an undergraduate adviser in computer science. All transfer coursework must be approved by faculty before it can count towards a computer science degree, except where equivalency is specified by state regulation.

## Major

The following courses in computer science:

1. Theory: Computer Science 311 or $311 \mathrm{H}^{*}, 331$, or $331 \mathrm{H}^{\star}$, and three additional hours from an approved list available in the department;
2. Programming: Computer Science 312,314 or $314 \mathrm{H}^{\star}$, and three additional hours from an approved list available in the department;
3. Systems: Computer Science 429 or $429 H^{*}, 439$ or $439 H^{*}$, and three additional hours from an approved list available in the department;
4. Twelve additional hours of upper-division courses in computer science.

Computer Science 370 may be counted toward the degree only once.

## Additional Coursework:

Completion of the following:

1. Mathematics 408C or 408 N and 408S;
2. Mathematics 340L or Statistics and Data Sciences 329C. Mathematics 341 may substitute for 340L;
3. Statistics and Data Sciences 321. Mathematics 362K may substitute for Statistics and Data Sciences 321.

Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00.

Enrollment in Computer Science 311 or $311 \mathrm{H}^{*}, 312$, and 314 or $314 \mathrm{H}^{*}$, is restricted to computer science entry-level majors. All other computer science courses that may be counted toward a degree in computer science are restricted to students who have been admitted to the computer science major or have the consent of the undergraduate faculty adviser.

* Computer science courses with numbers ending in $H$ are intended for students pursuing the Bachelor of Science in computer science, option II, the Turing Scholars program, and option III, computer science honors. Students outside these options may enroll in these courses only with the special consent of the honors director.


## Mathematics

Undergraduates seeking a Bachelor of Arts degree with a major in mathematics must choose either the standard option or the middle grades or secondary school teaching option.

## Major: Standard Option

At least 24 semester hours of upper-division coursework in mathematics. Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00.

The student must complete the following:

1. One of the following sequences:
a. Mathematics 408C* and 408D
b. Mathematics 408 N and 408 S
c. Mathematics 408 K and 408L
*Mathematics 408 N and 408 S , or 408 K and 408 L , may substitute for 408C;
2. Mathematics 340 L or 341 ;
3. One course chosen from: Mathematics 325 K or $328 \mathrm{~K}, 343 \mathrm{~K}$, or 373 K ;
4. Mathematics 361 K or 365 C ;
5. Mathematics 362K;
6. To broaden the student's training, at least one course chosen from the following: Mathematics 333L, 339J, 339U, 343L, 343M, 344K, 348, $358 \mathrm{~K}, 361,367 \mathrm{~K}, 368 \mathrm{~K}, 372 \mathrm{~K}, 374 \mathrm{M}, 376 \mathrm{C}, 378 \mathrm{~K} ;$
7. Nine additional hours of upper-division mathematics.

## Major: Options in Mathematics for Middle Grades and Secondary School Teaching:

At least 24 semester hours of upper-division coursework in mathematics. Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00.

The teaching options are designed to give students the mathematical background appropriate for teaching middle grades and secondary school mathematics, but students must meet additional requirements, including grade point average requirements, to obtain certification. Lists of the combined requirements of the UTeach-Natural Sciences certification programs and these options are available from the UTeachNatural Sciences academic advisor and in the Undergraduate Catalog.

All students must complete the following:

1. One of the following sequences:
a. Mathematics 408C* and 408D
b. Mathematics 408 N and 408 S
c. Mathematics 408 K and 408L
*Mathematics 408 N and 408S, or 408 K and 408L, may substitute for 408C
2. Mathematics 340 L or 341
3. Mathematics 315C, 333L, 358K, 362K, and either 325K or 328 K
4. Mathematics 375D
5. Mathematics 361 K or 365 C
6. Mathematics 343K or 373K

Students pursuing teacher certification through the UTeach-Natural Sciences program must also complete the following:
7. Biology 337 (Topic 2: Research Methods: UTeach), Chemistry 368 (Topic 2: Research Methods-UTeach), or Physics 341 (Topic 7: Research Methods-UTeach);
8. History 329 U or Philosophy 329U;
9. 18 semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 651S
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
e. UTeach-Natural Sciences 101, 110, and 170;
10. For students seeking middle grades certification, the following courses: Educational Psychology 350G, or Psychology 301 and 304; and Curriculum and Instruction 339E

To graduate and be recommended for certification, students who follow the teaching option must have a University grade point average of at least 2.50. They must earn a grade of at least $C$ - in the supporting course in requirement eight and in each of the professional development courses listed in requirement nine and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least $C$ - in each of the courses listed in requirement 10. For information about the portfolio review and additional teacher certification requirements, students should consult the UTeach-Natural Sciences academic advisor.

## Physics

## Major

Physics 301, 101L, 316, 116L, 315, 115L, 355, and at least 15 semester hours of upper-division coursework in physics, including Physics 336K, 352 K , and 353L

## Additional Coursework

## Completion of the following:

1. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
2. One of the following courses containing differential equations: Mathematics $427 \mathrm{~K}, 427 \mathrm{~J}$, and 372 K .
3. Nine additional hours of mathematics, including three upper-division hours
4. Six hours of majors-level coursework, including three upper-division hours in one of the following: biology, chemistry, philosophy, psychology; or in courses offered in the College of Education or the Cockrell School of Engineering; courses used to fulfill specific degree
requirements other than flag requirements may not also be used to fulfill this requirement.

Students must earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00.

## Bachelor of Science and Arts

The requirements for the bachelor of science and arts degree are designed to give each student an opportunity to combine a core mathematics or science experience with an interdisciplinary curriculum which complements his or her major. Students pursuing the Bachelor of Science and Arts will major in a discipline within the College of Natural Sciences and complete one of the following: a transcript-recognized minor, transcript-recognized certificate, or 15 hours in a single field of study. This will allow the student to explore applications of his or her major in the broader society, allow the student to see the impacts of the sciences in other fields of study, and develop a complementary expertise, which supports multidisciplinary study.

All students pursuing an undergraduate degree must complete the University's Core Curriculum (p. 23). The prescribed work requirements for the Bachelor of Science and Arts consist of the University's Core Curriculum, college flag requirements, language, arts, and culture requirement, major requirements, additional requirement, and electives.

In the process of fulfilling the core curriculum and other degree requirements, all students must complete courses with content in the following areas:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisors.

Students may earn an honors major in their fields of study upon graduation by completing the following requirements:

1. Good standing in the Health Science Scholars Program or the Polymathic Scholars Program;
2. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor;
3. Six hours of coursework in the major must be at the honors-level;
4. Natural Sciences 371;
5. A University grade point average of at least 3.50.

## Prescribed Work Common to All Majors

1. Language, Arts, and Culture Requirement:

Twelve hours selected from at least two of the following four areas:
a. Fine arts: courses chosen from design, ensemble, fine arts, music, studio art, performance, visual art studies, art history, and theatre and dance
b. Humanities: courses chosen from American studies, ancient history and classical civilization, classical civilization, comparative literature, creative writing, English, humanities, philosophy, religious studies, and rhetoric and writing
c. Social and behavioral sciences: courses chosen from anthropology, economics, geography, government, history, linguistics, psychology, and sociology
d. Foreign language and culture: foreign language courses or culture courses chosen from an approved list available in the college advising centers. Students who elect to pursue a foreign language must complete a beginning level competency. Students who complete intermediate or advanced level foreign language courses rather than courses equivalent to beginning level competency may count only one intermediate or advanced course toward the language, arts, and culture requirement

A maximum of six semester hours earned through credit by examination may count toward the language arts and culture requirement.
2. Major Requirements: The specific courses required for the major vary with the major selected and are described in the links to the right. Unless the requirements of the major state otherwise, a major consists of at least 36 but no more than 55 semester hours. The major consists of the mathematics, primary science, and secondary science requirements.
3. Additional Requirement: The Bachelor of Science and Arts requires the completion of one of the following: transcript-recognized minor, transcript-recognized certificate, or 15 hours in a single field of study. Students who complete a transcript-recognized minor or 15 hours in a single field of study must select a minor or field of study that is outside the College of Natural Sciences, College of Pharmacy, Cockrell School of Engineering, Jackson School of Geosciences, and School of Nursing.
4. Electives: Enough additional coursework to make a total of 120 semester hours.

## Special Requirements

1. Students may not use a course counting toward one area of prescribed work to fulfill the requirements of another area of prescribed work unless expressly permitted as follows:
a. Courses counting toward the university core curriculum may also count toward the major requirements, the additional requirement, and electives.
b. Courses counting toward the university core curriculum writing flag may also count toward the language, arts, and culture requirement.
c. Courses counting toward the college flag requirements may also count toward the university core curriculum, language, arts, and culture requirement, major requirements, additional requirement, and electives.
d. Per university policy, a minimum of nine hours of the transcriptrecognized minor may not be also used to satisfy the major.
e. Per university policy, a minimum of one course taken in a transcript-recognized certificate to satisfy the additional requirement may not also count toward the major.
2. Students who seek a transcript-recognized minor or transcriptrecognized certificate must meet the minimum grade requirements and grade point average requirements of the program.
3. Students must earn a University grade point average of at least 2.00 in all courses taken at the University (including credit by examination, correspondence, and extension), a grade of at least C- in each mathematics and science course counted toward the major, and a grade point average of at least 2.00 in the courses fulfilling the major.
4. Students must complete a minimum of 60 hours in residence at the University, including at least 18 hours of the major. The 18 hours of the major in residence must include at least nine hours of advanced coursework.

## Astronomy

Major

1. Mathematics:
a. Mathematics 408C and 408D
b. Mathematics 427 K or 427 J
2. Primary science:
a. Physics $301,101 \mathrm{~L}, 315,115 \mathrm{~L}, 316$, and 116 L
b. Two courses chosen from the following: Astronomy 352K, 353, and 358
c. Six additional upper-division semester hours in astronomy and physics
3. Secondary science:

Twelve additional semester hours of majors-level coursework from one or more of the following areas. It is recommended that students select three of the 12 hours to also fulfill the Natural Science and Technology Part II core curriculum requirement
a. Biology
b. Chemistry
c. Computer Science
d. Geological Sciences
e. Mathematics
f. Statistics and Data Sciences

## Biochemistry

Major

1. Mathematics:
a. Mathematics 408C, 408 R , or 408 N and 408 S
b. Statistics and Data Sciences 328M
2. Primary science:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
b. Chemistry 320 M , and 353 M or 455
c. Biochemistry 339F and 369L
d. Two courses chosen from the following: Biochemistry 339J, $339 \mathrm{M}, 339 \mathrm{~N}$, and 370
3. Secondary science:
a. Biology 311C, 311 D and 325 , or Biology 315 H and 325 H
b. Biology 344
c. One of the following physics sequences:
i. Physics 317K, 117M, 317L, and 117N (recommended)
ii. Physics 301, 101L, 316, and 116L
iii. Physics 303K, 103M, 303L, and 103N

## Biology

## Major

1. Mathematics:
a. Mathematics 408C, 408R, or 408 N and 408 S . Students who intend to take additional calculus coursework should begin the sequence with 408C or 408N
b. Statistics and Data Sciences 328M
2. Primary science:
a. Biology 206L, 208L, or 226L; 311C, 311D, and 325, or 315 H and 325H
b. One of the following: Biology 320 or 344
c. Biology 370
d. Complete one course from each of the following:
i. Cellular, developmental, and molecular biology: Biochemistry 369 or 339F, 339M, 339J, 364F; Biology 320, 326R, 330, 335, $336,339,339 \mathrm{M}, 344,360 \mathrm{~K}, 349,350 \mathrm{M}, 360 \mathrm{M}, 361$
ii. Genetics, genomics, and computational biology: Biochemistry 339N; Biology 321G, 325T, 327E, 327G, 354C, 336, 366R, 471; Statistics and Data Sciences 348
iii. Physiology, neuroscience, and behavior. Biology 328, 438L, 359K, 359R, 361T, 365S, 367C, 374, Marine Science 355C, Neuroscience 330.
iv. Ecology, evolution, and biodiversity: Biology 322, 324, 346, 351, 357, 364, 373, 375; Marine Science 320, 352C, 352D, 352E, 353, 354, 354C, 354E, 354Q, 356, 357
e. Complete one laboratory course from the following list: Biology 320L, 122L, 124L, 226L, 129L, 325L, 230L, 331L, 328D, 340L, 446L, 448L, 349L, 353F, 453L, 354L, 455L, 456L, 260L, 361L, 463L, 165U, 369F, 369L, 371L, 373L, 174L, 478L; Marine Science 120L.
3. Secondary science:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
b. Complete one of the following:
i. Physics 302 K and 102 M (recommended)
ii. Physics 317 K and 117M
iii. Physics 303 K and 103M
iv. Physics 301 and 101L

## Chemistry

## Major

1. Mathematics:
a. Mathematics 408C and 408D, or 408N and 408S
2. Primary science:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204 or 317
b. Chemistry $320 \mathrm{M}, 320 \mathrm{~N}$ and 220 C , or $328 \mathrm{M}, 328 \mathrm{~N}, 128 \mathrm{~K}$ and 128 L
c. Chemistry 353 or 353 M , and 153 K
d. Chemistry 431; 455 or 456; and Biochemistry 369
3. Secondary science: One of the following physics sequences:
a. Physics 301, 101L, 316, and 116L
b. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N
c. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N

## Computer Science

## Major

1. Mathematics:
a. Mathematics 408C or 408 N and 408 S
b. Mathematics 340 L or Statistics and Data Sciences 329C. Mathematics 341 may substitute for 340L.
c. Statistics and Data Sciences 321. Mathematics 362K may substitute for this requirement.
2. Primary science:
a. Theory: Computer Science 311 or 311 H , and 331 or 331 H
b. Programming: Computer Science 312 and 314 or 314 H
c. Systems: Computer Science 429 or $429 H$, and 439 or 439 H
d. Twelve additional semester hours of approved upper-division computer science
3. Secondary science:
a. Six semester hours of majors-level coursework chosen from a single field of study: biology, chemistry, or physics. It is recommended that students select courses that will also fulfill the Natural Science and Technology Part I core curriculum requirement.
4. At least 17 hours of computer science upper-division coursework must be completed in residence.

An undergraduate may not enroll in any computer science course more than once without written consent of an undergraduate adviser in computer science. No student may enroll in any computer science course more than twice. No student may take more than three upperdivision computer science courses in a semester without written consent of an undergraduate advisor in computer science. All transfer coursework must be approved by faculty before it can count towards a computer science degree, except where equivalency is specified by state regulation.

## Human Development and Family Sciences

## Major

## 1. Mathematics:

a. Statistics and Data Sciences 302
b. Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332
2. Primary science:
a. Human Development and Family Sciences 304 or $304 \mathrm{H}, 313$ or $313 \mathrm{H}, 113 \mathrm{~L}$ or $114 \mathrm{H}, 305$ or $306,315 \mathrm{~L}$, and 340
b. Nine semester hours of upper-division human development and family sciences
c. Six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R or 355H. Registration for Human Development and Family Sciences 352 , 652F, $352 \mathrm{~L}, 652 \mathrm{P}$, and 355 R or 355 H is restricted to students whose practicum applications have been approved. Students who want to participate in an early childhood field experience/ field practicum (Human Development and Family Sciences 352 L or 652P) must also complete Human Development and Family Sciences 338, 266C and 266L with grades of at least C-. Practicum applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or

December 1 falls on a weekend or an official University holiday, the application is due the next business day.
3. Secondary science:
a. Chemistry 301 or 301 H
b. Biology 311 C
c. One of the following courses: Biology 311D, Chemistry 302, or 302H

Psychology 304, 333D, and 339 may not count toward the Bachelor of Science and Arts, with a major in Human Development and Family Sciences.

## Human Ecology

## Major

1. Mathematics:
a. Statistics and Data Sciences 302
b. Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332
2. Primary science: School of Human Ecology coursework, including:
a. Public Health 317
b. One of the following: Human Development and Family Sciences $304,304 \mathrm{H}, 313$ and 113 L , or 313 H and 113 L
c. Nutrition 306,312 , or 312 H
d. Textiles and Apparel 303 or 205 and 105L
e. Fifteen semester hours of upper-division chosen from Human Development and Family Sciences, Human Ecology, Nutrition, Public Health, and Textiles and Apparel
3. Secondary science:
a. Chemistry 301 or 301 H
b. Biology 311 C
c. One of the following: Biology 311D, Chemistry 302, or 302H

## Mathematics

## Major

1. Mathematics:
a. Mathematics 408C and 408D
2. Primary science:
a. Mathematics 341
b. Mathematics $328 \mathrm{~K}, 343 \mathrm{~K}$, or 373 K
c. Mathematics 362K
d. Mathematics 361 K or 365 C
e. Twelve additional semester hours of approved upper-division mathematics
3. Secondary science:
a. Six semester hours of majors-level coursework chosen from a single field of study: astronomy, biology, chemistry, geological sciences, marine science, or physics. It is recommended that students select courses that will also fulfill the Natural Science and Technology Part I core curriculum requirement.
b. Three semester hours of majors-level coursework chosen from a different field of study: astronomy, biology, chemistry, computer science, geological sciences, marine science, or physics. It is recommended that students select a course that will also fulfill the Natural Science and Technology Part II core curriculum requirement.

## Neuroscience

## Major

1. Mathematics:
a. Mathematics 408C, or 408 N and 408 S
b. Statistics and Data Sciences 328M
2. Primary science:
a. Biology 206L and one of the following sequences:
i. Biology 311C, 311D, 325
ii. Biology 315 H and 325 H
b. Neuroscience 330
c. Neuroscience 335
d. Neuroscience 340
e. Twelve additional semester hours of neuroscience, chosen from: Biology 359K, 367C, Neuroscience 337, 365D, 365L, 365N, 365P, 365T, 365V 365W, 366C, 366D, 366E, 366L, 366N, 366P, 366S, 367F, $367 \mathrm{~V}, 367 \mathrm{~W}, 371 \mathrm{M}, 377,466 \mathrm{G}$, and 466M.
3. Secondary science:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
b. One of the following physics sequences:
i. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}, 117 \mathrm{~N}$
ii. Physics 303K, 103M, 303L, 103N
iii. Physics 301, 101L, 316, 116L

## Nutrition

Major

1. Mathematics:
a. Statistics and Data Sciences $302,304,306,325 \mathrm{H}$, or 328 M
b. Mathematics 408C or 408 N or Statistics and Data Sciences 332
2. Primary science:
a. One of the following sequences:
i. Nutrition 312 and 112L, 315,326 , and 126L
ii. Nutrition $312 \mathrm{H}, 312 \mathrm{R}$, and 315
b. One of the following sequences:
i. Nutrition 307 and 107L
ii. Nutrition 218 and 118L
c. Twelve additional semester hours of nutrition, including nine semester hours of upper-division coursework.
3. Secondary science:
a. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
b. Chemistry 320M
c. Biology 311 C

## Physics

Major

1. Mathematics:
a. Mathematics 408C, 408D, 427K or 427J, and 427L
2. Primary science:
a. Physics 301, 101L, 315, 115L, 316, and 116L
b. Physics $336 \mathrm{~K}, 352 \mathrm{~K}, 355,369$, and 373
c. One course chosen from the following: Mathematics 340L; and Physics 329, 333, 345, 353L, 362K, 362L, 474, 375S, 375R, or 375P
a. Three semester hours of majors-level coursework chosen from: astronomy, biology, chemistry, computer science, and geological sciences. It is recommended that students select a course that will also fulfill the Natural Science and Technology Part II core curriculum requirement.

## Bachelor of Science in Astronomy

Astronomy tells us about the place of humankind in the universe: how Earth was created, how the Sun was formed, how galaxies form and evolve. It tells us where the universe is going and where it came from. Astronomers address these questions at a fundamental level. Their goal is to determine the basic and controlling properties of the universe and to transmit that knowledge to society. The Bachelor of Science in Astronomy is designed to give students an understanding of the universe and to prepare them to participate in the advancement of this exciting search.

Two Options are available: Astronomy and Astronomy Honors. Students who plan to follow Option II, Astronomy Honors, must be admitted to the Dean's Scholars Honors Program (p. 250).

## Prescribed Work Common to all Options

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skill and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisers.
3. One of the following foreign language/culture choices: (Students in Option II are exempt from this requirement)
a. Beginning level proficiency coursework, or the equivalent, in a foreign language
b. First course in a foreign language and a three-semester-hour course in the culture of the same language area
c. Two three-semester-hour courses in one foreign culture area chosen from an approved list available in the dean's office and the college advising centers
4. At least 36 semester hours of upper-division coursework
5. At least 21 hours of upper-division coursework, including at least 12 semester hours in physics and astronomy, must be completed in residence at the University

## Additional Prescribed Work for Each Option Option I: Astronomy

6. Six semester hours in biology, chemistry, computer science, and/or geological sciences; Chemistry 301 or 301 H and the courses in the Elements of Computing Certificate Program may be counted toward
7. Secondary science:
this requirement; any other course to be counted must meet major requirements in the department that offers it.
8. Mathematics 408C and 408D, or the equivalent; and 427 J or 427 K , 427 L , and any three hours of upper-division math.
9. Physics 301, 101L, 315, 115L, 316, 116L, 336K, 352K, 353L, 355, 369, and 373.
10. Astronomy $307,352 \mathrm{~K}$, or $364 \mathrm{P}, 353,358$ or $376 \mathrm{C}, 375$ or 376 R , and three additional hours of upper-division astronomy.
11. Six additional semester hours of upper-division coursework in physics and/or astronomy and/or math.
12. Enough additional coursework to make a total of 123 semester hours

## Option II: Astronomy Honors

6. Breadth requirement: An honors mathematics course, Chemistry 301 H , and nine additional hours of coursework chosen from honors courses in the college; credit earned by examination may not be counted toward this requirement.
7. Physics $301,101 \mathrm{~L}, 315,115 \mathrm{~L}, 316$, and 116 L
8. Twelve semester hours of upper-division coursework in astronomy approved by the departmental honors adviser
9. Eighteen semester hours of upper-division coursework in physics approved by the departmental honors adviser
10. Three additional semester hours of upper-division coursework in astronomy or physics
11. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors adviser
12. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
13. Astronomy 379 H and either a three-semester-hour upper-division research course approved by the departmental honors adviser or a second section of Astronomy 379H
14. Sixteen additional hours of coursework approved by the departmental honors adviser
15. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts
16. Enough additional coursework to make a total of 120 semester hours

## Special Requirements

Students in both Options must fulfill both the University's General Requirements (p.19) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under Option II, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors adviser, and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu.

## Bachelor of Science in Biochemistry

The degree of Bachelor of Science in Biochemistry is intended to prepare students for professional careers as biochemists, either upon graduation or after graduate study in biochemistry or related fields. In addition, it may serve as the basis for work in biotechnology, computational biology, biomaterials, forensics, biomedical research, pharmaceutics, patent
law, biotechnology/biomedical business, or environmental science. The Honors Option is intended to prepare students for academic or research careers.

Students who plan to follow Option III, Biochemistry Honors, must be admitted to the Dean's Scholars Honors Program (p. 250).

## Prescribed Work Common to all Options

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisors.
3. At least 36 semester hours of upper-division coursework
4. At least 21 semester hours of upper-division coursework, including at least 12 semester hours of upper-division coursework in chemistry, must be completed in residence at the University

## Additional Prescribed Work for Each Option

## Option I: Biochemistry

5. Mathematics 408C and 408D, or 408N, 408S, and 408M
6. Biostatistics: Statistics and Data Sciences 328M
7. One of the following sequences:
a. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N (recommended);
b. Physics 303K, 103M, 303L, and 103N; or
c. Physics 301, 101L, 316, and 116L
8. The following chemistry courses:
a. General chemistry: Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204 or 317
b. Organic chemistry: Chemistry 320M
c. Biochemistry: Biochemistry 339F and 369L, and two additional courses chosen from Biochemistry 339J, 339M, and 370
d. Physical chemistry: Chemistry 353 or 353 M
e. Analytical chemistry: Chemistry 455
9. One of the following sequences:
a. Biology 311C, 311D, and 325; or
b. Biology 315 H and 325 H
10. Biology 344
11. Completion of one of the following: a. Eighteen additional semester hours of upper-division biochemistry, biology, chemistry, and neuroscience; or
b. A transcript-recognized certificate or a transcript-recognized minor
12. Enough additional coursework to make a total of 120 semester hours

## Option III: Biochemistry Honors

5. Breadth requirement: An honors mathematics course,Biology 315 H and 325 H , Chemistry 301 H and 302 H , and three additional semester hours of coursework chosen from honors courses in the college. Credit earned by examination may not be counted toward this requirement.
6. The following chemistry courses:
a. General chemistry: Chemistry 204 or 317
b. Organic chemistry: Chemistry $128 \mathrm{~K}, 128 \mathrm{~L}, 328 \mathrm{M}$, and 328 N ; or $220 \mathrm{C}, 320 \mathrm{M}$, and 320 N
c. Biochemistry: Biochemistry 339 F and 369 L , and two additional courses chosen from Biochemistry 339J, 339M, 339N, and 370
d. Physical chemistry: Chemistry 353 or 353 M
e. Analytical chemistry: Chemistry 455
7. Biology 344
8. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor
9. A section of Rhetoric and Writing 309 S that is restricted to students in the Dean's Scholars Honors Program
10. Chemistry 379 H or Biochemistry 379 H and either a three-semester-hour upper-division research course approved by the departmental honors advisor or a second section of Chemistry 379H or Biochemistry 379 H
11. Twenty-four additional semester hours of coursework approved by the departmental honors advisor.
12. Six semester hours of coursework from in the College of Liberal Arts and/or the College of Fine Arts.
13. Enough additional coursework to make a total of 120 semester hours.

## Special Requirements

Students in all Options must fulfill both the University's (p. 19) General Requirements ( p .19 ) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under Option III, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors advisor and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu.

## Order and Choice of Work

The student must consult the undergraduate advisor each semester regarding order and choice of work.

## Bachelor of Science in Biology

The Bachelor of Science in Biology degree program offers 11 Options. The Options have certain prescribed work in common, and each Option has additional requirements. Many fields in the study of biological systems require broadly based training that transcends the classical boundaries of biology. In planning a program of work to meet his or her degree requirements, a student interested in specializing in these interdisciplinary areas should choose courses both in biology and in sciences that complement biology.

Students who plan to follow Option IX, Biology Honors, must be admitted to the Dean's Scholars Honors Program (p. 250).

## Prescribed Work Common to All Options

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags: a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisors.
3. Courses common to all Bachelor of Science in Biology degree Options except for Option IX.
a. Mathematics $408 \mathrm{C}, 408 \mathrm{R}$, or 408 N and 408 S . Students who intend to take additional calculus coursework should begin the sequence with 408C or 408N
b. Statistics and Data Sciences 328 M
c. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
d. One of the following sequences:
i. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N (recommended)
ii. Physics $301,101 \mathrm{~L}, 316$, and 116 L
iii. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N
iv. Physics $302 \mathrm{~K}, 102 \mathrm{M}, 302 \mathrm{~L}$, and 102 N

Option VIII Teaching majors may substitute Science 365 and Physics 108 for Physics 316 and 116L, 317L and 117N, 303L and 103 N , or 302L and 102N; Physics 108 is offered on the pass/fail basis.
e. Biology, including:
i. Biology 311C, 311D, and 325, or 315 H and 325 H .
ii. Biology 206L, 208L, or 226L. This requirement must be completed prior to progressing to additional laboratory requirement in the degree options. Students pursuing Option III, Marine and Freshwater Science, and Option IV, Microbiology and Infectious Diseases, must complete Biology 226L. Students pursuing Option VIII, Teaching, must complete either Biology 206L or 208L.
iii. Biology 370
4. All students must complete at least 36 semester hours of upperdivision coursework; at least 21 semester hours of upper-division coursework in biology must be completed in residence at the University.

## Additional Prescribed Work for Each Option Option I: Ecology, Evolution, and Behavior

5. One course or pair of courses in each of the following areas:
a. Ecology: Biology 357, 373, or Marine Science 320 and 120L
b. Behavior and comparative physiology: Biology 322 and 122L, 359 K , or 361 T
c. Taxon-based course: Biology 321L, 324 and 124L, 327 and 127L, 340L, 448L, 351, 352, 353F, 453L, 354L, 455L, 463L, 369F, 369L, Marine Science 352D, 354, 354C, 354E
6. Three additional courses or pair of courses chosen from coursework in 5 a through 5c and from Biology 438L, 471G, 456L, 359R, 364, 373L, 374 and 174L, 375, 478L, Marine Science 352C, and 354Q
7. One course in cellular, developmental, genetics, microbiology, or molecular biology: Biology 320, 320L, 325L, 325T, 326R, 328, 331L, 344, 349, 349L, 350M, 366R
8. One laboratory course or pair of courses containing a substantial field component: Biology 321L, 340L, 353F, 453L, 354L, 455L, 456L, 369L, 373L, Marine Science 320 and 120L, 352C, 352D, 354, 354C, 354E. A laboratory course or pair of courses may also count toward requirements 5 through 7
9. One additional laboratory course: Biology 320L, 321L, 124L, 127L, 325L, 331L, 438L, 340L, 448L, 349L, 353F, 453L, 354L, 455L, 456L, 369L, 373L, 174L, 478L, Marine Science 120L, 352C, 352D, 354, 354C, 354E, 354Q. One-hour laboratory courses may require credit for or registration in a complementary lecture course. A laboratory course may also count toward requirements 5 through 7 . A course counted toward requirement 8 may not also count toward requirement 9 .
10. One course chosen from the following: Chemistry 320M, Computer Science 303E or 313E, Geological Sciences 401 or 303, Statistics and Data Sciences 332 or 348
11. Enough additional coursework to make a total of 120 semester hours

## Option II: Human Biology

5. Chemistry 320M, 320N, 220C
6. Biochemistry 369 or 339 F
7. Biology 346
8. Three hours from genetics, genomics, and computational biology: Biochemistry 339N, Biology 321G, 325T, 327E, 327G, 354C, 366, 366R, 471, Statistics and Data Sciences 348
9. Six hours from cellular, developmental, and molecular biology: Biochemistry 339J, 339M, 364F, Biology 320, 326R, 330, 335, 336, $339,339 \mathrm{M}, 344,360 \mathrm{~K}, 349,350 \mathrm{M}, 360 \mathrm{M}, 361$
10. Three hours from ecology, environment, and health: Biology 326R, 327D, 329, 330, 361, 364, Nutrition 306 or 312
11. Four hours from physiology and anatomy: Biology 446L, 365S and 165U, 478L
12. One additional laboratory course from: Biology 320L, 122L, 124L, 128L, 129L, 325L, 328D, 230L, 331L, 340L, 446L, 448L, 349L, 353F, 453L, 354L, 455L, 456L, 260L, 361L, 463L, 165U, 369F, 369L, 371L, 373L, 174L, 478L, Marine Science 120L, 152L. One-hour laboratory courses may require credit for or registration in a complementary lecture course.
13. Enough additional coursework to make a total of 120 semester hours

## Option III: Marine Science

5. Chemistry 320 M
6. Biology 326R and 373
7. Marine Science 101, 310, 320, and 120L
8. Eighteen hours of coursework including 12 hours in Marine Science, chosen from: Biology 320, 321L, 328, 344, 354L, 357, 361T, 364, 366, 375, Geological Sciences 341G, Marine Science 440, 348 (Topic 1:

Training Cruise(s)), 352, 352C, 352D, 352E, 152L, 152S, 252S, 152T, 252T, 353, 354, 354C, 354E, 354J, 354Q, 354T, 354U, 355C, 356, 357, $367 \mathrm{~K}, 170,270,370$. Six hours in Marine Science must be completed at the Marine Science Institute in Port Aransas, Texas.
9. Enough additional coursework to make a total of 120 semester hours

## Option IV: Microbiology and Infectious Diseases

5. Biochemistry 369 or 339F, and Chemistry 320M
6. Biology 326R, 330, 339, 339M, 360K, 361, 366
7. Two upper-division biology laboratory courses chosen from: Biology $230 \mathrm{~L}, 260 \mathrm{~L}$, and 361 L . Biology $377,377-\mathrm{FRI}, 379 \mathrm{H}$ may be used for one of the laboratory courses if approved in advance by the microbiology faculty advisor.
8. Fifteen additional hours in upper-division biochemistry, biology, and chemistry
9. Enough additional coursework to make a total of 120 semester hours

## Option V: Cell and Molecular Biology

5. Biochemistry 369 or 339F, and Chemistry 320M
6. Biology $320,326 \mathrm{R}, 349$, and 344 or 350 M
7. Two laboratory courses chosen from: Biology 320L, 325L, 331L, 349L
8. One additional upper-division laboratory course in biology. Biology $377,377-\mathrm{FRI}, 379 \mathrm{H}$ may be used if approved in advance by the cell and molecular biology faculty advisor.
9. Eighteen additional hours in upper-division biochemistry, biology, and chemistry
10. Enough additional coursework to make a total of 120 semester hours

## Option VII: Plant Biology

5. Biology 328, 373, and 322 and 122L, 324 and 124L, or 463L
6. Two additional upper-division laboratory courses;Biology 377, 377FRI, 379H may be used for one of the laboratory courses if approved in advance by the plant biology faculty advisor.
7. One of the following sequences:
a. Plant molecular biology: Biochemistry 369 or 339F, Biology 320 and 350M, and Chemistry 320M
b. Plant environmental biology: Biology 357, 374, and 375
8. Eighteen additional hours in upper-division biochemistry, biology, chemistry, and marine science
9. Enough additional coursework to make a total of 120 semester hours

## Option VIII: Teaching

This Option is designed to fulfill the course requirements for certification as a middle grades or secondary school science teacher in Texas; the student chooses either composite science certification with biology as the primary teaching field or life science certification. However, completion of the course requirements does not guarantee the student's certification. Information about additional certification requirements is available from the UTeach-Natural Sciences academic advisor.
5. Chemistry $320 \mathrm{M}, 320 \mathrm{~N}$, and 220 C or 320 M and Biochemistry 369
6. Biology courses:
a. Biology 320, 226L, 326R, and either 324 and 124L, 322 and 122L, or 328 and 128L
b. At least three semester hours chosen from the following courses in physiology, neurobiology, and behavior. Biology 438L, 359K, 359R, 361T, 365S, 367C
c. At least three semester hours chosen from: Biology 340L, 448L, 453L, 455L, 456L, 463L, 364, 369L, 373, Marine Science 352D, 354, 354C
7. One of the following research methods courses: Biology 328D, 337 (Topic 2: Research Methods: UTeach), Chemistry 368 (Topic 1: Research Methods: UTeach), Physics 341 (Topic 7: Research Methods: UTeach)
8. History 329U or Philosophy 329U
9. One of the following:
a. For composite science certification: Biochemistry 369 (to be counted as upper-division biology hours) and six semester hours of coursework in geological sciences. Courses intended for nonscience majors may not be counted toward this requirement. The remaining composite certification content requirements are met by the chemistry, physics, and science courses used to fulfill requirements $3 \mathrm{c}, 3 \mathrm{~d}$, 3 ei , and 5 .
b. For life science certification: Biology 373, and three additional semester hours of biology chosen from the courses listed in requirement 6b and 6c
10. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 651S (Topic 4: Secondary School Teaching Practicum: Science)
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
e. UTeach-Natural Sciences 101, 110, and 170
11. Students seeking middle grades certification must complete the following courses: Educational Psychology 350G, or Psychology 301 and 304; and Curriculum and Instruction 339E
12. Enough additional coursework to make a total of 126 semester hours

## Option IX: Biology Honors

5. Breadth requirement: An honors mathematics course; Biology 315H and 325 H ; Chemistry 301 H and 302 H ; and an additional three-hour honors-designated course from a department in College of Natural Sciences. Credit earned by examination may not be counted toward this requirement.
6. An eight-semester-hour sequence of coursework in physics chosen from the following:
a. Physics 301, 101L, 316, and 116L;
b. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N ; or
c. Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N
7. Biology 206L or 208L and Chemistry 204
8. Complete 24 hours chosen from any of the following courses:
a. Biology 370
b. Cellular, developmental, and molecular biology: Biochemistry 369 or 339F, 339J, 339M, 364F, Biology 320, 326R, 330, 335, 336, 339, $339 \mathrm{M}, 344,360$ K, $349,350 \mathrm{M}, 360 \mathrm{M}, 361$
c. Genetics and genomics: Biochemistry 339N, Biology 321G, 325T, 327E, 327G, 354C, 366, 366R, 471, Statistics and Data Sciences 348
d. Physiology, neuroscience, and behavior. Biology 328, 438L, 359K, 359R, 361T, 367C, 365S, 374, Marine Science 355C
e. Ecology, evolution, and biodiversity: Biology 322, 324, 346, 351, 357, 364, 471G, 373, 375, Marine Science 320, 352C, 352D, 352E, $353,354,354 \mathrm{C}, 354 \mathrm{E}, 354 \mathrm{Q}, 356,357$
9. Three upper-division laboratory courses in biology; Biology 377 or 379 H may be used as only one of the three required upper-division
laboratory courses. Courses used to fulfill this requirement may also be counted toward requirement 8 .
10. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor
11. A section of Rhetoric and Writing 309 s that is restricted to students in the Dean's Scholars Honors Program
12. Two semesters of Biology 379H
13. Fifteen additional semester hours of coursework approved by the departmental honors advisor
14. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts
15. Enough additional coursework to make a total of 120 semester hours

## Option X: Computational Biology

5. Statistics and Data Sciences 329C or Mathematics 340L or 341; Mathematics 362 K or Statistics and Data Sciences 321; and Statistics and Data Sciences 348
6. Two courses from: Computer Science 303E, 313E, 323E, 323H, 324E, 326E, 327E, 329E, Mathematics 408D, 358K, 378K, Statistics and Data Sciences 322, 323, 329D, 332, 335, 352, 353, 358, 374C, 374D, 374E.
7. Two courses from genetics, genomics, and computational biology: Biochemistry 339N, Biology 321G, 325T, 327E, 327G, 354C, 366, 366R, 471
8. Six hours chosen from any of the following courses:
a. Cellular, development, and molecular biology: Biochemistry 369 or 339F, 339J, 339M, 364F, Biology 320, 326R, 330, 335, 336, 339, 339M, 344, 360K, 349, 350M, 360M, 361
b. Physiology, neuroscience, and behavior: Biology 328, 438L, 359K, 359R, 361T, 367C, 365S, 374; Neuroscience 330; Marine Science 355C
c. Ecology, evolution, and biodiversity. Biology 322, 324, 346, 351, 357, 364, 471G, 373, 375, Marine Science 320, 352C, 352D, 352E, 353, 354, 354C, 354E, 354Q, 356, 357
9. One additional laboratory course chosen from: Biology 320L, 122L, 124L, 128L, 129L, 325L, 328D, 230L, 331L, 340L, 446L, 448L, 349L, 353F, 453L, 354L, 455L, 456L, 260L, 361L, 463L, 165U, 369F, 369L, 371L, 373L, 174L, 478L, Marine Science 120L, 152L
10. Nine hours of additional upper-division biochemistry, biology, chemistry, marine science, mathematics, physics, and statistics and data sciences
11. Enough additional coursework to make a total of 120 semester hours

## Option XI: Biology

5. Two courses from cellular, developmental, and molecular biology: Biochemistry 369 or 339F, 339J, 339M, 364F, Biology 320, 326R, 330, 335, 336, 339, 339M, 344, 360K, 349, 350M, 360M, 361, Pharmacy PharmD 381M, 281N
6. Two courses from genetics, genomics, and computational biology: Biochemistry 339N, Biology 321G, 325T, 327E, 327G, 354C, 366, 366R, 471, Statistics and Data Sciences 348
7. Two courses from physiology, neurobiology, and behavior. Biology 328, 438L, 359K, 359R, 361T, 367C, 365S, 374, Marine Science 355C, Neuroscience 330, Pharmacy PharmD 480C, 480D.
8. Two courses from ecology, evolution, and biodiversity: Biology $322,324,346,351,357,364,471$ G, 373,375 , Marine Science $320,352 C, 352 D, 352 E, 353,354,354 C, 354 E, 354 Q, 356,357$
9. Two additional laboratory courses: Biology 320L, 122L, 124L, 128L, 129L, 325L, 328D, 230L, 331L, 340L, 446L, 448L, 349L, 353F, 453L, 354L, 455L, 456L, 260L, 361L, 463L, 165U, 369F, 369L, 371L, 373L,

174L, 478L, Marine Science 120L, 152L, Pharmacy PharmD 180K, 180P, 187P, 388M, 188P. One-hour laboratory courses may be required credit for or registration in a complementary lecture course.
10. Twelve additional hours in upper-division biochemistry, biology, chemistry, marine science, mathematics, statistics and data sciences, physics, and pharmacy.
11. Enough additional coursework to make a total of 120 semester hours.

## Option XII: Genetics and Genomics

5. Biochemistry 369 or 339F
6. Biology $320,325 \mathrm{~T}, 349,344$, and 325 L
7. Chemistry 320 M
8. Three hours from: Biochemistry 339N, Biology 321G, Statistics and Data Sciences 348
9. Six hours from: Biology 326R, 327E, 327G, 354C, 366, 366R
10. Biology 320L or 349L
11. Nine additional hours in upper-division biochemistry, biology, chemistry, mathematics, and statistics and data sciences
12. Enough additional coursework to make a total of 120 semester hours

## Special Requirements

Students in all Options must fulfill both the University's General Requirements ( p .19 ) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate and be recommended for certification, students who follow the teaching Option must have a University grade point average of at least 2.50 . They must earn a grade of at least $C$ - in the supporting course in requirement 8 , and in each of the professional development courses listed in requirement 10 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least $C$ - in each of the courses listed in requirement 11. For information about the portfolio review and additional teacher certification requirements, students should consult the UTeach-Natural Sciences academic advisor.

To graduate under Option IX, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors advisor, and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.

## Order and Choice of Work

Students begin the Bachelor of Science in Biology degree program with six hours of introductory biology for science majors (Biology 311 C and 311 D ), as well as Chemistry 301 or 301 H and 302 or 302 H and Mathematics 408C, 408N, or 408R. Students should consult with academic advisors 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 21 hours of upper-division coursework in the major in the third and fourth years.

## Bachelor of Science in Chemistry

Six degree plans lead to the Bachelor of Science in Chemistry. Focus Areas I, II, III, and IV are intended to prepare students for professional careers, either upon graduation or after graduate study in chemistry or related fields. Focus Area V, Teaching, is intended to prepare students to enter the teaching profession. Focus Area VI, Chemistry Honors, is intended to prepare students for academic or research careers. Students who plan to follow Focus Area VI must be admitted to the Dean's Scholars Honors Program (p. 250).

The six 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. 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 Focus Areas

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flag from the same course. Students are encouraged to discuss options with their academic advisors.
3. The following courses:
a. Mathematics 408C and 408D; or 408N, 408S, and 408M; 427J
b. Statistics and Data Sciences 302
c. One of the following sequences:
i. Physics 301, 101L, 316, and 116L
ii. Physics 303K, 103M, 303L, and 103N
d. General chemistry: Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 317
e. Organic chemistry: Chemistry $128 \mathrm{~K}, 128 \mathrm{~L}, 328 \mathrm{M}$, and 328 N ; or 220C, 320M, and 320N
f. Chemical data analysis: Chemistry 352D
g. Physical chemistry: Chemistry 353 or $353 \mathrm{M}, 153 \mathrm{~K}$, and 354
4. Thirty-six semester hours of upper-division coursework.
5. At least 21 semester hours of upper-division coursework, including at least 12 semester hours of upper-division coursework in chemistry, must be completed in residence at the University.

## Additional Prescribed Work for Each Focus Area

## Focus Area I: Chemical Physics \& Instrumentation

6. All of the following:
a. Biology 311C
b. Biochemistry 339F and 370
c. Chemistry $154 \mathrm{~K}, 456,376 \mathrm{~K}$, and 378 L
7. Choose four of any of the following courses: Chemistry 368, 369 K , $375 \mathrm{~K}, 379 \mathrm{H}$; Chemical Engineering 253K, 253M, 350; Biomedical Engineering 311, 335, 339, 343, 349; Electrical Engineering 313, 347, 351K; Physics 315, 333, 338K, 345; Biochemistry 339N, 364D
8. Enough additional coursework to make a total of 120 hours

## Focus Area II: Molecular Theory \& Simulation

6. All of the following:
a. Chemistry 354C, 354M, and 378L
b. Statistics and Data Sciences 322 and 335
7. Choose four of any of the following courses: Chemistry 154K, 367C, 367L, 368, 369K, 375K, and 379H; Mathematics 368K; Physics 333, 345, and 375S; Statistics and Data Sciences 374C
8. Enough additional coursework to make a total of 120 hours

## Focus Area III: Materials Chemistry

6. All of the following: Chemistry 431, 456, 366C, 367C, and 378L
7. Choose four of any of the following courses: Chemistry 341, 366E, 367L, 368, 369K, 375K, 379H; Chemical Engineering 322, 323, 343; Electrical Engineering 334K, 339, 339S; Engineering Studies 360M; Mechanical Engineering 349; Petroleum and Geosystems Engineering $326,421 \mathrm{~K}, 427$
8. Enough additional coursework to make a total of 120 hours

## Focus Area IV: Synthesis \& Chemical Biology

6. All of the following:
a. Biology 311C and 311D
b. Biochemistry 339F
c. Chemistry $431,456,376 \mathrm{~K}$, and 378 L
7. Choose four of any of the following courses: Chemistry 341, 354C, 354S, 154K, 367C, 367L, 368, 369K, 372C, 375K, 379H; Biochemistry 339J, 339N, 364D, 369L, 370; Biology 325, 344; Biomedical Engineering 339, 355; Pharmacy PharmD 310K, 350K; Pharmacy Graduate Studies 388C, 396M
8. Enough additional coursework to make a total of 120 hours

## Focus Area V: Teaching

This focus area is designed to fulfill the course requirements for certification as a middle grade or secondary school science teacher in Texas; the student chooses one of the following areas: composite science certification with chemistry as the primary teaching field; physical sciences certification; or physical science, mathematics, and engineering certification. However, completion of the course
requirements does not guarantee the student's certification. Information about additional teacher certification requirements is available from the UTeach-Natural Sciences academic advisor.
6. Chemistry 317
7. Mathematics 408C and 408D, or 408N, 408S, and 408M
8. History 329 U or Philosophy 329 U
9. One of the following sequences:
a. For students seeking composite science certification: Physics $301,101 \mathrm{~L}, 316$, and 116 L ; or Physics $303 \mathrm{~K}, 103 \mathrm{M}, 303 \mathrm{~L}$, and 103 N ; or Physics 317K, 117M, 317L, and 117N. Science 365 and Physics 108 may substitute for Physics 316 and 116L, 317L and 117 N , or 303 L and 103 N . Physics 108 is offered on the pass/fail basis.
b. For students seeking either physical sciences certification or, mathematics, physical science, and engineering certification: Physics 301, 101L, 316, 116L, 315, and 115L; or 303K, 103M, 303L, 103N, 315, and 115L
10. The requirements of one of the following certification areas:
a. For composite science certification:
i. Biology 311C and 311D
ii. Six hours of coursework in geological sciences; courses intended for non-science majors may not be counted toward this requirement
iii. Enough additional approved coursework in biology, geological sciences, or physics to provide the required 12 hours in a second field
iv. Chemistry 368 (Topic 1: Research Methods: UTeach) or, with the consent of the UTeach-Natural Sciences academic advisor, an upper-division chemistry course that includes a substantial research component
v. In place of requirements $3 f$ through $3 g$ of the prescribed work above, the following courses, for a total of at least 34 semester hours of chemistry: Biochemistry 339F or 369; Chemistry 353 ; and 455 or 456
b. For physical sciences certification:
i. Mathematics 427J or 427K and 427L
ii. Chemistry 153K, 354C and 154K
iii. Chemistry 354 and three hours of upper-division coursework in physics
iv. Chemistry 368 (Topic 1 : Research Methods: UTeach) or, with the consent of the UTeach-Natural Sciences academic advisor, an upper-division chemistry course that includes a substantial research component
v. In place of requirements $3 f$ through $3 g$ of the prescribed work above, the following courses, for a total of at least 34 semester hours of chemistry: Biochemistry 339F or 369; Chemistry 353, and 455 or 456
c. For mathematics, physical science, and engineering certification:
i. Mathematics 315C, 375D, 427J or 427K, and 333L
ii. Engineering Studies 301; and Mechanical Engineering 377 K upon approval of the project by the UTeach Program
iii. Chemistry 368 (Topic 1: Research Methods: UTeach) or, with the consent of the UTeach-Natural Sciences academic advisor, an upper-division chemistry course that includes a substantial research component
iv. In place of requirements $3 f$ through $3 g$ of the prescribed work above, the following courses, for a total of at least 30
semester hours in chemistry: Chemistry 353 and 153K, 455, and Biochemistry 369
11. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 651S (Topic 4: Secondary School Teaching Practicum: Science)
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
e. UTeach-Natural Sciences 101, 110, and 170
12. Students seeking middle grades certification must complete the following courses: Educational Psychology 350G or Psychology 301 and 304; and Curriculum and Instruction 339E
13. Enough additional coursework, if needed, to make a total of 126 semester hours

## Focus Area VI: Chemistry Honors

6. Breadth requirement: An honors mathematics course, Chemistry 301 H and 302H, Physics 301, 101L, 316, and 116L, and an additional three-hour honors-designated course from a department in the College of Natural Sciences. Credit earned by examination may not be counted toward this requirement
7. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor
8. A section of Rhetoric and Writing 309S that is restricted to Dean's Scholars
9. Chemistry 379 H and a three-semester-hour upper-division research course approved by the departmental honors advisor, or six hours of Chemistry 379H
10. Twenty-two additional hours of coursework based on Focus Area I, II, III, or IV and approved by the departmental honors advisor
11. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts
12. Enough additional coursework to make a total of 120 semester hours

## Special Requirements

Students in all Focus Areas must fulfill both the University's General Requirements (p. 19) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a University grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate and be recommended for certification, students who follow the teaching focus area must have a University grade point average of at least 2.50. They must earn a grade of at least $C$ - in the supporting course in requirement 8 , and each of the professional development courses listed in requirement 11 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least $C$ - in each of the courses listed in requirement 12. For information about the portfolio review and additional teacher certification requirements, consult the UTeach-Natural Sciences academic advisor.

To graduate under Focus Area VI, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors advisor, and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu

## Order and Choice of Work

Students begin the Bachelor of Science in Chemistry degree program with eight hours of introductory chemistry for science majors (Chemistry 301,302 , and 204), as well as Mathematics 408C or $408 N$. Students should consult with their academic advisors about planning to choose a chemistry degree focus area, appropriate course in mathematics and physical sciences, and about course load and balance between laboratory and lecture courses. Most students will select a degree focus area by the end of the second year and take at least 21 hours of upperdivision coursework in the major requirements in the third and fourth years.
i. Engineering Studies 301; andMechanical Engineering 377Kupon approval of the project by the UTeach Program

## Bachelor of Science in Computer Science

The Bachelor of Science in Computer Science degree program provides a strong technical background for students planning to begin careers upon graduation and for those interested in graduate study in computer science. This program allows students to take more coursework in computer science and related technical areas than does the bachelor of arts degree program.

In addition to the three Options leading to the Bachelor of Science in Computer Science, students may apply to Option IV, the Integrated Program, which leads to simultaneous completion of the Bachelor of Science in Computer Science and the Master of Science in Computer Science, the Master of Science in Information Studies, or the Master of Science in Computational Science, Engineering, and Mathematics. The requirements for the Bachelor of Science in Computer Science, Option IV, are given below. The requirements for the Master of Science in Computer Science, the Master of Science in Information Studies, and the Master of Science in Computational Science, Engineering, and Mathematics are described in the Graduate Catalog.

Students who would like to pursue any of the following Options must first be admitted to the degree program. The admission processes for Options I, II, IV, and VI are described in The Major in Computer Science (p. 246); the admission process for Option III is described in the section Dean's Scholars Honors Program (p. 250).

## Prescribed Work Common to All Options

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisors.
3. Options I, II, and IV: One of the following foreign language/culture choices: (Students in Option III, V, and VI are exempt from this requirement)
a. Beginning level proficiency coursework, or the equivalent, in a foreign language
b. First course in a foreign language and a three-semester-hour course in the culture of the same language area
c. Two three-semester-hour courses in one foreign culture area. The courses must be chosen from an approved list available in the dean's office and the college advising centers
4. At least 42 semester hours of upper-division coursework.
5. At least 21 semester hours of upper-division coursework in computer science must be completed in residence at the University.

## Additional Prescribed Work for Each Option

## Option I: Computer Science

6. Mathematics 408C and 408D, or 408N, 408S, and 408M; either 340L or 341 or Statistics and Data Sciences 329C; and Mathematics 362 K or Statistics and Data Sciences 321
7. One of the following sequences of coursework:
a. Either Biology 311C and 311D, or Biology 315 H and 325 H
b. Chemistry 301 or 301 H , and 302 or 302 H
c. Physics 303 K and $103 \mathrm{M}, 301$ and 101 L , or 317 K and 117 M ; and 303 L and $103 \mathrm{~N}, 316$ and 116 L , or 317 L and 117 N
8. Three additional hours of majors-level coursework chosen from:
a. a different sequence listed in requirement 7
b. geological sciences
c. upper-division mathematics, excluding Mathematics $325 \mathrm{~K}, 340 \mathrm{~L}$, 341 , and 362 K
9. The following courses in computer science:
a. Theory: Computer Science 311 or $311 \mathrm{H}, 331$ or 331 H , and three additional hours from an approved list available in the department
b. Programming: Computer Science 312,314 or 314 H , and three additional hours from an approved list in the department
c. Systems: Computer Science 429 or $429 \mathrm{H}, 439$ or 439 H , and three additional hours from an approved list available in the department
d. Fifteen additional hours of upper-division courses in computer science
10. Enough additional coursework to make a total of 120 semester hours.

## Option II: Turing Scholars Honors

6. Mathematics 408 C and 408 D , or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M ; either 340 L or 341 or Statistics and Data Sciences 329C; and Mathematics 362 K or Statistics and Data Sciences 321
7. One of the following sequences of coursework:
a. Either Biology 311C and 311D, or 315 H and 325 H
b. Chemistry 301 or 301 H , and 302 or 302 H
c. Physics 303 K and $103 \mathrm{M}, 301$ and 101 L , or 317 K and 117 M ; and 303 L and $103 \mathrm{~N}, 316$ and 116 L , or 317 L and 117 N .
8. Three additional hours of majors-level coursework chosen from:
a. a different sequence listed in requirement 7
b. geological sciences
c. upper-division mathematics, excluding Mathematics $325 \mathrm{~K}, 340 \mathrm{~L}$, 341 , and 362 K
9. The following courses in computer science:
a. Theory: Computer Science 311 or $311 \mathrm{H}, 331$ or 331 H , and three additional hours from an approved list available in the department
b. Programming: Computer Science 314 or 314 H , and three additional hours from an approved list available in the department
c. Systems: Computer Science 429 or $429 \mathrm{H}, 439$ or 439 H , and three additional hours from an approved list available in the department
d. Computer Science 178 H and 379 H
e. Twelve additional hours of upper-division courses in computer science

The courses the student chooses to fulfill requirements a through c must be approved by the Turing Scholars program director. In addition to Computer Science $429 \mathrm{H}, 178 \mathrm{H}$ and 379 H , at least five upper-division courses chosen to fulfill requirements a through e must be honors courses. The honors thesis the student completes in Computer Science 379 H must be approved by the program director.
10. Enough additional coursework to make a total of 120 semester hours

## Option III: Computer Science Honors

6. Breadth requirement: An honors mathematics course; Computer Science 311 H and 314 H ; one of the following two-semester sequences: Biology 315 H and 325 H , Chemistry 301 H and 302 H , Physics 301, 101L, 316, and 116L; and either an additional three hours chosen from these courses or Physics 315 and 115L. Credit earned by examination may not be counted toward this requirement.
7. At least six semester hours of upper-division coursework in mathematics
8. Computer Science $429 \mathrm{H}, 331 \mathrm{H}, 439 \mathrm{H}$, and 12 additional hours of upper-division coursework in computer science
9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor
10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
11. Computer Science 379 H and a three-semester-hour upper-division research course approved by the departmental honors advisor
12. Twenty-five additional semester hours of coursework approved by the departmental honors advisor
13. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts
14. Enough additional coursework to make a total of 120 semester hours

## Option IV: Integrated Program

6. Mathematics 408 C and 408 D , or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M ; either 340 L or 341 or Statistics and Data Sciences 329C; and Mathematics 362K or Statistics and Data Sciences 321
7. One of the following sequences of coursework:
a. Either Biology 311C and 311D, or Biology 315H and 325H
b. Chemistry 301 or 301 H , and 302 or 302 H
c. Physics 303 K and $103 \mathrm{M}, 301$ and 101 L , or 317 K and 117 M ; and 303 L and $103 \mathrm{~N}, 316$ and 116 L , or 317 L and 117 N
8. Three additional hours of majors-level coursework chosen from:
a. a different sequence listed in requirement 7
b. geological sciences
c. upper-division mathematics, excluding Mathematics $325 \mathrm{~K}, 340 \mathrm{~L}, 341$, and 362 K
9. The following courses in computer science:
a. Theory: Computer Science 311 or $311 \mathrm{H}, 331$, or 331 H , and three additional hours from an approved list available in the department
b. Programming: Computer Science 312,314 or 314 H , and three additional hours from an approved list available in the department
c. Systems: Computer Science 429 or $429 \mathrm{H}, 439$ or 439 H , and three additional hours from an approved list available in the department
d. Nine additional hours of upper-division courses in computer science
10. Enough additional coursework to make a total of 120 semester hours

## Option V: Teaching (Senior grades)

6. History 329U or Philosophy 329U
7. Mathematics 408 C and 408 D , or $408 \mathrm{~N}, 408 \mathrm{~S}$, and 408 M ; either 340 L or 341 or Statistics and Data Sciences 329C
8. One of the following sequences of coursework:
a. Biology 311C and 311D
b. Chemistry 301 or 301 H , and 302 or 302 H
c. Physics 303 K and $103 \mathrm{M}, 301$ and 101 L , or 317 K and 117 M ; and 303 L and $103 \mathrm{~N}, 316$ and 116 L , or 317 L and 117 N
9. The following courses in computer science:
a. Theory: Computer Science 311 or $311 \mathrm{H}, 331$ or 331 H , and three additional hours from an approved list available in the department
b. Programming: Computer Science 312, 314 or 314 H , and three additional hours from an approved list available in the department
c. Systems: Computer Science 429 or $429 \mathrm{H}, 439$ or 439 H , and three additional hours from an approved list available in the department
10. The requirements of one of the following certification areas:
a. For computer science certification:
i. Mathematics 362 K or Statistics and Data Sciences 321
ii. An additional sequence chosen from the following:
11. Biology 325 and 337 (Topic 2: Research Methods: UTeach)
12. At least three hours of upper-division coursework in chemistry approved by the undergraduate advisor; and Chemistry 368 (Topic 1: Research Methods: UTeach)
13. Physics 315 and 341 (Topic 7: Research Methods: UTeach)
iii. Fifteen additional hours of approved computer science upper-division coursework
b. For computer science and mathematics certification:
i. Mathematics 315C, 333L, 362K, 375D, and Statistics and Data Sciences 321
ii. Twelve additional hours of approved computer science upper-division coursework.
iii. Biology 337 (Topic 2: Research Methods: UTeach), or Chemistry 368 (Topic 1: Research Methods: UTeach), or Physics 341 (Topic 7: Research Methods: UTeach)
14. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 651S (Topic 3: Secondary School Teaching Practicum: Math)
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
e. UTeach-Natural Sciences 101, 110, and 170
15. Enough additional coursework to make a total of 127 semester hours

## Option VI: Honors Computer Science and Business

6. Mathematics 408C and 408D, or 408N, 408S, and 408M; either Mathematics 340L or 341 or Statistics and Data Sciences 329C; and Statistics and Data Sciences 321
7. One of the following sequences of coursework, also fulfills all of part I of the core curriculum science and technology requirement:
a. Either Biology 311C and 311D, or 315H and 325H
b. Chemistry 301 or 301 H , and Chemistry 302 or 302 H
c. Physics 303 K and $103 \mathrm{M}, 301$ and 101 L , or 317 K and 117 M ; and 303 L and $103 \mathrm{~N}, 316$ and 116 L , or 317 L and 117 N
8. Economics 304 K and 304 L
9. Three semester hours of coursework in anthropology, psychology, educational psychology, or sociology, chosen from approved courses; courses dealing primarily with statistics or data processing may not be used to fulfill this requirement. Social Science 302C, 302D, 302E, and

302F (for Plan II dual majors only) are also accepted. A list of coursework can be found in the Canfield Business Honors academic advising office.
10. The following courses in computer science:
a.Theory: Computer Science 311H, 331H
b. Programming: Computer Science 314 H
c. Systems: Computer Science 429H, 439H
d. Twelve additional hours of upper-division courses in computer science of which six hours must carry the honors designation.
11. Completion of the following business core courses and other business courses in special Honors Program sections:
a. Accounting 311 H (may fulfill the quantitative reasoning flag)
b. Accounting 312 H (may fulfill the quantitative reasoning flag)
c. Business Administration 101H
d. Business Administration 151H
e. Business Administration 353
f. Business Administration 324 or Communication 324 H (may fulfill the writing flag)
g. Decision Science 235H
h. Finance 357 H
i. Legal Environment of Business 323H
j. Management 101H
k. Management 336 H (may fulfill the ethics flag)
I. Management 327 H
m . Management 374 H (may fulfill the writing and independent inquiry flags)
n. Management Information Systems 301H
o. Marketing 337H
p. Operations Management 235 H
q. Statistics 235 H (may fulfill the quantitative reasoning flag)

This dual major requires 124 hours for completion of both degrees

## Special Requirements

Students in all Options must fulfill both the University's general requirements ( p .19 ) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate and be recommended for certification students who follow the teaching option must have a University grade point average of at least 2.50 . They must earn a grade of at least $C$ - in the supporting course in requirement 6 , and in each of the professional development courses listed in requirement 11 and must pass the final teaching portfolio review. For information about the portfolio review and additional teacher
certification requirements, students should consult the UTeach-Natural Sciences academic advisor.

Enrollment in Computer Science 312,311 or 311 H , and 314 or 314 H is restricted to computer science entry-level majors. All other computer science courses that may be counted toward a degree in computer science are restricted to students who have been admitted to the computer science major or have the consent of the undergraduate faculty advisor.

An undergraduate may not enroll in any computer science course more than once without written consent of an undergraduate advisor in computer science. No student may enroll in any computer science course more than twice. No student may take more than three upperdivision computer science courses in a semester without written consent of an undergraduate advisor in computer science. All transfer coursework must be approved by faculty before it can count towards a computer science degree, except where equivalency is specified by state regulation.

## Additional Requirements for Option II

Students in Option II, the Turing Scholars program, must maintain a University grade point average of at least 3.25 and a grade point average in computer science of at least 3.25 ; in rare circumstances, this grade point average requirement will be waived for students whose honors thesis has been judged by the Department of Computer Science Undergraduate Thesis Committee to be truly outstanding. In addition to this grade point average requirement, students in Option II must know and abide by the academic and disciplinary policies given in this catalog and in the General Information Catalog. Those who fail to do so will be considered for academic dismissal from the Turing Scholars program. Under special circumstances and at the discretion of the director, a student will be allowed to continue in the program under academic review. A student who is academically dismissed from the program may enter another computer science program if he or she fulfills the scholastic standards for continuance in the University given in General Information. Students in scholastic difficulty should discuss their problems with a Turing Scholars program academic advisor and the director.

## Additional Requirements for Option III

To graduate under Option III, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors advisor, and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.

## Additional Requirements for Option IV Satisfactory Progress

Students are expected to make continuous progress toward the degree by completing required computer science coursework each semester. Those who fail to take program coursework two long-session semesters in a row will be removed from the program and re-enrolled in the Bachelor of Science in Computer Science Option (I, II, or III) that they were following before admission to the Integrated Program (Option IV). Students will be notified before this action is taken; they must meet with their academic advisor upon being notified.

## Probation

The student is placed on probation if his or her grade point average in required undergraduate computer science courses falls below 3.00. Except with the consent of the undergraduate advisor or the graduate
advisor, a student on probation may not take graduate computer science courses.

## Dismissal

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

Like all students, those in the Integrated Program must know and abide by the academic and disciplinary policies given in this catalog and in the General Information Catalog. Those who fail to do so will be considered for academic dismissal from the program. Under special circumstances and at the discretion of the director, a student may be allowed to continue in the program under academic review. A student who is academically dismissed from the program may enter another computer science program if he or she fulfills the scholastic standards for continuance in the University given in the General Information Catalog. Students in scholastic difficulty should discuss their problems with an academic advisor and the undergraduate faculty advisor.

## Graduation

To receive the Bachelor of Science in Computer Science and Master of Science in Computer Science, Master of Science in Information Studies, or Master of Science in Computational Science, Engineering, and Mathematics degrees through the Integrated Program, a student must have a University grade point average of at least 3.00 in the coursework in the Master of Science Program of Work. He or she must also have a grade point average in graduate computer science and information studies, or computational science, engineering, and mathematics coursework of at least 3.00.

## Order and Choice of Work

The student must consult the faculty advisor each semester regarding order and choice of work.

Note: Computer science courses with numbers ending in H are intended for students in Option II, the Turing Scholars program, and Option III, computer science honors. Students outside these Options may enroll in these courses only with the special consent of the honors director.

## Additional Requirements for Option VI

## Admission

Admission to Honors Computer Science and Business (CSB) is limited to a small number of high preforming students who are chosen on a competitive basis. Students selected for the program will have demonstrated exceptional potential for success in both computer science and business. Admission decisions are made by the CSB Committee. Students enter the program as freshmen.

Students entering the University as freshmen may apply to the CSB by completing a separate online application available through the Office of Admissions. The CSB 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

## Academic Standards

A student who enters CSB as a freshman must have a grade point average of at least 3.25 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 12 semester hours in residence on the letter-grade basis during each of those two semesters. After
the freshman year, each student is dismissed from the program if their overall, computer science, or business grade point average drops below 3.25. In addition to this grade point average requirement, students must know and abide by the academic and disciplinary policies given in this catalog and in the General Information Catalog. Those who fail to do so will be considered for academic dismissal from the program. Under special circumstances and at the discretion of the CSB Program Committee, a student will be allowed to continue in the program under academic review. Students in scholastic difficulty should discuss their problems with the CSB Honor Program director(s) and their academic advisor(s)

## Graduation

To graduate under the CSB 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 and a grade point average of at least 3.25 in computer science courses. A candidate for any degree must be enrolled at The University of Texas at Austin in the semester or summer session in which the degree is awarded.

Students in CSB must satisfy the University's Core Curriculum and degree requirements for a B.S. in Computer Science and for a B.B.A.; combined degree requirements below. If students later elect to complete only one degree, they must consult their academic advisor(s) and fulfill all degree requirements.

## Bachelor of Science in Environmental Science

The Bachelor of Science in Environmental Science degree program is designed for students interested in an interdisciplinary scientific perspective on environmental and sustainability issues, analysis, and management. The degree program provides the broad foundation in physical, life, and social sciences needed for a career or graduate study in environmental science and related fields such as climate change, ecology, and conservation. Students who complete the program successfully will be able to assess environmental issues critically from multiple perspectives; to perform field, laboratory, and computer analyses; and to conduct original research. The program is designed to prepare graduates for careers in local, state, and federal government laboratories and nonprofit agencies, environmental consulting firms, environmental education and outreach agencies, and universities and other research settings. The degree is offered by the College of Natural Sciences with a focus on biological sciences, by the College of Liberal Arts with a focus on geographical sciences, and by the Jackson School of Geosciences with a focus on geological sciences. The degree programs share common prescribed work, but each degree has its own specific requirements. Students may earn only one Bachelor of Science in Environmental Science degree from the University.

The Bachelor of Science in Environmental Science curriculum consists of 126 semester hours of coursework. All students must complete the University's Core Curriculum (p. 23). The specific degree requirements consist of prescribed work, major requirements, and electives. In some cases, a course that is required for the degree may also be counted toward the core curriculum.

A course in one prescribed work area may not also be used to fulfill the requirements of another prescribed work area; the only exception to this rule is that a course that fulfills another requirement may also be used to fulfill a flag requirement, unless otherwise specified.

In the process of fulfilling the core curriculum and other degree requirements, all students are expected to complete the following Skills and Experience flags:

1. Writing: three flagged courses beyond Rhetoric and Writing 306 or its equivalent; students in the College of Natural Sciences and the Jackson School of Geosciences must complete only two flagged writing courses. For students in the College of Natural Sciences and the College of Liberal Arts, at least one writing flag must be from an upper-division course.
2. Quantitative reasoning: one flagged course
3. Global cultures: one flagged course
4. Cultural diversity in the United States: one flagged course
5. Ethics: one flagged course
6. Independent inquiry: one flagged course

## Prescribed Work Common to All Environmental Science Majors

1. Mathematics: Mathematics 408 C , or 408 N and 408 S , or 408 K and 408L.
2. Chemistry: Chemistry 301 or $301 \mathrm{H} ; 302$ or 302 H ; and 204.
3. Physics: Physics 317K and 117M, Physics 303K and 103M, or Physics 301 and 101L.
4. Biological Sciences: Biology 311C and 311D, or 315H.
5. Ecology:
a. Biology 373 or Marine Science 320. Marine Science 320 may not be used to satisfy both requirement 5 a and requirement 10c. Environmental science majors in the College of Natural Sciences must choose Biology 373.
b. Biology 373L or Marine Science 120L. Environmental science majors in the College of Natural Sciences must choose Biology 373L.
6. Geological Sciences: Geological Sciences 401 or 303 or Geography 401C; Geological Sciences 346C; and an approved geological sciences course in sustainability.
7. Geography: Geography 335N.
8. Field experience and research methods: Environmental Science 311 and 121.
9. Capstone Research Experience: one of the following pairs:
a. Environmental Science 271 and 371 or Environmental Science 171 and 471.
b. Environmental Science 172C and 472D or Environmental Science 272C and 372D.
c. Environmental Science 271 or Marine Science 370, and one of the following: Chemistry 320M, Geography 460G, 368C, 462K, Geological Sciences 327G, Mathematics 408D, 408M, Statistics and Data Sciences 321 or 328 M. Note: Geography 460G, 462K, and Geological Sciences 327G may not be used to satisfy both requirement 9c and 10b. Statistics and Data Sciences 321 and 328 M may not be used in this requirement by students in the College of Natural Sciences. Biology 377 may substitute for Environmental Science 271 with prior approval of the faculty advisor. Tutorial Course 660 HA and 660 HB may substitute for Environmental Science 271 and 371 with prior approval of the faculty advisor. Geological Sciences 172H, 173H, and 379H may
substitute for Environmental Science 271 and 371 with prior approval of the faculty advisor. Natural Sciences 323 and 371 may substitute for Environmental Science 271 and 371 with the prior approval of the faculty advisor.
10. Environmental and sustainability themes: one course in each of the following thematic areas:
a. Environmental and sustainability policy, ethics, and history: Geography 323K, 331K, 334, 336C, 339K, 340D, 342C, 344K, 356C, History 350R (Topic 7: Environmental History of North America), Journalism 346F, Marine Science 367K, or Philosophy 325D. Biology 337, Geography 356, 356T, or Sociology 321 K may be counted with prior approval of the faculty advisor.
b. Geographic information systems: Geography 460G, 462K, Geological Sciences 327G.
c. Climates and oceans: Biology 456L, Geography 333K, Geological Sciences 338J, 347D, 347G, 377P, Marine Science 320, 440, 354Q, 354T, 356. Marine Science 320 may not be used to satisfy both requirement 5 and requirement 10. Marine Science 356 may not be used to satisfy both requirement 10c and requirement 14 in Option I. Marine Science 356 may not be used to satisfy both requirement 10c and requirement 18 in Option II. Biology 337, 437, Geography 356, 356T, Geological Sciences 371 C, 371T, Marine Science 352, or 353 may count with prior approval of the faculty advisor.
d. Environmental economics, sustainability, and business: Economics 304K, 330T. Advanced Placement credit for Economics 304L may be used to satisfy this requirement.
11. Environmental Science 141 and 151.

## Major Requirements BS EVS: Option I: Biological Science

12. One of the following foreign language/culture choices:
a. Beginning level proficiency coursework, or the equivalent, in a foreign language.
b. First course in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers.
13. Three hours in statistics chosen from Statistics and Data Sciences 328 M and 321 ; with the consent of the undergraduate advisor, an upper-division statistics or probability course may be used to fulfill this requirement.
14. Three hours in conservation and environmental biology chosen from Biology 351, 375, Marine Science 352E, 355E or 356. Marine Science 356 may not be used to satisfy both requirement 10c and requirement 14. Marine Science 352 may count with prior approval of the faculty advisor.
15. Biology 325 or 325 H (for students completing Biology 315 H ), and 370.
16. One of the following taxon/systems-based diversity courses or pairs of courses: Biology 321L, 324 and 124L, 327 and 127L, 340L, 448L, 353F, 453L, 354L, 455L, 463L, 364, 369F, 369L, 471G, 352C, 352D, $354,354 \mathrm{C}, 354 \mathrm{E}, 354 \mathrm{U}$, or 357.
17. One of the following physiology, neurobiology, and behavior courses or pairs of courses: Biology 322 and 122L, 328, 438L, 339, 345E, 346, 359J, 359K, 359R, 361, 361T, 365S, 367C, 371L, Marine Science 355C.
18. Complete one upper-division laboratory course in addition to the laboratory requirements in the Prescribed Work Common to All Environmental Science Majors. A laboratory course taken to meet requirement 16 or 17 may be used to fulfill this requirement.
19. Enough additional coursework to make a total of 126 hours.

## BS EVS: Option II: Biological Sciences Honors

12. To fulfill requirements 1 through 4 of the prescribed work common to all options above, students complete the following breadth requirement: An honors mathematics course; Biology 315H and 325H; Chemistry 301H and 302H; Physics 301 and 101L; and a designated honors statistics course. Credit earned by examination may not be counted toward this requirement.
13. Chemistry 204.
14. A section of Undergraduate Studies 302 or 303 that is approved by the honors program advisor.
15. A section of Rhetoric and Writing 309 S that is restricted to student in the Dean's Scholars Honors Program.
16. Two semesters of Biology 379H; these courses may be used to fulfill requirement 9.
17. Biology 370.
18. Three semester hours in conservation and environmental biology chosen from Biology 351, 375, Marine Science 352E, 355E, or 356. Marine Science 356 may not be used to satisfy both requirement 10c and requirement 18.
19. One of the following taxon/systems-based diversity courses or pairs of courses: Biology 321L, 324 and 124L, 327 and 127L, 340L, 448L, 353F, 453L, 354L, 455L, 463L, 364, 369F, 369L, 471G, Marine Science 352C, 352D, 354, 354C, 354E, 354U or 357.
20. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts.
21. Complete one upper-division laboratory course in addition to the laboratory requirements in the Prescribed Work Common to All Environmental Science Majors. A laboratory course taken to fulfill requirement 19 may be used to fulfill this requirement.
22. Enough additional coursework approved by the honors advisor to make a total of 126 semester hours.

## Special Requirements

Students must fulfill both the University's general requirements (p. 19) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under the honors option, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the program honors advisor, and present their research in an approved public forum, such as the college's
annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.

## Bachelor of Science in Human Development and Family Sciences

The Bachelor of Science in Human Development and Family Sciences focuses on the study of human development, individuals in a family context, relationships, and well-being within the family and the broader social, economic, community, and governmental environment. Students in the program are expected to develop knowledge and understanding about human development and family dynamics through classroom experiences, observation of children and families, and research. They have opportunities to apply their knowledge through practicum experiences in research and placements in the field. The program is designed to give students excellent preparation for graduate training that leads to careers in academia, research, medicine, and other health professions, as well as for employment in a field involving work with children, families, and adults.

Students seeking the Bachelor of Science in Human Development and Family Sciences must choose one of the six Options described below. Those who plan to follow Option V must be admitted to the Dean's Scholars Honors Program (p. 250) and those who plan to follow Option VI must be admitted to the Honors in Advanced Human Development and Family Sciences Program (p. 251).

## Prescribed Work Common to All Options

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisors.
3. Nine semester hours, at least three of which must be upper-division, chosen from courses in economics, social or cultural anthropology, sociology, and psychology; Psychology 304, 333D, and 339 may not be counted toward this degree.
4. At least 36 semester hours of upper-division coursework; at least 21 semester hours must be completed in residence at the University
5. Eighteen semester hours in the School of Human Ecology must be completed in residence at the University

## Additional Prescribed Work for Each Option

 Option I: Early ChildhoodThis Option is designed to provide the necessary foundation for further study or a career in working with children in applied settings.
6. Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332.
7. Chemistry 301 or 301H; Biology 311C; Biology 311D or Chemistry 302 or 302 H ; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisors about courses appropriate to their career goals
9. Nutrition 306; Human Development and Family Sciences 304, 313, $113 \mathrm{~L}, 315 \mathrm{~L}, 340$ and 305 or 306 ; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355 R and six additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R is restricted to students whose practicum applications have been approved. Practicum applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
10. Human Development and Family Sciences 338 and Human Development and Family Sciences 266C and 266L; and six additional semester hours chosen from Human Development and Family Sciences 342, 345, 347, 351, 358, 362, 378K (Topic 6: Introduction to Early Childhood Intervention), 378K (Topic 9: Introduction to Child Life), and 378L.
11. Enough additional coursework to make a total of 120 semester hours.

## Option II: Human Development

This Option involves the study of development across the life span.
6. Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R or Statistics and Data Sciences 332
7. Chemistry 301 or 301 H ; Biology 311C; Biology 311D or Chemistry 302 or 302 H ; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisors about courses appropriate to their career goals
9. Nutrition 306; Human Development and Family Sciences 304, 313, $113 \mathrm{~L}, 315 \mathrm{~L}, 340$ and 305 or 306 ; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355 R and six additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences $352,652 \mathrm{~F}, 352 \mathrm{~L}, 652 \mathrm{P}$, and 355 R is restricted to students whose applications have been approved. Applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
10. Human Development and Family Sciences 378L; six semester hours chosen from Human Development and Family Sciences 335, 351,
and 371 ; and three additional semester hours chosen from Human Development and Family Sciences 335, 342, 343, 345, 351, 353, 358, 266C and 266L, 371, 372K, and 378K (Topic 10: Sexuality in Human Development and Family Relationships).
11. Enough additional coursework to make a total of 120 semester hours.

## Option III: Families and Personal Relationships

This Option involves the study of the formation and maintenance of close relationships, especially couple and family relationships.
6. Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332
7. Chemistry 301 or 301 H ; Biology 311C; Biology 311D or Chemistry 302 or 302H; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisors about courses appropriate to their career goals
9. Nutrition 306; Human Development and Family Sciences 304, $313,113 \mathrm{~L}, 315 \mathrm{~L}, 340$ and 305 or 306; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355 R; and six additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652F, 352L, 652P, and $355 R$ is restricted to students whose applications have been approved. Applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
10. Human Development and Family Sciences 337, and three hours chosen from Human Development and Family Sciences 335, 372K, and 378 K (Topic 10: Sexuality in Human Development and Family Relationships).
11. Six additional semester hours chosen from Human Development and Family Sciences 322, 335, 345, 347, 353, 358, 360, 371, 372K and 378 K (Topic 10: Sexuality in Human Development and Family Relationships).
12. Enough additional coursework to make a total of 120 semester hours.

## Option IV: Families and Society

This Option involves the study of the family and its interactions with larger socioeconomic systems, such as the economy, work, the media, public policy, and government.
6. Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332.
7. Chemistry 301 or 301 H ; Biology 311C; Biology 311D or Chemistry 302 or 302H; and three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for non-science majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
8. Nine semester hours from an approved list of supporting courses available from the School of Human Ecology. Students should confer with their advisors about courses appropriate to their career goals.
9. Nutrition 306; Human Development and Family Sciences 304, 313, 113L, 315L, 340 and 305 or 306; six hours chosen from Human Development and Family Sciences 352, 652F, 352L, 652P, and 355 R ; and six additional hours of coursework in human development and family sciences. Registration for Human Development and Family Sciences 352, 652F, 352L, 652P, and 355R is restricted to students whose applications have been approved. Applications are available in the School of Human Ecology advising office; application deadlines are May 1 for enrollment the following spring semester and December 1 for enrollment the following fall semester. If either May 1 or December 1 falls on a weekend or an official University holiday, the application is due the next business day.
10. Human Development and Family Sciences 347 and 362; and six additional semester hours chosen from Human Development and Family Sciences $322,338,342,343,353,360$, and 378 K (Topic 6 : Introduction to Early Childhood Intervention), 378K (Topic 9: Introduction to Child Life), 378K (Topic 10: Sexuality in Human Development and Family Relationships).
11. Enough additional coursework to make a total of 120 semester hours.

## Option V: Human Development and Family Sciences Honors

This Option is designed to prepare students who have been admitted to the Dean's Scholars program for academic or research careers.
6. Breadth requirement: A calculus course and a statistics course, one of which must be a designated honors course; Biology 315 H and 325 H ; Chemistry 301 H and 302 H ; and three additional hours of honors-designated or approved coursework in biology, chemistry, computer science, mathematics, statistics and data sciences, or physics; credit earned by examination may not be counted toward this requirement.
7. Human Ecology 115 H and 225 H
8. Human Development and Family Sciences 304H, $313 \mathrm{H}, 114 \mathrm{H}, 315 \mathrm{~L}, 305$ or 306 and 18 semester hours chosen from the following: Human Development and Family Sciences 335, 337, $338,340,342,343,345,347,351,353,358,362,371,372 \mathrm{~K}, 378 \mathrm{~L}$, 378 K , and approved social science courses.
9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor.
10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program.
11. Human Development and Family Sciences 355H and 379H.
12. Ten additional semester hours of coursework approved by the departmental honors advisor.
13. Six hours of coursework from the College of Liberal Arts and/or the College of Fine Arts.
14. Enough additional coursework to make a total of 120 semester hours.

## Option VI: Honors in Advanced Human Development and Family Sciences

This Option is designed for highly motivated and talented students who are interested in research experience and training.
6. Statistics and Data Sciences 302; Mathematics 408C, 408N, 408R, or Statistics and Data Sciences 332.
7. Chemistry 301 or 301H; Biology 311C; and Biology 311D or Chemistry 302 or 302 H .
8. Three additional semester hours of coursework in astronomy, biology, chemistry, computer science, geological sciences, mathematics, nutrition (other than Nutrition 306), or physics. Courses designed for nonscience majors may not be counted toward this requirement; students should consult the School of Human Ecology for a list of courses that may be counted.
9. Human Development and Family Sciences 304H, 313H, 114H, 315L, 305 or 306; 18 semester hours chosen from: Human Development and Family Sciences 335, 337, 338, 340, 342, 343, 345, 347, 351, $353,358,362,371,372 \mathrm{~K}, 378 \mathrm{~L}, 378 \mathrm{~K}$, and approved social science courses.
10. Human Development and Family Sciences 355 H and 379 H .
11. Twenty-one semester hours of additional upper-division coursework approved by the departmental honors advisor.
12. Enough additional coursework to make a total of 120 semester hours.

## Special Requirements

Students in all Options must fulfill both the University's General Requirements (p. 19) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under Option V , students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors advisor, and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.

To graduate under Option VI, students must remain in good standing with an overall in-residence grade point average of at least 3.30 and an overall grade point average of 3.50 in all human development and family sciences courses. In addition, student research conducted in Human Development and Family Sciences 355 H and 379 H must be presented in an approved public forum, such as the college's annual Undergraduate Research Forum. Students who fail to maintain the required grade point average may be subject to dismissal from the program. Under special circumstances and at the discretion of the human development and family sciences honors advisor, a student may be allowed to continue under academic review.

## Bachelor of Science in Mathematics

As an alternative to the Bachelor of Science and Arts and the Bachelor of Arts degrees, 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.

Students seeking the Bachelor of Science in Mathematics select one of the following Options: Actuarial Science, Mathematics for Secondary Teaching, Mathematics Honors, or Mathematics. Students who plan to follow Option VI, mathematics Honors, must be admitted to the Dean's Scholars Honors Program (p. 250).

## Prescribed Work Common to All Options

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global culture flags from the same course. Students are encouraged to discuss options with their academic advisors.
3. Forty-two semester hours of upper-division coursework. At least 21 semester hours of upper-division coursework must be completed in residence at the University.
4. Eighteen semester hours in mathematics must be completed in residence at the University.

## Additional Prescribed Work for Each Option

## Option I: Actuarial Science

5. Eight semester hours of majors-level coursework in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics.
6. Complete one of the following:
a. Mathematics 408C* and 408D
b. Mathematics 408 N and 408 S
c. Mathematics 408 K and 408 L
*Mathematics 408 N , and 408 S , or 408 K and 408 L , may substitute for 408C
7. Economics 304 K and 304 L
8. Accounting 310F or both 311 and 312
9. Finance 357
10. Computer Science 303E
11. Upper-division mathematics courses, including:
a. Mathematics 325 K or 328 K . Mathematics 328 K is recommended for students with substantial experience in writing proofs.
b. Mathematics 341 . Mathematics 340L may be substituted for 341 if the course was completed prior to entry into the mathematics entry-level major.
c. Mathematics 362 K , and either 358 K or 378 K
d. Mathematics 329F, 339D, 339J, and 339 U
e. Two courses from the following: Mathematics 339V, 339W, 349P
f. One additional course chosen from the following: Mathematics $339 \mathrm{C}, 339 \mathrm{~V}, 339 \mathrm{~W}, 349 \mathrm{P}, 349 \mathrm{R}, 378 \mathrm{~K}$

One of the courses fulfilling requirement 11a through 11 f must be taught in the inquiry based learning (IBL) format or with an independent inquiry flag. IBL courses are identified each semester through a notation under the unique number in the course schedule and through a list maintained in the mathematics advising office in Robert Lee Moore Hall, room 4.101. Courses with an independent inquiry flag are identified in the Course Schedule.
12. At least six semester hours of upper-division coursework must be outside both mathematics and the fields of study listed in requirement 1. Philosophy courses in logic, computer science courses in discrete mathematics, engineering courses, and actuarial foundation courses may not be used to fulfill this requirement.
13. Enough additional coursework to make a total of 120 semester hours.

## Option V: Teaching

This option is designed to fulfill the course requirements for certification as a middle grades or secondary school mathematics teacher in Texas; the student chooses mathematics certification or mathematics, physical science, and engineering certification. However, completion of the course requirements does not guarantee the student's certification. For information about additional certification requirements, students should consult the UTeach-Natural Sciences academic advisor.

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.
5. History 329U or Philosophy 329U
6. One of the following sequences:
a. Mathematics $408 C^{*}$ and 408D
b. Mathematics 408 N and 408 S
c. Mathematics 408 K and 408 L
*Mathematics 408 N and 408 S , or 408 K and 408 L , may substitute for 408C
7. Mathematics 315 C
8. Biology 337 (Topic 2: Research Methods: UTeach), Chemistry 368 (Topic 1: Research Methods: UTeach) or Physics 341 (Topic 7: Research Methods: UTeach)
9. The requirements of one of the following certification areas: a. For mathematics certification:
i. Mathematics 340 L or 341
ii. Mathematics 325 K or $328 \mathrm{~K}, 333 \mathrm{~L}, 358 \mathrm{~K}$, and 362 K . Mathematics 328 K is recommended for students with substantial experience in writing proofs.
iii. Mathematics 375D
iv. Mathematics 361 K or 365 C
v. Mathematics 343 K or 373 K
vi. Mathematics 427J.
vii. Two courses chosen from: Mathematics $328 \mathrm{~K}, 339 \mathrm{~J}, 339 \mathrm{U}$, $343 \mathrm{~K}, 343 \mathrm{~L}, 348,361,365 \mathrm{C}, 365 \mathrm{D}, 368 \mathrm{~K}, 373 \mathrm{~K}, 373 \mathrm{~L}, 378 \mathrm{~K}$. A course used to fulfill requirements 9ai through 9avi may not also be counted toward requirement 9avii
viii. A three-semester-hour supporting course that uses mathematics but is in a field other than mathematics. The following courses may be used to fulfill this requirement: Accounting 310F or 311, Architectural Engineering 323K,

Astronomy 307, 352K, 352L, 358, 367M, Chemistry 301 or 301H, 303, Civil Engineering 321, 341, Computer Science 303E, 313E, Economics 420K, Electrical Engineering 302, 366, 366L, Geological Sciences 346C, 354, 476K, Geography 360L, Government 341 M, Human Development and Family Sciences 322, Mechanical Engineering 320, 326, 366L, 366Q, 366R, Petroleum and Geosystems Engineering 310, Physics 301, 303K, 303L, Psychology 325K, 332, Sociology 369L
b. For mathematics, physical science, and engineering certification:
i. Mathematics 325 K or $328 \mathrm{~K}, 427 \mathrm{~J}, 333 \mathrm{~L}, 341,358 \mathrm{~K}$, and 362 K . Mathematics 328 K is recommended for students with substantial experience in writing proofs
ii. Mathematics 361 K or 365 C
iii. Mathematics 375D
iv. Physics 301, 101L, 316, 116L, 315, and 115L
v. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
vi. Engineering Studies 301; and Mechanical Engineering 377K upon approval of the projects by the UTeach Program.
10. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 651 S (Topic 3: Secondary School Teaching Practicum: Math)
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
e. UTeach-Natural Sciences 101, 110, and 170
11. Students seeking middle grades certification must complete the following courses: Educational Psychology 350G, or Psychology 301 and 304; and Curriculum and Instruction 339E. Students seeking mathematics, physical science, and engineering certification may not seek middle grade certification.
12. Enough additional coursework to make a total of at least 120 semester hours

## Option VI: Mathematics Honors

5. Breadth requirement: An honors mathematics course; one of the following two-semester sequences: Biology 315 H and 325 H , Chemistry 301 H and 302H, or Physics 301, 101L, 316, and 116L; and nine additional semester hours chosen from the preceding courses, Physics 315 and 115L. Credit earned by examination may not be counted toward this requirement
6. An honors section of Mathematics 427 J , and six semester hours of coursework chosen from Mathematics 365C, 367K, and 373K
7. Twenty additional semester hours of upper-division coursework in mathematics approved by the departmental faculty advisor
8. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor
9. A section of Rhetoric and Writing 309S that is restricted to students in the Dean Scholars Honors Program
10. Mathematics 379 H
11. Thirty additional semester hours of coursework approved by the departmental honors advisor
12. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts
13. Enough additional coursework to make a total of 120 semester hours.

## Option VII: Mathematics

5. Eight semester hours of majors-level coursework in one of the following areas: astronomy, biology, chemistry, geological sciences, and physics
6. Computer Science 303E
7. One of the following sequences:
a. Mathematics 408C* and 408D
b. Mathematics 408 N and 408 S
c. Mathematics 408 K and 408 L
*Mathematics 408N and 408S, or 408K and 408L, may substitute for 408C
8. Three of the following: Mathematics 408 M or $427 \mathrm{~L}, 427 \mathrm{~J}, 341,362 \mathrm{~K}$. Mathematics 340L may be substituted for 341 if the course was taken prior to entry into the mathematics entry-level major
9. Mathematics 325 K or 328 K . Mathematics 328 K is recommended for students with substantial experience in writing proofs
10. One of the following: Mathematics $343 \mathrm{~K}, 361 \mathrm{~K}, 365 \mathrm{C}, 367 \mathrm{~K}, 373 \mathrm{~K}$.
11. Complete 33 hours of upper-division mathematics, from requirements $8,9,10$, and the following: Mathematics $325 \mathrm{~K}, 427 \mathrm{~J}$ or 427K, 427L, 328K, 329F, 333L, 339C, 339D, 339J, 339U, 339V, 339W, 340 L or $341,343 \mathrm{~K}, 343 \mathrm{~L}, 344 \mathrm{~K}, 346,348,349 \mathrm{P}, 349 \mathrm{R}, 358 \mathrm{~K}, 361$, $361 \mathrm{~K}, 362 \mathrm{~K}, 362 \mathrm{M}, 365 \mathrm{C}, 365 \mathrm{D}, 365 \mathrm{G}, 367 \mathrm{~K}, 367 \mathrm{~L}, 368 \mathrm{~K}, 371 \mathrm{E}, 372 \mathrm{~K}$, 373K, 373L, 374G, 374M, 375D, 375T, 378K, and 379H. Mathematics 374M may not count toward both requirement 11 and 13.
12. One upper-division mathematics course identified as taught in the inquiry based learning (IBL) format or with an independent inquiry flag. IBL courses are identified each semester through a notation under the unique number in the Course Schedule and through a list maintained in the mathematics advising office in Robert Lee Moore Hall, room 4.101. Courses with an independent inquiry flag are identified in the Course Schedule. Courses counted toward requirements $8,9,10$, and 11 may also count toward this requirement.
13. Mathematics in context. One course chosen from:
a. Mathematics 374 M
b. Chemistry 353, 354
c. Computer Science $341,342,345,346,353,367$
d. Electrical Engineering 411, 325, 360C, 362K
e. Physics 329, 336K, 352K

Courses in requirements 13b through 13e may require additional prerequisites. Mathematics 374 M may not count toward both requirement 11 and 13 .
14. At least six semester hours of upper-division coursework must be outside both mathematics and the fields of study listed in requirement 5 . Philosophy courses in logic, computer science courses in discrete mathematics, engineering, and actuarial foundation courses may not be used to fulfill this requirement.
15. Enough additional coursework to make a total of 120 semester hours

## Special Requirements

Students in all Options must fulfill both the University's General Requirements (p.19) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate and be recommended for certification, students who follow the Teaching Option must have a University grade point average of at least 2.50 . They must earn a grade of at least $C$ - in the supporting course in requirement 5 and 8 and in each of the professional development courses listed in requirement 10 and must pass the final teaching
portfolio review; those seeking middle grades certification must also earn a grade of at least $C$ - in each of the courses listed in requirement 11. For information about the portfolio review and additional teacher certification requirements, students should consult the UTeach-Natural Sciences academic advisor.

To graduate under Option VI, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors advisor, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum.

## Bachelor of Science in Medical Laboratory Science

The student preparing for a career in medical laboratory science completes at least 100 hours of academic work at the University. After this work is completed, the student enters an accredited school of medical laboratory science (or clinical laboratory science) for an additional 12 to 16 months of clinical education. After completion of this education, the student is awarded the Bachelor of Science in Medical Laboratory Science and is eligible to take the national certification examination administered by the American Society for Clinical Pathology (ASCP) Board of Certification (BOC). Successful completion of this exam results in national certification as a Medical Laboratory Scientist.

The purpose of this degree program is to meet the increasing demand for laboratory professionals in hospital and clinic laboratories, research, industry, public health, education, and laboratory management. Medical laboratory science is also an excellent foundation for graduate study in medicine, dentistry, management, education, and other disciplines.

## Prescribed Work

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry. one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisors.
3. One of the following foreign language/culture choices:
a. Beginning level proficiency coursework, or the equivalent, in a foreign language.
b. First course in a foreign language and a three-semester-hour course in the culture of the same language area.
c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers.
4. Mathematics 408 C or 408 N , and Statistics and Data Sciences 304 or 328M
5. Either Biology 311C, 311D, and 325, or Biology 315H and 325H
6. Biology 226L, 326M, 330 or 446L, 344 or 366R, 360K, 260L, 361, 361L, and 365 S
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,220 \mathrm{C}, 320 \mathrm{M}, 320 \mathrm{~N}$, and Biochemistry 369
8. Computer Science 303E, Management Information Systems 302F, or Public Health 323
9. Enough additional elective coursework, if necessary, to make a total of at least 100 semester hours of academic work completed at the University before the clinical education program.
10. Twelve to 16 months of clinical education in a program of medical laboratory science (or clinical laboratory science) accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The student must apply to and be accepted into a clinical education program. The clinical education program director works 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 advisor for medical laboratory science 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 9 of the prescribed work above, or the requirements for a second bachelor's degree.

## Special Requirements

Students must fulfill both the University's General Requirements (p. 19) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00 . Students must also earn a grade of at least $C$ - in each course taken in the 12 to 16 -month clinical education in a program of medical laboratory science (or clinical laboratory science) accredited by the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). More information about grades and the grade point average is given in the General Information Catalog.

## Order and Choice of Work

The student should consult with his or her academic and faculty advisors each semester regarding order and choice of work and balancing the laboratory load. To complete the program within four years, it may be necessary for the student to take some courses during the summer.

## Bachelor of Science in Neuroscience

The Bachelor of Science degree in Neuroscience provides a strong foundation in the core sciences and related mathematical disciplines, along with the opportunity for training in biology, chemistry, computer science, mathematics, physics, or psychology. Distinctive features of the program include an emphasis on developing the quantitative, statistical, mathematical, and computational skills required in neuroscience, and meaningful hands-on laboratory experience.

## Prescribed Work Common to All Options

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisors.
3. At least 21 semester hours of upper-division coursework, including 18 semester hours in biology and neuroscience, must be completed in residence at the University. All students must complete at least 36 semester hours of upper-division coursework.

## Option I: Neuroscience Scholars

4. Mathematics 408C, or 408 N and 408S; Statistics and Data Sciences 328M
5. An eight hour physics sequence chosen from the following:
a. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N
b. Physics 303K, 103M, 303L, and 103N
c. Physics $301,101 \mathrm{~L}, 316$, and 116L
6. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
7. Biology 311 C and 311 D , or 315 H and 325 H , and 206 L
8. Three additional majors-level courses selected from one of the following sequences:
a. Biology: Biology 325 or $325 \mathrm{H}, 320,344,349$, and 370
b. Chemistry: Chemistry 328 M and $128 \mathrm{~K}, 328 \mathrm{~N}$ and $128 \mathrm{~L}, 353$ or 353M, and Biochemistry 369
c. Computer Science: Computer Science 312, 314, Statistics and Data Sciences 335, 374E
d. Mathematics: Mathematics 427J or 427K, 427L, 340L or $341,362 \mathrm{~K}, 378 \mathrm{~K}$, Statistics and Data Sciences 321 or 329C; Mathematics 362K and Statistics and Data Sciences 321 may not both count.
e. Physics: Physics 345, 338K, 355
f. Psychology: Psychology 301, 323, 353K, 355
9. Neuroscience 330
10. Neuroscience 335
11. Neuroscience 340
12. Twelve semester hours of laboratory courses chosen from the following: Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, 367W, $377,466 \mathrm{G}$, and 466M. Neuroscience 377 may only be taken once for credit.
13. Nine semester hours of upper-division neuroscience to be chosen from: Biology 325, 359K, 367C, Neuroscience 337, 365D, 365N, 365P, 365T, 365V, 365W, 366C, 366D, 367F, 367V, and 371M; Biology 325 or 325 H may count toward either requirement 8a or requirement 12
14. Three semester hours of Neuroscience 379H, Honors Tutorial Course; the research topic in 379 H must relate to neuroscience and be approved in advance by the faculty advisor
15. Enough additional coursework to make a total of 120 semester hours

## Option II: Neuroscience Honors

4. Breadth requirement: An honors mathematics course; Biology 315H and 325 H ; Chemistry 301 H and 302 H ; and an additional three-hour
honors-designated course from a department in the College of Natural Sciences; credit earned by examination may not be counted toward this requirement.
5. Three hours of statistics chosen from the following: Statistics and Data Sciences $321,325 \mathrm{H}$, or 328 M ; other statistics courses may be approved by the departmental honors advisor.
6. Chemistry 204 and Biology 206L
7. Physics 301, 101L, 316 and 116L
8. Three additional majors-level courses selected from one of the following sequences:
a. Biology: Biology 320, 344, 349, and 370
b. Chemistry: Chemistry 328 M and $128 \mathrm{~K}, 328 \mathrm{~N}$ and 128 L 353 or 353M, and Biochemistry 369
c. Physics: Physics $345,338 \mathrm{~K}, 355$
d. Computer Science: Computer Science 312, 314, Statistics and Data Sciences 335, 374E
e. Mathematics: Mathematics 427 J or $427 \mathrm{~K}, 427 \mathrm{~L}, 340 \mathrm{~L}$ or 341 , $362 \mathrm{~K}, 378 \mathrm{~K}, 321$ or 329 C ; Mathematics 362 K and Statistics and Data Sciences 321 may not both count.
9. Neuroscience 330
10. Neuroscience 335
11. Neuroscience 340
12. Six hours of laboratory courses chosen from: Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, 367W, 466G, 466M
13. Six hours of upper-division neuroscience chosen from: Biology 359K, 367C, Neuroscience 337, 365D, 365N, 365P, 365T, 365V, 365W, 366C, 366D, 367F, 367V, $371 \mathrm{M}, 377$
14. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor
15. A section of Rhetoric and Writing 309 S that is restricted to students in the Dean's Scholars Honors Program
16. Two semesters of Neuroscience 379H
17. Fifteen additional semester hours of coursework approved by the departmental honors advisor
18. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts
19. Enough additional coursework to make a total of 120 semester hours

## Option III: Neuroscience

4. Mathematics 408C, or 408N and 408S; and Statistics and Data Sciences 328M
5. An eight-hour physics sequence chosen from the following:
a. Physics $317 \mathrm{~K}, 117 \mathrm{M}, 317 \mathrm{~L}$, and 117 N
b. Physics 303K, 103M, 303L, and 103N
c. Physics $301,101 \mathrm{~L}, 316$, and 116 L
6. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
7. Biology $311 \mathrm{C}, 311 \mathrm{D}$, and 325 or 315 H and 325 H
8. Biology 206L
9. Neuroscience 330, 335, and 340
10. Fifteen hours of upper-division neuroscience chosen from: Biology 359K, 367C, Neuroscience 337, 365D, 365L, 365N, 365P, 365T, $365 \mathrm{~V}, 365 \mathrm{~W}, 366 \mathrm{C}, 366 \mathrm{D}, 366 \mathrm{E}, 366 \mathrm{~L}, 366 \mathrm{~N}, 366 \mathrm{P}, 366 \mathrm{~S}, 367 \mathrm{~F}, 367 \mathrm{~V}$, $367 \mathrm{~W}, 371 \mathrm{M}, 377,466 \mathrm{G}, 466 \mathrm{M}$. Neuroscience 377 may be repeated once for credit.
11. Six additional hours of upper-division laboratory course work chosen from the following: Neuroscience 365L, 366E, 366L, 366N, 366P, 366S, 367W, 466G, 466M. Neuroscience

365L, 366E, 366L, 366N, 366P, 366S, 367W, 466G, and 466M may count toward requirement 10 or requirement 11 .
12. Enough additional coursework to make a total of 120 semester hours

## Special Requirements

Students must fulfill both the University's General Requirements (p. 19) for graduation and the college requirements (p. 254). They must also earn a grade of at least C - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under Option II, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors advisor, and must present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/ innovative-education/undergraduate-research/undergraduate-researchforum.

## Bachelor of Science in Nutrition

Nutrition is an integrative science with the overall objective of improving the health and well-being of individuals and groups. Nutritional inquiry encompasses not only the roles of electrons, atoms, molecules, genes, cells, organs, and complex organisms in biological life processes but also the links between life science and health, behavior, education, population, culture, and economics. The Bachelor of Science in Nutrition degree program includes six options, described below.

For students pursuing careers in dietetics, courses in behavioral and clinical nutrition and food systems management provide the academic preparation required for dietetics practice. The Didactic Program in Dietetics (DPD) meets the coursework requirements that qualify graduates to apply to a dietetic internship, which leads to the Registered Dietitian credential. Completion of the Didactic Program in Dietetics requirements qualifies a graduate to apply for the exam to become a Dietetic Technician, Registered. To be eligible to apply for a dietetic internship or to practice as a Registered Dietetic Technician, additional coursework would be required for students earning a degree in Options $\mathrm{II}-\mathrm{VI}$. The Coordinated Program in Dietetics (CPD) includes both the coursework and the supervised practice necessary to be eligible to write the examination to become a registered dietitian. The DPD and CPD are accredited by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics (AND) 120 S. Riverside Plaza, Suite 2000, Chicago IL 60606, (800) 877-1600.

The Nutritional Sciences Option requires courses in science and research in order to prepare students for graduate study or professional school. Graduates may seek employment in private or publicly funded research programs or, upon completion of graduate study, may engage in college or university teaching or nutrition research. This option also allows students to fulfill requirements for postgraduate study in medicine, dentistry, and other health professions. Additional coursework is needed to be eligible to apply for a dietetic internship or to practice as a Dietetic Technician, Registered.

The Nutrition and Public Health Option III is designed to prepare students for entry-level positions in public health and nutrition at state and other health departments, in research, and in industry. It will equip them for entry into graduate programs in nutrition or other public health disciplines at schools of public health, at graduate schools in the biomedical sciences, and for entry into medical or other health
professional schools as well as for those who pursue health and research careers.

Students who plan to follow Option IV must be admitted into the Honors in Advanced Nutritional Sciences Program (p. 251). Students in this option take honors courses in nutrition, research methodology, and writing. In addition, students are encouraged to take honors courses in disciplines outside of nutrition, such as biology, chemistry, and mathematics. Students consult with the departmental honors advisor to develop an individualized and challenging program of study that meets their goals and interests.

Students who plan to follow Option V must be admitted to the Dean's Scholars Honors Program (p. 250). In addition to taking a core of research, writing, and seminar courses in the College of Natural Sciences, students in this option consult with the departmental honors advisor to develop a coherent individual program of rigorous and challenging courses from across the University.

Students in the international nutrition Option gain firsthand knowledge of nutrition issues in other countries through a study abroad experience. Students combine the study of nutrition with a broad range of courses to prepare for experience studying and practicing nutrition in another culture.

## Prescribed Work Common to All Options

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisors.
3. At least 36 semester hours of upper-division coursework, of which at least 24 must be in nutrition. At least 21 semester hours of upperdivision coursework, including 18 semester hours in nutrition, must be completed in residence at the University.

## Additional Prescribed Work for Each Option Option I: Dietetics

Students in dietetics may select either the Didactic Program in Dietetics (DPD) or the Coordinated Program in Dietetics (CPD). Students who complete the DPD with at least four upper-division nutrition courses completed in residence will receive a verification statement that qualifies them to apply for an accredited supervised practice program. DPD graduates who complete an accredited supervised practice program may become active members of the Academy of Nutrition and Dietetics (AND) and are eligible to write the examination to become a registered dietitian.

Students interested in the Coordinated Program in Dietetics (p. 247) must apply for admission after completing 60 semester hours of prerequisite coursework. Upon completing the CPD, which includes
approximately 1,200 hours of supervised practice, graduates immediately qualify for active membership in the Academy of Nutrition and Dietetics and are eligible to write the examination to become a registered dietitian.

Students who are admitted to the CPD should consult the faculty advisor 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 345M, 372C, 372F, 373S; summer session: Nutrition 374C and 374P. Because these courses are taught only once a year, a student who does not take them at the indicated time may be unable to complete the program.
4. At least three semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 or 313H and 113L
5. Mathematics 408C, 408N, or Statistics and Data Sciences 332
6. Three semester hours of statistics chosen from Statistics and Data Sciences $302,304,306,325 \mathrm{H}$, and 328 M
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}$, and Biochemistry 369
8. Biology 311 C or $315 \mathrm{H}, 325$ or 325 H , and 365 S
9. Accounting 310F or 311
10. The following core nutrition coursework:
a. Nutrition 312, 112L or 312R, 326, and 126L; students must complete each course with a grade of at least $C$ - before progressing to other upper-division nutrition courses
b. Nutrition $307,107 \mathrm{~L}, 338 \mathrm{~W}$ or $338 \mathrm{H}, 342$, and 343
11. Coursework in nutrition, consisting of the following:
a. Behavioral and clinical nutrition:
i. CPD: Nutrition $315,218,118 \mathrm{~L}, 330,332,370$, and 371
ii. DPD: Nutrition $315,218,118 \mathrm{~L}, 330,332,370,371$, and one of the following: Nutrition 337, 365 (Topic 2: Nutrition and Genes), 365 (Topic 4: Obesity and Metabolic Health), 365 (Topic 5: Principles and Applications in Community Engagement)
b. Food systems management: Nutrition 334, 234L, and 355M
c. Research:
i. CPD: Nutrition 373 S
ii. DPD: One of the following: Nutrition 324 and 124L, 353, 355 or $355 \mathrm{H}, 365 \mathrm{~L}, 366 \mathrm{~L}, 379 \mathrm{H}$, Statistics and Data Sciences $318,321,325 \mathrm{H}$, or 352 ; with the approval of the faculty undergraduate advisor, DPD students may count Nutrition 352 toward this requirement; Statistics and Data Sciences 325 H may not be counted toward both requirement 6 and requirement 11 cii.
d. Professional development:
i. CPD: Nutrition 245C
ii. DPD: Nutrition 162
12. Students in the CPD must complete an additional 15 semester hours of supervised practice: Nutrition 345M, 372C, 372F, 374C, and 374P
13. Enough additional coursework to make a total of 126 semester hours

## Option II: Nutritional Sciences

4. At least six semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 or 313 H , and 113L
5. Mathematics 408C, 408N, or Statistics and Data Sciences 332
6. Three semester hours of statistics chosen from Statistics and Data Sciences $302,304,306,325 \mathrm{H}$, and 328 M
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,220 \mathrm{C}, 320 \mathrm{M}, 320 \mathrm{~N}$, and Biochemistry 369
8. Either Biology 311C, 311D, and 325 or Biology 315H and 325 H ; Biology 446L and 365S
9. Complete one of the following:
a. Physics 301 and 101L
b. Physics 302 K and 102M
c. Physics 303 K and 103 M or
d. Physics 317 K and 117 M
10. The following core nutrition coursework:
a. Nutrition 312,112 L or $312 \mathrm{R}, 326,126 \mathrm{~L}$, and 366 L ; students must complete each course with a grade of at least $C$ - before progressing to other upper-division nutrition courses.
b. One of the following: Nutrition 307 and 107L; Biology 326M and 226L; 326R and 226L; Chemistry 455
c. Nutrition $337,338 \mathrm{~W}$ or $338 \mathrm{H}, 342,343$; and 365 (Topic 2 : Nutrition and Genes) or 365 (Topic 4: Obesity and Metabolic Health)
11. Nine additional semester hours of nutrition, including three hours each from the following areas:
a. Nutritional sciences: Nutrition 365 or 370 or 371 ; the same topic of Nutrition 365 may not be counted both toward this requirement and toward requirement 10c.
b. Behavioral and clinical nutrition: Nutrition 315, 218 and 118L, $321,330,331,332$, or 370 or 371
c. Research: Three semester hours of coursework chosen from Nutrition 355 or 355H, Biology 325L, 331L, and Biochemistry 369L
12. Enough additional coursework to make a total of 126 semester hours

## Option III: Nutrition and Public Health

4. Six semester hours chosen from Anthropology 322P, Sociology 319, $354 K$, and 368D
5. Three semester hours of Statistics and Data Sciences 302, 304, 306, 325 H , and 328 M
6. One of the following courses: Mathematics 408C, 408N, or Statistics and Data Sciences 332
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}$, and Biochemistry 369
8. Biology 311 C or $315 \mathrm{H}, 325$ or 325 H , and 365 S
9. The following core nutrition coursework:
a. Nutrition 312 or $312 \mathrm{H}, 112$ L or $312 \mathrm{R}, 326$, and 126 L ; students who complete Nutrition 312H and 312R or Biology 315H and 325 H are exempt from Nutrition 326 and 126L; students must complete each course with a grade of at least $C$ - before progressing to other upper-division nutrition courses.
b. Nutrition $337,338 \mathrm{~W}$ or $338 \mathrm{H}, 342,343$, and 365 (Topic 2: Nutrition and Genes), or 365 (Topic 4: Obesity and Metabolic Health)
10. Three semester hours of research chosen from Nutrition 324 and $124 \mathrm{~L}, 352,353,355,366 \mathrm{~L}, 379 \mathrm{H}$, and Statistics and Data Sciences $318,321,325 \mathrm{H}$, or 352 ; Statistics and Data Sciences 325 H may not count toward both requirement 5 and 10 .
11. Nine semester hours chosen from Anthropology 432L and 349C, Biology 446L, 361T, and 478L, Classical Civilization 306M, Health Education 364and 373, Kinesiology 320 and 424 K , and Psychology 332C
12. Enough additional coursework to make a total of 120 semester hours

## Option IV: Honors in Advanced Nutritional Sciences

4. At least three semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 or 313H and 113L
5. Mathematics 408C, 408N, Mathematics 408D-AP-H, or Statistics and Data Sciences 332
6. Three semester hours of statistics chosen from Statistics and Data Sciences $302,304,306,325 \mathrm{H}$, and 328 M
7. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}, 320 \mathrm{~N}, 220 \mathrm{C}$, and Biochemistry 369
8. Biology $311 \mathrm{C}, 311 \mathrm{D}$, and 325 or Biology 315 H and 325 H ; and Biology 365S
9. Nutrition 312H, 312R, 338H, 342, 343, and 365 (Topic 2: Nutrition and Genes) or 365 ( Topic 4: Obesity and Metabolic Health), and 12 additional semester hours of nutrition or related coursework approved by the departmental honors advisor
10. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor
11. Nutrition 355 H and 379 H
12. Nine semester hours of additional coursework approved by the departmental honors advisor
13. Enough additional coursework to make a total of 120 semester hours

## Option V: Nutrition Honors

4. Breadth requirement: A calculus course and a statistics course, one of which must be a designated honors course; Biology 315 H and 325 H ; Chemistry 301 H and 302 H ; and three additional hours of honors-designated or approved coursework in biology, chemistry, computer science, mathematics, statistics and data sciences, or physics; credit earned by examination may not be counted toward this requirement.
5. At least three semester hours chosen from Psychology 301, Sociology 302, Anthropology 302, Economics 304K, 304L, and Human Development and Family Sciences 313 or 313H and 113L
6. Chemistry $204,320 \mathrm{M}$, and 320 N , and Biochemistry 369
7. Neuroscience 330 and Biology 365 S
8. Nutrition $312 \mathrm{H}, 312 \mathrm{R}, 338 \mathrm{H}, 342,343$, and 365 (Topic 2: Nutrition and Genes) or 365 (Topic 4: Obesity and Metabolic Health)
9. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor
10. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
11. Nutrition 355 H and 379 H
12. Six semester hours of additional coursework in nutrition or related area approved by the departmental honors advisor
13. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts
14. Enough additional coursework to make a total of 120 semester hours

## Option VI: International Nutrition

Students in this option must participate for one semester or summer session in a study abroad program in nutrition offered by the University. Students must submit a study abroad application. During the study abroad experience, students complete Nutrition 353, Field Experience in International Nutrition. Additional coursework in nutrition or in the language, culture, or history of the country may be available during the international study experience. All study abroad programs in nutrition must be approved in advance by the international nutrition faculty advisor. A list of other study abroad opportunities in nutrition is maintained in the main office of the School of Human Ecology.
4. Economics 304 K or 304 L , and at least three semester hours chosen from Psychology 301, Sociology 302, and Anthropology 302
5. Three semester hours chosen from the following: Geography 339 K , 357, Mexican American Studies 307, 318, Sociology 335, 354K
6. Second-semester proficiency in a single foreign language
7. Mathematics 408C, 408N, or Statistics and Data Sciences 332
8. Three semester hours of statistics chosen from Statistics and Data Sciences $302,304,306,325 \mathrm{H}$, and 328 M
9. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}$, and Biochemistry 369
10. Biology 311 C or $315 \mathrm{H}, 325$ or 325 H , and 365 S
11. The following nutrition coursework:
a. Nutrition 312 or $312 \mathrm{H}, 112 \mathrm{~L}$ or 312R, 326, and 126L. Students who complete Nutrition 312H and 312R or Biology 315H and 325 H are exempt from Nutrition 326 and 126L; students must complete each course with a grade of at least $C$ - before progressing to other upper-division nutrition courses.
b. One of the following four-semester-hour sequences: Nutrition 307 and 107L; Biology 326M and 226L; 326R and 226L
c. Nutrition 338 W or $338 \mathrm{H}, 342$, and 343
12. Nutrition $316,218,118 \mathrm{~L}, 321,331$, and 353
13. At least nine semester hours, three of which must be upper-division, chosen from one of the following areas:
a. Health professions: Chemistry 220C, 320N, Biology 206L, 311D, 326M, 346, Nutrition 337, 365 (Topic 2: Nutrition and Genes) or 365 (Topic 4: Obesity and Metabolic Health); Biology 326M may not be counted toward both requirement 11b and requirement 13a.
b. Dietetics: Nutrition $315,330,332,370,371$
c. Behavioral science: Human Development and Family Sciences 304 or 304H, 313 or 313H, 113L, Psychology 308, 319K, Sociology 308D, 319, 320K, 324K
14. Enough additional coursework to make a total of 126 semester hours

## Special Requirements

Students in all options must fulfill both the University's General Requirements (p. 19) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under Option IV, students must remain in good standing with an overall grade point average of at least 3.30 and an overall grade point average of 3.50 in all nutritional sciences courses. In addition, student research conducted in courses described in requirement 10 must be presented in an approved public forum, such as the college's annual Undergraduate Research Forum. Students who fail to maintain the required grade point average may be subject to dismissal from the program. Under special circumstances and at the discretion of the nutritional sciences honors advisor, a student may be allowed to continue under academic review.

To graduate under Option V , students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors advisor, and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/innovative-education/ undergraduate-research/undergraduate-research-forum (p. 281).

Note:
Nutritional Sciences courses with numbers ending in H are intended for students in Option IV, Honors in Advanced Nutritional Sciences and in Option V, Nutrition Honors. Students outside these options may enroll
in these courses with the consent of the nutritional sciences honors advisor.

To be eligible to apply for a dietetic internship or to practice as a Registered Dietetic Technician, additional coursework would be required for students earning a degree in Options II-VI.

## Bachelor of Science in Physics

All aspects of the physical universe are of interest to the physicist, who seeks to understand not only the smallest forms of matter and the rich phenomena present in our everyday lives but also the universe itself. Physics has played a critical role in human technological and intellectual development during the twentieth century. The tools of the physicistobservation, imagination, model building, prediction, and deductionwill enable physics to continue this influence into the new century. The Bachelor of Science in Physics degree program is designed to provide the skills, understanding, and outlook required for participation in the discovery of new knowledge about nature

The Bachelor of Science in Physics program is balanced and broad. It is designed to give the student a strong foundation for graduate study or work in physics and, with additional training, for work in a variety of other areas, such as astronomy, astrophysics, biophysics, chemical physics, computer science, engineering, geophysics, mathematics, medicine, physics teaching, and space sciences. Students who end their formal training with the bachelor's degree may seek employment in industry, in national laboratories, or in teaching; they should consider the options in computation, radiation physics, space sciences, biophysics, and teaching, which augment the broad instruction provided by the basic Bachelor of Science in Physics. For those who plan to teach physics in secondary school, the teaching option provides the courses needed for certification.

Students who plan to follow Option VI, Physics Honors, must be admitted to the Dean's Scholars Honors Program (p. 250).

## Prescribed Work Common to All Options

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses with flags are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified.
3. Options I-IV and VII: one of the following foreign language/culture choices: (Students in Options V and VI are exempt from this requirement)
a. Beginning level proficiency coursework, or the equivalent, in a foreign language
b. First course in a foreign language and a three-semester-hour course in the culture of the same language area
c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers
4. Thirty-six semester hours of upper-division coursework
5. At least 21 semester hours of upper-division coursework, including at least 12 semester hours of upper-division coursework in physics, must be completed in residence at the University

## Prescribed Work Common to All Options for Each

## Option I: Physics

This option is designed to give the student a strong foundation for graduate study or work in physics and for further study or work in a variety of other areas.
6. Chemistry 301 or 301 H , and 302 or 302 H
7. Six semester hours in biology, geological sciences, or astronomy; a course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it
8. Physics $301,101 \mathrm{~L}, 316,116 \mathrm{~L}, 315$, and 115 L
9. Mathematics 408C and 408D or the equivalent, 427J or 427 K and 427 L , and six additional semester hours of upperdivision coursework in mathematics; the following courses are recommended: Mathematics 340L, 361, and 362K; only courses at the level of calculus and above may be counted toward the total number of hours required for the degree
10. Physics $336 \mathrm{~K}, 352 \mathrm{~K}, 353 \mathrm{~L}, 355,362 \mathrm{~K}, 369,373$, and 474 , or their equivalents
11. One of the following: Physics 352L 362L, 375R, or 375S.
12. Enough additional coursework to make a total of 126 semester hours

## Option II: Computation

This Option is designed to provide the necessary foundation and handson skill in computation for the student who plans a career or further study in computational physics or computer science. Students who complete this option may simultaneously fulfill some of the requirements of the Scientific Computation and Data Sciences Certificate (p. 299).
6. Chemistry 301 or 301 H , and 302 or 302 H
7. Six semester hours in biology, geological sciences, or astronomy; a course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it
8. Physics $301,101 \mathrm{~L}, 316,116 \mathrm{~L}, 315$, and 115 L
9. Mathematics 408 C and 408 D or the equivalent, 427 J or 427 K and 427L, and six additional semester hours of upper-division coursework in mathematics or statistics and data sciences; Statistics and Data Sciences 329C and Mathematics 362 K are recommended; only courses at the level of calculus and above may be counted toward the total number of hours required for the degree
10. Physics 329, 336K, 338K, 352K, 353L, 355, 369, and 373, or their equivalents
11. One of the following scientific computation options:
a. Computer Science 303E; Computer Science 313E or Statistics and Data Sciences 322; and two courses from two of the areas listed below:
i. Numerical methods: Chemical Engineering 348, Computer Science 323E, 323H, 367, Mathematics 348, Statistics and Data Sciences 335
ii. Statistical methods: Biomedical Engineering 335, Mathematics $358 \mathrm{~K}, 378 \mathrm{~K}$
iii. Other computing topics: Computer Science $324 \mathrm{E}, 327 \mathrm{E}, 329 \mathrm{E}$, 377, Mathematics 346, 362M, 368K, 372K, 376C, Mechanical Engineering 367S, Statistics and Data Sciences 329D, 374C, 374D, 374E
b. Twelve semester hours chosen from Electrical Engineering 306, $312,316,319 \mathrm{~K}$, and 422C
12. Enough additional coursework to make a total of 126 semester hours

## Option III: Radiation Physics

This Option is designed to provide the necessary foundation for the student who plans a career or further study in nuclear engineering, radiation engineering, or health physics.
6. Chemistry 301 or 301 H , and 302 or 302 H
7. Six semester hours in biology, geological sciences, or astronomy; a course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it
8. Physics 301, 101L, 316, 116L, 315, and 115L
9. Mathematics 408C and 408D or the equivalent, 427J or 427 K and 427 L , and six additional semester hours of upper-division coursework in mathematics; the following courses are recommended: Mathematics 340L, 361, and 362K; only courses at the level of calculus and above may be counted toward the total number of hours required for the degree
10. Twenty-four semester hours of upper-division coursework in physics, including Physics 336K, 352K, 353L, 355, 362L, 369, and 373, or their equivalents
11. Eighteen semester hours of upper-division coursework in mechanical engineering, consisting of Mechanical Engineering 337C, 337F, 337G, 361E, 361F, and 336P
12. Enough additional coursework to make a total of 126 semester hours

## Option IV: Space Sciences

This Option is designed to provide the necessary foundation for the student who plans a career or further study in space sciences.
6. Chemistry 301 or 301 H , and 302 or 302 H
7. Six semester hours in biology, geological sciences, or astronomy; a course may not be used to fulfill this requirement if it cannot be counted toward major requirements in the department that offers it
8. Physics $301,101 \mathrm{~L}, 316,116 \mathrm{~L}, 315$, and 115 L
9. Mathematics 408C and 408D or the equivalent, 427J or 427 K and 427 L , and six additional semester hours of upper-division coursework in mathematics; the following courses are recommended: Mathematics 340L, 361, and 362K; only courses at the level of calculus and above may be counted toward the total number of hours required for the degree
10. Physics 329,336 K, 352 K, 353 L, 355,362 K, 369 , and 373 , or their equivalents
11. Either 15 semester hours of upper-division coursework in aerospace engineering or 12 hours in aerospace engineering and three additional hours of upper-division coursework in physics
12. Enough additional coursework to make a total of 126 semester hours

## Option V: Teaching

This Option is designed to fulfill the course requirements for certification as a middle grades or secondary school science teacher in Texas; the student chooses composite science certification with physics as the primary teaching field, physical sciences certification, physics/ mathematics certification, or mathematics, physical science, and engineering certification. However, completion of the course requirements does not guarantee the student's certification. For information about additional requirements, students should consult the UTeach-Natural Sciences academic advisor.
6. Physics 301, 101L, 316, 116L, 315, and 115L
7. Mathematics 408C and 408D or the equivalent, 427J or 427K, and 427L
8. At least 18 semester hours of upper-division coursework in physics, consisting of Physics 341 (Topic 7: Research Methods: UTeach), 353L, 355, and three of the following courses: Physics 329, 333, $336 \mathrm{~K}, 338 \mathrm{~K}, 352 \mathrm{~K}, 373$, Science 365 ; with the consent of the UTeachNatural Sciences undergraduate advisor, an upper-division physics course that includes a substantial research component may be substituted for Physics 341
9. History 329 U or Philosophy 329 U
10. The requirements of one of the following certification areas:
a. For composite science certification:
i. Biology 311C and 311D
ii. Chemistry 301 or 301 H and 302 or 302 H
iii. Six hours of coursework in geological sciences; courses intended for non-science majors may not be counted toward this requirement
iv. Enough additional approved coursework in biology, chemistry, or geological sciences to provide the required 12 hours in a second field
b. For physical sciences certification:
i. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204$ or $317,353,153 \mathrm{~K}$, $154 \mathrm{~K}, 354 \mathrm{~L}$, and 455 or 456
ii. Three additional hours of upper-division coursework in physics
c. For physics/mathematics certification: Mathematics $315 \mathrm{C}, 325 \mathrm{~K}$, $333 \mathrm{~L}, 341$ or $340 \mathrm{~L}, 358 \mathrm{~K}, 362 \mathrm{~K}, 375 \mathrm{D}$
d. For mathematics, physical science, and engineering certification:
i. Mathematics $315 \mathrm{C}, 325 \mathrm{~K}, 333 \mathrm{~L}, 358 \mathrm{~K}$, and 362 K
ii. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204
iii. Engineering Studies 301; and Mechanical Engineering 377K upon approval of the project by the UTeach Program.
11. Eighteen semester hours of professional development coursework consisting of:
a. Curriculum and Instruction 651S (Topic 3: Secondary School Teaching Practicum: Math) or 651S (Topic 4: Secondary School Teaching Practicum: Science)
b. Curriculum and Instruction 365C or UTeach-Natural Sciences 350
c. Curriculum and Instruction 365D or UTeach-Natural Sciences 355
d. Curriculum and Instruction 365E or UTeach-Natural Sciences 360
e. UTeach-Natural Sciences 101, 110, and 170
12. Students seeking middle grades certification must complete the following courses: Educational Psychology 350G, or Psychology 301 and 304; and Curriculum and Instruction 339E
13. Enough additional coursework to make a total of at least 126 semester hours

## Option VI: Physics Honors

6. Breadth requirement: Biology 315 H and 325 H , Chemistry 301 H and 302H, and Mathematics 427J and 427L; at least one of the math courses must be a designated honors section; credit earned by examination may not be counted toward this requirement
7. Mathematics 340 L and 361
8. Physics $301,101 \mathrm{~L}, 316,116 \mathrm{~L}, 315$, and 115 L
9. Physics $336 \mathrm{~K}, 352 \mathrm{~K}, 353 \mathrm{~L}, 355,362 \mathrm{~K}, 362 \mathrm{~L}, 369,373$, and 474
10. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor
11. A section of Rhetoric and Writing 309S that is restricted to students in the Dean's Scholars Honors Program
12. Physics 379 H and a three-semester-hour upper-division research course approved by the departmental honors advisor
13. Ten additional semester hours of coursework approved by the departmental honors advisor
14. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts
15. Enough additional coursework to make a total of 120 semester hours

## Option VII: Biophysics

6. Chemistry 301 or 301 H and 302 or 302 H
7. Either Biology 311C, 311 D , and 325 or Biology 315 H and 325 H ; Biology 206L
8. Physics $301,101 \mathrm{~L}, 316,116 \mathrm{~L}, 315$, and 115 L
9. Mathematics 408C and 408D or the equivalent, 427J or 427 K and 427 L , and six additional semester hours of upperdivision coursework in mathematics; the following courses are recommended: Mathematics 340L, 361, and 362K
10. Physics $336 \mathrm{~K}, 345,352 \mathrm{~K}, 353 \mathrm{~L}, 355,369$, and 373 or their equivalents
11. Either Chemistry 320M or 328M, and Biochemistry 369
12. Complete one of the following areas:
a. Cell Biology: Biology 320
b. Microbiology: Biology 326R
c. Developmental Biology: Biology 349
d. Neurobiology: Neuroscience 371 M
e. Virology: Biology 330
f. Computation: Statistics and Data Sciences 335 and Biology 337J

A list of recommended biology laboratory courses that complement the lecture courses listed in 12a through 12e are available in the advising center and the dean's office.
13. Enough additional coursework to make a total of 126 semester hours

## Special Requirements

Students in all options must fulfill both the University's General Requirements (p.19) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate and be recommended for certification, students who follow the Teaching Option must have a University grade point average of at least 2.50. They must earn a grade of at least $C$ - in the supporting course in requirement 9 and in each of the professional development courses listed in requirement 11 and must pass the final teaching portfolio review; those seeking middle grades certification must also earn a grade of at least $C$ - in each of the courses listed in requirement 12. Information about the portfolio review and additional teacher certification requirements is available from the UTeach-Natural Sciences academic advisor.

To graduate under Option VI, students must remain in good standing in the Dean's Scholars Honors Program, must submit an honors thesis approved by the departmental honors advisor, and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/innovative-education/ undergraduate-research/undergraduate-research-forum.

## Bachelor of Science in Public Health

The Bachelor of Science in Public Health prepares graduates for entrylevel positions in public health and equips them to pursue certificate and graduate degrees in the field. All of the options offer broad-based training in the five core areas of public health. Option I offers a choice of six areas of specialization.

Students for whom the degree is appropriate include those interested in health careers and in dual graduate degree programs in medicine and public health. The degree is administered by the School of Human Ecology.

Option I students who plan to follow Option III must apply for admission. Admission requirements for Option III is given in The Bachelor of Science in Public Health, Option III. Students who plan to follow Option II must be admitted to the Dean's Scholars Honors Program (p. 250).

## Prescribed Work Common to All Options

In the process of fulfilling degree requirements, all students must complete:

1. Foundation courses:
a. Public health: Public Health 317
b. Microbiology: Biology 326M and 226L
c. Nutrition and physiology: Nutrition 312 or $312 \mathrm{H}, 112 \mathrm{~L}$, and Biology 365S
d. Social and behavioral sciences: One of the following: Economics 304K, 304L, Psychology 301, Sociology 319, 354K
e. Political science/government: Government 358 or Management 320F
2. Public health core*:
a. Biostatistics: Statistics and Data Sciences 328M
b. Environmental health sciences: Public Health 338
c. Epidemiology: Public Health 354
d. Global health: Public Health 334
e. Health policy and health systems: Public Health 358D
f. Health behavior theory and practice: Public Health 356
3. Core curriculum
4. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flag from the same course. Students are encouraged to discuss options with their academic advisers.
5. At least 21 semester hours of upper-division coursework must be completed in residence at the University. All students must complete at least 36 semester hours of upper-division coursework.

## Additional Prescribed Work for Each Option <br> Option I: Public Health

6. Mathematics $408 \mathrm{C}, 408 \mathrm{~N}$, or 408 R .
7. Biology $311 \mathrm{C}, 311 \mathrm{D}$, and 325 or Biology 315 H and 325 H . These courses must be completed before the student progresses to other upper-division biology and upper-division public health courses.
8. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}$, and Biochemistry 369.
9. At least nine hours from one of the following areas of specialization; courses counted toward requirement 1 may not be used to fulfill this requirement.
a. Biostatistics and public health informatics: Biology 321G, Computer Science 303E, 313E, 327E, Geography 460G, Mathematics 408D, 408M, 408S, 340L, 358K, 362K, 362M, 378K,Public Health 320, 323, 341R, Statistics and Data Sciences 332.
b. Environmental health sciences: Biology 373, 373L, 375, Civil Engineering 341, 342, 346, 369L, Geological Sciences 302C, 346C, 476K, 476M, Geography 307C, 334L, 339K, 344K, 357, 460G, Marine Science 307, 320, 354Q, Public Health 341R, Urban Studies 315.
c. Health policy and management: Economics 304K,

304L, Government 357E, 357D, 357F, 357G, 358,
360C, 370V, Health and Society 320, Human Development and
Family Sciences 362, Management 320F, Philosophy 325L or
325M, 347, Public Affairs 325 (Topic 1: Advanced Seminar in Ethical Leadership), Public Health 341R, Sociology 354K.

Economics 304 K and 304L may not count toward both requirement 1d and requirement 9c. Government 358 may not count toward both requirement 1 e and requirement 9 c . Management 320F may not count toward both requirement 1e and requirement 9c. Sociology 354 K may not count toward both requirement 1d and 9c.
d. Infectious diseases and public health microbiology: Biology 330, 230L, 336, 360K, 260L, 361, 361L, Public Health 341R, 361P.
e. Nutrition: Nutrition 312R, 315, 321, 331, 337, 338W or 338H, 342, 343,365 (Topic 4: Obesity and Metabolic Health), Public Health 341R.
f. Social and behavioral sciences: Only one advertising, communication, or public relations course may be counted: Advertising 305, 319, 334, 378, Communication Studies 306M, $315 \mathrm{M}, 332,332 \mathrm{~K}, 355 \mathrm{~K}$, Health Education 329K, 335, 352K 360, 361, 370K (Topic 1: Foundations of Health Promotion I), 371K, 373, Health and Society 301, 320, Marketing 320F, Public Health 341R, Public Relations 305, Social Work 310, Sociology 319, 322F, 329, 336D, 354K, 369K

Sociology 319 and 354 K may not count toward both requirement 1 d and requirement 8 f .
10. One of the following foreign language/culture choices:
a. Beginning level proficiency coursework, or the equivalent, in a foreign language
b. First course in a foreign language and a three-semester-hour course in the culture of the same language area
c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers
11. Enough additional coursework to make a total of 120 semester hours

## Option II: Public Health Honors

6. Breadth requirement: An honors mathematics course; Biology 315H and 325 H ; Chemistry 301 H and 302 H ; credit by examination may not count toward this requirement
7. In fulfilling requirement 2a, students must complete an honors statistics course
8. Chemistry 204, 320M, and Biochemistry 369
9. A section of Undergraduate Studies 302 or 303 that is approved by the program honors adviser
10. A section of Rhetoric and Writing 309 S that is restricted to students in the Dean's Scholars Honors Program
11. Two semesters of Public Health 379H
12. Nine additional hours of coursework approved by the departmental honors adviser
13. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts
14. Enough additional coursework to make a total of 120 semester hours

## Option III: Advanced Program

This program provides students with a foundation in the natural sciences applied to public health and advanced specialist training in preparation for a leadership position in public health practice. This program leads to the completion of the Bachelor of Science in Public Health and the Master of Public Health, awarded by the School of Public Health at the University of Texas Health Sciences Center at Houston. During the senior year, students complete the first year of the Master of Public Health at the Austin Regional Campus. The second year of the Master of Public Health is completed at one of the five regional campuses in Austin, Brownsville, Dallas, El Paso, Houston, and San Antonio. Upon completion of the first year of the Master of Public Health, coursework may be applied toward Option III requirements. Option III students may apply to graduate upon completion of the undergraduate degree requirements and prior to the completion of the Master of Public Health.
6. Mathematics 408C, 408N, or 408R.
7. Biology $311 \mathrm{C}, 311 \mathrm{D}$, and 325 ; or 315 H and 325 H ; these courses must be completed before the student progresses to other upper-division biology and upper-division public health courses
8. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204,320 \mathrm{M}$, and Biochemistry 369
9. One of the following foreign language/culture choices:
a. Beginning level proficiency coursework, or the equivalent, in a foreign language
b. First course in a foreign language and a three-semester-hour course in the culture of the same language area
c. Two three-semester-hour courses in one foreign culture area; the courses must be chosen from an approved list available in the dean's office and the college advising centers.
10. Enough additional coursework to make a total of 120 semester hours; a maximum of 18 hours of graduate coursework completed at the School of Public Health at the University of Texas Health Sciences Center may be applied as elective hours toward the Bachelor of Science in Public Health, Option III: Advanced Program, if needed to reach a total of 120 hours.

* Graduate coursework may not be applied toward the public health core requirements 2a through $2 f$.


## Special Requirements

Students must fulfill both the University's General Requirements (p. 19) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$ - in each foundation course, public health
core course, and mathematics and science course required by the degree, and a grade point average in these courses of at least 2.00 . More information about grades and the grade point average is given in the General Information Catalog.

## Additional Requirements for Option II

To graduate under Option II, students must remain in good academic standing in the Dean's Scholars Program, must submit an honors thesis approved by the departmental honors adviser, and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum.

## Additional Requirements for Option III

Students admitted to Option III are required to follow the admission schedule and policies of Master of Public Health program at the School of Public Health at The University of Texas Health Sciences Center at Houston. Students are expected to make continuous progress toward the undergraduate and graduate degrees by completing required undergraduate and graduate public health coursework each semester of the fourth year. Students who fail to complete graduate coursework two long-session semesters in a row will be removed from the program and must re-enroll at the University of Texas at Austin to complete the Bachelor of Science in Public Health Option I. Students will be notified prior to removal from the graduate program. Students must earn the Bachelor of Science in Public Health in their fourth year to be eligible to continue in the Master of Public Health program in their fifth year.

## Bachelor of Science in Textiles and Apparel

The Division of Textiles and Apparel is a place to get a broad-based education, well suited for career opportunities. Students in the Division of Textiles and Apparel enjoy a wide range of academic programs and career opportunities. They study the art of design, the science of chemistry and physics, and the application of retail and management principles, through the lens of history. Majors come in three packages: merchandising and consumer sciences; apparel, functional, and technical design; and textile conservation and museum studies. Each program provides hands-on experience with rapidly evolving retail environments, intercultural practices and customs, consumer behavior, apparel and fashion design, computer-aided design, fashion show production and event organization, garment conservation and museum management, and fiber and fabric testing. Capstone retail merchandising and apparel design programs take students to high-profile venues and provide rich opportunities in honors programs. Internships are available to enhance the educational experience and ensure strong career opportunities. Basic research is being conducted in bio-based fibers and specialized fabrics, and 3D technology to address basic human needs. Research is also conducted involving the effects of change and new technologies on the development and distribution of creative textile products. The Division of Textiles and Apparel is a marvelous place to get a broad-based education, well suited for rewarding career opportunities.

## Prescribed Work Common to All Options

In the process of fulfilling degree requirements, all students must complete:

1. Core curriculum
2. Skills and experience flags:
a. Writing: two flagged courses beyond Rhetoric and Writing 306 or its equivalent, including one at the upper-division level
b. Quantitative reasoning: one flagged course
c. Global cultures: one flagged course
d. Cultural diversity in the United States: one flagged course
e. Ethics: one flagged course
f. Independent inquiry: one flagged course

Courses that may be used to fulfill flag requirements are identified in the Course Schedule. They may be used simultaneously to fulfill other requirements, unless otherwise specified. Please note, students may not earn the cultural diversity in the United States and the global cultures flags from the same course. Students are encouraged to discuss options with their academic advisors.

## Prescribed Work for Each Option

## Option I: Apparel, Functional, and Technical Design

3. Mathematics $408 \mathrm{C}, 408 \mathrm{~N}$ or Statistics and Data Sciences 332
4. One of the following:Statistics and Data Sciences 301, 302, 303, 304, 305, 306, or Educational Psychology 371
5. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204; and Biology 311 C
6. The following textiles and apparel courses:
a. Core Courses: Textiles and Apparel 301, 205, 105L, 313, 214K, $214 \mathrm{~L}, 328,331,260 \mathrm{~L}$, and 260M; and two of the following courses: Textiles and Apparel 325L, 325M, and 327
b. Option courses: Textiles and Apparel 316L, 126, 226L, 350, 352D, 355C, 164K (Topics 1: Flat Pattern, 2: Draping, and 3: Advanced Apparel Design), and 264L (Topic 1: Flat Pattern, 2: Draping, and 3: Advanced Apparel Design)
7. Thirty-six semester hours of upper-division coursework, of which at least 18 must be within at least nine must be outside the School of Human Ecology. At least 21 semester hours of upper-division coursework must be taken in residence at the University
8. Enough additional coursework to make a total of 120 semester hours

## Option II: Merchandising and Consumer Sciences

In addition, students following the merchandising option must complete the following degree-level requirements. In some cases, courses that fulfill degree-level requirements also meet the requirements of the core.
3. Mathematics 408C, 408N, or Statistics and Data Sciences 332
4. One of the following: Statistics and Data Sciences 301, 302, 303, 304, 305, 306, or Educational Psychology 371
5. Chemistry 301 or $301 \mathrm{H}, 302$ or 302 H , and 204; and Biology 311 C
6. Economics 301 or 304 K
7. The following textiles and apparel courses:
a. Core courses: Textiles and Apparel 301, 205, 105L, 313, 214K, $214 \mathrm{~L}, 328,331,260 \mathrm{~L}$, and 260 M ; and two of the following courses: Textiles and Apparel 325L, 325M, and 327
b. Option courses: Textiles and Apparel 316Q, 219C, 119L, 151, 352M, 353, 355P, 361, 376, and 377
8. Thirty-six semester hours of upper-division coursework, of which at least 18 must be within and at least nine must be outside the School of Human Ecology. At least 21 semester hours of upper-division coursework must be taken in residence at the University
9. Enough additional coursework to make a total of 120 semester hours

## Option III: Textiles and Apparel Honors

3. Mathematics 408C, 408N, or Statistics and Data Sciences 332
4. Breadth Requirement: An approved calculus course and an approved statistics course (one of these must be honors); Chemistry 301H and 302 H ; Biology 315 H and 325 H . Credit earned by examination may not be counted toward this requirement.
5. A section of Undergraduate Studies 302 or 303 that is approved by the departmental honors advisor
6. A section of Rhetoric and Writing 309 S that is restricted to students in the Dean's Scholars Honors Program
7. Textiles and Apparel 105L, 205, 327, 328, 260L, and 260M
8. Twenty-two semester hours selected from the three streams of textiles and apparel courses with at least three semester hours in each of the streams: apparel, technical, and functional design; merchandising and consumer science; and textile conservation and museum studies, as well as Human Development and Family Sciences 322 with consent of the honors advisor
9. Six hours of textiles and apparel, including Textiles and Apparel 379 H . In all cases, students will be required to conduct research and write a thesis. In some cases, this thesis will be accompanied by a portfolio of work
10. Six additional semester hours from biology, chemistry, computer science, engineering, mathematics or physics. Courses designed for non-science majors may not be counted toward this requirement
11. Six semester hours of coursework from the College of Liberal Arts and/or the College of Fine Arts
12. Thirty-six semester hours of upper-division coursework. At least 21 semester hours of upper-division coursework must be taken in residence at the University
13. Twelve additional semester hours of coursework approved by the departmental honors advisor
14. Enough additional coursework to make a total of 120 semester hours

## Option IV: Textile Conservation and Museum Studies

3. Mathematics 408C, 408N, or Statistics and Data Sciences 332
4. One of the following: Statistics and Data Sciences 301, 302, 303, 304, 305,306, or Educational Psychology 371
5. Chemistry 301 or $301 \mathrm{H}, 302$ or $302 \mathrm{H}, 204$, and 320 M
6. Anthropology 302 and 304
7. The following textiles and apparel courses:
a. Core courses: Textiles and Apparel 301, 205, 105L, 313, 214K, $214 \mathrm{~L}, 328,331,260 \mathrm{~L}$, and 260 M ; and two of the following courses: Textiles and Apparel 325L, 325M, and 327
b. Option courses: Textiles and Apparel 219C, 119L, 151, 652C, $354 \mathrm{C}, 354 \mathrm{D}, 354 \mathrm{E}, 354 \mathrm{~F}$, and 355D
8. Thirty-six semester hours of upper-division coursework, of which at least 18 must be within and at least 12 must be outside the School of Human Ecology
9. Enough additional coursework to make a total of 126 semester hours

## Special Requirements

Students must fulfill both the University's General Requirements (p. 19) for graduation and the college requirements (p. 254). They must also earn a grade of at least $C$-in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the General Information Catalog.

To graduate under Option III, students must remain in good standing in the Dean's Scholars Honors Program (p. 250), must submit an honors thesis approved by the departmental honors advisor, and must
present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/ innovative-education/undergraduate-research/undergraduate-researchforum.

## Order and Choice of Work

The student should consult the faculty advisor each semester about order and choice of work and balancing the laboratory load. Students should also check prerequisite requirements carefully.

## Minor and Certificate Programs

In the College of Natural Sciences, only one transcript-recognized minor or transcript-recognized certificate may be declared per major.

A student who wishes to pursue more than one transcript-recognized minor or transcript-recognized certificate per major must consult with his or her academic advisor to get permission from the College. When considering whether to grant an exception and allow pursuit of another transcript-recognized credential, the academic advisor will take into account the student's long-term education/professional goals and the student's ability to graduate within four years of entering the university.

Students admitted to transcript-recognized certificate and transcriptrecognized minor programs must contact their academic advisors to have approved programs added to their degree audit profiles. This allows progress toward the programs to be tracked and ensures that certificates and minors are added to official transcripts upon graduation, if all requirements are met.

## Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minor and Certificate Programs (p.13) section of the Undergraduate Catalog.

## Certificate Programs

Undergraduate certificate programs encourage students to explore academic areas that support and extend their degree plans. The following certificates require at least 18 semester hours of coursework, some of which may also be used to fulfill degree requirements. Undergraduates who complete the certificate requirements in conjunction with their degree requirements or within one year after earning the degree will receive a certificate and recognition on their University transcript. A maximum of nine hours in the certificate program may be taken after completion of the undergraduate degree. At least half of the required coursework in the certificate program must be completed in residence at the University.

## Applied Statistical Modeling Certificate

The certificate in Applied Statistical Modeling equips undergraduate students with the tools necessary to understand how to apply statistics to their primary field of study. This certificate program is designed to complement diverse degree programs and to appeal to students across the University in engineering, science, economics, mathematics, and many other disciplines. Certificate students will complete one course in the mathematical foundations of statistics, a two-course sequence in applied statistics, and nine additional hours in statistics, machine learning, econometrics, and other relevant courses from the approved list below.

Admission to the certificate is by application only. Students may download an application from the Department of Statistics and Data Sciences webpage. Students seeking the certificate must also complete the prerequisite course Mathematics 408C, 408L, 408N, 408R, or 408S with a grade of at least $C$ -

The certificate consists of 18 hours. Students must receive a grade of at least $C$ in each course applied toward the certificate and have a cumulative grade point average of at least 3.0 in the courses presented to fulfill the certificate. Courses that appear in multiple approved course lists may be used to satisfy only one requirement. Students must contact the Department of Statistics and Data Sciences in the semester in which they are completing the requirements and graduating.

| Requirements | Hours |
| :--- | :--- | :--- |
| Mathematical foundation of statistics |  |
| BME 335 Engineering Probability and <br>  Statistics |  |
| E E 351 K Probability and Random Processes <br> M 362K Probability I <br> SDS 321 Introduction to Probability and <br>  Statistics |  |

Sequence in applied statistics 6

Choose one of the following:

| ECO 329 | Economic Statistics |
| :--- | :--- |
| EDP 371 | Introduction to Statistics |
| GOV 350K | Statistical Analysis in Political |
| M 358K | Applied Statistics |
| PSY 418 | Statistics and Research Design |
| SOC 317L | Introduction to Social Statistics |
| STA 309 | Elementary Business Statistics |
| SDS 302 | Data Analysis for the Health |
|  | Sciences |
| SDS 304 | Statistics in Health Care |
| SDS 306 | Statistics in Market Analysis |
| SDS 328M | Biostatistics |

And one of the following:

| ECO 441K | Introduction to Econometrics |
| :--- | :--- |
| M 349R | Applied Regression and Time Series |
| STA 371G | Statistics and Modeling |
| STA 371H | Statistics and Modeling: Honors |
| STA 375 | Statistics and Modeling for Finance |
| STA 375H | Statistics and Modeling for <br> Finance: Honors |
| SDS 325H | Honors Statistics |
| SDS 332 and Behavioral Sciences |  |
| SDS 352 | Statistical Methods <br> Special Topics in Statistics (Topic |
| SDS 358 | 1: Applied Regression Analysis) |

Nine hours of coursework out of the following: ${ }^{1}$

| ADV 344K | Advertising Research |
| :--- | :--- |
| C S 342 | Neural Networks |
| C S 343 | Artificial Intelligence |
| C S 363D | Introduction to Data Mining |
| CMS 348 | Communication Research Methods |
| ECO 354K | Introductory Game Theory |
| ECO 342L | Advanced Econometrics |


| E E461P | Data Science Principles |
| :---: | :---: |
| GEO 325K | Computational Methods |
| GEO 365N | Seismic Data Processing |
| HED 343 | Foundations of Epidemiology |
| HED 373 | Evaluation and Research Design |
| KIN 376 | Measurement in Kinesiology |
| LIN 350 | Special Topics in the Study of Language (Topic 15: Computational Semantics) |
| M 339J | Probability Models with Actuarial Applications |
| M 349P | Actuarial Statistical Estimates |
| M 362M | Introduction to Stochastic Processes |
| M 378K <br> or SDS 378 | Introduction to Mathematical Statistics <br> Introduction to Mathematical Statistics |
| M 378P or SDS 378P | Decision Analytics Decision Analytics |
| MIS 373 | Topics in Management Information Systems (Topic 11: Advanced Analytics Programming) |
| MIS 373 | Topics in Management Information Systems (Topic 17: Predictive Analytics and Data Mining) |
| PBH 354 | Epidemiology |
| PGE 378 | Applied Reservoir Characterization |
| PSY 325K | Advanced Statistics |
| SDS 323 | Statistical Learning and Inference |
| SDS 348 | Computational Biology and Bioinformatics |
| SDS 353 | Advanced Multivariate Modeling |
| SDS 358 | Special Topics in Statistics |
| SDS 374E | Visualization and Data Analysis for Science and Engineering |
| SDS 375 | Special Topics in Scientific Computation |
| SDS 379R | Undergraduate Research |
| STA 372 | Topics in Statistics (Topic 5: Financial and Econometric Time Series Modeling) |

Please Note:
Statistics and Data Sciences 358 (Topic 1: Applied Regression Analysis) may only be counted toward one requirement.

1. Students are encouraged to select courses within their own majors or colleges as appropriate. The Statistics and Data Sciences courses listed are available to students in all majors.

## Computational Science and Engineering Certificate

The Computational Science and Engineering Certificate program is sponsored by the Cockrell School of Engineering, the Jackson School of Geosciences, the College of Liberal Arts, and the College of Natural Sciences; it is administered by the Institute for Computational Engineering and Sciences (ICES). Information regarding the specific requirements of the Certificate can be found in the Cockrell School
of Engineering's Minor and Certificates section (p. 146) of the Undergraduate Catalog.

## The Elements of Computing Program Certificate

The Elements of Computing Program, administered by the Department of Computer Science, is designed to support computational work in disciplines other than computer science and to provide students with skills in the use of computer applications. Any non-computer science major may take any elements of computing course for which he or she meets the prerequisite. No application process is required.

To earn the Elements of Computing Certificate, students must complete 18 semester hours of coursework with a grade of at least $C$ - in each course.

The following coursework is required:

## Requirements

Hours

| C S 303E | Elements of Computers and |
| :--- | :--- |
| C S 313E | Programming (or the equivalent) |
|  | Elements of Software Design (or <br> the equivalent) |

Four of the following courses:

| C S 320N | Topics in Computer Science for <br> Nonmajors |
| :---: | :--- |
| C S 324E | Elements of Graphics and <br> Visualization |
| C S 326E | Elements of Networking |
| C S 327E | Elements of Databases |
| C S 328E | Topics in Elements of Computing <br> C S 329E |
| Computing |  |

With the approval of the certificate program faculty committee, up to two appropriate substitute courses may be counted toward the elective requirement. This includes courses that are transferred in from other universities and/or study abroad.

## Evidence and Inquiry Certificate

The Evidence and Inquiry Certificate, pursued by students in the Polymathic Scholars Program and open by application to others, allows students to design an area of study shaped by questions that require evidence and methodologies outside their major. Students work with faculty to identify interests, map them onto academic disciplines at the University, and determine questions related to those interests that might be answerable by research that combines expertise from at least two disciplines. Students describe their area of study, identify primary questions, name two University of Texas at Austin faculty members with research experience relevant to their field, and justify the courses they would take in a written proposal that must be reviewed by three members of the program's faculty steering committee. Students complete an original research thesis in their final year. Those who plan to pursue the certificate must apply no later than the end of their third long semester. More information about the Evidence and Inquiry Certificate is available on the College of Natural Sciences website.

The certificate program requires 22 semester hours of coursework, including at least 11 hours completed in residence. Students must meet the following requirements:

| Requirements | Hours |  |
| :--- | :--- | ---: |
| UGS 303 | First-Year Signature Course | 3 |
| NSC 109 | Topics in Natural Science (Topic <br> 4: Polymathic Capstone Field <br> Invention) | 1 |
| Four additional courses, including at least six semester hours <br> of upper-division coursework, from the student's approved <br> evidence and inquiry area of study <br> Senior Capstone Sequence | 12 |  |
| NSC 323 |  | Natural Sciences Topics (Topic <br> 1: Polymathic Capstone Thesis <br> Preparation Seminar) <br> Capstone Thesis Seminar |

## Food and Society Certificate

Though food-related issues vary widely in focus, they are all linked by their complexity and are deeply interdisciplinary nature, each relating to topics of health and nutrition, genetics, politics, culture, the environment, economics, and business. Students will be able to appreciate the full range of these interdisciplinary ties and apply new perspectives to their primary academic majors and careers.

Students completing the certificate will be able to apply a more comprehensive understanding of the implications of their food-related actions and decisions; find better solutions to today's complex problems; formulate more effective public policy; become better informed and active citizens; and make healthier choices for themselves and their families.

No admission to the certificate is required. Students must contact the advising office in the School of Human Ecology to apply for the certificate the semester before the certificate requirements are met. The certificate consists of 18 hours, of which nine hours must be in upper-division coursework. Courses must be completed with minimum grades of at least $C$ - unless the course is offered only on the pass/fail basis. Students also seeking the Bachelor of Science in Nutrition may count a maximum of six hours in nutrition toward the food and society certificate.

Some of the courses may contain prerequisites that are in addition to the coursework for the certificate.

## Requirements

Hours
Three hours of introductory nutrition chosen from the
following:

| NTR 306 | Fundamentals of Nutrition |
| :--- | :--- |
| NTR 312 | Introduction to Nutritional Sciences |
| NTR 312H | Introduction to Nutritional |
|  | Sciences: Honors |

Fifteen hours selected from a minimum of two themes
chosen from table 1, 2 and 3 below. ${ }^{1}$

1. No more than nine hours in a single theme may be applied toward the certificate.
2. Nutrition and Health

| Requirements | Hours |  |
| :--- | :--- | ---: |
| NTR 218 | Assessment of Nutritional Status |  |
| \& NTR 118L | and Assessment of Nutritional <br> Status Laboratory | 3 |
| NTR 307 | Introductory Food Science | 3 |
| NTR 315 | Nutrition through the Life Cycle | 3 |
| NTR 330 | Nutrition Education and Counseling | 3 |
| NTR 321 | International Nutrition: The <br> Developing World | 3 |
| NTR 334 | Foodservice Systems Management | 3 |
| NTR 353 | Field Experience in International <br> Nutrition | 3 |
| NTR 365 | Selected Topics in Nutritional <br> Sciences (Topic 4: Obesity and <br> Metabolic Health) | 3 |
| SOC 308S | Introduction to Health and Society | 3 |
| N 309 | Global Health | 3 |
| 2. Culture and History |  | 3 |


| Requirements <br> NTR 316 | Hours |  |
| :--- | :--- | ---: |
| AMS 370 | Culture and Food <br> Seminar in American Culture (Topic <br> 26: American Food) | 3 |
| ANT 307 | Culture and Communication | 3 |
| C C 340 | Advanced Topics in Classical <br> Archaeology (Topic 6: Food, <br> Health, and Culture in the Ancient <br> Mediterranean) | 3 |
| C C 348 | Topics in Ancient Civilization (Topic <br> 14: Ancient Greek Medicine) | 3 |

3. Politics, Economics, and Environment

| Requirements |  | Hours |
| :--- | :--- | :--- |
| NTR 331 | International Nutrition: Social and <br> Environmental Policies | 3 |
| NTR 332 | Community Nutrition | 3 |
| GRG 331K | Nature, Society, and Adaptation | 3 |
| GRG 344K | Global Food, Farming, and Hunger | 3 |
| GRG 339K | Environment, Development, and | 3 |
| GOV 3701 | Food Production |  |
| MNS 308 | The Politics of Food in America | 3 |
| MNS 367K | Humans and a Changing Ocean | 3 |
|  | Human Exploration and Exploitation <br> of the Sea | 3 |

## Forensic Science Certificate

The Forensic Science Certificate provides an interdisciplinary perspective for students interested in careers in forensic science.

Students seeking employment in forensic science laboratories upon graduation are encouraged to select biology and chemistry courses. Some of these courses may require introductory biology and chemistry courses as prerequisites.

Students must apply online for admission to the certificate through the university-wide portal for transcript-recognized certificates as soon as they decide to pursue the certificate. The certificate consists of 18 hours, including six upper-division hours, with grades of at least C -:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| ANT 301 | Biological Anthropology | 3 |
| NSC 309 | Topics in Natural Science (Topic 6: Introduction to Forensic Science) | 3 |
| Six hours chosen from any of the following courses relevant to forensic science: |  | 6 |
| Criminalistics: |  |  |
| SOC 302 | Introduction to the Study of Society |  |
| SOC 325K | Criminology |  |
| SOC 325L | Sociology of Criminal Justice |  |
| SOC 336P | Social Psychology and the Law |  |
| Behavioral Science: |  |  |
| PSY 301 | Introduction to Psychology |  |
| PSY 308 | Biopsychology |  |
| PSY 319K | Social Psychology |  |
| PSY 352 | Abnormal Psychology |  |
| Pharmacology: |  |  |
| NEU 365D | Principles of Drug Action |  |
| Forensic Science: |  |  |
| ANT 366 | Anatomy and Biology of the Human Skeleton |  |

Six hours chosen from any of the following areas: 6
Anatomy and Physiology:
ANT 432L Primate Anatomy
BIO 365S Human Systems Physiology
BIO 446L Human Microscopic and Gross
Anatomy
BIO 361T Comparative Animal Physiology
BIO 165 Uuman Systems Physiology Laboratory
BIO 371L Experimental Physiology
Chemistry:
BCH 369
CH 220C
CH 320M
CH 320N
CH 455
Fundamentals of Biochemistry
Organic Chemistry Laboratory
Organic Chemistry I
Organic Chemistry II
Fundamentals of Analytical Chemistry
Genetics and Microbiology:

| ANT 349C | Human Variation |
| :--- | :--- |
| ANT 349D | Anthropological Genetics |
| BIO 325 | Genetics |
| BIO 325L | Laboratory Experience in Genetics |
| BIO 325T | Human Genetics |
| BIO 226L | General Microbiology Laboratory |
| BIO 326R | General Microbiology |

Statistics and Computation (One course chosen from the following):

| BIO 321G | Principles of Computational Biology |
| :--- | :--- |
| SDS 301 | Elementary Statistical Methods |
| SDS 302 | Data Analysis for the Health <br> Sciences |


| SDS 304 | Statistics in Health Care |
| :--- | :--- |
| SDS 306 | Statistics in Market Analysis |
| SDS 328M | Biostatistics |

Additional coursework from the criminalistics, behavioral science and forensic science sections above. ${ }^{1}$

1. A course may not count toward both six-hour requirements above

## Marine Science Certificate

The Marine Science transcript-recognized certificate enables students to explore the field of marine science. The certificate provides a foundation of basic competency in the fundamentals of marine science, along with specialized upper-division coursework in aquatic science. The knowledge of aquatic science that students gain through the certificate will help them to be competitive for employment or graduate study in this field.

The certificate consists of a minimum of 19 hours with grades of at least C-. Most of the courses in the certificate contain prerequisites of one year of general biology and one year of general chemistry.

Marine and Freshwater Biology and Marine and Freshwater Science majors are not eligible to earn the certificate. Environmental Science majors may count no more than nine hours of degree requirements toward the Marine Science certificate.

| Requirements |  | Hours |
| :---: | :---: | :---: |
| MNS 310 | Fundamentals of Marine Science | 3 |
| MNS 320 | Marine Ecology | 3 |
| MNS 120L | Laboratory Studies in Marine Ecology | 1 |
| Three hours chosen from: |  | 3 |
| BIO 311C | Introductory Biology I |  |
| BIO 311D | Introductory Biology II |  |
| BIO 315H | Advanced Introduction to Genetics: Honors |  |
| CH 301 | Principles of Chemistry I |  |
| CH 301 H | Principles of Chemistry I: Honors |  |
| CH 302 | Principles of Chemistry II |  |
| CH 302H | Principles of Chemistry II: Honors |  |
| Nine hours from the follow the Marine Science Institu | wing, including at least six hours at ute in Port Aransas, Texas: | 9 |
| MNS 440 | Limnology and Oceanography |  |
| MNS 152L | Principles of Marine Science: Laboratory Studies |  |
| MNS 252L | Principles of Marine Science: Laboratory Studies |  |
| MNS 152S | Principles of Marine Science: Undergraduate Seminar |  |
| MNS 252S | Principles of Marine Science: Undergraduate Seminar |  |
| MNS 152T | Principles of Marine Science: Special Topics |  |
| MNS 252T | Principles of Marine Science: Special Topics |  |
| MNS 348 | Training Cruise(s) (Topic 1: Training Cruise(s): Research in Biological Oceanography ) |  |
| MNS 352 | Principles of Marine Science |  |
| MNS 352C | Estuarine Ecology |  |


| MNS 352D | Marine Botany |
| :--- | :--- |
| MNS 352E | Marine Conservation Biology |
| MNS 353 | Topics in Marine Science |
| MNS 354 | Marine Invertebrates |
| MNS 354C | Biology of Fishes |
| MNS 354E | Aquatic Microbiology |
| MNS 354J | Marine Chemistry |
| MNS 354Q | Marine Environmental Science |
| MNS 354T | Biological Oceanography |
| MNS 354U | Biology of Sharks, Skates, and Rays |
| MNS 355C | Physiology of Fishes |
| MNS 356 | Ecosystem Oceanography |
| MNS 357 | Marine Phytoplankton Diversity |
| MNS 367K | Human Exploration and Exploitation |
| of the Sea |  |
| MNS 170 | Special Studies in Marine Science |
| MNS 270 | Special Studies in Marine Science |
| MNS 370 | Special Studies in Marine Science |

## Pre-Health Professions Certificate

The Pre-Health Professions Certificate assists students in preparing for post-baccalaureate, healthcare professional programs. The certificate consists of a minimum of 18 hours, including nine hours in residence. Each course presented for the certificate must be completed with a grade of at least $C$-.

The certificate is composed of two separate tracks: a track for majors in the College of Natural Sciences, and a track for majors in other colleges across the university. Students must apply online for admission to the certificate through the university-wide portal for transcript recognized certificates.

Students are encouraged to work closely with the Health Professions Office to select healthcare themes relevant to their professional career goals. Some of the courses may contain prerequisites that are in addition to the coursework for the certificate.

Majors in the College of Natural Sciences must seek the Science Major Track.

Majors outside of the College of Natural Sciences must seek the NonScience Major Track. The composition of the non-science major track is science coursework necessary for admission to post-baccalaureate, healthcare professional programs. Non-science majors may apply to the certificate program upon completion of the following courses with grades of at least $B$-: Chemistry 301 or 302 , and one of the following: Statistics and Data Sciences 302, Mathematics 408C, 408K, 408 N , or 408R. Upon admission, the ability to progress in the certificate is dependent on completion of the certificate course with satisfactory grades.

## Science Major Track

## Requirements

Hours
Complete 18 hours chosen from the following themes relevant to healthcare.

Cultural Awareness:

| AAS 301 | Introduction to Asian American |
| :--- | :--- |
| AAS 310 | Studies |
|  | Introductory Topics in Asian |
|  | American Studies (Topic 1: |
|  | Psychological Perspectives on |
|  | Asian American Identity) |


| AFR 301 | African American Culture | SOC 307P | Introduction to the Sociology of |
| :--- | :--- | :--- | :--- |
| AFR 352D | Psychology of the African American | Health and Well-Being |  |


| NTR 331 | International Nutrition: Social and |
| :--- | :--- |
|  | Environmental Policies |
| NTR 332 | Community Nutrition |

Optional: If additional hours are needed to complete the 18 hours for the certificate, a maximum of nine hours chosen from the following may be applied to the science major track:

| Requirements |  | Hours |
| :---: | :---: | :---: |
| Biochemistry | stry: |  |
| BCH 369 | Fundamentals of Biochemistry |  |
| CH 220 C | Organic Chemistry Laboratory |  |
| CH 320M | Organic Chemistry I |  |
| CH 320N | Organic Chemistry II |  |
| Biology. |  |  |
| BIO 206L | Introductory Laboratory Experiments in Biology |  |
| BIO 311C | Introductory Biology I |  |
| BIO 311D | Introductory Biology II |  |
| Physics: |  |  |
| PHY 301 | Mechanics |  |
| PHY 101L | Laboratory for Physics 301 |  |
| PHY 302K | General Physics Technical Course: Mechanics, Heat, and Sound |  |
| PHY 302L | General Physics Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics |  |
| PHY 102M | Laboratory for Physics 302K |  |
| PHY 102N | Laboratory for Physics 302L |  |
| PHY 303K | Engineering Physics I |  |
| PHY 303L | Engineering Physics II |  |
| PHY 103M | Laboratory for Physics 303K |  |
| PHY 103N | Laboratory for Physics 303L |  |
| PHY 316 | Electricity and Magnetism |  |
| PHY 116L | Laboratory for Physics 316 |  |
| PHY 317K | General Physics I |  |
| PHY 317L | General Physics II |  |
| PHY 117M | Laboratory for Physics 317K |  |
| PHY 117N | Laboratory for Physics 317L |  |
| Statistics: |  |  |
| SDS 301 | Elementary Statistical Methods |  |
| SDS 302 | Data Analysis for the Health Sciences |  |
| SDS 304 | Statistics in Health Care |  |
| SDS 306 | Statistics in Market Analysis |  |
| SDS 328M | Biostatistics |  |

Additional upper-division coursework in biochemistry, biology, and chemistry by approval of the undergraduate certificate adviser

## Non-science Major Track

## Requirements <br> Hours

Complete 18 hours chosen from one of the health 18 professions preparation sequences. The 18 hours may be composed of introductory coursework, advanced coursework, or a mixture of the two

## Pre-dental Preparation

Introductory Coursework:

| BIO 206L | Introductory Laboratory <br> Experiments in Biology |
| :--- | :--- |
| BIO 311C | Introductory Biology I |
| BIO 311D | Introductory Biology II |
| CH 204 | Introduction to Chemical Practice |
| PHY 302K | General Physics Technical Course: <br> Mechanics, Heat, and Sound |
| PHY 302L | General Physics Technical Course: <br> Electricity and Magnetism, Light, |
| PHY 102M | Atomic and Nuclear Physics |
| PHY 102N | Laboratory for Physics 302K |
| Advanced Coursework: |  |
| BCH 369 | Fundamentals of Biochemistry |
| BIO 320 | Cell Biology |
| BIO 325 | Genetics |
| BIO 326R | General Microbiology ${ }^{2}$ |
| CH 220C | Organic Chemistry Laboratory |
| CH 320M | Organic Chemistry I |
| CH 320N | Organic Chemistry II |

Pre-medical Preparation
Introductory Coursework:

| BIO 206L | Introductory Laboratory <br> Experiments in Biology |
| :--- | :--- |
| BIO 311C | Introductory Biology I |
| BIO 311D | Introductory Biology II |
| CH 204 | Introduction to Chemical Practice |
| PHY 302K | General Physics Technical Course: <br> Mechanics, Heat, and Sound |
| PHY 302L | General Physics Technical Course: <br> Electricity and Magnetism, Light, |
| PHY 102M | Atomic and Nuclear Physics |
| PHY 102N | Laboratory for Physics 302K |
| Advanced Coursework: |  |
| BCH 369 | Fundamentals of Biochemistry |
| BIO 320 | Cell Biology |
| BIO 325 | Genetics |
| BIO 326R | General Microbiology ${ }^{2}$ |
| CH 220C | Organic Chemistry Laboratory |
| CH 320M | Organic Chemistry I |
| CH 320N | Organic Chemistry II |

Pre-occupational Therapy Preparation
Introductory Coursework:

| BIO 311C | Introductory Biology I |
| :--- | :--- |
| BIO 311D | Introductory Biology II |
| BIO 206L | Introductory Laboratory <br> Experiments in Biology |
| CH 204 | Introduction to Chemical Practice |
| SDS 302 | Data Analysis for the Health <br> Sciences |
| PHY 302K | General Physics Technical Course: <br> Mechanics, Heat, and Sound |
| PHY 102M | Laboratory for Physics 302K ${ }^{1}$ |
| Advanced Coursework: | Genetics |
| BIO 325 |  |


| BIO 446L | Human Microscopic and Gross <br> Anatomy |
| :--- | :--- |
| BIO 365S | Human Systems Physiology |
| BIO 165U | Human Systems Physiology <br> Laboratory |

## Pre-optometry Preparation

| Introductory Coursework: |  |
| :--- | :--- |
| BIO 311C | Introductory Biology I |
| BIO 311D | Introductory Biology II <br> BIO 206L <br> Introductory Laboratory <br> Experiments in Biology |
| CH 204 | Introduction to Chemical Practice <br> Data Analysis for the Health <br> Sciences |
| PHY 302K | General Physics Technical Course: <br> Mechanics, Heat, and Sound |
| PHY 102M | Laboratory for Physics 302K |
| PHY 302L | General Physics Technical Course: <br> Electricity and Magnetism, Light, |
| Atomic and Nuclear Physics |  |

Pre-physical Therapy Preparation
Introductory Coursework:

| BIO 311C | Introductory Biology I |
| :--- | :--- |
| BIO 311D | Introductory Biology II |
| BIO 206L | Introductory Laboratory <br> Experiments in Biology |
| CH 204 | Introduction to Chemical Practice <br> Data Analysis for the Health <br> Sciences |
| SDS 302 | General Physics Technical Course: <br> Mechanics, Heat, and Sound |
| PHY 302K | Laboratory for Physics 302K |
| PHY 102M | General Physics Technical Course: <br> Electricity and Magnetism, Light, <br> Atomic and Nuclear Physics |
| PHY 302L | Laboratory for Physics 302L ${ }^{1}$ |
| PHY 102N | Genetics |
| Advanced Coursework: | Human Microscopic and Gross |
| BIO 325 | Human Systems Physiology |
| BIO 446L | Human Systems Physiology <br> Laboratory |
| BIO 165U |  |

Pre-physician Assistant Preparation:
Introductory Coursework:

| BIO 311C | Introductory Biology I |
| :--- | :--- |
| BIO 311D | Introductory Biology II |
| BIO 206L | Introductory Laboratory <br> Experiments in Biology |
| CH 204 | Introduction to Chemical Practice <br> DDS 302 <br> Sciences |
| NTR 306 | Fundamentals of Nutrition |
| Advanced Coursework: | Fundamentals of Biochemistry |
| BCH 369 | Cell Biology |
| BIO 320 | Genetics |
| BIO 325 | General Microbiology Laboratory |
| BIO 226L | General Microbiology ${ }^{2}$ |

Pre-pharmacy Preparation:
Introductory Coursework:

| BIO 311C | Introductory Biology I |
| :--- | :--- |
| BIO 311D | Introductory Biology II |
| BIO 206L | Introductory Laboratory <br> Experiments in Biology <br> Introduction to Chemical Practice |
| CH 204 | Data Analysis for the Health <br> Sciences |
| SDS 302 | General Physics Technical Course: <br> Mechanics, Heat, and Sound |
| PHY 302K | Laboratory for Physics 302K ${ }^{1}$ |
| PHY 102M | Genetics |
| Advanced Coursework: | General Microbiology Laboratory |
| BIO 325 | General Microbiology ${ }^{2}$ |

Pre-veterinary Preparation
Introductory Coursework:

| BIO 311C | Introductory Biology I |
| :--- | :--- |
| BIO 311D | Introductory Biology II |
| BIO 206L | Introductory Laboratory |
|  | Experiments in Biology |
| CH 204 | Introduction to Chemical Practice |


| PHY 302K | General Physics Technical Course: <br> Mechanics, Heat, and Sound |
| :---: | :--- |
| PHY 102M | Laboratory for Physics 302K |
| PHY 302L | General Physics Technical Course: <br> Electricity and Magnetism, Light, <br> Atomic and Nuclear Physics |
| PHY 102N | Laboratory for Physics 302L |

1. A completed calculus-based physics sequence may substitute for the purpose of earning the certificate.
2. Previously completed Biology 326M may substitute.

## Quantum Information Science Certificate

A certificate in Quantum Information Science will allow students from a broad range of disciplines to receive formal recognition of their skills, training, and knowledge in the burgeoning field of quantum information science, including quantum computing, quantum communication, and quantum sensing. Students are required to take two courses in quantum information science. Courses under the Freshman Research Initiative (FRI) program will be open to all students, with consent of the instructor. Supplementary courses may be selected to emphasize different focus areas in physics, mathematics, and computer science.

Admission to the certificate is by application only. The certificate program requires 18 semester hours of coursework with a grade of at least C- in each course. Courses that appear in multiple approved course lists may be used to satisfy only one requirement. The following courses are required:

## Requirements

## Hours

Six hours selected from the following courses:
6

| C S 309 | Topics in Computer Science (Topic 1: Quantum Computing I) |  |
| :---: | :---: | :---: |
| C S 378 | Undergraduate Topics in Computer Science (Topic 1: Quantum Computing II) |  |
| C S 358H | Introduction to Quantum Information Science: Honors |  |
| Twelve hours selected from among the following supplementary courses: |  | 12 |
| PHY 373 | Quantum Physics I: Foundations |  |
| PHY 362K | Quantum Physics II: Atoms and Molecules |  |
| $\begin{aligned} & \text { CS } 331 \\ & \quad \text { or CS } 331 \mathrm{H} \end{aligned}$ | Algorithms and Complexity <br> Algorithms and Complexity: Honors |  |
| C S 358H | Introduction to Quantum Information Science: Honors |  |
| M 340L | Matrices and Matrix Calculations |  |


| or M 341 or SDS 329C | Linear Algebra and Matrix Theory Practical Linear Algebra I |
| :---: | :---: |
| M 346 | Applied Linear Algebra |
| Independent Research Project. This may be taken, for example, as one of the following courses: ${ }^{1}$ |  |
| PHY 371C | Individual Study in Physics |
| C S 370 | Undergraduate Reading and Research |
| M 375C | Conference Course (ComputerAssisted) |
| Please Note: C S 358H Introduction to Quantum Information Science:Honors may only be counted toward one of the certificate requirements. With the approval of the certificate program faculty, other appropriate courses may be counted toward the certificate requirements. |  |
| --- |  |
| 1. The student conducts independent research on some aspect of quantum information science and completes a final report describing their work. The topic must be approved by a university faculty or research staff member and will be conducted under their supervision. |  |

## Scientific Computation and Data Sciences Certificate

The Certificate in Scientific Computation and Data Sciences helps undergraduates equip themselves with the mathematical, statistical, and computer-based tools necessary to investigate complex systems in a variety of applications. It is designed to appeal to students across the University in science, engineering, economics, premedicine, sociology, and many other disciplines. The program is administered by the Department of Statistics and Data Sciences. To be admitted, a student must be in good standing in an approved undergraduate degree program and must have earned a grade of at least $C$ - in each certificate course he or she has completed. Students may apply for admission to the program at any point in their undergraduate study; they are encouraged to apply as early as possible so that they can be advised throughout the program.

The certificate consists of 18 hours. Students must complete Mathematics 408D or 408M as a prerequisite. No single course or topic may be used to meet more than one of these requirements. Students must contact the Department of Statistics and Data Sciences in the semester in which they are completing the certificate requirements and graduating.

## Requirements <br> Hours

One course in computer programming chosen from the
following:

| ASE 301 | Introduction to Computer <br> Programming |
| :--- | :--- |
| COE 301 | Introduction to Computer <br> Programming |
| BME 303 | Introduction to Computing |
| C S 303E | Elements of Computers and <br> Programming |
| C S 313E | Elements of Software Design |
| COE 322 | Scientific Computation <br> Software Design and <br> Implementation I |
| GEO 325J | Programming in FORTRAN and <br> MATLAB |


| SDS 322 | Introduction to Scientific Programming |  |
| :---: | :---: | :---: |
| One course in linear algebra, discrete mathematics, or differential equations chosen from the following: |  | 3 |
| M 340L | Matrices and Matrix Calculations |  |
| M 341 | Linear Algebra and Matrix Theory |  |
| M 372K | Partial Differential Equations and Applications |  |
| SDS 329C | Practical Linear Algebra I |  |
| Two courses in scientific following areas: | computing, chosen from two of the | 6 |
| Numerical Methods |  |  |
| BME 313L | Introduction to Numerical Methods in Biomedical Engineering |  |
| CHE 348 | Numerical Methods in Chemical Engineering and Problem Solving |  |
| COE 311K | Engineering Computation |  |
| C S 323E | Elements of Scientific Computing |  |
| C S 323H | Elements of Scientific Computing: Honors |  |
| C S 367 | Numerical Methods |  |
| M 348 | Scientific Computation in Numerical Analysis |  |
| M 368K | Numerical Methods for Applications |  |
| PGE 310 | Formulation and Solution of Geosystems Engineering Problems |  |
| SDS 335 | Scientific and Technical Computing |  |
| Statistical Methods |  |  |
| BME 335 | Engineering Probability and Statistics |  |
| ECO 329 | Economic Statistics |  |
| E E 351K | Probability and Random Processes |  |
| M 358K | Applied Statistics |  |
| M 378K | Introduction to Mathematical Statistics |  |
| M E 335 | Engineering Statistics |  |
| SDS 325H | Honors Statistics |  |
| SDS 328M | Biostatistics |  |
| Other Computing Topics |  |  |
| BME 350 | Computational Methods for Biomedical Engineers |  |
| CH 354M | Introduction to Computational Methods in Chemistry |  |
| C S 324E | Elements of Graphics and Visualization |  |
| C S 327E | Elements of Databases |  |
| C S 329E | Advanced Topics in Elements of Computing (Approved topics) |  |
| CS 377 | Principles and Applications of Parallel Programming |  |
| M 346 | Applied Linear Algebra |  |
| M 362M | Introduction to Stochastic Processes |  |
| M 368K | Numerical Methods for Applications |  |
| M 372K | Partial Differential Equations and Applications |  |


| M 375T | Topics in Mathematics (Approved <br> topics) |
| :--- | :--- |
| M 376C | Methods of Applied Mathematics |
| M E 367S | Simulation Modeling |
| MIS 325 | Database Management |
| NEU 466M | Quantitative Methods In <br> Neuroscience I |
| SDS 329D | Practical Linear Algebra II |
| SDS 374C | Parallel Computing for Science and |
| Engineering |  |

One of the following courses in applied computational 3
science:

| BCH 339N | Systems Biology and Bioinformatics |
| :---: | :---: |
| BIO 321G | Principles of Computational Biology |
| BME 342 | Biomechanics of Human Movement |
| BME 346 | Computational Biomolecular Engineering |
| BME 377T | Topics in Biomedical Engineering (Approved topics) |
| CH 368 | Advanced Topics in Chemistry (Approved topics) |
| COE 347 | Introduction to Computational Fluid Dynamics |
| C S 324E | Elements of Graphics and Visualization |
| C S 329E | Advanced Topics in Elements of Computing (Approved topics) |
| D S 372 | Topics in Decision Science (Topic 6: Optimization Method in Finance) |
| ECO 363C | Computational Economics |
| E E 379K | Topics in Electrical Engineering (Approved topics) |
| FIN 372 | Advanced Topics in Finance (Topic 6: Optimization Methods in Finance) |
| GEO 325K | Computational Methods |
| LIN 350 | Special Topics in the Study of Language (Topic 15: Computational Semantics) |
| M 375T | Topics in Mathematics (Approved topics) |
| M 374M | Mathematical Modeling in Science and Engineering |
| PHY 329 | Introduction to Computational Physics |
| SDS 348 | Computational Biology and Bioinformatics |

An independent research course: 3 or 4

| SDS 379R | Undergraduate Research |
| :--- | :--- |
| SDS 479R | Undergraduate Research |

## Textile Conservation and Museum Studies Certificate

The Certificate in Textile Conservation and Museum Studies helps undergraduates equip themselves with the fiber science, exhibition planning, textile conservation, and museum management skills necessary to conserve textiles in various settings. It is designed to appeal to students across the University in science, history, information science, computational science, merchandising, fiber science and apparel design, and many other disciplines. The program is administered by the Division of Textiles and Apparel in the School of Human Ecology. To be admitted, a student must be in good standing in an approved undergraduate degree program and must have earned a grade of at least $C$ - in each certificate course he or she has completed. Students may apply for admission to the program at any point in their undergraduate study; they are encouraged to apply as early as possible so that they can be advised throughout the program.

The following coursework is required:

| Requirements | Hours |  |
| :--- | :--- | ---: |
| I 301 | Introduction to Informatics | 3 |
| I 320 | Topics in Informatics (Topic 1: <br> Information in Cyberspace) | 3 |
| TXA 205 <br> \& TXA 105L | Textiles <br> and Textiles Laboratory | 3 |
| TXA 219C | Applied Art in Visual Presentation <br> \& 119L Applied Art in Visual <br> Presentation Laboratory | 3 |
| TXA 325L | History of Dress and Cultural <br> Change I <br> History of Dress and Cultural <br> Change II | 3 |
| TXA 325M | Field Experience in Textile <br> Conservation | 3 |
| TXA 352C | Textiles Artifact Management and <br> TXA 355D | Conservation |

## UTeach-Natural Sciences Secondary Teaching Option Certificate

The UTeach-Natural Sciences program offers a secondary teaching option certificate to students who intend to teach at the middle or high school level. UTeach-Natural Sciences prepares students in the College of Natural Sciences, the Jackson School of Geosciences, and Cockrell School of Engineering for middle school or secondary teacher certification in science, technology, engineering, and mathematics (STEM). However, any students in any major at the University may seek STEM teacher certification through UTeach-Natural Sciences.

This certificate is composed of two separate tracks: a track for undergraduates, and an accelerated track for seniors and degree holders within one year of earning an undergraduate degree.

## UTeach Undergraduate Track

The following coursework is required, with grades of at least $C$-:

## Requirements

Hours
One of the following courses:

Selected Topics in Biology (Topic 2: Research Methods: UTeach) Advanced Topics in Chemistry (Topic 1: Research Methods: UTeach)

| PHY 341 | Selected Topics in Physics (Topic 7: |
| :---: | :--- |
|  | Research Methods: UTeach) |
| HIS 329U | Perspectives on Science and |
| or PHL 329U | Mathematics |
|  | Perspectives on Science and Mathematics |

Eighteen hours of professional development coursework 18
consisting of the following:

| EDC 651S | Secondary School Teaching <br> Practicum (Topic 3: Secondary <br> School Teaching Practicum: Math <br> or Topic 4: Secondary School |
| :---: | :--- |
|  | Teaching Practicum: Science) <br> Knowing and Learning in Math and <br> Science |
| EDC 365C | Knowing and Learning in Math and Science |
| or UTS 350 | Classroom Interactions |
| EDC 365D | Classroom Interactions |
| or UTS 355 | Project-Based Instruction <br> EDC 365E |
| or UTS 360 | Seject-Based Instruction |
| UTS 101 | Preparation: Step 1 <br> and Secondary Teacher Education |
| \& UTS 110 | Preparation: STEP 2 <br> \& UTS 170 |
|  | and Student Teaching Seminar |

In addition, students must meet the following requirements to graduate and be recommended for certification:

1. University grade point average of at least 2.50
2. Successful completion of secondary teacher certification and identified discipline specific content courses with a grade of at least $C$ - Lists of the required content courses and additional certification requirements are available in the UTeach-Natural Sciences office and online.

Science teacher certification: All courses must be majors level.
Biology: At least 24 hours in biology (some biochemistry and neuroscience courses may count), and six hours in each from chemistry, geology, and physics.

Chemistry: At least 24 hours in chemistry, and six hours in each from biology, geology, and physics.

Geology: At least 24 hours in geology, and six hours in each from biology, chemistry, and physics.

Physics: At least 24 hours in physics, and six hours in each from biology, chemistry, and geology.

Mathematics teacher certification: All courses, except Mathematics 315C, must count toward a math degree.

Mathematics: At least 24 hours in math, including Mathematics 315C, 333L, and 375D.

Life Sciences teacher certification: All courses must be majors level.

Life sciences: At least 24 hours in biology, including Biology 370; Chemistry 301.

Physics and Mathematics and Physical Science (Physics and Chemistry) teacher certification: All courses must be majors level
and/or count towards a physics, chemistry and/or mathematics degree.

Physics and Mathematics: At least 24 hours in physics, and Mathematics 315C, 333L and 375D.

Physical Science (Physics and Chemistry): At least 24 hours in physics, and Chemistry 301, 302, 204, 353 and 455.

Computer Science and Computer Science and Math teacher certification: All courses must count toward a computer science and/or math degree.

Computer Science: At least 24 hours of computer science.

Computer Science and Mathematics: At least 24 hours of computer science and Mathematics 315C, 333L, and 375D.

Mathematics, Physical Science, and Engineering certification: All courses must be majors level.

For Engineering majors: Mathematics 315C, 333L, and 375D, Physics 303K and 103M, Physics 303L and 103N, and Chemistry 301.

For Mathematics majors: Physics 301 and 101L, Physics 316 and 116L, Physics 315 and 115L, Chemistry 301, 302, and 204, Engineering Studies 301, Mechanical Engineering 377K.

For Chemistry majors: Mathematics 315C, 427J or 427K, Mathematics 333L, and 375D, Physics 301 and 101L, Physics 316 and Physics 116L 315 and 115L, Engineering Studies 301, and Mechanical Engineering 377K.
3. Successful passing of final teaching portfolio review, conducted by the UTeach Program in Natural Sciences

## UTeach Accelerate Track

The UTeach Accelerate track is limited to degree-holders, and seniors with no more than two (2) long semesters left to earn the undergraduate degree. In addition to admission to The University of Texas at Austin, students must be accepted into the UTeach Accelerate program. The application requires the following:

- application form
- resume
- two letters of recommendation
- transcript
- essay
- interview

The following coursework is required, with grades of at least $C$-:

## Requirements <br> Hours

One of the following courses:

| BIO 337 | Selected Topics in Biology (Topic 2: <br> Research Methods: UTeach) |
| :---: | :--- |
| CH 368 | Advanced Topics in Chemistry <br> (Topic 1: Research Methods: <br> UTeach) |
| PHY 341 | Selected Topics in Physics (Topic 7: <br> Research Methods: UTeach) |
| HIS 329U | Perspectives on Science and <br> Mathematics |
| or PHL 329U | Perspectives on Science and Mathematics |

Eighteen hours of professional development coursework
consisting of the following:

| UTS 211 | Secondary Teacher Education Prep: <br> Advanced Steps |
| :---: | :--- |
| EDC 365C | Knowing and Learning in Math and <br> Science |
| or UTS 350 | Knowing and Learning in Math and Science |
| EDC 665 | Classroom Interactions and Project <br> Based Instruction |
|  | Secondary School Teaching <br> Practicum (Topic 3: Secondary <br> School Teaching Practicum: Math <br> or Topic 4: Secondary School |
|  | Teaching Practicum: Science) |
| UTS 170 | Student Teaching Seminar |

In addition, students must meet the following requirements to graduate and be recommended for certification:

1. University grade point average of at least 2.50 .
2. Successful completion of secondary teacher certification and identified discipline specific content courses with a grade of at least C-. Lists of the required content courses and additional certification requirements are available in the UTeach-Natural Sciences office and online.
3. Pass the T-TESS evaluation protocol.

## Special Requirements

Students who successfully complete this certificate may be eligible for recommendation for state teaching certification if they have met all professional development and discipline specific content courses. Students seeking middle grades certification must also complete the following courses with grades of at least $C$-: Educational Psychology 350G or Psychology 301 and 304; and Curriculum and Instruction 339E.

The courses required for all teacher certifications include a minimum of 30 field-based experience (FBE) hours prior to the clinical teaching experience. All students in the field experience courses (UTeachNatural Sciences 101, 110, 211, Curriculum and Instruction 365C, 365D, 365E, 665 and 651S) are observed by and received feedback from highly-qualified Professors of Practice and select in-service educators throughout each semester. Students must pass the field experience in order to pass these courses. During clinical teaching (UTeach-Natural Sciences 170, Curriculum and Instruction 651S), supervision and feedback are provided by Professors of Practice, field supervisors, and the cooperating teacher.

Information about additional certification requirements is available from the UTeach-Natural Sciences academic advisor.

State of Texas teacher certification requirements are governed by the Texas Education Agency and are subject to change. Students must adhere to current teacher certification requirements, even if they differ from those listed in the University catalogs.

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed at the college level: Natural Sciences (NSC) and UTeach-Natural Sciences (UTS).

## Department of Astronomy

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Astronomy: Astronomy (AST).

## Biology Instruction Office

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Biology Instruction Office: Biology (BIO).

## Department of Chemistry

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Chemistry: Chemistry (CH).

## Department of Computer Science

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Computer Science: Computer Science (C S).

## School of Human Ecology

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the School of Human Ecology: Human Development and Family Sciences (HDF), Human Ecology (H E), Nutrition (NTR), Public Health (PBH), and Textiles and Apparel (TXA).

## Department of Marine Science

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Marine Science: Marine Science (MNS).

## Department of Mathematics

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Mathematics: Actuarial Foundations (ACF) and Mathematics (M).

## Department of Molecular Biosciences

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Molecular Biosciences: Biochemistry (BCH) and Molecular Biology (MOL).

## Department of Neuroscience

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Neuroscience: Neuroscience (NEU).

## Department of Physics

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Physics: Physical Science (P S) and Physics (PHY).

Department of Statistics and Data Sciences

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Department of Statistics and Data Sciences: Statistics and Data Sciences (SDS).

# School of Nursing 

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## General Information

## Mission

The purpose of the School of Nursing is to achieve excellence in undergraduate and graduate education, research, public service, and to advance the missions of The University of Texas at Austin through:

1. Preparing students at the baccalaureate level to assume roles in professional nursing practice.
2. Preparing students at the graduate level to assume leadership in practice, education, and research.
3. Promoting excellence in nursing scholarship.
4. Advancing the health of the public through developing and disseminating new knowledge about health, health care, and health care delivery through scholarly inquiry.
5. Providing consultation, health care programs, and health care services in response to emerging and urgent public health needs.

## History

The University of Texas School of Nursing, established in Galveston in 1890 as the John Sealy Hospital Training School for Nurses, is one of the oldest schools of nursing in the Southwest. In 1896 it was transferred to the University of Texas and became the School of Nursing, a division of the Medical Branch, with the diploma granted by the University. In addition to the diploma course, a curriculum leading to the degree of Bachelor of Science in Nursing was established in 1923 in cooperation with the College of Arts and Sciences of the Main University in Austin. In 1932 the School of Nursing was renamed the John Sealy College of Nursing. The degree program was transferred to the college in 1943.

With the financial support of the Texas Graduate Nursing Association, graduate courses in nursing were first offered in 1930 in the Department of Physical and Health Education at the Main University. In 1940, a complete curriculum was established leading to the degree of Bachelor of Science in Nursing Education. In 1945, the curriculum was transferred to the Medical Branch administration, bringing the John Sealy College of Nursing and the new Department of Nursing Education together to form the School of Nursing with its own dean. In 1949, a curriculum leading to the degree of Bachelor of Science in Nursing was established for graduates of diploma programs. The last class of students enrolled in the diploma program was admitted to the School of Nursing in 1957; since that time the school has offered a single program leading to the Bachelor of Science in Nursing.

Funding from the W. K. Kellogg Foundation provided for a program leading to the Master of Science in Nursing with a major in nursing administration, first offered in 1952. Participating in the program of the Southern Regional Education Board for graduate education in nursing, the School of Nursing offered additional specialization in 1955. At that
time the name of the school was changed to the University of Texas Medical Branch School of Nursing.

In the fall of 1960, The University of Texas at Austin became an extension campus of the School of Nursing, which was still located in Galveston, and nursing courses were offered on the Austin campus for the first time. The School of Nursing was reorganized in 1967 as The University of Texas Nursing School (System-wide) and administrative offices were moved to Austin. The school was renamed The University of Texas System School of Nursing in 1972. Junior- and senior-level nursing courses were offered in Austin, El Paso, Fort Worth, Galveston, Houston, and San Antonio.

On March 26, 1976, the Board of Regents of The University of Texas System voted to reorganize the schools of nursing in the system and to place each school under the administration of the president of the health science center or academic institution nearest it. On September 1, 1976, the School of Nursing at Austin became a part of The University of Texas at Austin.

The Doctor of Philosophy degree in nursing, focused on preparing nurse researchers, was initiated in 1974. Nursing faculty members conduct research on a wide variety of topics. Since 2002, the School of Nursing has been ranked among the top institutions in research funding received from the National Institutes of Health. In 2016, the Doctor of Nursing Practice program was initiated as an Option III program.

## Facilities

The 110,008-square-foot, five-story Nursing School building houses administrative, faculty, staff, and research offices, as well as large and small classrooms and seminar and conference rooms. Also located in the building are the Cain Center for Nursing Research, the St. David's Center for Health Promotion and Disease Prevention Research in Underserved Populations, and the School of Nursing Learning Enhancement and Academic Progression Center which includes a staff who provide technical assistance for clinical simulation and skills, instructional design, and production.

Learning experiences in the health field are numerous and varied. The School of Nursing has ongoing clinical placement agreements with more than two hundred agencies. These include the Austin State Hospital, Dell Children's Medical Center of Central Texas, Dell Seton Medical Center at The University of Texas, and St. David's Medical Center. Other community settings used for student field experiences include nursing homes, neighborhood health centers, day-care centers, state and local health departments, physicians' offices, and clinics, including our Family Wellness Center, and our Children's Wellness Center (located in Del Valle).

## Financial Assistance Available through the School

Application forms for scholarships are available from the Office of Scholarships and Financial Aid and from the School of Nursing, 1710 Red River Street, Austin TX 78712. The School of Nursing Scholarship Committee selects the recipients for endowed nursing scholarships. A list of endowed scholarships can be found on the School of Nursing website. Other scholarships are frequently available through the generosity of groups such as the The University of Texas at Austin School of Nursing Alumni Network, area civic organizations, and several nursing student organizations. Information is available in the Office of Student Services each semester.

## Other Financial Aid Programs

## ROTC Nursing Scholarships

To be eligible for an ROTC scholarship, an applicant must be a United States citizen and must be less than 25 years old on June 30 of the calendar year during which commissioning is scheduled.

Air Force ROTC Nursing Scholarships. These scholarships provide for payment of tuition and fees and for textbooks and a monthly allowance during the school year. For additional information, contact The University of Texas at Austin, Department of Air Force Science, 1 University Station C3600, Austin TX 78712.

Army ROTC Nursing Scholarships. These scholarships provide for payment of tuition and fees, a flat rate for textbooks, and a monthly allowance during the school year. Students must attend the Nursing Advanced Camp during the summer between the junior and senior years and work individually with a licensed BSN preceptor. Students may apply to the dean for independent study credit; applications are considered on a case-by-case basis. For additional information, contact The University of Texas at Austin, Department of Military Science, 1 University Station C3606, Austin TX 78712.

Navy ROTC Nursing Scholarships. These scholarships provide for payment of tuition and fees and for textbooks and a monthly allowance during the school year. For additional information, contact The University of Texas at Austin, Department of Naval Science, 1 University Station C3604, Austin TX 78712.

## Vocational Rehabilitation

The Texas Workforce Commission Workforce Solutions Vocational Rehabilitation Services provides assistance with college education and employment resources to adults and students with disabilities who are eligible for the service. More information is available at https:// twc.texas.gov/jobseekers/vocational-rehabilitation-adults

## Academic Advising

All nursing students must come to the School of Nursing before registration each semester for academic advising. Individualized academic advising is managed by the academic advisers in the Office of Student Services. In addition, group advising is offered to assist students with clinical schedules and particular requirements of the upcoming semester.

## Student Organizations

Undergraduate students interested in nursing are eligible for membership in The University of Texas Nursing Students Association. Through the association, nursing students are represented on campus committees and in campus activities involving all students. The local association is affiliated with the Texas Nursing Students' Association and the National Student Nurse Association. In addition, students can join the Longhorn Association for Men in Nursing, the African American Nursing Students Association, the Hispanic Nursing Students Association, and the Student Community of Asian Nurses.

Qualified students in the School of Nursing are also eligible for membership in Epsilon Theta Chapter of Sigma Theta Tau International Honor Society of Nursing.

## Admission and Registration

## Admission

## Admission to the University

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

## Admission to the Professional Sequence in Nursing

Application to the School of Nursing is made concurrently when applying to the University. Acceptance into the School of Nursing is based on (1) the strength of the student's academic background; (2) participation in extracurricular and work activities, especially related to community service and health care; and (3) the quality of the essay.

## Internal Transfer

The University of Texas at Austin students currently enrolled in other departments who want to change majors to nursing must attend a School of Nursing Internal Transfer Information Session. To be considered for change of major admission, the student must have completed Chemistry 301, Principles of Chemistry I, Statistics and Data Sciences 302, Data Analysis for the Health Sciences, and Biology 311C, Introductory Biology I. Additionally, students should be on schedule to graduate within four years and have a University grade point average of 3.00. Internal transfer requests may be very competitive, and admission is offered only on a space-available basis. Interested students should consult The University of Texas at Austin policy for Transfer from One Division to Another within the General Information Catalog, as well as the School of Nursing website for current details about the transfer process and available information sessions.

## External Transfer

All students who wish to transfer to the University from another institution must apply to the University Office of Admissions as described in the General Information Catalog. Transfer students must meet the same requirements as University students seeking admission to the School of Nursing and select nursing as their first choice major. To be considered for transfer admission to the School of Nursing, students must have completed 30 semester hours of transferable coursework and are advised to attend an information session. Transfer admission to the School of Nursing is competitive. Transfer applications are competitively reviewed, and admission is offered on a space-available basis. Since space is limited, applicants are strongly encouraged to indicate a second choice of major in case they are not admitted to the School of Nursing.

A student who wishes to transfer into the upper-division nursing coursework from another nursing school after starting nursing clinical or lab work must make an appointment with the School of Nursing, Office of Student Services for academic advising and transcript review. Students from other nursing schools must consult an adviser in the School of Nursing before applying for admission to the University. In addition to meeting the regular University admission requirements, the student must apply for admission to the School of Nursing. He or she must submit an official transcript from each institution attended, letters of recommendation from faculty members at the previous nursing school, and course information for all completed nursing courses. Requests to transfer into upper division at the School of Nursing are approved on a limited, space-available basis.

Transfer students must meet the same requirements as University students seeking admission to the professional sequence; however, they
are considered for admission to the School of Nursing only if they are admitted to the University.

## Registration

The General Information Catalog gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule, published before registration each semester and summer session, includes registration instructions, advising locations, and the times, places, and instructors of classes. The Course Schedule and the General Information Catalog are published on the University Registrar's website.

## 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 40 hours a week in either a long-session semester or a summer term. During the final month of the last semester of the program, students are enrolled in a full-time preceptorship and are unable to have outside employment.
4. Students may be employed in area hospitals and clinics as nursing assistants, performing functions for which they have been trained by the employing institution and for which the institution has a clearly discernible policy, either in writing or by precedent, defining the scope of these functions. It is illegal for unlicensed students to practice as professional nurses.

Students should be aware that (1) the School of Nursing assumes no responsibility for their activities as employees of an agency; (2) they are personally responsible and liable for any activity they participate in while employed; (3) professional liability insurance purchased by students is valid only in their student role, not in their employment role; (4) individuals who practice illegally may jeopardize their future careers, since those who are convicted of violating the Nurse Practice Act may not be eligible to write state board examinations and subsequently to be licensed.

Students employed in an agency are personally and professionally responsible for engaging only in those activities that fall within their job descriptions as non-licensed workers (such as aides). They have a responsibility to refuse to participate in activities that they have not been legally licensed to perform, such as giving medications and assuming total responsibility for a nursing unit.
5. Students should be familiar with the Student Standards of Conduct given in subchapter 11, Appendix C, "Student Discipline and Conduct," General Information, as well as the University Honor Code and the School of Nursing Honor Code. Students are expected to read and sign a pledge to abide by the Code of Honor.

## School of Nursing Honor Code

The profession of nursing has a legacy of public respect and trust. We provide specialized care for the health needs of individuals and the community with integrity, honesty, compassion, and state-of-the-art
knowledge and skills. Learning and practicing responsible and ethical professional behavior is a vital part of professional education.

As a student in The University of Texas at Austin's School of Nursing, I pledge myself to be honest in all of my student activities including, but not limited to, all of my scholastic work and interactions with patients, members of the community, faculty, and peers. Furthermore, I will not use any substance prior to or during my interaction with patients that could alter my judgment or ability to render safe care: this includes but is not limited to any use of alcohol, illegal drugs, and prescription or over-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

## Progression Requirements for Nursing Majors Prior to Nursing Clinical or Lab Courses

Students must maintain a University grade point average of at least 2.80 in required nursing degree coursework prior to taking nursing courses with a clinical or lab component. In addition, students must attain a grade of at least $C$ - in each natural science course. Courses in which the student receives a grade of less than C-, Q, or W must be repeated in residence to resume progression toward completing the degree. Students may not enroll more than twice in any one natural science course (including $Q$ or $W$ ) and should take a full academic load of at least 12 semester hours of coursework when repeating a course. For the student to continue in the nursing major, no more than two natural science courses may be repeated. A student may not repeat for credit a course in which a grade of $C$ - or better was awarded.

Students must meet all progression requirements prior to taking nursing courses with a clinical or lab component. Students who do not meet these requirements will not be permitted to continue in the nursing major. Students are advised every semester about the coursework needed to complete the degree in four academic years.

Students are placed on academic probation in the School of Nursing if they receive a grade of $D+, D, D$ - or $F$ in any nursing or natural science course. Students are subject to dismissal from the nursing major if they receive more than one $D+, D, D$-, or $F$ during a semester or receive a second $D+, D, D-$, or $F$ while on academic probation.

## Progression Requirements and Performance Standards for Upper Division Nursing Courses

Patient safety is a critical element in every clinical course. Clinical errors related to patient care, including those near-miss incidents intercepted by the faculty, may interfere with a student's progression in the course and in the program. The standards of performance are described in course syllabi and clinical evaluation tools for clinical practicum courses.

A student must earn a grade of at least $C$ in each nursing course for the course to be counted toward degree requirements. Concurrent or sequential enrollment is required as stated in each course description.

If the student is not on scholastic probation at the University, permission may be granted to repeat a required nursing course in which he or she failed to earn a grade of $C$ or better. To receive credit, the student must repeat the course at The University of Texas at Austin School of Nursing. The semester in which a course is repeated is at the discretion of the dean and is dependent on the space available.

A student may repeat a nursing course only once. If the student does not earn a grade of at least $C$ upon repeating the course, he or she cannot continue in the School of Nursing. If, while repeating the course, the student drops the course or withdraws from the University at a time when the student's performance in the course is considered to be inferior to that required for a grade of $C$, he or she may not re-enroll in the course or continue in the School of Nursing.

No more than two nursing courses may be repeated.
A student may not repeat for credit a course in which a grade of $C$ or better was awarded.

As a prerequisite to medication administration in clinical nursing courses, students are required to pass a medications and calculations test with a grade of at least 90.

## Compliance Requirements for Clinical Courses

Students must provide documentation confirming completion of compliance requirements prior to participating in clinical nursing courses. Log in to the School of Nursing website for more information.

## Medical Clearance Requirements

Clinical experiences for nursing students are provided in hospitals and other health care agencies with which the School of Nursing is affiliated. A number of these facilities require that nursing students assigned to them have evidence of good health and immunity to certain diseases. Students must provide evidence of compliance with immunization requirements before they begin clinical nursing courses. Students must also submit a health certificate completed by a qualified health care provider prior to starting their first clinical rotation.

## Criminal Background Checks

Students are required to submit to the Texas Board of Nursing criminal background checks before beginning the program. Information about the process is available on the School of Nursing Web site. Students with concerns about eligibility are urged to seek official determination from the Texas Board of Nursing. Further, we urge students with concerns to seek the background check six months in advance of enrollment to allow sufficient time for investigation and Texas Board of Nursing approval.

## Employment Background Check

Agencies in which nursing students are placed for clinical work require an employment background check. Directions to complete this requirement are on the School of Nursing Web site listed with other compliance requirements.

## Drug Screen

Clinical agencies require that a drug screen be completed prior to participating in patient care. Students are to follow directions for the drug screen shown with the compliance requirements on the School of Nursing website.

## CPR and First Aid Requirements

Current certification in cardiopulmonary resuscitation and first aid are required for participation in clinical nursing courses. The CPR course must be the Basic Life Support for Healthcare Providers and include Automatic External Defibrillator from the American Heart Association. Online courses for CPR are not acceptable. The basic first aid certification must be acquired from the American Heart Association (Heartsaver First Aid) or from a local emergency medical services agency (National Safety Council First Aid). Students must provide evidence of
current certification before they begin clinical courses. Students who are registered nurses, licensed vocational nurses, or emergency medical technicians are not required to provide evidence of first aid certification.

## Professional Liability Insurance

Professional liability insurance is required of all students enrolled in the professional sequence in the School of Nursing. Students will be billed through the "What I Owe" system for liability insurance each semester they are participating in clinical courses. All student policies expire on the date of graduation.

## Training Modules

All students must complete the following modules on the School of Nursing Intranet Site before participating in clinical nursing coursework: online orientation, facilities training, and training on the Health Insurance Portability and Accountability Act (HIPAA).

## Health and Hospitalization Insurance

Students are required 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. The professional liability insurance students buy as a part of compliance for participating in clinical courses does not cover health care expenses.

## Uniforms and Other Expenses

Students must purchase uniforms, shoes, name badges, and other supplies before taking the first clinical nursing course. Specific requirements and information about suggested equipment are distributed as a part of orientation and will be available in course syllabi.

## Transportation

Upper-division clinical courses require students to go to various clinical facilities and community sites at varied hours. Students must have their own transportation.

## Honors

## University Honors

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

## Graduation with University Honors

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

## Nursing Honors Program

The Nursing Honors Program is designed to enhance the educational experience of high-achieving undergraduate nursing majors by focusing on the development of scholarship. Students must apply to this competitive honors program, which begins in the sophomore year. Admission to the program requires approval of the Honors Program Committee.

Students in the program must complete Nursing 321H, 117H, 264H, and 377 H . These courses provide students with enhanced mentorship experiences. Students must complete an honors project with a focus on research, ethics, or leadership. Students are also required to take Nursing 337, Independent Study with their mentor with the focus on their honors project. The statement "Special Honors in Nursing" appears on the transcript of each student who completes the honors program.

## Sigma Theta Tau International

Epsilon Theta Chapter of Sigma Theta Tau International Honor Society of Nursing, was chartered at the University on May 16, 1980. Membership in Sigma Theta Tau is an honor conferred by active chapters on students who demonstrate academic excellence and on nursing leaders who advance the scientific base of the profession. The society recognizes superior achievement in many areas, facilitates the development of leadership qualities, fosters high professional standards, encourages creative work, and strengthens commitment to the ideals of nursing

Each year qualified students in the undergraduate and graduate programs may apply for consideration for membership. Invitations to membership are extended to students who are in the top 35 percent of their graduating class. Undergraduates must have a grade point average of at least 3.00; graduate students must have a grade point average of at least 3.50 . Qualified community nursing leaders may also be invited to membership. Applications for membership in Epsilon Theta Chapter are available from the Office of Student Services in the School of Nursing.

At the induction ceremony each spring, Epsilon Theta Chapter announces its awards, grants, and scholarship recipients. A scholarship is awarded to an upper-division nursing student who has demonstrated leadership potential and outstanding scholastic achievement. The chapter also awards start-up grants annually to Epsilon Theta Chapter members and/or students to fund research projects.

Sigma Theta Tau International, with active chapters on more than four hundred campuses in the United States and in several other countries, offers opportunities for involvement at the chapter, regional, national, and international levels.

## Credit by Examination

The faculty believes that each educational experience should build on previous achievements to encourage fulfillment of each student's potential. Therefore, all students and registered nurses are urged to seek advice on arranging a logical sequence of work. The faculty subscribes to the principle that a candidate's competence should be validated and that credit should be awarded on the basis of satisfactory achievement on examinations as well as in the classroom. Twenty-four of the last 30 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 the General Information Catalog.

## Graduation

## Special Requirements of the School

All students must fulfill the General Requirements (p. 19) for graduation. Students in the School of Nursing must also fulfill the following requirements:

1. All University students must have a grade point average of at least 2.00 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

Each semester during group advising, students conduct their own degree audits, which provide information about the courses they must take and the requirements they must fulfill to receive their degree. The degree audit is normally done according to the catalog in effect when the student was admitted to the School of Nursing, but the student may choose to have it done according to any catalog under which he or she is eligible to graduate. Rules on graduation under a particular catalog are given in Graduation Under a Particular Catalog (p. 20). It is the student's responsibility to fulfill all catalog requirements. The Office of Student Services is available to provide guidance to students as needed.

## 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 Services. 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

Upon graduation from the BSN program, students seeking licensure as a registered nurse must register to take the National Council Licensure Examination (NCLEX). To ensure eligibility, the Texas Board of Nursing will rerun the criminal background check that was conducted prior to beginning the nursing program. In addition, students must meet all of the eligibility requirements for licensure as indicated by the Texas Board of Nursing. To determine eligibility, students should consult the Texas Board of Nursing website. Students with questions or concerns are encouraged to contact the Board of Nursing directly prior to enrollment in the nursing program and consult with the Assistant Dean for Student Services at the School of Nursing.

## Degrees and Programs

## Programs in the School of Nursing

The School of Nursing offers an undergraduate program leading to the Bachelor of Science in Nursing degree and graduate programs leading to the Master of Science in Nursing degree, the Doctor of Philosophy degree with a major in nursing, and the Doctor of Nursing Practice degree. The undergraduate program is designed for students who wish to enter the profession of nursing. Students who have earned an associate's degree in nursing and wish to obtain the baccalaureate degree may apply as transfer students. The master's and doctoral degree programs are designed to prepare professionals for advanced nursing practice, leadership, and research in nursing.

The baccalaureate program is accredited by the Commission on Collegiate Nursing Education (CCNE) and the Texas Board of Nursing.

## Objectives of the Bachelor's Degree Program

The graduate of the baccalaureate program in nursing is expected to

1. Demonstrate critical thinking to integrate knowledge from nursing, biological and behavioral sciences, and the humanities in assessing, planning, implementing, and evaluating nursing care.
2. Apply critical thinking and clinical judgment within a problem solving process to safely meet the health care needs of individuals, families, aggregates, populations, and communities in a variety of settings.
3. Exhibit personal responsibility and accountability for practicing nursing according to professional, ethical, and legal practice standards (e.g., Texas Nurse Practice Act, Texas Occupation Code).
4. Participate in the delivery of health care through inter-professional collaboration, delegation, coordination, case management, and consultation.
5. Participate in nursing and inter-professional efforts to improve the delivery of high quality, safe and culturally sensitive health care to diverse individuals, families, aggregates, populations, and communities.
6. Demonstrate core professional values to complement continued personal and professional growth.
7. Critically appraise and apply research findings to demonstrate evidence-based nursing practice.
8. Analyze health policy and its effects on diverse individuals, families, aggregates, populations, communities, and health agencies
9. Integrate information and health care technology in nursing practice, administration, education, and research.
10.Utilize leadership skills to advance the profession of nursing and promote continuous improvement of the health care delivery system.

## Applicability of Certain Courses

 ROTC CoursesThe dean has the authority to substitute an equivalent air force science, military science, or naval science course or courses for a course or courses prescribed by the School of Nursing; core curriculum courses cannot be substituted. The dean can also make adjustments to compensate for any differences in semester hour value. The total number of semester hours required for the degree remains unchanged.

## Correspondence and Extension Courses

Credit earned by correspondence or extension from the University or elsewhere will be counted toward a Bachelor of Science in Nursing degree if approved by either the assistant dean for student services or the assistant dean for undergraduate programs. A student planning to meet pre-professional course requirements with correspondence or extension courses should consult the Office of Student Services to ensure enrollment in appropriate courses. Credit for professional sequence courses may not be earned by correspondence or extension.

## Bachelor of Science in Nursing

This program consists of 125 to 126 semester hours of coursework. All students must complete the University's Core Curriculum (p. 23). In some cases, a course that is required for the Bachelor of Science in Nursing may also be used to fulfill a requirement of the core curriculum. In order to meet prerequisites, students must take most of the nursing courses in a specific sequence. Upon completion of the program, students are
awarded the Bachelor of Science in Nursing degree and have fulfilled the prescribed course of study and clinical practice required to take the National Council Licensure Examination (NCLEX) for licensure as a registered nurse.

## Foreign Language Requirement

Students may fulfill the foreign language component of the University's basic education requirements by completing two years of a single foreign language in high school, by earning an appropriate score on one of the placement examinations administered by the University, or by completing two semesters of college coursework in a single foreign language in addition to the degree requirements given below. If the foreign language requirement will be fulfilled by transfer credit, credit by examination, or extension or correspondence courses, it must be fulfilled before the first semester of the student's senior year. Nursing 354 may not be counted toward the foreign language requirement. For students who take college coursework to complete the foreign language requirement, Spanish is recommended.

## Flag Requirements

In the process of fulfilling the requirements for the Bachelor of Science in Nursing degree, students must fulfill flag requirements. Students must earn credit for one flag in ethics, one flag in global cultures, one flag in cultural diversity, one flag in independent inquiry, one flag in quantitative reasoning, and three flags in writing.

Courses with flags are identified in the Course Schedule. For additional information about flag requirements, see Additional Basic Education Requirements (p. 23).

## Suggested Arrangement of Courses

| First Year |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| First Term | Hours | Second Term | Hours | Summer Term | Hours |
| RHE 306 |  | 3 BIO 311C |  | 3 GOV 310 L | 3 |
| CH 301 |  | 3 NTR 306 |  | 3 American History Core Course | 3 |
| SDS 302 |  | $\begin{aligned} & 3 \text { E 316L, 316M, 316N, } \\ & \text { or 316P } \end{aligned}$ |  | 3 |  |
| UGS 302 or 303 |  | 3 PSY 301 |  | 3 |  |
| Performing Arts Core Course |  |  |  |  |  |
|  |  | 15 |  | 15 | 6 |
| Second Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours |  |  |
| Core Course |  |  |  |  |  |
| BIO 446L |  | 4 N 224 |  | 2 |  |
| BIO 326M |  | 3 N 127P |  | 1 |  |
| N 310 |  | 3 N 321 |  | 3 |  |
| PSY 304 or HDF 313 and HDF 113L |  | -4 BIO 365S |  | 3 |  |
|  |  | BIO 165 U |  | 1 |  |
|  |  | GOV 312L or 312P |  | 3 |  |
|  | 16-17 |  | 16 |  |  |
| Third Year |  |  |  |  |  |
| First Term | Hours | Second Term | Hours |  |  |
| N 356 |  | 3 N 265 |  | 2 |  |
| N 256P |  | 2 N 365P |  | 3 |  |
| N 325 |  | 3 N 255C |  | 2 |  |
| N 325P |  | 3 N 157P |  | 1 |  |
| N 264 |  | 2 N 223 |  | 2 |  |
|  |  | N 250 |  | 2 |  |
|  |  | PHM 338 |  | 3 |  |
|  | 13 |  |  | 15 |  |

Fourth Year

| First Term | Hours | Second Term | Hours |
| :---: | :---: | :---: | :---: |
| N 266 |  | 2 N 275 | 2 |
| N 366P |  | 3 N 375P | 3 |
| N 255D |  | 2 N 274 | 2 |
| N 355P |  | 3 N 377 | 3 |
| N 354 |  | 3 N 277 P | 2 |
| N 273 |  | 2 N 279 P | 2 |

Total credit hours: 125-126

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the School of Nursing: Nursing (N).

# College of Pharmacy 

M. Lynn Crismon, PharmD, Dean<br>Samuel M. Poloyac, PharmD, PhD, Dean Designate<br>W. Renee Acosta, MS, Associate Dean<br>Diane B. Ginsburg, PhD, Associate Dean<br>John H. Richburg, PhD, Associate Dean<br>Bryson M. Duhon, PharmD, Assistant Dean<br>Jennifer L. Ridings-Myhra, M Ed, Assistant Dean<br>http://pharmacy.utexas.edu/

## General Information

## Accreditation

The College of Pharmacy has been a member of the American Association of Colleges of Pharmacy since 1927. The Doctor of Pharmacy degree program is accredited by the Accreditation Council for Pharmacy Education (ACPE); ACPE does not accredit master's and Ph.D. degrees in pharmacy.

## Mission

The University offers a four year Doctor of Pharmacy (Pharm.D.) as the sole entry-level, professional degree for the practice of pharmacy. Competitive admission to the program occurs after the completion of a series of required prepharmacy courses. This program offers a course of study in the biomedical, pharmaceutical, clinical, and social and behavioral sciences designed to provide the state and the nation with pharmacists who are scientifically educated 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 has evolved from a role primarily in distribution of medication toward a patient-centered care model. The patient-centered care model is a process through which a pharmacist interacts with the patient and other health care professionals collaboratively in the collection, assessment, planning, implementation, and follow-up 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-centered 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 that includes interprofessional collaborative practice.

The professional curriculum is designed to prepare pharmacy graduates to provide patient-centered pharmaceutical care in a contemporary interprofessional collaborative practice setting, whether a community pharmacy, an ambulatory clinic, a hospital, managed care, or a longterm 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 or post Pharm.D. residency training. These objectives are pursued through a balanced program of study in pharmaceutics, medicinal chemistry, pharmacology, therapeutics, pharmacy administration, social and behavioral sciences, and the humanities, as well as a structured clinical and professional practice experiential program. The holder of a professional degree from The University of Texas at Austin has received an education and training as sophisticated as any available in the health professions.

The College of Pharmacy has conducted a joint Pharm.D. degree program with the University of Texas Health Science Center at San Antonio since 1974. Students who complete their P3 and P4 experiential courses at the Health Science Center are considered part of this program and receive a degree awarded jointly by the two institutions.

The college has educational affiliations with several other academic health institutions, health-systems, and pharmacy organizations through its five Texas regional internship areas - Austin/Temple/Waco, Dallas/Ft. Worth, Houston/Galveston, the Rio Grande Valley, and San Antonio.

The college seeks to encourage the belief that education is ongoing and lifelong and that all levels of professional education must form a continuum with professional practice and patient care. To meet this objective, the college provides postgraduate educational programs and develops innovative programs of training through continuing education for the roles pharmacists may be called on to fill as a result of changes in the patterns of delivery of pharmaceutical services.

In addition to the Pharm.D. degree, the University offers the Master of Science in the Pharmaceutical Sciences, and the Doctor of Philosophy (Ph.D.) with a major in the Pharmaceutical Sciences. The College of Pharmacy also participates in interdisciplinary Ph.D. programs in Cellular and Molecular Biology and in Neuroscience. In collaboration with The University of Texas Health Science Center at San Antonio and The University of Texas at San Antonio, the College offers an interinstitutional Ph.D. program with a major in Translational Science. These programs are described in the Graduate Catalog.

## History

For more than a century, the University's College of Pharmacy has provided education and training for men and women as pharmacy practitioners, scientists, professional leaders, and responsible citizens. Eleven students constituted the first class when a school of pharmacy was created in the fall of 1893 at the University of Texas Medical Branch at Galveston. In 1927, the program was reorganized as the College of Pharmacy and moved to the Austin campus. The college shared quarters with other University programs until 1952, when the first pharmacy building was opened. Instruction now takes place in facilities designed for the pharmacy program and located near the center of the Austin campus, and on the campus of the University of Texas Health Science Center at San Antonio.

The first undergraduate program consisted of two sessions, each seven months in length. The current Pharm.D. degree program requires six years in pre-professional subjects, biomedical and pharmaceutical sciences, and professional experience courses. Graduate study became available in 1948 with the institution of a Master of Science in Pharmacy degree program. Today programs are also available that lead to the Doctor of Philosophy in the pharmaceutical, administrative, and clinical sciences. More than 8,000 students have graduated from the programs offered by the college; many have achieved state, national, and international prominence in pharmacy or in related health fields.

Academic leadership for pharmaceutical education at the University has been provided by eleven prominent educators, beginning with James Kennedy of San Antonio, who was appointed as a pharmacy professor and director of the Galveston program in 1893. He was succeeded by R. R. D. Cline, who for almost thirty years guided pharmaceutical education in Texas. When the school was moved to Austin in 1927, W. F. Gidley was named the first dean of the college. In 1947, Henry M. Burlage succeeded Professor Gidley as dean. He was succeeded in 1962 by Lee F. Worrell, who served until 1966. Carl C. Albers was acting dean until Joseph B. Sprowls was appointed dean in 1967. William J. Sheffield became acting dean upon the death of Professor Sprowls in 1971. He was succeeded in 1973 by James T. Doluisio, who served the college for 25 years. Steven

Leslie served as dean from 1998 until 2007, when M. Lynn Crismon assumed the leadership of the college.

University pharmacy students receive instruction in the basic biomedical sciences, the pharmaceutical sciences, pharmacy administration, and pharmacy practice in state-of-the-art academic and health care facilities. Pharmacy interns expand their professional practice knowledge and skills at clinical education sites in the Austin/Temple/Waco area, University of Texas Health Science Center at San Antonio, the University of Texas Southwestern Medical Center at Dallas, the Texas Medical Center in Houston, and The University of Texas Medical Branch at Galveston.

## Facilities

## The Pharmacy Building

In addition to well-equipped classrooms, laboratories, and offices, the pharmacy building provides a learning resource center, a television production laboratory and classrooms, and pharmaceutical technology laboratories with facilities for product development, pilot manufacturing, sterile production and quality control, and stability testing. The University Health Services Pharmacy also serves as a teaching laboratory for second-year pharmacy students while providing comprehensive pharmaceutical services to the student community. Space assigned to the college in the Biomedical Engineering Building, Dell Pediatric Research Institute, and the Health Discovery Building expands pharmacology, medicinal chemistry, and pharmaceutics research space.

## Pharmacy Facilities in San Antonio

The University of Texas Health Science Center at San Antonio has provided facilities for the education and training of pharmacy students, residents, and fellows since 1972. The McDermott Clinical Sciences Building on the Health Science Center campus, which houses the pharmacotherapy division of the college and the Pharmacotherapy Education and Research Center, provides a state-of-the-art distance education classroom, a student computer laboratory, research laboratories, and offices for faculty and staff members. The Division of Pharmacotherapy maintains a broad range of affiliation agreements with institutions in San Antonio that provide extensive training opportunities in a variety of practice settings. Research opportunities exist in the areas of infectious disease, oncology, anticoagulation, stroke prevention, and psychiatry.

## 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 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 about 350 contact hours of continuing education programming to more than 6,500 pharmacists across the United States.

## 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 digital video teleconferencing transmission of courses among the Austin campus, the Health Science Center at San

Antonio, and other sites in the University of Texas System, so that faculty members can teach students at two or more locations simultaneously. Most courses are recorded and made available by video streaming. The LRC also operates the Delgado Library, a multipurpose, nontraditional facility with individual and small-group study spaces, and seminar rooms.

The staff of the LRC provides faculty members and students with computer hardware and software consulting as well as advice on the use of media in the classroom. Facilities and equipment are available for video and data projection. The College of Pharmacy's website provides additional information and curriculum support for students and faculty members.

The electronic classrooms feature desktop computers with projection equipment and a full suite of software. The large distance-learning classroom supports notebook computer ports. Wireless high-speed Internet is available throughout the Pharmacy Building.

The goal of the Learning Resource Center is to provide the highest quality learning technology infrastructure and support services to students and faculty members.

## Libraries

The Life Science Library supports the teaching and research missions of the College of Pharmacy by providing access to an extensive array of print and electronic information resources. The library maintains extensive holdings in pharmacology, pharmaceutics, pharmacy administration, and medicinal chemistry, with supporting materials in medicine and nutrition. Biochemistry and medicinal chemistry material is complemented by the collections of the Mallet Chemistry Library. Medical material is supplemented by additional material in nursing, pediatrics, and psychiatry at the Perry-Castañeda Library. Extensive collections in the social sciences and business provide additional support for the interdisciplinary interests of health outcomes and pharmacy practice. Current journal holdings are primarily online, while books are acquired in print or digitally as eBooks.

The online Clinical Information Center (ClinIC), sponsored by the Life Science Library, provides electronic access to the complete resources of a drug information center. The center gives users access to significant electronic resources such as Micromedex, Access Pharmacy, PharmacyLibrary, AHFS Drug Information, Clinical Pharmacology online, Drug Facts \& Comparisons, LexiComp online, and the Cochrane Library of evidence-based reviews, in addition to databases such as Medline, International Pharmaceutical Abstracts, Web of Science, and SciFinder Scholar. These electronic resources are available for remote access through the University Libraries website, which offers a full range of databases, access to electronic journals, and links to other digital information sources. The libraries collaborate with the College of Pharmacy to select and integrate electronic resources into the pharmacy curriculum. Access to print information resources for students on rotation and at the College of Pharmacy Cooperative Program campus is provided through the University Libraries InterLibrary Services.

All units of the University Libraries offer reference service, circulation and reserve services, and interlibrary loan. Instruction in the use of information resources is provided in required pharmacy classes and by individual consultation.

## Financial Assistance Available through the College

Students entering the first year of the professional curriculum may be eligible for certain college-based scholarships, and information is provided to students regarding these scholarships upon matriculation.

Students who have completed the first year of the professional curriculum are eligible to apply for all scholarships and loans offered through the College of Pharmacy. Eligibility and application information is available at http://pharmacy.utexas.edu/students/financial-aid/ and in the Office of Student Affairs, Pharmacy Building 5.112.

Scholarship opportunities with the College of Pharmacy include Endowed Presidential Scholarships with a minimum of $\$ 2,500$, and other endowed scholarships with a minimum of $\$ 1,500$. Students must meet eligibility requirements, and in some cases additional criteria, to be awarded these scholarships. Additional college scholarships are funded by various pharmacy associations, individuals, employers, and organizations. These scholarships are awarded, as they become available, through The University of Texas College of Pharmacy at the direction of the college's Financial Aid Committee.

## Loan Funds

## The Klinck Family Loan Funds

These loan funds were established by the Klinck family of McAllen, Texas, to assist students in need of financial assistance. Emergency short-term loans, for a maximum of $\$ 500$ are available and must be paid back the same semester the loan is taken out. Long-term loans of up to $\$ 2,500$ are available to pharmacy students who demonstrate financial need. Students may apply for more than one loan, but except in unusual circumstances the loans will total no more than \$5,000. Visit the Klinck Family Loan Funds site for more information.

## Other Loan Funds

Other loan funds may be available to pharmacy students. Information about these loans is available from the Office of Student Affairs, Pharmacy Building 5.112.

## Student Services

## Academic Advising

Academic 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 have questions about degree requirements, the availability of course offerings each semester, and taking courses in proper sequence.

Advising for the University of Texas at Austin pre-pharmacy/ undergraduate students is provided by assigned academic advisors in their colleges and by the Health Professions Office in the College of Natural Sciences. University students interested in the profession of pharmacy should contact their office early in their college careers.

Pre-pharmacy students from outside the University should seek information from our College of Pharmacy website, from their institutional academic advisors or Health Professions Office, and from an admissions representative from the College of Pharmacy.

## Career Services

The college provides career counseling to students in the professional sequence of courses. Throughout the year, staff is available in the Office of Student Affairs to assist students in examining the career options available to them upon graduation.

In addition, a systematic exploration of professional career options is conducted as part of the foundations for professional development series of courses. Guest lecturers include successful pharmacists representing a variety of pharmacy practice models, other health care and regulatory settings, and careers in professional organizations,
education, research, and the pharmaceutical industry. All Pharm.D. students also undergo a CV Review and Mock Interview within the course sequence.

The College of Pharmacy, under the supervision of the assistant dean for student success, conducts a P4 senior interview day for graduating seniors. This event gives seniors an opportunity to interview for professional practice positions with major employers of pharmacists in Texas and throughout the nation. A workshop including mock interviews is conducted to prepare students for interviews and is held prior to the P4 senior interview day as a part of Senior Conference. A college-wide Career Day each fall, featuring major employers and residency programs, allows students in all years of the curriculum to interact with numerous pharmacist employers and explore practice opportunities.

The college also facilitates interaction between employers and professional students interested in obtaining competitive internships. More information on this process is provided to all students by the assistant dean for student success or the assistant dean for experiential and professional affairs.

A limited number of competitive internships both in and outside of Texas are available by application only. Information is available in the Office of Student Affairs, Pharmacy Building 5.112; from individual faculty members; and via the student's own internship search.

As a complement to the assistance available from the college, the University's Vick Center for Strategic Advising and Career Counseling in the School of Undergraduate Studies provides comprehensive career services to all students. The center offers professional assistance to students in choosing or changing their majors or careers, seeking an internship, and planning for a job search or graduate study.

The University makes no promise to secure employment for each graduate.

## Student Organizations

## American Association of Pharmaceutical Sciences (AAPS)

The University of Texas at Austin Student Chapter of AAPS was initiated in 2003 with the primary goal of increasing awareness of educational and career opportunities in the pharmaceutical sciences among The University of Texas at Austin College of Pharmacy students. The organization fosters participation at the national AAPS Annual Meeting and Exposition.

## Academy of Managed Care Pharmacy, UT Chapter (AMCP)

The University of Texas Chapter of AMCP was established in 2019. It is an organization whose members share the common goal of ensuring positive health care outcomes through quality, accessible, and affordable pharmaceutical care.

## American Pharmaceutical Association Academy of Students of Pharmacy (UT-APhA-ASP)

In December, 1951, the Longhorn Pharmaceutical Association was organized as an association jointly representing the student branches of the American Pharmaceutical Association and the Texas Pharmaceutical Association. Renamed in 1998, the association sponsors service projects and social events and serves to develop professionalism in pharmacy students.

## Asian Pharmacy Students Association (APSA)

The mission of the Asian Pharmacy Students Association, established at the University in 1999, is to promote unity among pharmacy students who have common interests, values, and backgrounds, in order to help them achieve educational, professional, and personal excellence.

## Christian Pharmacists Fellowship International (CPFI)

This group seeks to identify and enroll all Christian pharmacists, wherever they practice, and to assist them in creating opportunities for fellowship. CPFI is the first international organization of evangelical Christian pharmacists established with a focus on integrating the spiritual and vocational dimensions of the pharmacist's role.

## Hispanic Association of Pharmacists (HAP)

The primary goals of the Hispanic Association of Pharmacists are to assist in the recruitment and retention of qualified students in the College of Pharmacy, to provide health care education to the community, and to maintain open communication channels between students and the college. Membership is open to pre-pharmacy and professional students.

## International Society of Pharmacoeconomics and Outcomes Research, UT Chapter (UT-ISPOR)

This group's mission is to provide an environment in which students can share knowledge in pharmacoeconomics and health outcomes research. It brings together students of pharmacoeconomics and outcomes research and members of the pharmaceutical industry, healthrelated organizations, and academia; acts as a resource for students interested in pharmacoeconomics and outcomes research; and provides an opportunity for students to become familiar with the work of ISPOR and to be represented in its affairs.

## Kappa Epsilon (KE)

Kappa Epsilon is a national professional fraternity established to promote careers for women in pharmacy, but membership is open to women and men. Xi chapter, established in 1943, sponsors service and professional projects, including a focus on breast cancer awareness, poison prevention working with elementary schools, as well as social events and other extracurricular activities.

## Longhorn Prepharmacy Association (LPPA)

LPPA comprises all prepharmacy students at The University of Texas at 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.

## National Community Pharmacists Association, UT Chapter (NCPA)

NCPA is a national professional organization representing the interests of independent community pharmacists. The student chapter sponsors projects and events designed to foster the entrepreneurial spirit among future practitioners. The national association has a loan program available to student members, as well as several competitive scholarships and research grants.

## Pharmacy Council

The Pharmacy Council is composed of officers and representatives of the sponsored student organizations in the College of Pharmacy and elected student representatives from each of the professional pharmacy classes. The president, financial director, and senate representative
of the council are also members of the Senate of College Councils, and a member of the council serves as the college's representative to Student Government. Acting as liaison between the student body and the Office of the Dean, the Pharmacy Council works to ensure the equitable consideration of student concerns and problems. The council sponsors orientation programs for new pharmacy students, college and Universitywide programs, events that promote student and faculty interaction, and community service activities for medically underserved citizens throughout the state.

## Pharmacy Graduate Students' Association (PGSA)

This association conducts activities that promote the general welfare of pharmacy graduate students. Its chief purposes are to encourage and facilitate graduate student communication and interaction; to gather and disseminate information important to pharmacy graduate students; to represent pharmacy graduate students to the University community; and to promote pharmaceutical education at the undergraduate level.

## Phi Delta Chi (PDC)

Lambda chapter of Phi Delta Chi, established at the University in 1905, was reactivated in 1956. Phi Delta Chi is a professional pharmaceutical fraternity of national standing. Membership is open to qualified professional students who are interested in promoting leadership, scholarship, and professional ethics in the field of pharmacy.

## Phi Lambda Sigma (PLS)

Psi chapter of Phi Lambda Sigma, the national pharmacy leadership society, was established at the University in 1989. Students selected for membership must be of high moral and ethical character, must have demonstrated dedication, service, and leadership in the advancement of pharmacy, must have completed at least 90 semester hours of scholastic work, and must be in good academic standing as defined by the College of Pharmacy.

## Rho Chi

Nu chapter of Rho Chi, the national pharmaceutical honor society, was established at the University in 1930. Charters for chapters of this organization are granted only to groups in colleges that are members in good standing of the American Association of Colleges of Pharmacy. Eligibility for membership in the society is based on scholarship, character, personality, and leadership. Students selected for membership must have a pharmacy grade point average of at least 3.20 , must be in the top 20 percent of their class, and must have completed the first professional year of the pharmacy curriculum. All candidates must be approved by the Dean of the College of Pharmacy.

## San Antonio Student Pharmacists Association (SASPA)

The San Antonio Student Pharmacists Association (SASPA) was formed in the spring semester of 2010. This organization serves as a venue to bring The University of Texas at Austin College of Pharmacy students located in the San Antonio region together to impact the community and to promote the profession of pharmacy.

## Student Industry Pharmacists Organization (SIPhO)

This group's mission is to advance the experience of student pharmacists interested in industry careers by promoting knowledge, resources, academic support, and employment opportunities.

## Student Pharmacist Recovery Network (SPRN)

The Students of Pharmacy Recovery Network (SPRN) is a program for pharmacy students at the University of Texas designed by conscientious students, faculty members, and staff members of the College. The purpose of the SPRN is to act as a concerned intermediary by assisting pharmacy students having personal problems including emotional stress, alcohol or other drug abuse problems, or a combination of these. SPRN students, faculty, and staff members are able to refer others to the appropriate University and Austin resources that best address their particular needs.

## Student National Pharmaceutical Association, UT Chapter (SNPhA)

The purpose of the SNPhA is to plan, organize, coordinate, and execute programs geared toward the improvement of the health, educational, and social environment of the minority community.

## Student Chapter of the American College of Clinical Pharmacy, UT Chapter (UT-SCCP)

The mission of SCCP is to adopt the purposes of the American College of Clinical Pharmacy. SCCP is focused on giving students exposure to clinical pharmacy, research, and academia. Students have opportunities to hear from and research with many different clinical pharmacists and researchers.

## Student Society of Health-System Pharmacists, UT Chapter (UTSSHP)

The student chapter of the Texas Society of Health-System Pharmacists is an organization for students interested in institutional or healthsystem 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.

## Legal Requirements for Professional Practice

Upon matriculation to the first professional year in the College of Pharmacy, each student must apply to become an intern trainee with the Texas State Board of Pharmacy. Each student must be registered as an intern trainee, and subsequently as a student-intern, in order to acquire, through pharmacy courses, the internship hours necessary for licensure upon graduation as a pharmacist in Texas.

Students should be aware that the process of registration as an intern includes a criminal history and fingerprint check. The existence of a criminal record may preclude the student from registration as an intern, completion of experiential courses in the curriculum, and/or from subsequent licensure as a pharmacist in Texas. However, the Texas State Board of Pharmacy may grant limited internship status under certain conditions to those with prior convictions. It is possible that health care facilities in which students are placed for experiential coursework may mandate an additional background check and/or drug screen. Students assigned to these facilities must comply with all such requirements. If a student cannot be placed in practice facilities because of prior convictions that appear on any background check, or because of a positive drug screen, his or her graduation may not be possible or may be significantly delayed.

After completing the first professional year (at least 30 semester hours), students registered as student-interns may earn internship hours toward licensure not only through professional sequence pharmacy courses but also outside the academic program through employment in certain practice settings. Internship hours gained outside the College of Pharmacy curriculum may not replace any portion of the experiential program required for graduation.

Students are required to inform the Student Affairs Office of any change in status that may affect intern registration or the ability to be placed in practice (experiential) sites.

Graduates of the College of Pharmacy are eligible to apply to the Texas State Board of Pharmacy for licensure as pharmacists. Licensure exams may be taken shortly after graduation. Postgraduate internship experience is not currently required for Texas licensure but may be required for licensure in other states.

Additional information about requirements for pharmacy licensure in Texas is available from the Texas State Board of Pharmacy.

Intern registration and pharmacist licensure requirements are subject to change by the Texas State Board of Pharmacy. Students and graduates must meet current requirements, even if they differ from those described above.

## Graduate Degrees (Research)

Graduate programs leading to the Master of Science in the Pharmaceutical Sciences and the Doctor of Philosophy in the Pharmaceutical Sciences or Translational Science are offered through the Graduate School and described in the Graduate Catalog. The graduate student may specialize in one of six specialized tracks: chemical biology and medicinal chemistry, pharmacology and toxicology, molecular pharmaceutics and drug discovery, pharmacotherapy, health outcomes, or translational science. The goal of graduate study in the College of Pharmacy is to develop the intellectual breadth and specialized training necessary for a career in teaching, research, or advanced professional practice. Emphasis is placed on the knowledge, methods, and skills needed for scholarly teaching, execution of original research and problem solving, intellectual leadership, and creative expression.

## Admission and Registration

## Admission

## Admission to the University

For the College of Pharmacy's Pharm.D. program, admission and readmission are the responsibility of the dean of the College as delegated by the University's director of admissions. Students accepted to the Pharm.D. Program will be processed for admission to the University (if not already enrolled at The University of Texas at Austin).

## Admission to the Professional Curriculum

Admission to the University in no way implies or guarantees admission to the professional curriculum. No student may begin the professional curriculum until he or she has been admitted to the professional curriculum in pharmacy by the dean, following recommendation by the Admissions Committee of the College of Pharmacy, according to the procedures outlined in this section regarding admission. All students must meet the admission requirements given in the catalog in effect at the time of application. If the number of eligible applicants to the professional curriculum exceeds the number that available facilities
can accommodate, final selection is made by the college Admissions Committee and the dean.

The College of Pharmacy uses PharmCAS, the national Pharm.D. application system. All student applications must go through PharmCAS, and those accepted for enrollment in the college will be processed for direct admission to the University.

Students who are enrolled in a pharmacy program at another institution and who wish to transfer to the University should follow the normal Pharm.D. application process. Upon admission to the University and the professional curriculum, the student may request advanced standing in the pharmacy curriculum. Placement is contingent on availability of space and on transcript evaluation to determine University equivalencies for the student's coursework.

As a condition of admission to the college, each student must sign a statement that he or she agrees to accept assignment to any one of the college's experiential (internship) regions throughout the state. Cooperative arrangements for pharmacy education exist with academic units and health care institutions in the following internship regions: Austin/Temple/Waco, Dallas/Fort Worth, Galveston/Houston, and San Antonio. Experiential regions may be added or deleted at any time based on the availability of resources.

Students assigned to San Antonio must spend the last two years of the professional program in that region. Students assigned to the other regions spend only the final year of the program (the fourth professional experiential year) in their assigned region.

Students are assigned to experiential regions through a computergenerated random assignment system that takes students' ranked preferences into account. Since most students relocate to experiential regions outside the Austin area, region assignment occurs during the latter part of the first professional year to allow students adequate time to make personal and financial arrangements. There are no exceptions to the region assignment process. If a student fails to agree to accept assignment to any region, he or she will not be admitted to the college.

## Admission to the First Professional Year

Admission to the professional curriculum is competitive. The application process is conducted via the national Pharm.D. admissions program, PharmCAS, as specified on the PharmCAS website and linked via the College of Pharmacy.

## Basic Admission Criteria

1. Scholarship, as indicated by grade point average and Pharmacy College Admission Test (PCAT) scores, including writing sample scores, are submitted via PharmCAS. Scores more than three years old are not accepted.
2. Essay as specified in the PharmCAS application process.
3. Letters of recommendation submitted via PharmCAS from people who know the applicant well professionally, especially pharmacist employers.
4. Transcripts of all academic work submitted via PharmCAS.
5. A résumé submitted via PharmCAS that provides details about the applicant's professional, organizational, volunteer, and service experience.

## Additional Personal Factors

The information specified below is submitted either via PharmCAS or through the college's supplemental application.

1. Pharmacy and other related work experience
2. Organizational, service, and volunteer activities that demonstrate community involvement and leadership potential
3. Teaching, tutoring, and mentoring experience
4. Research experience
5. Honors and awards
6. Interview. Applicants are screened for interviews based on academic record, direct work experience in the profession, special life circumstances, and any other compelling factors. If the applicant is invited for an interview, then other factors are considered; these include but are not limited to the following:
a. Knowledge of and motivation for pharmacy as a career
b. Lifelong learning strategies
c. Critical thinking skills
d. Communication skills
e. Compassion and commitment to care
f. Respect toward others
g. Organizational efficiency
h. Integrity and ethical reasoning
i. Relationship-building skills
j. Leadership skills
k. Teamwork
7. Special life circumstances; these include but are not limited to the following:
a. Single parent
b. Socioeconomic status of family
c. First generation attending college
d. Overcoming adversity
e. Resident of an underserved area of the state or an area of Texas with a health professions shortage
f. Race and ethnicity
g. Cultural background

Because the University is a public institution, preference is given to applicants who are legal residents of Texas and to applicants from states without colleges of pharmacy. Applicants are strongly encouraged to examine the admission statistics published by the college on its admissions website.

## Application Deadlines

The deadline to apply for admission to the college is specified on the PharmCAS website and linked via the College of Pharmacy.

## Admission Requirements

1. The applicant must have completed at least 66 semester hours in total, and must have completed the following 45 hours in prerequisite courses prior to enrolling in the professional pharmacy curriculum:
a. Nine hours of biology, including cellular and molecular biology, structure and function of organisms, and genetics
b. Eight hours of general chemistry with laboratory
c. Three hours of freshman-level rhetoric and writing
d. Three hours of sophomore-level survey of American, British, or world literature
e. Three hours of calculus
f. Three hours of statistics
g. Eight hours of organic chemistry with laboratory
h. Four hours of microbiology with laboratory
i. Four hours of physics with laboratory

The remaining 21 semester hours should be from the Core Curriculum (p. 23).
2. The applicant must remove all deficiencies in high school units by the means prescribed in the General Information Catalog before seeking admission to the professional curriculum.

## Admission Procedures

1. All applications for the Pharm.D. program will be handled through the national Pharm.D. admissions system, PharmCAS. Students must adhere to the deadlines for admission specified. The PharmCAS application process will include a supplementary application to the college (with a nonrefundable supplementary application fee) necessary to acquire additional academic information for University admission. Candidates will be notified if additional information is required.
2. Selected applicants will be asked to appear for a personal interview. The personal interview will follow a multiple-mini interview (MMI) format.
3. The applicant is considered on the basis of overall academic performance, with emphasis on grades in the required Pharm.D. prerequisite courses. In accordance with University policy, courses in which the applicant earned a grade of $D+, D, D-$, or $F$ at another institution are not transferable and may not be used to fulfill any degree requirements. However, courses in which the student earned a grade of $D+, D$, or $D$ - are considered when the student's admissibility to the professional curriculum is determined.
4. Applicants who have been offered admission to the University and to the Pharm.D. program will be asked to pay a nonrefundable enrollment deposit to the University. If the student does enroll in the program that fall, the deposit will be applied to the semester's tuition bill.
5. All students accepted for admission in the Pharm.D. program will be processed for admission to The University of Texas using the information in the PharmCAS application. Additional materials for University admission may be required:
a. A high school transcript, if the applicant's foreign language requirement was completed in high school. Official transcripts must be sent to the University's Office of Admissions.
b. Scores on the Texas Higher Education Assessment (THEA) test (or an appropriate assessment test), if and only if the student is required by state law to take this test.
c. Credit earned by examination. These reports should be sent directly to the Testing and Evaluation Services-Student Testing Services at the University. This would be done if and only if the student had not previously claimed credit showing on the transcript.
d. Official transcripts for all colleges/universities attended.
6. An applicant who has been admitted to the University and to the professional curriculum but fails to enroll in either, and who wishes to enter the professional curriculum in a subsequent fall semester, must reapply both to the University and to the College of Pharmacy and must meet all requirements in force at the time of reapplication.
7. An applicant who has been admitted to and enrolls in the professional curriculum but subsequently withdraws, and who wishes to reenter in a subsequent fall semester, must apply for readmission to the professional curriculum and must meet all requirements in force at the time of reapplication. A student who has been out of the University for a semester or more must also apply for readmission to the University.

## Technical Standards

"Technical standards" are the observational, communication, sensory/ motor, and intellectual skills, the behavioral and social attributes, and the ethical values required for the completion of the professional curriculum and for the practice of pharmacy. These standards are described on the College of Pharmacy's website. Each applicant must attest that they have read and understand the technical standards. Any applicant who believes he or she may have difficulty meeting them should contact the college's director of admission.

## Registration

The General Information Catalog gives information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. The Course Schedule 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 Office of the Registrar's website.

Each semester the academic advisor for the college provides registration guidance that is specific to the College of Pharmacy.

## Registration as a Student Pharmacist-Intern

Upon matriculation to the first professional year, each student must register as an intern-trainee with the Texas State Board of Pharmacy. This is accomplished through completion of the Application for StudentIntern Registration. Each student must be registered as a student-intern in order to complete the academic requirements for the degree.

Additional information regarding intern registration and pharmacist licensure is given in the section Legal Requirements for Professional Practice (p. 315). Requirements and regulations are subject to change by the Texas State Board of Pharmacy. Every attempt is made to inform students of changes as they occur.

## Professional Liability Insurance

Professional liability insurance is required of all students each year of the professional pharmacy curriculum. Coverage in the amount of two million dollars for each claim and six million dollars in the aggregate per year is provided through the insurance policy. The annual premium is less than $\$ 20.00$ but is subject to change, and is payable by the student. The policy covers the period September 1 through August 31 and must be secured each year of the program through the University of Texas System.

## Medical Clearance Requirements

In addition to the University's immunization requirements, students must meet additional immunization requirements for students in healthcare programs as articulated in Title 25 of the Texas Administrative Code, Rule 97.64 , and as mandated by the practice sites in which students participate in practicum experiences.

Immunization requirements are subject to change. Every effort is made to notify students promptly of any changes. A current list of vaccination requirements can be found on the College of Pharmacy's website.

Although not a College of Pharmacy requirement, students may be subject to other health clearance requirements mandated by health care facilities for practicum.

## Student Health Insurance

Students must procure health insurance to cover treatment for injuries or illness, and must provide proof of insurance each year of the curriculum.

This is especially important for the experiential components of the curriculum, spanning all four professional years, when students have frequent contact with patients in a number of different health care environments.

The Student Health Insurance Plan, operated under the auspices of University Health Services, offers optional low-cost insurance for students who are not covered by other programs. Information about this plan is available through University Health Services at http:// healthyhorns.utexas.edu/.

## Academic Policies and Procedures

## Academic Standards

University regulations on scholastic probation and dismissal are given in the General Information Catalog. In addition, the following academic standards are in effect in the College of Pharmacy.

## Academic Progress

1. The student must repeat a required pharmacy course in which he or she earns a grade of $F$. The student who earns a grade of $D+, D$, or $D-$ in a required pharmacy course becomes subject to the policies on academic probation and dismissal described below.
2. The student must earn a grade of at least $C$ - in each elective pharmacy course. If the student fails to earn a grade of at least $C$ - in an elective pharmacy course, he or she may repeat the course or may take another elective course in its place, but only courses in which the student has earned a grade of at least $C$ - may be counted toward the professional elective requirement.
3. The student must earn an average of at least two grade points (2.00) a semester hour on all courses undertaken at the University, whether passed or failed in order to graduate. The student must also earn an average of at least two grade points (2.00) a semester hour on all required pharmacy courses undertaken, whether passed or failed.
4. The student may not repeat for credit a course in which he or she has earned a grade of $C$ - or better, except under circumstances approved by the dean.
5. Pharmacy elective courses and laboratory problems courses can be take on the letter-grade or pass/fail basis, unless otherwise stated in the Course Schedule. However, the student must complete the Professional Electives Course Requirement (p. 322) with approved elective courses taken for 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 $D+, D, D$-, or $F$ in any required pharmacy course. If the grade received is an $F$, the student must repeat the course and may not progress to courses for which it is a prerequisite until he or she has earned a grade of at least $C$ - in the failed course. If the initial grade received is a $D+, D$, or $D$-, the student may progress to courses for which the course is a prerequisite. The student may choose to repeat a course in which he or she received a $D+, D$, or $D$-, if the course does not conflict with other courses the student would normally take in the same semester; however, this choice affects the student's release from academic probation as described in the following section.

If the student receives more than two incompletes in required pharmacy courses, regardless of the grades ultimately awarded, he or she is subject to review by the Academic Performance Committee. The committee may choose to place the student on academic probation.

A student is subject to dismissal from the college if he or she receives more than one $D+, D, D$-, or $F$ in required pharmacy courses in one semester. The student is also subject to dismissal if he or she receives an additional $D+, D, D$ - or $F$ while on academic probation or conditional academic probation.

Students on academic probation are expected to focus on academic improvement and thus are not allowed to hold student offices (elected, appointed, or committee chairmanship) or receive college stipends for travel to professional meetings or other college-sponsored events.

## Release from Academic Probation

After receiving a grade of $F$, the student must repeat the course and earn a grade of at least $C$-. If the failed course is a prerequisite for another course, the student must repeat the course and earn a grade of at least $C$ - before taking the course for which the failed course is a prerequisite. In the semester or summer session in which he or she repeats the course, the student must complete a full academic load, including at least five hours in required pharmacy courses and/or other courses recommended by the academic advisor. A full academic load is defined for this purpose as 12 hours in a long-session semester and six hours in the summer. The new grade is averaged with the grade of $F$ when the student's pharmacy grade point average is calculated. If the new grade is $C$ - or better, the student is released from academic probation if and only if he or she has earned no further grades of $D+, D, D$-, or $F$ while on academic probation or conditional academic probation. If the student does not earn a grade of at least $C$ - upon repeating the course, he or she is subject to academic dismissal.

After receiving a grade of $D+, D$, or $D$-, the student chooses whether or not to repeat the course, if the course does not conflict with other courses the student would normally take in the same semester. He or she may progress to courses for which the course in question is a prerequisite. If the student chooses to repeat the course, he or she must earn a grade of at least $C$-. If the new grade is a $C$ - or better, the student is released from academic probation only if he or she has earned no further grades of $D+, D, D$-, or $F$ while on academic probation or conditional academic probation. If the student does not earn a grade of at least $C$ - upon repeating the course, he or she is subject to academic dismissal. The new grade is averaged with the grade of $D+, D$, or $D$ - when the student's pharmacy grade point average is calculated.

If the student chooses not to repeat the course, he or she remains on academic probation (or conditional academic probation, described below) through completion of the P4 advanced pharmacy practice experiential courses in the final semester. To take the P4 experiential courses, the student must have a grade point average of at least 2.00 in required pharmacy courses. If the student earns the symbol $C R$ in each P4 advanced pharmacy practice course, he or she is released from probation and graduates in good academic standing with the college.

## Conditional Academic Probation

If a student on academic probation receives no grade lower than $C$ - in required pharmacy courses during the following semester or summer session in which he or she takes a full academic load, the student may be placed on conditional academic probation. This status allows the student to hold student office (elected, appointed or committee chairmanship) and to receive college stipends for travel to professional meetings or other college-sponsored events. The student remains on conditional academic probation until graduation and is subject to dismissal if he or she receives a second grade of $D+, D, D$, or $F$.

## Academic Progression in the Pharm.D. Program

If the student's academic progression results in a two-year delay of progression at any time, he or she is subject to review by the Academic

Performance Committee. The committee may choose to allow the student to continue in the program, place the student on conditional probation, or dismiss the student from the program.

## Comprehensive Milestone Exams and Academic Progression

During the third professional year, all students are required to complete a comprehensive P3 Milestone Exam. Students who successfully pass the exam will progress into the fourth, and final, professional year. Students who do not successfully pass the exam will be referred to the Academic Performance Committee for progression decisions and targeted remediation.

At the end of the fourth professional year, all students are required to complete a comprehensive P4 Milestone Exam. Students who successfully pass the exam will progress towards graduation provided all other degree requirements have been met. Students who do not successfully pass the exam will be referred to the Academic Performance Committee for progression decisions and targeted remediation.

## Calculation of the Grade Point Average

1. The student's University grade point average includes all courses taken at the University for which a grade or symbol other than $Q, W$, $X$, or $C R$ is recorded. If the student has repeated a course, including those courses for which he or she earned a grade of $D+, D, D$, or $F$, all grades earned are included in the University grade point average.
2. The student's College of Pharmacy grade point average includes all required professional courses (excluding ALL elective courses) taken at the University for which a grade or symbol other than $Q, W, X$, or $C R$ is recorded. When a student repeats a required pharmacy course, the second grade in the repeated course is averaged with the previous grade when the student's College of Pharmacy grade point average is calculated.

## The Academic Performance Committee

The College of Pharmacy Academic Performance Committee monitors the academic progress of students in the professional program. The committee makes recommendations to the dean regarding students' academic progress and academic probation and dismissal. The committee also makes recommendations to assist students who may be in academic difficulty. Any student in academic difficulty may be asked to appear before the committee for guidance. The committee hears all student appeals regarding academic progress and academic probation and dismissal. The committee aids the Admissions Committee in the evaluation of students who wish to return to the college after having been dismissed.

## Course Load and Sequence of Work

1. To progress to the final-year experiential courses, the student must have successfully completed all basic education requirements and all required and elective pharmacy courses except those in the internship year.
2. Because final-year experiential courses are offered on the pass/fail basis only, students must have attained both the University and the College of Pharmacy grade point average of at least 2.00 required for graduation before they begin the P4 advanced pharmacy practice experiential year.
3. If a conflict arises between University requirements and a student's employment, the student must resolve the conflict in favor of the University requirements.
4. A student who is not on academic probation must take at least 12 semester hours during any long-session semester, at least six hours of which must be for a letter grade (not pass/fail).
5. A student on academic probation must take at least 12 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.

## Quantity of Work

Graduate Quantity of Work rules apply to the Pharm.D. degree program. Quantity of work for this program is noted in the General Information Catalog.

## Standards of Ethical Conduct

Pharmacy practitioners enjoy a special trust and authority based on the profession's commitment to a code of ethical behavior in its management of client affairs. The inculcation of a sense of responsible professional behavior is a critical component of professional education, and high standards of ethical conduct are expected of pharmacy students.

Toward that end, the faculty and students of the College of Pharmacy have pledged their support to the Policy Statement on Ethical Conduct and Scholastic Integrity and the Code of Ethics that implements this Policy Statement. Upon entering the College of Pharmacy, and each academic year thereafter, students are asked to recite and sign the following pledge:
"As a student of The University of Texas College of Pharmacy, I have reviewed and hereby pledge my full support to the Honor Code. I pledge to be honest myself, and in order that the spirit and integrity of the Honor Code may endure, I pledge that I will make known to the appropriate authorities cases of dishonesty which I observe in the College of Pharmacy."

In addition, the following oath, which students will be asked to sign, is included at the end of all class examinations: "I have neither participated in nor witnessed any acts of academic dishonesty pertaining to this assignment." At the discretion of the instructor, the oath may also be included for other assignments such as quizzes, written reports, or papers.

Students are also required to adhere to the University's Student Honor Code which states "As a student at The University of Texas at Austin, I shall abide by the core values of the University and uphold academic integrity." The entire text of the Student Honor Code and the University's Code of Conduct can be found at http://www.utexas.edu/about/mission-and-values.

The entire text of the Policy Statement on Ethical Conduct and Scholastic Integrity and the Honor Code are available at http:// www.utexas.edu/pharmacy/students/handbook98/3code.html.

Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including failure of the course involved and dismissal from the college and/or the University. Since dishonesty harms the individual, fellow students, and the integrity of the University
and the College of Pharmacy, policies on scholastic dishonesty are strictly enforced.

## Attendance in Class and Laboratories

Students in the College of Pharmacy are expected to attend all scheduled class and laboratory sessions in courses for which they are registered. If attendance is a course requirement that can impact the student's grade, the criteria for assessing attendance and consequences for nonattendance must be specified in the syllabus.

## Honors

University-wide honors are described in the General Information Catalog. In addition, the College of Pharmacy encourages academic excellence through Rho Chi, the national pharmaceutical honor society, described in Student Organizations (p. 313), and through the Pharmacy Honors Program.

## University Honors

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

## Graduation with University Honors

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

## Pharmacy Honors Program <br> Criteria for Admission

Students who plan to seek special honors in pharmacy should apply to the chair of the Honors Program Committee; they should apply before December $1^{\text {st }}$ of the second professional year with August 1st prior to the third professional year as the final application deadline. Students interested in the Pharmacy Honors Program are strongly encouraged to enroll in Pharmacy PharmD 181R, 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; (3) a letter of support from Honors Program research mentor, (4) completion of a Pharmacy PharmD 187R research rotation and (5) approval of the Honors Program Committee.

## Requirements for Completion

The Honors Program allows a student to learn about the research method and conduct a research project under the supervision of one or more faculty members over a series of four sequential courses. Each course contains a different written component. These are a research proposal (Pharmacy PharmD 290H), a research report (Pharmacy PharmD 291H), a research project (Pharmacy PharmD 292H) and a Research Honors thesis (Pharmacy PharmD 293H). 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) completion of Pharmacy PharmD 187R ; (3) completion of Pharmacy PharmD 290H, 291H, 292H, and 293H ; (4) presentation of research results (poster) at a research symposium or
college event; (5) approval of the Honors thesis by the Honors Program Committee and (6) completion of the regular curriculum for the degree.

The statement "Research Honors in Pharmacy" appears on the transcript of each graduate certified to have completed the honors program.

## College of Pharmacy Recognition Awards

The College of Pharmacy Award for Academic Achievement recognizes a graduate who has demonstrated an outstanding grade point average, professional attitude, and excellent communication skills.

The College of Pharmacy Award for Outstanding Research recognizes a graduate who has demonstrated outstanding ability in areas of pharmacy research.

The College of Pharmacy Award for Excellence in Patient Care recognizes a graduate who has demonstrated excellence in patient care while pursuing the PharmD degree.

The College of Pharmacy Award for Dedicated Service recognizes a graduate who has shown a commitment to service above and beyond the norm.

The College of Pharmacy Award for Exemplary Leadership recognizes a graduate who has excelled in leadership while pursuing the PharmD degree.

The College of Pharmacy Alumni Association Mortar and Pestle Award for Leadership, Service, and Patient Care recognizes an exceptional graduate who has demonstrated outstanding leadership, service, and patient care in the college, the University, and the community while pursuing the PharmD degree. The award is a hand-carved mortar and pestle.

The College of Pharmacy Class Officers are elected by their classmates and serve as permanent officers of their class.

Students' scholarly accomplishments are also recognized through election to Rho Chi, the national pharmaceutical honor society, and through admission to the Pharmacy Honors Program. Students' leadership accomplishments are recognized through election to Phi Lambda Sigma, the national pharmacy leadership society.

## Graduation

All students must fulfill the general requirements (p. 19) for graduation. In addition, students seeking the Doctor of Pharmacy (Pharm.D.) must complete in residence 60 hours of the required professional curriculum, including the courses prescribed for the fourth professional year.

All University students must have a grade point average of at least 2.00 to graduate. In the College of Pharmacy, students must also have a grade point average of at least 2.00 in required professional courses to graduate.

A candidate must complete the prescribed curriculum and must meet all other requirements of the College of Pharmacy.

PharmD professional students are not required to submit a Graduation Application Form to graduate.

## Degrees and Programs

The University offers the Pharm.D. as the sole entry-level pharmacy practice degree. As described in the mission (p. 311), this program emphasizes an integrated and problem-based approach to disease
management as the core of the didactic, laboratory, and experiential program of study.

The capstone of the Pharm.D. program is a series of seven six-week rotations known as the advanced pharmacy practice experiences (APPE). Each APPE course requires a minimum of 45 on-site, practitioner-facultysupervised hours of internship experience a week for six weeks.

The college expects but cannot guarantee that experiential regions will include Austin/Temple/Waco, Dallas/Fort Worth (the University of Texas Southwestern Medical Center and other area health care facilities), Galveston/Houston (the University of Texas Medical Branch at Galveston, the University of Texas M. D. Anderson Cancer Center, and other area health care facilities), the Rio Grande Valley (the University of Texas - Rio Grande Valley and health care facilities primarily in Harlingen and McAllen), and San Antonio (the University of Texas Health Science Center San Antonio and other area health care facilities). Students assigned to San Antonio spend two years in this region, while students assigned to other regions spend only the final year in the APPE region.

College of Pharmacy students who complete their experiential courses at the University of Texas Health Science Center at San Antonio are considered part of a joint Pharm.D. degree program and receive a degree awarded jointly by the two institutions. The joint nature of this program is reflected on the student's diploma.

In completing the Doctor of Pharmacy degree, students also fulfill the internship requirements of the Texas State Board of Pharmacy. The final year of APPE courses and several other practice-based experiential courses, beginning in the first professional year, make up the experiential program. The professional experience courses are currently approved by the Texas State Board of Pharmacy to meet its standards for completion of the professional internship licensure requirement. The board reassesses all programs annually.

## The Minor

While a minor is not required as part of the Pharm.D. degree program, the student may choose to complete additional coursework in a field outside of the College of Pharmacy. A course may not be counted both toward the minor and toward the 219 hours of work required for the Pharm.D. degree.

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin; students pursuing an integrated undergraduate/graduate program must complete the requirements for the minor within one year after completing the undergraduate requirements of their program. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minors and Certificate Programs (p. 13) section of the Undergraduate Catalog.

## Applicability of Certain Courses

## Physical Activity Courses

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

## ROTC Courses

Courses in air force science, military science, and naval science may be substituted for a total of nine semester hours of non-pharmacy electives by students who complete the 16 to 20 semester hours of required air
force science, military science, or naval science coursework and accept a commission in one of the services. These courses may not be counted toward the professional elective requirement.

## Correspondence and Extension Courses

Credit that a University student in residence earns simultaneously by correspondence or extension from the University or elsewhere or in residence at another school will not be counted toward a degree unless it is specifically approved in advance by the dean. No more than 30 percent of the semester hours required for any degree may be completed by correspondence, and no pharmacy courses taken by correspondence or extension may be counted toward a pharmacy degree.

## Prescribed Work

Students who enter the Doctor of Pharmacy degree program must complete a minimum of 219 semester hours of coursework in the following areas: the core curriculum, additional basic education requirements, professional electives, and pre-professional and professional coursework.

## Core Curriculum

Each student must complete the University's Core Curriculum (p. 23). Because of the intensity and structure of the professional pharmacy curriculum, and because admission to the professional curriculum is highly competitive, the College of Pharmacy strongly recommends that students complete all of the core courses before they enter the college

The following core requirements are usually met by the pre-professional and professional coursework described below: English composition with one writing flag, mathematics, science and technology (parts I and II), and humanities. Students must complete additional coursework to meet the core requirements listed below; the courses in each core area are listed in Core Curriculum (p. 23).

| Requirements | Hours |
| :--- | ---: |
| Additional Coursework |  |
| First-year signature course | 6 |
| American and Texas government | 6 |
| American history | 3 |
| Social and behavioral sciences | 3 |
| Visual and performing arts | 21 |

Transfer students who complete the core curriculum at another public Texas institution of higher education with core completion specified on their transcript and who are then admitted to the Pharm.D. program are considered "core complete" by the University. Core curriculum requirements are waived for students admitted to the Pharm.D. program who have previously earned a bachelor's degree.

## Additional Basic Education Requirements

All students must also earn the following skills and experiences flags: writing, quantitative reasoning, cultural diversity in the United States, ethics, global cultures, and independent inquiry. See skills and experiences for more information; courses that carry these flags are identified in the Course Schedule. All skills and experience flags are fulfilled by courses within the professional pharmacy sequence, except for global cultures.

Flag requirements are waived for students admitted to the professional curriculum who have already earned a bachelor's degree.

All students must complete the foreign language (p. 24) requirement before they enter the professional curriculum (unless they hold a prior bachelor's degree).

## Professional Electives Course Requirement

The student must complete at least four professional elective courses, for a total of at least 10 semester hours, on the letter-grade basis. The student must take the courses used to fulfill the professional electives requirement after admission to the professional curriculum.

## Concurrent Degrees, Pathways, and Programs

## Pharm.D./MPH

Students who have been admitted to the Pharm.D. program can apply for a Master of Public Health (MPH) degree through The University of Texas Health Science Center at Houston's School of Public Health. Students will complete requirements for both the Pharm.D. and MPH concurrently over the course of four years. Information about this option is available through the Associate Dean for Academic Affairs.

## Pharm.D.-to-Ph.D Pathway

The college offers a sequential Pharm.D.-to-Ph.D. degree program to qualified Pharm.D. students. The program combines the features of a professional Pharm.D. degree with the advanced research training of a pharmaceutical sciences Ph.D. degree. The areas of emphasis of the program are: Chemical Biology and Medicinal Chemistry, Health Outcomes, Molecular Pharmaceutics and Drug Delivery, Pharmacology and Toxicology, and Pharmacotherapy. Information about this program is available through the Associate Dean for Research and Graduate Studies.

## Lester Entrepreneurial Scholars Program

The Lester Entrepreneurial Scholars Program is designed to prepare pharmacy students in the professional program to develop entrepreneurial and innovative leadership and thinking skills to tackle healthcare issues in innovative new ways. The Program goals are to: identify, nurture, and promote entrepreneurship and innovation skills; promote innovative ideas that improve patients' lives; and, have projects go from concept to development. The program consists of distinct tracks: product entrepreneurship such as pharmaceuticals and technology; services entrepreneurship including pharmacy services and pharmacy business ownership; and, social entrepreneurship such as social, cultural, and environmental business ventures. Additional information can be found on the program website.

## Preprofessional and Professional Coursework

The following courses are required. The course sequence given here shows the usual order in which courses are taken to fulfill prerequisite requirements and illustrates the feasibility of completing requirements for the degree within six calendar years. Students who depart significantly from this sequence may need more time to complete their coursework, because most courses are taught only once a year and because in a given semester the scheduled meeting time of a preprofessional or professional course may conflict with the times of core courses or professional electives.

First Preprofessional Year

| First Term | Hours | Second Term | Hours |
| :---: | :---: | :---: | :---: |
| BIO 311C |  | 3 U.S. history | 3 |
| CH 301 |  | 3 Social and behavioral sciences core course | 3 |
| M 408K or 408 N |  | 4 BIO 311D | 3 |
| RHE 306 |  | 3 SDS 301 | 3 |
| UGS 302 or $303{ }^{1}$ |  | 3 CH 204 | 2 |
|  |  | CH 302 | 3 |
|  |  | 6 | 17 |

Second Preprofessional Year


| First Professional Year |  |  |
| :--- | :--- | ---: |
| First Term | Hours | Second Term |
| PHM 381M | 3 PHM 283L |  |
| PHM 387M | 3 PHM 281N | 2 |
| PHM 180K | 1 PHM 388M | 2 |
| PHM 180P | 1 PHM 188P | 3 |
| PHM 287N | 2 PHM 480D | 1 |
| PHM 480C | 4 PHM 180 | 4 |
| PHM 184M | 1 PHM 185N | 1 |
| PHM 187F | 1 PHM 187G | 1 |
| PHM 181V | 1 PHM 182V | 1 |
| PHM 181S | 1 PHM 181T | 1 |
| PHM 191U | 1 PHM 191V | 1 |
|  | 19 | 1 |

Second Professional Year

| First Term | Hours | Second Term | Hours |
| :--- | :--- | :---: | :--- |
| PHM 282E | Summer Term | Hours |  |
| PHM 295Q | 2 PHM 390N | 3 PHM 383I |  |
| PHM 384L | 2 PHM 282F | 2 |  |
| PHM 181 | 3 PHM 182I | 1 |  |
| PHM 182 | 1 PHM 186Q | 1 |  |
| PHM 483 | 1 PHM 184 | 1 |  |
| PHM 183V | 4 PHM 185 | 1 |  |
| PHM 182S | 1 PHM 486 | 4 |  |
| PHM 192U | 1 PHM 184V | 1 |  |
| Professional | 1 PHM 182T | 1 |  |
| Elective(s) | 2 PHM 192V | 1 |  |
|  | Professional | 2 |  |

Third Professional Year

| First Term | Hours | Second Term |
| :--- | :--- | :--- | Hours |  |
| :--- |
| PHM 183F |
| PHM 183G |


| PHM 185V | 1 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| PHM 183S | 1 |  |  |  |
| PHM 193U | 1 |  |  |  |
| Professional elective(s) | 3 |  |  |  |
|  | 18 |  | 17 |  |
| Fourth Professional Year |  |  |  |  |
| First Term Hours | Second Term | Hours | Summer Term | Hours |
| PHM 693E | 6 PHM 693S |  | 6 PHM 693C | 6 |
| PHM 693N | 6 PHM 694C |  | 6 |  |
| PHM 693P | 6 PHM 694E |  | 6 |  |
|  | Note: The order in which students take the fourth-year internships is at the discretion of the College of Pharmacy. |  |  |  |
|  | 8 |  | 8 | 6 |

Total credit hours: 221
1 Students should consider enrolling in a First-Year Signature Course that also satisfies the global cultures flag requirement.

## Courses

Please see the General Information Catalog for a list of courses. The following field of study is housed in the College of Pharmacy: Pharmacy PharmD (PHM).

## Lyndon B. Johnson School of Public Affairs

Angela Evans, MA, Dean
Cynthia Osborne, PhD, Associate Dean (Interim)
http://www.utexas.edu/lbj/

## General Information

The Lyndon B. Johnson School of Public Affairs offers the Master of Global Policy Studies, the Master of Public Affairs, and the Doctor of Philosophy with a major in public policy. Information is given in the Graduate Catalog about these programs and about the requirements for admission to graduate study.

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Lyndon B. Johnson School of Public Affairs: Public Affairs (P A).

# Steve Hicks School of Social Work 

Luis H. Zayas, PhD, Dean<br>Allan H. Cole Jr., PhD, Associate Dean, Academic Affairs Esther Calzada, PhD, Associate Dean for Equity and Inclusion Cossy Hough, LCSW, Assistant Dean, Undergraduate Programs Sarah Swords, LCSW, Assistant Dean, Master's Programs Tanya Voss, MSSW, Assistant Dean, Field Education Cynthia G.S. Franklin, PhD, Associate Dean, Doctoral Education Catherine Cubbin, PhD, Associate Dean, Research<br>Barbara L. Jones, PhD, Associate Dean, Health Affairs<br>Dede Sparks, LMSW, Assistant Dean, Health Affairs<br>https://socialwork.utexas.edu/

## General Information

## Accreditation

The bachelor of social work degree program is accredited by the Council on Social Work Education.

## Mission

The Steve Hicks School of Social Work provides professional education and leadership in social work practice, research, and service to promote social and economic justice, enhance social welfare, and build strong community-University partnerships.

The mission of the Bachelor of Social Work (BSW) program is to prepare students as beginning level generalist professional social work practitioners who are committed to the provision of services that further the well-being of people and who promote social and economic justice. Building on a broad liberal arts framework, the BSW curriculum is designed to develop generalist practitioners who have an understanding of social work knowledge and values and are able to select different methods and resources to meet identified client needs, while recognizing and engaging the strengths of the client in the process. The curriculum offers students the opportunity to learn to promote, restore, maintain, and enhance the social functioning of multiple levels of systems in the environment, including individuals, families, small groups, organizations, and communities; to recognize worker and client limitations; and to know when to refer clients to other resources.

The BSW student is given the opportunity to learn to work collaboratively in a variety of settings using an ecosystems/developmental perspective; to recognize the relationships between client needs and public issues; to work toward the development of social policies, resources, and programs that meet basic human needs and empower at-risk groups; and to be sensitive to the diversities among individuals, including ethnicity, gender, age, sexual orientation, religion, and ability. The program is intended to prepare reflective, self-evaluating practitioners who have a strong identification with the social work profession and work to alleviate poverty, oppression, and discrimination.

Graduates of the program are expected to be able to enhance the problem-solving, coping, and developmental capacities of individuals, especially those from at-risk populations. They also are expected to contribute to the effective and humane operation of the systems within the environment that provide individuals with resources, services, and opportunities; to link individuals in need with the appropriate systems; and to contribute to the development and improvement of social policies that have an impact on people and their social environments, especially
by empowering at-risk groups and by promoting social and economic justice.

The BSW program is integrated with and builds upon a liberal arts base that includes knowledge in language arts, the humanities, and the social, behavioral, and natural sciences. The curriculum includes content in social work values, diversity and at-risk populations, social and economic justice, human behavior and the social environment, research, social welfare policy and services, and social work intervention.

## Program Objectives

Students graduating from the BSW program are expected to demonstrate the following characteristics:

1. A professional identity that incorporates the values and ethics of the social work profession and the professional development of self.
2. The ability to work with diverse populations with an understanding of, and respect for, the positive value of diversity, including ethnicity, gender, sexual orientation, age, ability, and religion, and to use communication skills differentially with diverse groups.
3. An understanding of the forms and mechanisms of oppression and discrimination.
4. The ability to apply strategies and skills that advance social and economic justice and to address the oppression of marginalized populations.
5. An understanding of the biological, psychological, social, and cultural contexts of changing client systems, including individuals, families, groups, organizations, communities, and the broader society, and their effects on development and behavior.
6. Beginning level competencies in research and evaluation, including the ability to evaluate research studies and apply their findings to practice, and, under supervision, evaluate their own practice interventions and those of other relevant systems.
7. An understanding of how social policy develops and differentially affects various client systems, workers, and agencies.
8. An understanding of the role the social work profession has played in promoting social change, historically and currently.
9. The attainment of knowledge and skills that demonstrate the ability to practice effectively with individuals, families, groups, organizations, and communities, in a manner that empowers client systems and uses their strengths in order to maximize their health and well-being.
10. An ability to apply critical thinking skills within the context of professional social work roles and practice.
11. An awareness of their responsibility to continue their professional growth and development, including the use of supervision appropriate to generalist practice.

## History

The Steve Hicks School of Social Work was established as a graduate program in 1949 and began classes in the fall of 1950 with 24 students enrolled in the Master of Science in Social Work (MSSW) program. Undergraduate courses in social work were first offered in 1958. These were incorporated into a full Bachelor of Social Work (BSW) program in the fall of 1974.

The first BSW degree was awarded in December 1977. Since that time, the program has been strengthened by curriculum modifications reflecting changes in the profession and in society that have implications for beginning social work practice.

The Steve Hicks 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.

## Facilities

The Steve Hicks School of Social Work Building (1925 San Jacinto Boulevard) provides space for social work classes, including classrooms equipped for distance learning and an instructional technology classroom; offices for faculty and staff; an advising center and student services area; and a student lounge. The building also houses the Learning Resource Center (LRC), which has an extensive collection of social work related books, journals, and other publications partially funded by the Josleen Lockhart Memorial Book Fund. The LRC includes a computer laboratory for student use and provides space, equipment, and technical assistance for studying, meetings of small groups of students, viewing audiovisual materials, videotaping, and completing other skillsbased learning assignments. The Steve Hicks School of Social Work Building also houses the Center for Social Work Research and the DiNitto Center for Career Services.

## Financial Assistance Available through the School

Although many University scholarships are awarded through the Office of Scholarships and Financial Aid, a limited number are awarded by the Steve Hicks School of Social Work to undergraduate social work students. Awards are made for reasons ranging from academic promise to financial need. Scholarship information, including eligibility requirements and the application process, is available through the Office of Academic Affairs. Additional scholarships funded by yearly contributions to the Steve Hicks School of Social Work are awarded to undergraduate social work students on the basis of academic excellence, financial need and potential contributions to the social work profession.

## Student Services

## Academic Advising

The Office of Academic Affairs in the Steve Hicks 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 Office of Academic Affairs also provides administrative support and student services, including maintenance of academic records, provision of official degree audits, and graduation certification for social work majors. Faculty and staff members are also available to assist students with questions about scholarship programs, degree requirements, rules and regulations, and other available campus services. Students who declare an interest in completing the social work program are required to meet with a social work adviser at least once each semester for academic advising. To arrange an appointment with an adviser, students should contact the Office of Academic Affairs.

During the student's first and second academic years, the student and the adviser discuss the student's career choice, the selection of a major, degree requirements, and requirements for admission to the major and to upper-division courses in social work; during the third year, the course work required for the major and the student's preparation for entry into the field practicum; and during the fourth year, the field practicum and the student's post-graduation plans.

## Career Choice Information

Students interested in social work as a career are encouraged to discuss this interest at any time with a social work adviser. Advisers are available
in the Office of Academic Affairs to help students explore social work practice and settings and the development of interest in social work through academic, volunteer and service learning experiences. Students are encouraged to use the variety of career services available through the DiNitto Center for Career Services.

Members of the social work faculty are available to assist the student in choosing a career, as are the staff and resources of the University's Sanger Learning Center, the Center for Community Engagement, and the Vick Center for Strategic Advising and Career Counseling. Since the social work program requires admission to the major and completion of 122 semester hours, students are encouraged to discuss their interest in social work as a career early in their studies.

## Career Services

Career development services are provided to students preparing to enter the professional job market. Students should inquire in the DiNitto Center for Career Services, Steve Hicks School of Social Work Building 2.214. The office maintains a listserv of employment opportunities and provides information about social work careers, graduate programs, online resources, and other opportunities for professional development, volunteer and service-learning placements, and social work licensure. Workshops and other programs are offered on the fields of social work practice, résumé preparation, and job search and interview skills.

Professional social workers may seek employment in a number of areas. The Texas Department of Aging and Disability Services has established quality control standards that mandate the hiring of holders of BSW degrees in designated positions. The Texas Department of Family and Protective Services hires social workers for its child protective services programs, and the Texas Health and Human Services Commission hires BSW graduates for its client support services programs. Large nursing home facilities are also required to have a social work staff. Substance use disorder treatment programs, psychiatric hospitals, health care programs, school social work and dropout prevention programs, criminal justice programs, and programs for the elderly also employ social workers. Hospitals and agencies providing community-based health services, especially in rural areas, hire BSW graduates. More than a third of the program's graduates go on to graduate schools throughout the country.

As a complement to the assistance available from the school, the University's Sanger Learning Center and the Vick Center for Strategic Advising and Career Counseling provide comprehensive career services to all students. The centers offer professional assistance to students in choosing or changing their majors or careers, seeking an internship, and planning for the job search or for graduate study.

The University makes no promise to secure employment for each graduate.

## Social Work Council

The Social Work Council is an organization open to all students pursuing a social work degree or interested in the social work profession. The purposes of the council are to help students acquire a better understanding of the profession of social work, to provide a mechanism for student input on issues related to the social work curriculum and the school, and to organize and support social work related programs and projects that will benefit students, the school, the University, and the community.

Council activities are often conducted in collaboration with the Office of Academic Affairs. They include 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 \$15 a semester. Payment is coordinated by the Field Office of the Steve Hicks School of Social Work. A criminal background check may be required as well.

## Admission and Registration

## Admission

## Admission to the University

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

## Admission Policies of the School

The Steve Hicks School of Social Work maintains two classifications of undergraduate students: pre-social work majors and social work majors. Pre-social work majors are usually first and second year students. 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 Steve Hicks 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 their intentions with a social work advisor in an information session before applying for admission to the program.

## Admission to the School as a Pre-Social Work Major

A student may transfer from another division of the University to the Steve Hicks School of Social Work in accordance with the regulations given in General Information.

A University student who wants to transfer as a pre-social work major must meet the following requirements:

1. Completion of at least 12 semester hours of coursework in residence at the University. Credit earned by exam, correspondence, and extension may not be counted toward this requirement.
2. A cumulative in-residence grade point average of at least 2.00.
3. If social work coursework has been completed prior to the application, a grade point of at least 2.50 in those courses is required, and all social work courses must have been completed with a grade of at least $C$.

Only currently enrolled students may apply. Forms to apply for internal transfer are available through the Steve Hicks School of Social Work Office of Academic Affairs.

Admission to the Steve Hicks School of Social Work is offered on a space-available basis to the students who are best qualified.

Students with over 90 semester hours of coursework or a completed degree are encouraged to consider other options, such as completing a degree in their current college/school or alternate institution with the option of pursuing a MSSW degree at a later date.

## Admission to the Major in Social Work

No student may enter the professional curriculum (the required upper-division social work courses) unless the student has been admitted to the University as described in General Information and has been admitted to the major in social work by the assistant dean for undergraduate programs, following recommendation by the BSW Curriculum Committee, according to the procedures below. All students are considered according to the policies given in the editions of the General Information catalog and the Undergraduate catalog that are in effect at the time of the application.

The Steve Hicks School of Social Work considers students for admission to the major twice a year, during the fall and spring semesters. Admission applications are distributed during mandatory information sessions held by the Office of Academic Affairs. The application allows the student to describe their background and motivation to enter the social work profession as well as any special experiences that enhance the student's application.

The Steve Hicks School of Social Work limits admission to the major to the number of students for whom a professional education of high quality can be provided. Because of enrollment restrictions dictated by the availability of faculty members and facilities, some applicants may be denied admission even though they meet the following minimum requirements.

1. The applicant must have completed at least 45 semester hours of coursework, including at least 30 hours chosen from the following requirements:
a. All requirements of the University's Core Curriculum
b. Sociology 302
c. Psychology 301
d. One three-semester-hour course in human biology: Biology 301E, 302D, 302E, 302F, 302G, 311C
e. Second-semester-level proficiency, or the equivalent, in a single foreign language
f. A three-semester-hour course in economics
2. The applicant must have completed the following courses with a grade of at least $C$ in each course: Social Work 310, 312, 313, 318, and 325. The applicant must also have a University grade point average of at least 2.50 in courses that are part of the social work major requirements. Social Work 310 must be completed a semester before applying to the major.
3. The applicant must have a University grade point average of at least 2.00.
4. Application for admission must be made on forms available from the Office of Academic Affairs in the Steve Hicks 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 45 hours of supervised service learning involving direct contact with clients in a human services organization
e. Official transcripts from all colleges attended, if the coursework has not been transferred to the student's University record
f. Score reports for any credit earned by examination, if the scores are not on the student's University record
6. The applicant may be asked to appear for a personal interview.

The applicant is considered on the basis of academic performance and their 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 their work in courses already taken, previous meetings with social work advisors, personal statement, and the interview, if any, that is part of the application process. As a general guide, the committee also uses the Student Standards for Social Work Education, available at www.utexas.edu/ ssw/current/forms/, which delineates expectations for social work students in four areas: basic abilities to acquire professional skills, mental and emotional abilities, professional performance skills, and scholastic performance. The Standards can be found in the appendix of the BSW Handbook, available at www.utexas.edu/ssw/current/forms/.

A student who is unable to attend in the semester for which the student is admitted must reapply for admission in order to enroll at a later time. A student who has been admitted to and enrolls in the professional curriculum, withdraws, and then wishes to return must apply for readmission on the basis of the curriculum in effect at the time of the return. A student who has been out of the University for a semester or more must also submit an application for readmission to the University.

## Transfer Credit

As part of the application for admission to the University, students must submit transcripts from all other colleges and universities they have attended to the University's Office of Admissions. Students seeking readmission must submit transcripts from all schools they have attended since leaving the University. The Office of Admissions evaluates all transcripts and grants the student transfer credit when possible for coursework completed at the other schools.

Although the University's Office of Admissions may grant the student a certain number of semester hours of transfer credit for work completed in another social work program, the assistant dean for undergraduate programs in the Steve Hicks School of Social Work determines whether this coursework may be counted toward fulfillment of the Bachelor of Social Work degree requirements. Students who wish to use transfer credit to meet degree requirements should submit a course syllabus, assignments, and the titles and names of authors of textbooks to the assistant dean for undergraduate programs for evaluation.

Students may also seek transfer credit for coursework they complete at another institution after enrolling at the University. In this case the student should submit a transcript from the other institution to the University's Office of Admissions and a syllabus, course assignments, and information about textbooks to the Steve Hicks School of Social Work's assistant dean for undergraduate programs.

## Registration

General Information provides information about registration, adding and dropping courses, transfer from one division of the University to another, and auditing a course. Published before registration each semester and summer session, the Course Schedule includes registration instructions, advising locations, and the times, places, and instructors of classes. The

Course Schedule and General Information are published on the Office of the Registrar's website.

## Academic Policies and Procedures

## Honors

## University Honors

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

## Graduation with University Honors

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

## Social Work Honors Program

The Social Work Honors Program is available to outstanding students who have distinguished themselves by superior academic performance during their time at the University.

Interested social work majors should apply for admission to the Honors Program Subcommittee of the BSW Curriculum Committee at least one full year before they expect to graduate. A University grade point average of at least 3.50 is required for admission, as is a grade point average of at least 3.50 in all of the coursework required for the major that the student has completed. The requirements for graduation from the Social Work Honors Program which are in addition to the requirements for the major, are: (1) a six-hour, two-semester honors tutorial course with a grade of at least $B$-for each semester; (2) an oral presentation of the student's honors thesis in a research colloquium open to the Steve Hicks School of Social Work community and the public; (3) a University grade point average of at least 3.50 and a grade point average of at least 3.50 in the courses required for the major and for the Social Work Honors Program; and (4) completion in residence at the University of at least 60 hours of coursework counted toward the degree.

## Review and Grievance Procedures

The Steve Hicks School of Social Work document Student Standards for Social Work Education in the BSW Handbook delineates standards for professional education that apply to students enrolled in the Steve Hicks School of Social Work. Because of the nature of professional social work practice, the Steve Hicks School of Social Work has different expectations of students than do nonprofessional programs. All social work students are expected to abide by the Standards and by the National Association of Social Workers (NASW) Code of Ethics. When a student's performance does not meet expectations according to these established guidelines, a review may be called to bring the problem to the student's attention and to develop a plan to address the problem. Usually, the issue is resolved and the student is continued in the program with additional support provided to the student and/or conditions established for the student's continuance in the program. In some instances, depending on the nature of the problem, the student may be referred to the University's Office of the Dean of Students, counseled to change majors, or dismissed from the program.

Students enrolled in the social work program have the right to appeal decisions made by the social work program, including scholastic dismissal. Students are assured freedom from reprisals for filing appeals. Students who wish to appeal a decision made during a school review process should consult the Standards for information on grievance procedures, located in the BSW Handbook.

## Graduation

## Special Requirements of the School

All students must fulfill the General Requirements (p. 19) for graduation. Students in the Steve Hicks 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 Steve Hicks 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 60 semester hours of coursework counted toward the degree. For the Bachelor of Social Work degree, these 60 hours must include at least 24 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 Steve Hicks School of Social Work further requires that 24 of the 46 hours of upper-division coursework for the Bachelor of Social Work be completed in residence.
3. An Air Force, Army, or Naval Reserve Officer Training Corps student who elects the basic and/or advanced program in air force science, military science, or naval science will not be approved for graduation until the government contract is completed, unless the student is released from the ROTC.

## Applying for Graduation

An official degree audit compares a student's coursework with degree requirements for a particular degree, major and catalog. The degree audit normally provides an accurate statement of requirements, but the student is responsible for knowing the requirements for the degree as stated in a catalog under which the student is eligible to graduate and for registering so as to fulfill those requirements. The student should seek an official ruling in the Office of Academic Affairs before registering if in doubt about any requirement.

In the semester or summer session in which the degree is to be conferred, the candidate must be registered at the University and must apply for the degree in the Office of Academic Affairs. This should be done at the time of registration for the last semester, if possible, but in no event later than the deadline given in the official academic calendar. No degree will be conferred unless the graduation application form has been filed on time.

## Degrees and Programs

## Applicability of Certain Courses

No more than 36 semester hours in any one field of study other than social work may be counted toward the Bachelor of Social Work degree. No more than 60 semester hours of social work may be counted toward the degree.

## Physical Activity Courses

Physical activity courses (PED) are offered by the Department of Kinesiology and Health Education. Six semester hours of this coursework may be counted toward the Bachelor of Social Work degree. All physical activity courses are counted among courses for which the student is enrolled, and the grades are included in the grade point average.

## ROTC Courses

No more than six semester hours of credit for air force science, military science, or naval science courses may be counted toward the Bachelor of Social Work. Such credit may be used only as lower-division electives in degree programs that have room for such electives and only by students who have completed the third and fourth years of the ROTC program.

## Correspondence and Extension Courses

Credit that a University student in residence earns simultaneously by correspondence or extension from the University or elsewhere or in residence at another school will not be counted toward a degree in the Steve Hicks School of Social Work unless specifically approved in advance by the dean. No more than 30 percent of the semester hours required for the Bachelor of Social Work may be taken by correspondence. More information is available from the assistant dean for undergraduate programs.

## Courses Taken on the Pass/Fail Basis

Undergraduate students who have received at least 30 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 101Q or Music 101V may not be counted toward any degree in the Steve Hicks 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.

## 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 122 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 60 semester hours in residence at the University. These 60 hours must include at least 24 semester hours in social work. A completed degree program must include at least 46 semester hours of upper-division coursework, of which 24 semester hours must have been taken in residence. No more than 60 semester hours in social work may be counted toward the degree.

Each student must complete a sequence of prescribed work; major requirements, which include the field practicum; and special requirements, which include electives.

## Prescribed Work

The prescribed work provides the liberal arts base for the social work curriculum. Interdepartmental courses and credit by examination may be used to meet these requirements. Unless otherwise indicated, a course taken to meet the requirements of one area may not also be used to fulfill the requirements of another area; however, a single course may be used, unless otherwise indicated, to fulfill both an area requirement and a major requirement. No course used to fulfill area or major requirements, other than the field practicum, may be taken on the pass/fail basis.

## Core Curriculum

All students must complete the University's Core Curriculum (p. 23). A single course may not be counted toward more than one core area, but in some cases a course that is required for the Bachelor of Social Work may also be counted toward the core curriculum; these courses are identified below.

## Skills and Experience Flags

In the process of fulfilling the core curriculum and other degree requirements, all students pursuing the Bachelor of Social Work must complete courses that carry flags in the following areas:

1. Writing: Three courses beyond Rhetoric and Writing 306 or the equivalent that carry a writing flag; one of these courses must be upper-division. Social Work 323 K and 327 count toward this requirement; students must complete the third writing course outside the Steve Hicks School of Social Work. Courses used to fulfill the writing requirement may be used to fulfill other requirements.
2. Cultural diversity in the United States: One flagged course. Social Work 310 and 325 carry the cultural diversity flag.
3. Ethics: One flagged course. Social Work 332 and 333 carry the ethics flag.
4. Quantitative reasoning: One flagged course. Social Work 318 carries the quantitative reasoning flag.
5. Global cultures: One flagged course chosen from approved list.
6. Independent inquiry: One flagged course. Social Work 323 K carries the independent inquiry flag.

## Foreign Language

In addition to the core curriculum requirements above, undergraduates must earn credit for the second college-level course, or the equivalent, in a foreign language. American Sign Language and Sign Language for Social Workers may be used to fulfill this requirement.

## Major Requirements

The Bachelor of Social Work program offers basic courses designed to provide students with concentrated and in-depth educational experience combining social work knowledge and practice skills. No course used to fulfill major requirements, except Social Work 640 and 641, may be taken on the pass/fail basis. Students are advised to complete the core curriculum, the skills and experiences flags, the foreign language requirement, and all lower-division major requirements before taking upper-division courses. In developing their degree plans, students must also pay careful attention to the sequencing of social work courses to ensure that prerequisite requirements are met.

Academic credit cannot be granted for life experience or previous work experience, and such experience cannot be substituted for any of the courses in the professional foundation areas or the field practicum. Students who believe they have the qualifications to receive credit by examination for a social work course other than the practice sequence coursework (Social Work 312, 332, 333, and 334) and the field practicum
may submit a written request to the assistant dean for undergraduate programs. The assistant dean will review the request and determine whether or not the student should be permitted to take the examination.

1. The following courses are required:
a. Social welfare policy: Social Work $310,323 \mathrm{~K}$.
b. Research: Social Work 313, 318.
c. Human behavior: Social Work $325,327$.
d. Practice: Social Work 312, 332, 333, 334.
e. Field practicum: Social Work 640, 641, 444.
2. Students must complete a three-semester-hour introductory course in psychology. Psychology 301 fulfills this requirement and may also be counted toward the social and behavioral science requirement of the core curriculum.
3. Students must complete a three-semester-hour introductory course in sociology. Sociology 302 fulfills this requirement and may also be counted toward the social and behavioral science requirement of the core curriculum.
4. Students must complete a three-semester-hour course in human/ environmental biology: Biology 301E, 302D, 302E, 302F, 302G, 311C, or the equivalent. If biology coursework is not used for science and technology part I, any of these courses may be used to fulfill the science and technology part II requirement.
5. Students must complete three semester hours in economics. Certain economics courses may also be used to fulfill the social and behavioral sciences requirement of the core curriculum.
6. Students must complete three semester hours in child psychology or child development. Psychology 304 or Human Development and Family Sciences 313 accompanied with HDF 113L may be used to fulfill this requirement.
7. Students must complete at least nine semester hours of upperdivision coursework in the social and behavioral sciences (applied learning and development, anthropology, economics, educational psychology, government, history, kinesiology, psychology, sociology, Social Work 360K topics) in addition to other major requirements. Six of these nine hours may be upper-division social work electives.

## Field Sequence Requirements

The social work program requires that students complete 45 clock hours of supervised service learning related to social work to be admitted to the major, to upper-division courses in social work, and to the field practicum. These service learning hours may be used to meet course requirements in Social Work 310 and 312. Students must also complete 480 clock hours of fieldwork as part of the course requirements in Social Work 640 and 641. Students have the opportunity in the field practicum to develop the professional skills needed for entry-level social work positions as generalist practitioners. Adequate laboratory time through the field practicum is built into this professional program to provide students with an opportunity to test their developing skills in a real-life environment. At the same time, faculty members evaluate the student's professional development within the context of the educational objectives established for the experience. The goals are for the student to learn real-life practice, to develop skills, to relate concepts to skill development, to remain motivated to continue to learn, and to evaluate personal performance.

To enroll in the field practicum, students must meet the following requirements: (1) admission to the major in social work; (2) a University grade point average of at least 2.00; and (3) 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 122 semester hours required for the Bachelor of Social Work. No more than five one-semester courses taken on the pass/fail basis, 36 hours in any one field of study other than social work, and 54 hours in social work may be counted toward the 122-hour requirement.

## Minimum Scholastic Requirements

1. The student must fulfill the University-wide graduation (p. 19) requirements and the requirements of the Steve Hicks School of Social Work given earlier in this section.
2. To apply for admission to the social work major, a student must have earned a grade of at least $C$ in each of the following courses: Social Work 310, 312, 313, 318 and 325. The student must also have a University grade point average of at least 2.00 and a grade point average of at least 2.50 in all the courses he or she has completed that are part of the social work major requirements. Additional requirements are given in the section Admission to the Major in Social Work (p. 327).
3. Following the student's admission to the major, the student's coursework is reviewed periodically by the student and the academic adviser. Students must maintain a University grade point average of at least 2.00; they must also earn a grade of at least $C$ in each course listed as a social work major requirement and must maintain a grade point average of at least 2.50 in these courses. If the student has trouble meeting the professional or academic requirements of the major, the review process delineated in Student Standards for Social Work Education, available online, 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. The Steve Hicks School of Social Work follows Undergraduate Policies for Scholastic Probation and Dismissal.
5. All students who seek to reenter the Steve Hicks School of Social Work after having been placed on enforced withdrawal or academic dismissal must have the approval of the assistant dean for undergraduate programs.
6. Any student who has a grade of $C$ or higher in a course may not repeat the course and use the second grade to improve his or her grade point average without special permission of the assistant dean for undergraduate programs. If a student repeats a course, all grades received for the course are included in the grade point average.

## Order and Choice of Work

A pre-social work major may fulfill the requirements for application to the major in four or five long-session semesters, depending on the number of hours completed each semester. After admission to the major, students complete a three-semester professional sequence and additional requirements needed for the BSW degree.

Suggested Schedule for Pre-Social Work Majors
First Year

| First Term | Hours | Second Term | Hours | Summer Term | Hours |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RHE 306 |  | 3 A course to be counted towards the mathematics requirement of the core curriculum |  | 3 GOV 310L |  | 3 |
| S W 310 |  | 3 A course to be counted toward the U.S. history requirement of the core curriculum |  | 3 A course to be counted towards the natural science and technology part I requirement of the core curriculum |  | 3 |
| PSY 301 |  | 3 A course that carries a global cultures flag |  | 3 |  |  |
| SOC 302 |  | 3 A biology course to be counted toward the natural science and technology part I or II requirement of the core curriculum |  | 3 |  |  |
| UGS 302 or 303 |  | 3 A three-hour course to be counted toward the visual and performing arts requirement of the core curriculum |  | 3 |  |  |
|  | 15 |  | 15 |  | 6 |  |
| Second Year |  |  |  |  |  |  |
| First Term | Hours | Second Term | Hours | Summer Term | Hours |  |
| E 316L, 316M, 316N, or 316P |  | 3 S W 313 |  | $\begin{aligned} & 3 \text { GOV 306C, 312L, or } \\ & 312 \mathrm{P} \end{aligned}$ |  | 3 |
| S W 312 |  | 3 A course to be counted toward the U.S. history requirement of the core curriculum |  | 3 An economics course |  | 3 |
| Foreign language |  | 3-6 S W 325 |  | 3 |  |  |



| Three hours of upper- <br> division social and <br> behavioral science <br> coursework | 3 S W 334 |
| :--- | :--- | :---: | 3

Total credit hours: 121-127
The student must also complete all other remaining required coursework before the field practicum, including electives needed to provide the total of 122 semester hours required for the degree. No other courses may be taken concurrently with the field practicum courses.

## Minor and Certificate Programs <br> Minor

The transcript-recognized undergraduate academic minor must be completed in conjunction with an undergraduate degree at The University of Texas at Austin. For more information regarding the requirements for achieving a minor, including a comprehensive list of minors, please visit the Minor and Certificate Programs (p. 13) section of the Undergraduate Catalog.

## Social Work Minor

A Social Work Minor requires completion of 15 semester hours, six of which must be upper-division. All courses in the Social Work minor must be taken on a letter grade basis and students must earn a minimum grade of a $C$.

All interested students must apply for admission to the minor. To be eligible, students must satisfy the following requirements:

## Requirements

Hours
S W 310
Introduction to Social Work and Social Welfare ${ }^{1}$
Submission of a personal statement of interest in the Social Work Minor
Minimum University of Texas at Austin GPA of 2.0
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1. With a minimum grade of a "C"

## Required Courses

Requirements

## Hours

| S W 310 | Introduction to Social Work and <br> Social Welfare |
| :--- | :--- |
| S W 312 | Generalist Social Work Practice: <br> Knowledge, Values, and Skills |
| S W 325 | Foundations of Social Justice |

Students will choose 2 additional courses from S W 360K
numbered topic courses to complete their required 15 semester hours.

## Disability Studies Minor

A program that focuses on the nature, meaning, and consequences of what it is to be defined as disabled and explores the historical, cultural, economic, physiological, and socio-political dynamics of disability. Includes instruction in disability rights, legal issues, and public policy; literature, philosophy, and the arts; and/or research in the social sciences, education, and health sciences addressing social and experiential aspects of disability.

All interested students must apply for admission to the minor. To be eligible, students must 1) submit a personal statement of interest in the Disability Studies Minor, and 2) have an overall minimum University of Texas at Austin GPA of 2.5.

The Disability Studies Minor requirements are:
Requirements Hours

| S W 325 | Foundations of Social Justice |  |
| :---: | :---: | :---: |
| S W 360K | Current Social Work Topics (Topic 19: The Social Construction of Disability) | 3 |
| S W 360K | Current Social Work Topics (Topic 24: Making Systems Work for People with Disabilities) | 3 |
| Six hours chosen from: |  | 6 |
| ALD 322 | Individual Differences |  |
| ANT 302 | Cultural Anthropology |  |
| ANT 349C | Human Variation |  |
| EDP 376T | Topics in Educational Psychology |  |
| KIN 352K | Studies in Human Movement: <br> Topical Studies |  |
| KIN 360 | Programming for People with Disabilities |  |
| N 347 | Specialized Topics in Nursing |  |
| SED 303 | Autism Spectrum Disorder. Truths and Consequences |  |
| SLH 306K | Introduction to Speech, Language, and Hearing Sciences |  |
| SLH 308K | Perspectives on Deafness |  |
| S W 360K | Current Social Work Topics |  |
| Please Note: |  |  |
| All courses in the disabil letter grade basis, and st of a C. | ity studies minor must be taken on a udents must earn a minimum grade |  |

## Certificates

## Certificate in Public Safety for Bachelor of Social Work Students

The certificate in public safety provides undergraduate social work students with coursework and service learning opportunities that prepare them for careers in public safety. These careers may include work in such settings as law enforcement, fire departments, Emergency Medical Services (EMS), and emergency management at the local, state, and national levels.

Requirements:

The certificate will be awarded to students whose successful completion of the BSW program of work includes six courses ( 18 hours) in the area of focus, including:

## Requirements

| PSF 311 | Social Work and Public Safety | 3 |
| :---: | :---: | :---: |
| S W 325 | Foundations of Social Justice | 3 |
| Three courses chosen from the following: |  | 9 |
| S W 311 | Introductory Topics in Social Work (Topic 3: Introduction to the Criminal Justice System) |  |
| S W 360K | Current Social Work Topics (Topic <br> 3: Treatment of Substance Use Disorders) |  |
| S W 360K | Current Social Work Topics (Topic 4: Social Work Practice with Abused and Neglected Children and their Families) |  |
| S W 360K | Current Social Work Topics (Topic <br> 5: Advanced Topics in Social and Economic Justice) |  |
| S W 360K | Current Social Work Topics (Topic 6: Contemporary Issues in Domestic Violence) |  |
| S W 360K | Current Social Work Topics (Topic <br> 8: Leadership in the Community) |  |
| S W 360K | Current Social Work Topics (Topic 9: Loss and Grief: Individual, Family, and Cultural Perspectives) |  |
| S W 360K | Current Social Work Topics (Topic <br> 11: Communication Skills in Interdisciplinary Settings) |  |
| S W 360K | Current Social Work Topics (Topic 12: Social Work in the Legal System) |  |
| S W 360K | Current Social Work Topics (Topic 14: Working with Youth Gangs) |  |
| S W 360K | Current Social Work Topics (Topic 15: Youth, Delinquency, and Juvenile Justice) |  |
| S W 360K | Current Social Work Topics (Topic 17: Principles of Recovery and Relapse Prevention) |  |
| S W 360K | Current Social Work Topics (Topic 18: Mental Health Issues in Public Safety) |  |
| PSF 360K | Public Safety Field Immersion ${ }^{1}$ | 3 |

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1. Field Immersion Placements: Placements will be completed in public safety related settings, including such possibilities as the Austin Police Department, The University of Texas at Austin Police Department, Travis County Sheriff's Office, the Department of Corrections, City of Austin Office of Emergency Management, Travis County Office of Emergency Management, and Austin EMS.

Application Process:
Students will complete an application form and submit it to the Undergraduate Program Coordinator, who, in consultation with the

Senior Associate Dean for Academic Affairs, will offer admission to the Certificate Program.

## Courses

Please see the General Information Catalog for a list of courses. The following fields of study are housed in the Steve Hicks School of Social Work: Public Safety (PSF) and Social Work (S W).

# Appendix A: Texas Common Course Numbering System 

To help students transfer credit from one institution to another, Texas community colleges employ a statewide numbering system for their courses. The Texas Common Course Numbering system (TCCN) is a standard set of four-character abbreviations for academic disciplines and four-digit course numbers. The first digit of the number represents the academic level of the course ( 0 for subfreshman, 1 for freshman, and 2 for sophomore); the second represents the semester credit hour value of the course. Texas public universities, and some private ones, crossreference their courses with TCCN.

Listed below are TCCN course designations and their University transfer credit evaluations. In the University's three-digit numbering system, the first digit indicates the semester credit hour value of the course. The suffixes $A$ and $B$ indicate the first and second parts of a course; credit for each part is half the value indicated by the first digit.

Notes are given below the table.

| TCCN Designation | The University of Texas at Austin Transfer Credit |
| :---: | :---: |
| ACCT 2301 | ACC 311 |
| ACCT 2302 | ACC 312 |
| ACCT 2401 | ACC $412{ }^{1}$ |
| ACCT 2402 | ACC $412{ }^{1}$ |
| ANTH 2301 | ANT 301 |
| ANTH 2302 | ANT 304 |
| ANTH 2351 | ANT 302 |
| ANTH 2401 | ANT $401{ }^{1}$ |
| ARAB 1411 | ARA $406{ }^{3}$ |
| ARAB 1412 | ARA $407^{3}$ |
| ARAB 2311 | ARA $312 \mathrm{~K}^{3}$ |
| ARAB 2312 | ARA 312L ${ }^{3}$ |
| ARCH 1301 | ARC 318 K |
| ARCH 1302 | ARC 318L |
| ARCH 1311 | ARC $308{ }^{6}$ |
| ARTS 1301 | ARH 301 |
| ARTS 1303 | ARH 302 |
| ARTS 1304 | ARH 303 |
| ARTS 1311 | ART 312C |
| ARTS 1312 | ART 313C |
| ARTS 1316 | ART 311C |
| ARTS 1317 | ART 315K |
| ARTS 2316 | ART 311 K |
| ARTS 2323 | ART 316 K |
| ARTS 2326 | ART 313K |
| ARTS 2356 | ART 317K |
| ASTR 1103 | AST 103L |
| ASTR 1104 | AST 1 LAB |
| ASTR 1303 | AST 301 |
| ASTR 1304 | AST 309S |
| ASTR 1403 | AST 301+AST 103L |
| ASTR 1404 | AST 309S+1 LAB |


| BCIS 1305 | MIS 310 |
| :---: | :---: |
| BCIS 1405 | MIS 410 ${ }^{1}$ |
| BIOL 1106 | BIO 206LA ${ }^{2}$ |
| BIOL 1107 | BIO 206LB ${ }^{2}$ |
| BIOL 1306 | BIO $311 \mathrm{C}^{2}$ |
| BIOL 1307 | BIO $311 \mathrm{D}^{2}$ |
| BIOL 1308 | BIO 302E ${ }^{2}$ |
| BIOL 1309 | BIO 302D ${ }^{2}$ |
| BIOL 1322 | NTR 306 |
| BIOL 1406 | BIO 311C+BIO 206LA ${ }^{2}$ |
| BIOL 1407 | BIO $311 \mathrm{D}+\mathrm{BIO} 206 \mathrm{LB}^{2}$ |
| BIOL 1408 | BIO 302E+1 LAB ${ }^{2}$ |
| BIOL 1409 | BIO 302D+1 LAB ${ }^{2}$ |
| BIOL 2120 | BIO $1 \mathrm{LAB}^{2}$ |
|  | MIC $116{ }^{4}$ |
| BIOL 2121 | BIO $1 \mathrm{LAB}^{2}$ |
|  | MIC $119 \mathrm{~K}^{4}$ |
| BIOL 2301+2101 | BIO $416 \mathrm{~K}^{4}$ |
| BIOL 2302+2102 | BIO 416L ${ }^{4}$ |
| BIOL 2320 | BIO 3 SOPH ${ }^{2}$ |
|  | MIC 316 ${ }^{1,4}$ |
| BIOL 2321 | BIO 3 SOPH ${ }^{2}$ |
|  | MIC $319{ }^{4}$ |
| BIOL 2401 | BIO $416 \mathrm{~K}^{4}$ |
| BIOL 2402 | BIO 416L ${ }^{4}$ |
| BIOL 2420 | BIO 3 Soph+1 Lab |
|  | MIC $316^{1,4}+116 L^{4}$ |
| BIOL 2421 | BIO 3 Soph+1 Lab |
|  | MIC $319^{4}+119 \mathrm{~K}^{4}$ |
| CHEM 1111 | CH 104M |
| CHEM 1112 | CH 104N |
| CHEM 1311 | CH 301 |
| CHEM 1312 | CH 302 |
| CHEM 1411 | CH 301+CH 104M |
| CHEM 1412 | CH 302+CH 104N |
| CHEM 2123 | CH 110K |
| CHEM 2125 | CH 110L |
| CHEM 2323 | CH $310 \mathrm{M}{ }^{4}$ |
| CHEM 2325 | CH $310{ }^{4}$ |
| CHEM 2423 | $\mathrm{CH} 310 \mathrm{M}^{4}+\mathrm{CH} 110 \mathrm{~K}$ |
| CHEM 2425 | CH $310{ }^{4}+\mathrm{CH} 110 \mathrm{~L}$ |
| CHIN 1411 | CHI $406^{3}$ |
| CHIN 1412 | $\mathrm{CHI} 407^{3}$ |
| CHIN 2311 | CHI 312K |
| CHIN 2312 | CHI 312L |
| COMM 1307 | RTF 305 |
| COMM 1316 | COM 316 |
| COMM 2366 | RTF 306 |
| DANC 1151 | T D 112P |
| DANC 1241 | TD $212 \mathrm{~F}^{3}$ |
| DANC 1245 | TD $212 \mathrm{C}^{3}$ |
| DANC 2151 | T D 112P |
| DANC 2241 | TD $212 \mathrm{G}^{3}$ |
| DANC 2245 | T D 212D ${ }^{3}$ |
| DRAM 1120 | TD 114P ${ }^{3}$ |


| DRAM 1121 | TD $114 \mathrm{P}^{3}$ | GEOL 1401 | GEO 302K + 1 Lab |
| :---: | :---: | :---: | :---: |
| DRAM 1310 | T D 301 | GEOL 1402 | GEO 302K + 1 Lab |
| DRAM 1330 | T D 314C | GEOL 1403 | GEO 401 |
| DRAM 1351 | T D 313C | GEOL 1404 | GEO 405 |
| DRAM 1352 | T D 313D | GEOL 1445 | MNS 307+1 Lab |
| DRAM 2120 | T D $114 \mathrm{P}^{3}$ | GEOL 1447 | GRG 401K ${ }^{1}$ |
| DRAM 2121 | TD $114 \mathrm{P}^{3}$ | GERM 1411 | GER 406 ${ }^{3}$ |
| DRAM 2331 | TD 314M | GERM 1412 | GER $407^{3}$ |
| DRAM 2336 | T D 303C | GERM 2311 | GER 312 K |
| DRAM 2351 | T D 313E | GERM 2312 | GER 312L |
| DRAM 2361 | T D 317C | GOVT 2305 | GOV 3 US ${ }^{5}$ |
| DRAM 2362 | T D 317D | GOVT 2306 | GOV 306C5 |
| DRAM 2366 | RTF 306 | HECO 1322 | NTR 306 |
| ECON 2301 | ECO 304L | HIST 1301 | HIS 315K |
| ECON 2302 | ECO 304K | HIST 1302 | HIS 315L |
| EDUC 1100 | EDP $104{ }^{3}$ | HIST 2311 | HIS 309K |
| EDUC 1200 | EDP $204{ }^{3}$ | HIST 2312 | HIS 309L |
| EDUC 1300 | EDP 304 | HIST 2321 | HIS 301F |
| ENGL 1301 | RHE 306 | HIST 2322 | HIS 301J |
| ENGL 1302 | RHE 309K | HIST 2327 | HIS 317L |
| ENGL 2311 | RHE $317{ }^{4}$ | HIST 2328 | HIS 314K |
| ENGL 2321 | E 316L | HIST 2381 | HIS 317L |
| ENGL 2322 | E 316L | HIST 2382 | HIS 317L |
| ENGL 2323 | E 316L | HUMA 1315 | FA 310 |
| ENGL 2326 | E 316M | ITAL 1411 | ITL 406 ${ }^{3,4}$ |
| ENGL 2327 | E 316M | ITAL 1412 | ITL 407 ${ }^{3,4}$ |
| ENGL 2328 | E 316M | ITAL 2311 | ITL $312 \mathrm{~K}^{4}$ |
| ENGL 2331 | E 316N | ITAL 2312 | ITL 312L ${ }^{4}$ |
| ENGL 2332 | E 316N | JAPN 1411 | JPN 406 ${ }^{3}$ |
| ENGL 2333 | E 316N | JAPN 1412 | JPN 407 ${ }^{3}$ |
| ENGL 2341 | E 314L | JAPN 2311 | JPN $312 \mathrm{~K}^{3}$ |
| ENGL 2351 | E 314V (Topic 3) | JAPN 2312 | JPN 312L ${ }^{3}$ |
| ENGR 1204 | M E 210 | KINE 1306 | KIN 313 (Topic 1) ${ }^{1}$ |
| ENGR 1304 | M E $310^{1}$ | KINE 1308 | KIN 319K (Topic 2) ${ }^{1}$ |
| ENGR 2301 | EM 306 | KINE 1321 | KIN 319K (Topic 1) ${ }^{1}$ |
| ENGR 2302 | EM 311M | KINE 1331 | KIN 314 |
| ENGR 2305 | E E 302 | KINE 2356 | KIN 312 (Topic 2) |
| ENGR 2332 | EM 319 | KORE 1411 | KOR $406{ }^{3}$ |
| ENGR 2401 | EM 406 ${ }^{1}$ | KORE 1412 | KOR 407 ${ }^{3}$ |
| ENGR 2402 | EM $411 M^{1}$ | KORE 2311 | KOR 312 K |
| ENGR 2405 | E E 402 ${ }^{1}$ | KORE 2312 | KOR 312L |
| ENVR 1301 | GEO 302P | LATI 1411 | LAT $406{ }^{3}$ |
| ENVR 1401 | GEO 302P + 1 Lab | LATI 1412 | LAT $407{ }^{3}$ |
| FREN 1411 | FR 406 | LATI 2311 | LAT 311 |
| FREN 1412 | FR 407 | LATI 2312 | LAT 312K |
| FREN 2311 | FR 312K | MATH 1314 | M 301 |
| FREN 2312 | FR 312L | MATH 1316 | M 304E ${ }^{4}$ |
| GEOG 1301 | GRG 301C | MATH 1324 | M 303D |
| GEOG 1302 | GRG 305 | MATH 1325 | M 303K ${ }^{3}$ |
| GEOL 1301 | GEO 302K | MATH 1332 | M 302 |
| GEOL 1302 | GEO 302K | MATH 1342 | SDS 301 |
| GEOL $1303+1103$ | GEO 401 | MATH 1350 | M 316K |
| GEOL $1304+1104$ | GEO 405 | MATH 1351 | M 316L |
| GEOL 1345 | MNS 307 | MATH 1414 | M $401{ }^{1}$ |
| GEOL 1347 | GRG 301K | MATH 1442 | SDS $401{ }^{1}$ |


| MATH 2312 | M 305G | PHYS 1102 | PHY 102N |
| :---: | :---: | :---: | :---: |
| MATH 2313 | M $308 \mathrm{~K}^{3}$ or M $308 \mathrm{~N}^{3}$ | PHYS 1103 | AST 103L |
| MATH 2314 | M 308L ${ }^{3}$ or M $308 \mathrm{~S}^{3}$ | PHYS 1104 | AST 1 LAB |
| MATH 2315 | M 308M ${ }^{3}$ | PHYS 1105 | PHY 1 LAB |
| MATH 2318 | M $311{ }^{4}$ | PHYS 1107 | PHY 1 LAB |
| MATH 2320 | M $327 \mathrm{~K}^{3}$ | PHYS 1301 | PHY 302K |
| MATH 2412 | M 405G ${ }^{1}$ | PHYS 1302 | PHY 302L |
| MATH 2413 | M 408K or M 408N | PHYS 1303 | AST 301 |
| MATH 2414 | M 408L or M 408S | PHYS 1304 | AST 309S |
| MATH 2415 | M 408M | PHYS 1305 | PHY 309K |
| MATH 2418 | M 411 $1^{1,4}$ | PHYS 1307 | PHY 309L |
| MATH 2420 | M 427K | PHYS 1401 | PHY 302K+PHY 102M |
| MUAP | Applied music performance | PHYS 1402 | PHY 302L+PHY 102N |
|  | courses transfer as generic | PHYS 1403 | AST 301+AST 103L |
|  | semester hour credit in an | PHYS 1404 | AST 309S+1 LAB |
|  |  | PHYS 1405 | PHY 309K+1 LAB |
|  | majors is determined by the Butler | PHYS 1407 | PHY 309L+1 LAB |
|  | School of Music. | PHYS 2125 | PHY 103M |
| MUEN | Music ensemble courses transfer | PHYS 2126 | PHY 103N |
|  | with appropriate University | PHYS 2325 | PHY 303K |
|  | course numbers where applicable, | PHYS 2326 | PHY 303L |
|  | otherwise as generic semester hour credit in ensemble (ENS). | PHYS 2425 | PHY 303K+PHY 103M |
| MUSI 1181 | MUS $101 \mathrm{M}^{3}$ | PHYS 2426 | PHY 303L+PHY 103N |
| MUSI 1182 | MUS 101N ${ }^{3}$ | PORT 1411 | POR $406{ }^{4}$ |
| MUSI 1306 | MUS 302L | PORT 1412 | POR $407{ }^{4}$ |
| MUSI 1310 | MUS 307 | PORT 2311 | POR $312 \mathrm{~K}^{4}$ |
| MUSI 1311 | MUS 605A | PORT 2312 | POR 312L ${ }^{4}$ |
| MUSI 1312 | MUS 605B | PSYC 1100 | EDP $104{ }^{3}$ |
| MUSI 2116 | MUS $211 \mathrm{~A}^{3}$ | PSYC 1200 | EDP $204{ }^{3}$ |
| MUSI 2117 | MUS $211 \mathrm{~B}^{3}$ | PSYC 1300 | EDP 304 |
| MUSI 2181 | MUS 110J ${ }^{3}$ | PSYC 2301 | PSY 301 |
| MUSI 2182 | MUS $110 K^{3}$ | PSYC 2306 | PSY 306 |
| MUSI 2211 | MUS 412A ${ }^{3}$ | PSYC 2308 | PSY 304 |
| MUSI 2212 | MUS $412 \mathrm{~B}^{3}$ | PSYC 2316 | PSY 309 |
| MUSI 2216 | MUS 411A | PSYC 2317 | PSY 317 |
| MUSI 2217 | MUS 411B | PSYC 2319 | PSY 319K |
| MUS 2211 | MUS 412A ${ }^{3}$ | PSYC 2330 | PSY 308 |
| MUSI 2212 | MUS 412B ${ }^{3}$ | RUSS 1411 | RUS 406 |
| MUSI 2216 | MUS 411A | RUSS 1412 | RUS 407 |
| MUSI 2217 | MUS 411B | RUSS 2311 | RUS 312 K |
| MUSI 2311 | MUS 612A | RUSS 2312 | RUS 312L |
| MUSI 2312 | MUS 612B | SGNL 1301 | ASL 306 ${ }^{3,4}$ |
| PHED 1306 | KIN 313 (Topic 1) ${ }^{1}$ | SGNL 1302 | ASL 307 ${ }^{3,4}$ |
| PHED 1308 | KIN 319K (Topic 2) ${ }^{1}$ | SGNL 1401 | ASL 406 ${ }^{3,4}$ |
| PHED 1321 | KIN 319K (Topic 1) ${ }^{1}$ | SGNL 1402 | ASL 407 ${ }^{3,4}$ |
| PHED 1331 | KIN 314 | SGNL 2301 | ASL $312 \mathrm{~K}^{4}$ |
| PHED 2356 | KIN 312 (Topic 2) | SGNL 2302 | ASL 312L ${ }^{4}$ |
| PHIL 1301 | PHL 301 | SOCI 1301 | SOC 302 |
| PHIL 2303 | PHL 312 | SOCI 1306 | SOC 307E |
| PHIL 2306 | PHL 318 | SOCI 2301 | SOC 307C |
| PHIL 2307 | PHL 318K | SOCI 2326 | PSY 319 K |
| PHIL 2316 | PHL 301K | SOCW 2361 | S W 310 |
| PHIL 2321 | PHL 305 | SPAN 1411 | SPN 406 ${ }^{3,4}$ |
| PHYS 1101 | PHY 102M | SPAN 1412 | SPN 407 ${ }^{3,4}$ |
|  | PHY 102 M | SPAN 2311 | SPN $312 \mathrm{~K}^{4}$ |


| SPAN 2312 | SPN $312 L^{4}$ |
| :--- | :--- |
| SPCH 1315 | CMS $305^{4}$ |
| SPCH 1318 | CMS 315M |
| SPCH 1321 | CMS 306M |
| SPCH 2333 | CMS 310K |
| TECA 1303 | HDF 304 |
| TECA 1354 | HDF 313 |

1 This is a modified course number with a higher credit value than is normally offered at the University. The higher value does not affect the course's prerequisite or degree applicability.
Lower-division biology courses may transfer as generic credit, without a specific University course number. The terms "Frmn" and "Soph" identify freshman- and sophomore-level lecture credit. "Lab" identifies lower-division laboratory credit. For students in the School of Biological Sciences, such credit is applicable toward prerequisite and degree requirements only with department approval. For students in other degree plans that require specific biology courses, such credit is applicable only with the approval of the student's academic dean. Introductory major-track lecture credit (TCCN BIOL 1406, 1407, 1306, or 1307) generally transfers as Biology 311C and 311D. Major-track laboratory credit (TCCN BIOL 1106, 1107, or the lab components of 1406 and 1407) generally transfers with the modified course numbers BIO 206LA and 206LB. Nonmajor lecture credit (TCCN BIOL $1408,1409,1308$, or 1309) generally transfers as Biology 302E and 302D. Nonmajor laboratory credit (TCCN BIOL 1108, 1109, or the lab components of 1408 and 1409) transfers generically, because the University does not offer nonmajor lab courses.
This is a modified course number with a lower credit value than is normally offered at the University. In many cases, such transfer credit may be counted toward prerequisite or degree requirements in place of the higher-value University course; however, such substitution is at the discretion of the student's academic dean.
4 This is a course no longer offered at the University but still used in awarding transfer credit and still applicable toward certain degree requirements. For students in the School of Nursing, BIOL 2420, 2421, 2320, 2321, 2120, and 2121 transfer as retired Microbiology (MIC) courses.
5 Texas community colleges do not offer direct equivalents of The University of Texas at Austin's Government 310L, 312L. or 312P. GOVT $2305+2306$ together fulfill the core 070 requirement. Either GOVT 2305 or 2306 combines with Government 310L (but not with 312 L or 312 P ) to fulfill the core 070 requirement.
6
For School of Architecture students, ARCH 1311 transfers as generic architecture credit and Architecture 308 must be taken in residence.

## Appendix B: Course Abbreviations

The University offers courses in various fields of study, which are published in the General Information Catalog. Please see the Courses section of the General Information Catalog for fields of study and their corresponding abbreviations.

## School of Architecture Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Michelle Addington, Professor
Henry M. Rockwell Chair in Architecture
DEnvironD, Harvard University, 1997
Dean J Almy, Associate Professor
MArch, University of Texas at Austin, 1989
Anthony Alofsin, Professor
Roland Gommel Roessner Centennial Professorship in Architecture
PhD, Columbia University in the City of New York, 1987

Kevin S Alter, Professor
The Sid W. Richardson Centennial Professorship in Architecture MArch, Harvard University, 1990

Simon D Atkinson, Professor
Mike Hogg Professorship in Community and Regional Planning PhD, University of Sheffield, 1989

Adam Barbe, Lecturer
MLA, University of Texas at Austin, 2008
Michael L Benedikt, Professor
Hal Box Endowed Chair in Urbanism
MEnvironD, Yale University, 1975
Miroslava Benes, Associate Professor
PhD, Yale University, 1989
Kory Bieg, Associate Professor
MArch, Columbia University in the City of New York, 2002
Judith C Birdsong, Lecturer
MArch, University of Florida, 1992
John P Blood, Distinguished Senior Lecturer
MArch, Yale University, 1987
Yvonne M Boudreaux, Lecturer
MFA, University of Texas at Austin, 2007
Danelle Irene Briscoe, Associate Professor
MArch, Yale University, 2002
Coleman Coker, Professor of Practice
MFA, Memphis College of Art, 1994
Miriam S Collins, Assistant Professor
MCityP, Massachusetts Institute of Technology, 2012

Ulrich C Dangel, Associate Professor
MArch, University of Oregon, 1999
Elizabeth A Danze, Professor
Bartlett Cocke Regents Professorship in Architecture
MArch, Yale University, 1990
Tara A Dudley, Lecturer
PhD, University of Texas at Austin, 2013
Matt Fajkus, Associate Professor
MArch, Harvard University, 2005
Nerea Feliz Arrizabalaga, Assistant Professor

BArch, Universidad Politecnica de Madrid (UPM), 2001

Juliana Felkner, Assistant Professor
MArch, University of Kansas Main Campus, 2008
Edward R Ford, Visiting Professor
MArch, Washington University in St Louis, 1972
Gina Ford, Visiting Professor
MLA, Harvard University, 2003
Ilse L Frank, Lecturer
MLA, University of Pennsylvania, 2006
Betsy Frederick-Rothwell, Lecturer
MArch, University of California-Berkeley, 2002
Michael L Garrison, Professor
MArch, Rice University, 1971

Allison H Gaskins, Lecturer
MArch, University of Texas at Austin, 2007
Robert Scott Gill, Lecturer
MArch, Rice University, 1987
Tamie Michele Glass, Associate Professor
MArch, University of Oregon, 2001
Francisco Henning Gomes, Associate Professor
MArch, Harvard University, 1995
Martin Haettasch, Lecturer
MArch, Princeton University, 2007
Maggie Hansen, Assistant Professor
MLA, University of Virginia, 2010
Hope Hasbrouck, Associate Professor
MLArch, Harvard University, 1996
David D Heymann, Professor
Harwell Hamilton Harris Regents Professorship in Architecture
MArch, Harvard University, 1988
Michael Holleran, Associate Professor
PhD, Massachusetts Institute of Technology, 1991

Benjamin Ibarra Sevilla, Associate Professor
MS, Universidad de Alcala, 2005
Aleksandra Jaeschke, Assistant Professor
DDes, Harvard University, 2018
jenny L Janis, Lecturer
MLA, Harvard University, 2009
Richard Wayne Jennings, Adjunct Professor
PhD, Harvard University, 2008
Junfeng Jiao, Associate Professor
PhD, University of Washington - Seattle, 2010

Alex Karner, Assistant Professor
PhD, University of California-Davis, 2012
Daniel Koehler, Assistant Professor
PhD, University of Innsbruck, 2015
Sofia Krimizi, Visiting Professor
Ruth Carter Stevenson Regents Chair in the Art of Architecture

MS, Columbia University in the City of New York, 2010
Kyriakos Kyriakou, Visiting Professor
Ruth Carter Stevenson Regents Chair in the Art of Architecture
MS, Columbia University in the City of New York, 2010
Fernando Luiz Lara, Professor
PhD, University of Michigan-Ann Arbor, 2001
Charles M Lawrence, Adjunct Professor
BArch, University of Texas at Austin, 1981
Ryan C Lemmo, Lecturer
BArch, Rice University, 2009
Stephanie S Lemmo, Lecturer
BArch, Rice University, 2009
Charlton N Lewis, Senior Lecturer
MArch, University of Texas at Austin, 2013
Phoebe Lickwar, Associate Professor
MLA, Rhode Island School of Design, 2006
Katherine E Lieberknecht, Assistant Professor
PhD, Cornell University, 2008
Christopher A Long, Professor
Martin S. Kermacy Centennial Professorship in Architecture
PhD, University of Texas at Austin, 1993
Sarah L Lopez, Associate Professor
PhD, University of California-Berkeley, 2011
Mark Macek, Specialist
BArch, University of Texas at Austin, 1990
Piergianna Mazzocca, Lecturer
MS, Delft University of Technology, 2016
Adam Barrett Miller, Lecturer
MArch, University of California-Berkeley, 2016
S Milovanovic-Bertram, Associate Professor
MArch, Harvard University, 1974
Juan Miro, Professor
MArch, Yale University, 1991
Elizabeth Mueller, Associate Professor
PhD, University of California-Berkeley, 1992
Rasa Navasaityte, Lecturer
Mag, University of Applied Arts Vienna, 2010
Izabella Zsuzsanna Nuckels, Lecturer
MSHP, University of Texas at Austin, 2016
Michael Oden, Associate Professor
PhD, New Sch for Soc Research, 1992
Clay D Odom, Associate Professor
MS, Columbia University in the City of New York, 2003
Suhash Patel, Lecturer
MArch, Architectural Association School of Architecture, 2015
Robert G Paterson, Associate Professor
PhD, University of North Carolina at Chapel Hill, 1993
Ana Francisca Moreira aroso Pinto De Oliveira, Lecturer

MArch, Universitat Politecnica de Catalunya, 2008
Adam Aleksander Pyrek, Lecturer
MA, Architectural Association School of Architecture, 2005
Rachael Rawlins, Distinguished Senior Lecturer
JD, University of Texas at Austin, 1993
Sandra Rosenbloom, Research Professor
PhD, University of California-Los Angeles, 1975
Joyce Rosner, Distinguished Senior Lecturer
MArch, University of Houston, 1981
Gian Claudia Sciara, Assistant Professor
PhD, University of California-Berkeley, 2009
Allan W Shearer, Associate Professor
PhD, Harvard University, 2003
Keith A Shuley, Lecturer
JD, University of Houston, 1981
Igor P Siddiqui, Associate Professor
MArch, Yale University, 2003
Bjorn Ingmunn Sletto, Associate Professor
PhD, Cornell University, 2006
Marla Smith, Lecturer
MArch, University of Texas at Austin, 1996
Vincent L Snyder, Professor
MArch, Princeton University, 1988
Lawrence W Speck, Professor
The W. L. Moody, Jr. Centennial Professorship in Architecture
MArch, Massachusetts Institute of Technology, 1972
Robert F Stepnoski, Senior Lecturer
BArch, Boston Architectural Center, 2001
Kevin M Sullivan, Lecturer
MLA, University of Texas at Austin, 2013
Jean-Pierre Trou, Lecturer
MArch, University of Texas at Austin, 2010
Danilo F Udovicki, Associate Professor
PhD, Massachusetts Institute of Technology, 1995
Evan Voight, Lecturer
MBA, Butler University, 2012
Wilfried Wang, Professor
O'Neil Ford Centennial Chair in Architecture
MS, University College London, 1981
Jacob A Wegmann, Assistant Professor
MCP, Massachusetts Institute of Technology, 2006
Dason M Whitsett, Lecturer
MS, University of Texas at Austin, 2005
Nichole Wiedemann, Associate Professor
MA, Princeton University, 1992
Patricia A Wilson, Professor
PhD, Cornell University, 1975
Jennifer Lynn Wong, Lecturer

Ming Zhang, Professor
PhD, Massachusetts Institute of Technology, 2002

## Red McCombs School of Business Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Christopher Aarons, Lecturer
Marketing
MBA, Pepperdine University, 1999
Ashish Agarwal, Associate Professor
Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 2009
Shiva Agarwal, Assistant Professor
Management
PhD, University of Pennsylvania, 2017
Joshua D Alexander, Lecturer
Finance
MBA, University of Pennsylvania, 2009
Andres Almazan, Professor
Finance
PhD, Massachusetts Institute of Technology, 1996
Aydogan Alti, Associate Professor
Finance
PhD, Carnegie Mellon University, 2002
Gregory A Alves, Lecturer
Finance
MBA, University of San Francisco, 1994
Richard A Amato, Lecturer
Management
MBA, University of Texas at Austin, 1998
Tejwansh Singh Anand, Clinical Assistant Professor Information, Risk, and Operations Management
EdD, Teachers College, Columbia University, 2014
Edward G Anderson Jr, Professor
Mr. and Mrs. William F. Wright, Jr. Centennial Professorship for
Management of Innovative Technology
Information, Risk, and Operations Management
PhD, Massachusetts Institute of Technology, 1997
Mary Ann Anderson, Lecturer
Information, Risk, and Operations Management
MS, Massachusetts Institute of Technology, 1997
Stephen J Anderson, Assistant Professor
Marketing
PhD, London Business School, Regent's Park, 2015
Jeffrey S Andrien, Lecturer
Finance
MBA, University of Texas at Austin, 2005
Mihran A Aroian, Lecturer
Management
MBA, University of Texas at Austin, 1988

Rowland Atiase, Professor
Accounting
PhD, University of California-Berkeley, 1980
Patrick G Badolato, Senior Lecturer
Accounting
PhD, Duke University, 2010
Uttarayan Bagchi, Professor
Information, Risk, and Operations Management
PhD, Pennsylvania State University Main Campus, 1985
Anantaram Balakrishnan, Professor
Kenneth M. and Susan T. Jastrow II Chair in Business
Information, Risk, and Operations Management
PhD, Massachusetts Institute of Technology, 1985
Indranil R Bardhan, Professor
Foster Parker Centennial Professorship of Finance and Management
Information, Risk, and Operations Management
PhD, University of Texas at Austin, 2005
Michael J Barrett, Lecturer
Management
PhD, University of Texas at Austin, 1994
Caroline A Bartel, Associate Professor
Management
PhD, University of Michigan-Ann Arbor, 1998
Anitesh Barua, Professor
David Bruton, Jr. Centennial Chair in Business Decision Support Systems
Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 1990
Scott W Bauguess, Clinical Associate Professor
Finance
PhD, Arizona State University Main, 2004
Fred C Beach, Lecturer
Management
PhD, University of Texas at Austin, 2010
Ben Bentzin, Lecturer
Marketing
MBA, University of Pennsylvania, 1992
Y Sekou Bermiss, Associate Professor
Management
PhD, Northwestern University, 2009
Steven M Bowers, Lecturer
Finance
JD, University of Texas at Austin, 1982
Mark L Bradshaw, Lecturer
Accounting
JD, University of Texas at Austin, 1988
Steven M Brister, Lecturer
Marketing
MBA, University of Texas at Austin, 1989
Patrick L Brockett, Professor
Gus Wortham Memorial Chair in Risk Management and Insurance
Information, Risk, and Operations Management
PhD, University of California-Irvine, 1975
Andrew Brodsky, Assistant Professor

Management
PhD, Harvard University, 2017
Susan M Broniarczyk, Professor
Susie and John L. Adams Endowed Chair in Business
Marketing
PhD, University of Florida, 1992
Casandra B Brown, Visiting Professor
Management
PhD, University of Houston, 2002
Keith C Brown, Professor
Finance
PhD, Purdue University Main Campus, 1981
Patti J Brown, Lecturer
Accounting
MPA, University of Texas at Austin, 1989
Christopher J Burke, Lecturer
Information, Risk, and Operations Management
PhD, Indiana University at Bloomington, 1995
Ethan R Burris, Professor
Management
PhD, Cornell University, 2005
John Burrows, Lecturer
Management
PhD, Tulane University, 2003
John C Butler, Clinical Associate Professor
Finance
PhD, University of Texas at Austin, 1998
Johnny S Butler, Professor
J. Marion West Chair for Constructive Capitalism

Management
PhD, Northwestern University, 1974
Daniel O Campbell, Lecturer
Finance
MBA, University of Texas at Austin, 2006
Taylor Jay Canann, Lecturer
Information, Risk, and Operations Management
PhD, University of Minnesota-Twin Cities, 2019
William Carpenter, Lecturer
Finance
MBA, Texas A \& M University, 2008
Carlos Marinho Carvalho, Professor
Information, Risk, and Operations Management
PhD, Duke University, 2006
Deepayan Chakrabarti, Assistant Professor
Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 2005
Eric Chan, Assistant Professor
Accounting
PhD, University of Pittsburgh, Pittsburgh Campus, 2015
Gretchen B Charrier, Senior Lecturer
Accounting
MPA, University of Texas at Austin, 1996

Information, Risk, and Operations Management
PhD, Stanford University, 2013
Shuping Chen, Professor
The Wilton E. and Catherine A. Thomas Professorship in Accounting
Accounting
PhD, University of Southern California, 2003
Michael B Clement, Professor
KPMG Centennial Professorship
Accounting
PhD, Stanford University, 1997
Jonathan B Cohn, Associate Professor
Finance
PhD, University of Michigan-Ann Arbor, 2008
Caryn A Conley, Lecturer
Information, Risk, and Operations Management
PhD, New York University, 2008
Brett L Cornwell, Lecturer
Management
MBA, Texas A \& M University, 1991
Julia L Coronado, Clinical Associate Professor
Finance
PhD, University of Texas at Austin, 1997
Stephen E Courter, Lecturer
Management
MSBA, George Washington University, 1982
William H Cunningham, Professor
James L. Bayless Chair for Free Enterprise
Marketing
PhD, Michigan State University, East Lansing, 1971
John A Daly, Professor
Texas Commerce Bancshares, Inc. Centennial Professorship in Business
Communication, Frank A. Liddell, Sr. Centennial Professorship in
Communication
Management
PhD, Purdue University Main Campus, 1977
Paul Damien, Professor
B. M. (Mack) Rankin, Jr. Professorship in Business Administration

Information, Risk, and Operations Management
PhD, University of London, 1994
Justin Thomas Day, Lecturer
Finance
MBA, University of Texas at Austin, 2006
Jade S Dekinder, Clinical Assistant Professor
Marketing
PhD, Emory University, 2007
Douglas R Dierking, Distinguished Senior Lecturer
Management
PhD, University of Texas at Austin, 1997
Edward D Doan, Lecturer
Information, Risk, and Operations Management
MS, University of Texas at Austin, 2005
David M Dodd, Lecturer
Marketing

LLM, Georgetown University, 1981
John N Doggett, Senior Lecturer
Management
MBA, Harvard University, 1981
Andres Francisco Donangelo, Assistant Professor
Finance
PhD, University of California-Berkeley, 2011
Dain Donelson, Professor
Accounting
PhD, University of Illinois at Urbana-Champaign, 2007
Aysa A Dordzhieva, Assistant Professor
Accounting
MS, Moscow State University, 2011
Jason A Duan, Associate Professor
Marketing
PhD, Duke University, 2006
Janet M Dukerich, Professor
Harkins \& Company Centennial Chair
Management
PhD, University of Minnesota-Twin Cities, 1985
Robert C Duvic, Distinguished Senior Lecturer Finance
PhD, University of Texas at Austin, 1990
James S Dyer, Professor
The Fondren Foundation Centennial Chair in Business
Information, Risk, and Operations Management
PhD, University of Texas at Austin, 1969
Megan Jean Ehrisman, Lecturer
Marketing
MA, Ball State University, 2008
Tatiana Encheva, Lecturer
Information, Risk, and Operations Management
PhD, Belarusian State University, 1989
Mark W Evans, Lecturer
Management
MS, Texas A \& M University, 1998
Greta Contreras Fenley, Lecturer
Marketing
MS, University of Oklahoma Health Sciences Center, 1999
Erica Fennewald, Lecturer
Marketing
MA, University of Missouri - Saint Louis, 2009
William Russell Finney, Lecturer
Information, Risk, and Operations Management
BS, Oklahoma State University Main Campus, 1982
Fatemeh Firouzi, Lecturer
Information, Risk, and Operations Management
PhD, Universita degli Studi di Bergamo, 2014
Cesare Fracassi, Associate Professor
Finance
PhD, University of California-Los Angeles, 2009
Robert N Freeman, Professor
Arthur Andersen \& Co. Alumni Centennial Professorship in Accounting

Accounting
PhD, University of Texas at Austin, 1977
Robert B Freund, Distinguished Senior Lecturer Information, Risk, and Operations Management PhD, Cornell University, 1995

Liana Lee Frey, Lecturer
Marketing
MBA, Dartmouth College, 1998
Michael A Froehls, Lecturer
Marketing
PhD, Universitat Trier, 1995
William Fuchs, Associate Professor
Finance
PhD, Stanford University, 2005
Alessandro U Gabbi, Lecturer
Marketing
MBA, University of Texas at Austin, 1997
Rui Gao, Assistant Professor
Information, Risk, and Operations Management
PhD, Georgia Institute of Technology, 2018
Rajiv Garg, Assistant Professor
Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 2013
Linda V Gerber, Senior Lecturer
Marketing
PhD, University of Texas at Austin, 1983
Andrew D Gershoff, Professor
Foley's Professorship in Retailing
Marketing
PhD, University of Texas at Austin, 1999
Angie L Gette, Lecturer
Marketing
MBA, University of Texas at Austin, 2009
Stephen M Gilbert, Professor
Sam P. Woodson, Jr. Centennial Memorial Professorship in Business
Information, Risk, and Operations Management
PhD, Massachusetts Institute of Technology, 1992
Kate Gillespie, Associate Professor
Marketing
PhD, University of London, 1983
Linda L Golden, Professor
Joseph H. Blades Centennial Memorial Professorship in Insurance
Marketing
PhD, University of Florida, 1975
Kirk P Goldsberry, Lecturer
Management
PhD, University of California-Santa Barbara, 2007
Stephen G Goodson, Lecturer
Accounting
BA, Stephen F Austin State University, 1985
Michael H Granof, Professor
Ernst \& Young Distinguished Centennial Professorship of Accounting
Accounting

PhD, University of Michigan-Ann Arbor, 1972
Katie Gray, Senior Lecturer
Information, Risk, and Operations Management
MS, Texas A \& M University, 2004
Steven Gray Jr, Assistant Professor
Management
PhD, Washington University in St Louis, 2017
Paul Green, Assistant Professor
Management
MBA, Drexel University, 2010
Betsy S Greenberg, Associate Professor
Information, Risk, and Operations Management
PhD, University of California-Berkeley, 1986
John M Griffin, Professor
James A. Elkins Centennial Chair in Finance
Finance
PhD, Ohio State U Main Campus, 1997
Lale Guler, Clinical Associate Professor
Accounting
PhD, Texas A \& M University, 2007
Diwakar Gupta, Professor
Daniel B. Stuart Centennial Professorship in the Application of
Computers to Business \& Management
Information, Risk, and Operations Management
PhD, University of Waterloo, 1988
Genaro J Gutierrez, Associate Professor
Information, Risk, and Operations Management
PhD, Stanford University, 1988
Warren J Hahn, Clinical Associate Professor
Finance
PhD, University of Texas at Austin, 2005
Jeffrey W Hales, Professor
Charles T. Zlatkovich Centennial Professorship in Accounting
Accounting
PhD, Cornell University, 2003
Greg F Hallman, Distinguished Senior Lecturer
Finance
PhD, University of Texas at Austin, 1996
Nicholas Jennings Hallman, Assistant Professor
Accounting
PhD, University of Missouri - Columbia, 2016
Douglas Hannah, Assistant Professor
Management
PhD, Stanford University, 2016
Thomas B Harris IV, Adjunct Professor
Finance
BA, Texas A \& M University, 1980
David A Harrison, Professor
Charles and Elizabeth Prothro Regents Chair in Business Administration
Management
PhD, University of Illinois at Urbana-Champaign, 1988
Jay C Hartzell, Professor

Centennial Chair in Business Education Leadership, Lois and Richard Folger Dean's Leadership Chair in the McCombs School of Business,
Trammell Crow Regents Professorship in Business
Finance
PhD, University of Texas at Austin, 1998
Michael Graham Hasler, Senior Lecturer
Information, Risk, and Operations Management
MBA, University of Virginia, 1985
John William Hatfield, Professor
Arthur Andersen \& Co. Alumni Centennial Professorship in Finance
Finance
PhD, Stanford University, 2005
Jerry B Hays, Lecturer
Accounting
PhD, Nova Southeastern University, 2013
Andrew D Henderson, Associate Professor
Management
PhD, University of Texas at Austin, 1996
Ty Thomas Henderson, Associate Professor
Marketing
PhD, University of Wisconsin-Madison, 2007
Michele Hildrum, Lecturer
Management
MBA, Harvard University, 2007
D E Hirst, Professor
King Ranch Chair for Business Leadership, The John Arch White
Professorship in Business
Accounting
PhD, University of Minnesota-Twin Cities, 1992
Sebastian Hohenberg, Assistant Professor
Marketing
PhD, University of Mannheim, 2015
Terri Holbrook, Senior Lecturer
Accounting
MS, University of Texas at Arlington, 1991
Wayne D Hoyer, Professor
James L. Bayless/W. S. Farish Fund Chair for Free Enterprise
Marketing
PhD, Purdue University Main Campus, 1980
Regina W Hughes, Distinguished Senior Lecturer
Finance
MS, University of North Texas, 1982
Mark R Huson, Visiting Professor
Finance
PhD, University of Rochester, 1995
Insiya Hussain, Assistant Professor
Management
PhD, University of Maryland College Park, 2018
Hyun Hwang, Assistant Professor
Accounting
MS, Carnegie Mellon University, 2015
Paul J Irvine, Lecturer
Finance

PhD, University of Rochester, 1996
Sirkka L Jarvenpaa, Professor
James L. Bayless/Rauscher Pierce Refsnes, Inc. Chair in Business
Administration
Information, Risk, and Operations Management
PhD, University of Minnesota-Twin Cities, 1986
Ross G Jennings, Professor
Deloitte \& Touche Professorship in Accounting
Accounting
PhD, University of California-Berkeley, 1987
Vijay Joglekar, Lecturer
Information, Risk, and Operations Management
PhD, Capella University, 2014
Jeffrey L Johanns, Senior Lecturer
Accounting
BS, University of Illinois at Urbana-Champaign, 1977
Travis Lake Johnson, Assistant Professor
Finance
PhD, Stanford University, 2012
Donna Johnston-Blair, Lecturer
Accounting
MBA, University of Toronto, 1976
Steven J Kachelmeier, Professor
Randal B. McDonald Chair in Accounting
Accounting
PhD, University of Florida, 1988
Luke Kachersky, Adjunct Assistant Professor

## Marketing

PhD, City University of New York Bernard M Baruch College, 2008
J W Kamas, Senior Lecturer
Accounting
MBA, University of Chicago, 1991
Kelly L Kamm, Distinguished Senior Lecturer
Finance
PhD, University of Texas at Austin, 1992
Ari C Kang, Clinical Assistant Professor
Finance
PhD, Carnegie Mellon University, 2010
Huoy M Khoo, Lecturer
Information, Risk, and Operations Management
PhD, Georgia State University, 2006
Jessica Hartzog Koehler, Lecturer
Marketing
PhD, Auburn University, 2014
Prabhudev C Konana, Professor
Thomas O. Hicks Endowed Chair in Business, William H. Seay Centennial
Professorship in Business
Information, Risk, and Operations Management
PhD, University of Arizona, 1995
Lisa L Koonce, Professor
Deloitte \& Touche Chair in Accounting
Accounting
PhD, University of Illinois at Urbana-Champaign, 1990

Meeta Kothare, Adjunct Professor
Finance
PhD, University of Rochester, 1992
Samuel Arthur Kruger, Assistant Professor
Finance
PhD, Harvard University, 2014
Amit Kumar, Assistant Professor
Marketing
PhD, Cornell University, 2015
Guoming Lai, Associate Professor
Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 2009
Volker Laux, Professor
Aubrey and Elsie Fariss Professorship in Accounting
Accounting
PhD, Johann Wolfgang Goethe University, 2003
Sanford J Leeds, Distinguished Senior Lecturer
Finance
JD, University of Virginia, 1989
Brian R Lendecky, Distinguished Senior Lecturer
Accounting
MPA, University of Texas at Austin, 1999
Kathleen T Li, Assistant Professor
Marketing
MS, University of Pennsylvania, 2014
Robert W Ligon, Lecturer
MA, University of Missouri - Kansas City, 1987
Stephen T Limberg, Professor
PricewaterhouseCoopers Centennial Professorship in Accounting
Accounting
PhD, Arizona State University Main, 1982
Kristie J Loescher, Senior Lecturer
Management
PhD, Nova Southeastern University, 2004
James Richard Lowery Jr, Associate Professor
Finance
PhD, Carnegie Mellon University, 2009
Brian Ross Lukoff, Lecturer
Information, Risk, and Operations Management
PhD, Stanford University, 2010
Kathleen S Mackie, Distinguished Senior Lecturer
Management
PhD, University of Texas at Austin, 1995
Stephen P Magee, Professor
James L. Bayless/Enstar Corp. Chair in Business Administration Finance
PhD, Massachusetts Institute of Technology, 1969
Vijay Mahajan, Professor
John P. Harbin Centennial Chair in Business
Marketing
PhD, University of Texas at Austin, 1975
David R Martin, Lecturer
Finance

MS, Carnegie Mellon University, 1981
Luis D I Martins, Professor
Herb Kelleher Chair in Entrepreneurship, James B. Goodson
Professorship in Business
Management
PhD, New York University, 1997
Leigh M McAlister, Professor
Ed and Molly Smith Chair in Business Administration
Marketing
PhD, Stanford University, 1978
Christopher McClellan, Lecturer
Information, Risk, and Operations Management
MBA, University of Texas at Austin, 1990
John C McGuire Jr, Lecturer
Accounting
BA, Michigan State University, East Lansing, 1980
John M McInnis, Professor
Accounting
PhD, University of Iowa, 2008
Morgan E Medina, Lecturer
Marketing
MS, Texas A \& M University, 2008
Deirdre B Mendez, Lecturer
Management
PhD, University of Texas at Austin, 1986
Herbert A Miller, Senior Lecturer
Marketing
BS, University of Hartford, 1968
James D Miller, Lecturer
Finance
MBA, University of Texas at Austin, 2007
Lillian Fawn Mills, Professor
Beverly H. and William P. O'Hara Endowed Chair in Business
Accounting
PhD, University of Michigan-Ann Arbor, 1996
Daniel A Mitchell, Assistant Professor
Information, Risk, and Operations Management
PhD, University of Texas at Austin, 2014
John S Mitchell, Lecturer
Marketing
BBA, University of Texas at Austin, 1974
Elizabeth Ghini Moliski, Lecturer
Information, Risk, and Operations Management
PhD, University of Chicago, 2010
Tricia Moravec, Assistant Professor
Information, Risk, and Operations Management
MSc, Indiana University at Bloomington, 2015
Douglas J Morrice, Professor
Bobbie and Coulter R. Sublett Centennial Professorship
Information, Risk, and Operations Management
PhD, Cornell University, 1990
Matthew B Morris, Lecturer
Management

PhD, University of Texas at Austin, 2017
Melissa Lynne Murphy, Lecturer
Management
PhD, University of Texas at Austin, 2017
Stephanie L Murphy, Lecturer
Management
PhD, Louisiana Tech University, 2015
Jared Scott Murray, Assistant Professor
Information, Risk, and Operations Management
PhD, Duke University, 2013
Kumar Muthuraman, Professor
H. Timothy (Tim) Harkins Centennial Professorship in Business

Information, Risk, and Operations Management
PhD, Stanford University, 2003
Brett G Nabors, Lecturer
Accounting
BBA, Texas A \& M University, 2004
Andrea Narvaez, Lecturer
Marketing
MA, University of Maryland College Park, 2011
Daniel P Neuhann, Assistant Professor
Finance
PhD, University of Pennsylvania, 2016
James A Nolen Jr, Distinguished Senior Lecturer
Finance
MBA, University of Texas at Austin, 1976
Ganesh Padmanabhan, Lecturer
Marketing
MBA, University of Texas at Austin, 2012
Nathaniel Aaron Pancost, Assistant Professor Finance
PhD, University of Chicago, 2016
Robert Parrino, Professor
Lamar Savings Centennial Professorship in Finance
Finance
PhD, University of Rochester, 1992
Dennis S Passovoy, Lecturer
Management
MA, University of California-Los Angeles, 1974
Shefali V Patil, Assistant Professor
Management
PhD, University of Pennsylvania, 2014
Gaylen Paulson, Senior Lecturer
Management
PhD, Northwestern University, 1998
Robert W Pearson, Lecturer
Marketing
MBA, Fairleigh Dickinson University, 1993
Michael S Peterson, Lecturer
Management
MS, University of Texas at Austin, 2014
Robert A Peterson, Professor
John T. Stuart III Centennial Chair in Business

Marketing
PhD, University of Minnesota-Twin Cities, 1970
Bill Peterson, Lecturer
Marketing
MBA, Southern Methodist University, 1984
David E Platt, Senior Lecturer
Accounting
PhD, Cornell University, 1997

Francisco Polidoro Jr, Associate Professor
Management
PhD, University of Michigan-Ann Arbor, 2006
Mary L Poloskey, Lecturer
Finance
MBA, University of Texas at Austin, 1988
Mandy T Pope, Lecturer
Finance
MLA, Texas A \& M University, 2003
Lovelys Powell Jr, Lecturer
Marketing
MA, Texas State University, 1999
Eve Prilipko, Lecturer
Management
PhD, University of the Incarnate Word, 2014
Katie Elizabeth ortego Pritchett, Lecturer
Management
PhD, University of Texas at Austin, 2014
Shannon Marie Provost, Lecturer
Information, Risk, and Operations Management
PhD, University of Texas at Austin, 2016
Tommy D Pryor, Lecturer
Management
EdD, University of North Texas, 1982
Rajagopal Raghunathan, Professor
Zale Corporation Centennial Professorship in Business
Marketing
PhD, New York University, 2000
Ramkumar Ranganathan, Assistant Professor
Management
PhD, University of Pennsylvania, 2012
Raghunath S Rao, Associate Professor
Marketing
PhD, University of Minnesota-Twin Cities, 2007
Ramesh K Rao, Professor
The Margaret and Eugene McDermott Centennial Professorship of
Banking and Finance
Finance
DBA, Indiana University at Bloomington, 1978
Vijay Rathna Kumar, Lecturer
Information, Risk, and Operations Management
MS, Columbia University in the City of New York, 2019
Julie A Rennecker, Lecturer
Information, Risk, and Operations Management
PhD, Massachusetts Institute of Technology, 2001

Juan R Reyes, Lecturer
Information, Risk, and Operations Management
MS, St Edward's University, 2012
Joshua Rock, Lecturer
Information, Risk, and Operations Management
MS, University of Texas at Austin, 2010
Ehud I Ronn, Professor
Finance
PhD, Stanford University, 1983
Anindita Roy Bardhan, Lecturer
Accounting
MBA, Bentley College, 2000
Maytal Saar-Tsechansky, Professor
Information, Risk, and Operations Management
PhD, New York University, 2002
Michael A Sadler, Senior Lecturer
Finance
PhD, University of Texas at Austin, 1997
Thomas W Sager, Professor
Information, Risk, and Operations Management
PhD, University of Iowa, 1973
Lance R Sallis, Lecturer
Finance
MBA, University of Texas at Austin, 1989
Sara C Sanchez, Lecturer
Marketing
MEd, University of Texas at Austin, 2004
Jaime Joy Schmidt, Associate Professor
Accounting
PhD, Texas A \& M University, 2009
Jan Schneider, Clinical Assistant Professor Finance
PhD, University of British Columbia, 2006
Vito A Sciaraffia, Clinical Assistant Professor Finance
PhD, University of California-Berkeley, 2011
James G Scott, Professor
Information, Risk, and Operations Management
PhD, Duke University, 2009
Ronnie Shah, Lecturer
Finance
PhD, University of Texas at Austin, 2008
Dima Y Shamoun, Clinical Assistant Professor Finance
PhD, George Mason University, 2013
Thomas S Shively, Professor
Joe B. Cook Professorship in Business Administration
Information, Risk, and Operations Management
PhD, University of Chicago, 1986
Clemens Sialm, Professor
Texas Commerce Bancshares, Inc. Centennial Professorship in Commercial Banking
Finance

PhD, Stanford University, 2001
Stuart R Singer, Senior Lecturer
Accounting
JD, Columbia University in the City of New York, 1965
Stephen T Smith, Lecturer
Accounting
MS, University of Virginia, 1994
Jeremy Lee Smitheal, Lecturer
Finance
MBA, University of Texas at Austin, 2003
Michael Sockin, Assistant Professor
Finance
PhD, Princeton University, 2015
Garrett P Sonnier, Associate Professor
Marketing
PhD, University of California-Los Angeles, 2006
William A Spiller Jr, Lecturer
Accounting
PhD, Duke University, 1989
Rajashri Srinivasan, Professor
Sam Barshop Centennial Professorship in Marketing Administration

## Marketing

PhD, Pennsylvania State University Main Campus, 2000
Ioannis Stamatopoulos, Assistant Professor
Information, Risk, and Operations Management
PhD, Northwestern University, 2016
Laura T Starks, Professor
Charles E. and Sarah M. Seay Regents Chair in Finance
Finance
PhD, University of Texas at Austin, 1981
Deidra G Stephens, Lecturer
Management
PhD, University of Nebraska - Lincoln, 2009
Mary K Stephens, Lecturer
Marketing
BJ, University of Texas at Austin, 1998
Michael Sury, Lecturer
Finance
MBA, University of Chicago, 1995
Xavier Sztejnberg, Lecturer
Finance
MBA, University of Pennsylvania, 1996
Huseyin Tanriverdi, Associate Professor
Information, Risk, and Operations Management
DBA, Boston University, 2001
Trent Eugene Thurman, Lecturer
Management
MBA, University of Texas at Austin, 1994
Sheridan Titman, Professor
Walter W. McAllister Centennial Chair in Financial Services
Finance
PhD, Carnegie Mellon University, 1981
Puay khoon Toh, Associate Professor

Management
PhD, University of Michigan-Ann Arbor, 2007
Efstathios Tompaidis, Professor
Information, Risk, and Operations Management
PhD, University of Texas at Austin, 1994
Heidi K Toprac, Distinguished Senior Lecturer
Finance
MBA, University of Texas at Austin, 1991
Sara M Toynbee, Assistant Professor
Accounting
PhD, University of Washington - Seattle, 2017
John C Tuttle, Senior Lecturer
Information, Risk, and Operations Management
MBA, University of Arizona, 2015
David B Verduzco, Lecturer
Accounting
MPA, University of Texas at Austin, 1993
Miha Vindis, Adjunct Assistant Professor
Finance
PhD, University of Texas at Austin, 2018
Stephen M Walls, Senior Lecturer
Marketing
PhD, University of Texas at Austin, 2009
May Wang, Lecturer
Accounting
MPA, University of Texas at Austin, 2008
Adrian F Ward, Assistant Professor
Marketing
PhD, Harvard University, 2013
William J Way, Senior Lecturer
Finance
MBA, University of Texas at Austin, 1989
Wen Wen, Assistant Professor
Information, Risk, and Operations Management
PhD, Georgia Institute of Technology, 2012
Andrew B Whinston, Professor
Hugh Roy Cullen Centennial Chair in Business Administration
Information, Risk, and Operations Management
PhD, Carnegie Mellon University, 1962
Brian White, Associate Professor
Accounting
PhD, University of Illinois at Urbana-Champaign, 2012
Erin Wike, Lecturer
Marketing
MBA, DeVry University, 2010
Kenneth W Wiles, Clinical Associate Professor
Finance
PhD, University of Texas at Austin, 1991
Braden Mern Williams, Assistant Professor
Accounting
MAcc, Brigham Young University, 2009
John K Williams, Senior Lecturer
Marketing

MBA, University of Texas at Austin, 1994
Sinead Williamson, Assistant Professor
Information, Risk, and Operations Management
PhD, University of Cambridge, 2012
Randolph Wilt, Lecturer
Management
PhD, University of Texas at Austin, 2011
Yong Yu, Professor
Accounting
PhD, Pennsylvania State University Park, 2006
Thaleia Zariphopoulou, Professor
Chair in Mathematics, V. F. Neuhaus Centennial Professorship in Finance Information, Risk, and Operations Management PhD, Brown University, 1989

Weijia Zhang, Lecturer
Information, Risk, and Operations Management
PhD, University of Nebraska - Lincoln, 1996
Mindy Xiaolan, Assistant Professor
Finance
PhD, University of California-Los Angeles, 2014
Wuyang Zhao, Assistant Professor
Accounting
PhD, Fudan University, 2013
Ronghuo Zheng, Assistant Professor
Accounting
PhD, Carnegie Mellon University, 2016
Mingyuan Zhou, Associate Professor
Information, Risk, and Operations Management
PhD, Duke University, 2013
Kristina Zvinakis, Senior Lecturer
Accounting
PhD, University of Texas at Austin, 1998

## Moody College of Communication Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Michael D Akel, Lecturer
Radio-Television-Film
BS, Missouri State University, 1996
Donna Altuna, Lecturer
Speech, Language, and Hearing Sciences
MA, University of Texas at Austin, 1998
Miguel A Alvarez, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2009
Kristy Armer, Lecturer
Speech, Language, and Hearing Sciences
MS, Texas Tech University Health Sciences Center, 1996
Tracy L Arrington, Lecturer
Advertising
BA, University of Texas at Austin, 1997

Lucy Atkinson, Associate Professor
Advertising
PhD, University of Wisconsin-Madison, 2009
Dawna Ballard, Associate Professor
Communication Studies
PhD, University of California-Santa Barbara, 2002
Brendon Herbert Bankey, Assistant Professor of Instruction
Communication Studies
MA, Wake Forest University, 2013
Micah Robert Barber, Assistant Professor of Practice
Radio-Television-Film
MFA, University of Texas at Austin, 2011
Joshua Ben Barbour, Associate Professor
Communication Studies
PhD, University of Illinois at Urbana-Champaign, 2006
Benjamin L Bays, Associate Professor of Instruction
Radio-Television-Film
BA, University of Texas at Austin, 1998
Tamara A Bell, Lecturer
Advertising
PhD, University of Texas at Austin, 2004
Mary C Beltran, Associate Professor
Radio-Television-Film
PhD, University of Texas at Austin, 2002
Charles E Berg, Professor
Joe M. Dealey, Sr. Professorship in Media Studies
Radio-Television-Film
PhD, University of Texas at Austin, 1987
Jay Michael Bernhardt, Professor
Walter Cronkite Regents Chair in Communication, DeWitt C. Reddick
Regents Chair in Communication
Communication Studies
PhD, University of North Carolina at Chapel Hill, 1999
Mark E Bernstein, Associate Professor
Speech, Language, and Hearing Sciences
EdD, Boston University, 1980
Nicholas Charles lyon Bestor, Lecturer
Radio-Television-Film
MA, Emory University, 2012
Laura F Bright, Associate Professor
Advertising
PhD, University of Texas at Austin, 2008
Barry Brummett, Professor
Charles Sapp Centennial Professorship in Communication
Communication Studies
PhD, University of Minnesota-Twin Cities, 1978
James Martin Bunting, Lecturer
Advertising
BS, University of Texas at Austin, 1985
Michael Butterworth, Professor
Communication Studies
PhD, Indiana University at Bloomington, 2006
Courtney T Byrd, Professor

Speech, Language, and Hearing Sciences
PhD, Vanderbilt University, 2003
Julia Campbell, Assistant Professor
Speech, Language, and Hearing Sciences
PhD, University of Colorado at Boulder, 2015
Angela A Carey, Clinical Assistant Professor
Speech, Language, and Hearing Sciences
AuD, Pennsylvania College of Optometry, 2009
Robert W Carroll, Assistant Professor of Instruction
Communication Studies
PhD, University of Texas at Austin, 2018
Craig A Champlin, Professor
Lillie Hage Jamail Centennial Professorship
Speech, Language, and Hearing Sciences
PhD, University of Kansas Main Campus, 1987
Wenhong Chen, Associate Professor
Radio-Television-Film
PhD, University of Toronto, 2007
Deepak J Chetty, Assistant Professor of Practice
Radio-Television-Film
MFA, University of Texas at Austin, 2015
Erica Ciszek, Assistant Professor
Advertising
PhD, University of Oregon, 2014
Martin R Cox, Professor of Instruction
Communication Studies
MA, University of Texas at Austin, 1994
Isabella C Cunningham, Professor
Stan Richards Chair in Advertising and Public Relations Strategy
Advertising
PhD, Michigan State University, East Lansing, 1972
Joe H Cutbirth, Lecturer
Communication Studies
PhD, Columbia University in the City of New York, 2011
Natalie Marie Czimskey, Lecturer
Speech, Language, and Hearing Sciences
MA, University of Texas at Austin, 2011
Rene M Dailey, Associate Professor
Communication Studies
PhD, University of California-Santa Barbara, 2005
James A Dalthorp, Lecturer
Advertising
BFA, University of Texas at Austin, 1979
John A Daly, Professor
Texas Commerce Bancshares, Inc. Centennial Professorship in Business
Communication, Frank A. Liddell, Sr. Centennial Professorship in
Communication
Communication Studies
PhD, Purdue University Main Campus, 1977
Thomas J Darwin, Lecturer
Communication Studies
PhD, University of Texas at Austin, 1995
Natalie Brown Devlin, Assistant Professor

Advertising
PhD, The University of Alabama, 2014
Michael L Dezso, Lecturer
Advertising
BS, University of Texas at Austin, 1995
Lisa Z Dobias, Associate Professor of Practice
Advertising
BSAdv, University of Texas at Austin, 1989
Erin Eileen Donovan, Associate Professor
Communication Studies
PhD, University of Illinois at Urbana-Champaign, 2008
Minette E Drumwright, Associate Professor
Advertising
PhD, University of North Carolina at Chapel Hill, 1986
Anthony David Dudo, Associate Professor
Advertising
PhD, University of Wisconsin-Madison, 2011
Matthew S Eastin, Professor
Advertising
PhD, Michigan State University, East Lansing, 2001
Philip R Fagan, Lecturer
Radio-Television-Film
MA, Northern Illinois University, 2006
Drew Ferrante, Lecturer
Radio-Television-Film
BA, University of Massachusetts Lowell, 1990
James Andrew Fino, Lecturer
Radio-Television-Film
BS, University of Texas at Austin, 1988
Jessica Franco, Clinical Associate Professor
Speech, Language, and Hearing Sciences
PhD, University of Texas at Austin, 2008
Caroline J Frick, Associate Professor
Radio-Television-Film
PhD, University of Texas at Austin, 2005
Kathryn Fuller, Professor
William P. Hobby Centennial Professorship in Communication
Radio-Television-Film
PhD, Johns Hopkins University, 1992
Shiv Ganesh, Professor
Communication Studies
PhD, Purdue University Main Campus, 2000
Monike A Garabieta, Clinical Assistant Professor
Speech, Language, and Hearing Sciences
MS, Baylor University, 2011
Andrew S Garrison, Professor
Radio-Television-Film
BA, Antioch University, 1974
Amy L Gensler, Lecturer
Speech, Language, and Hearing Sciences
MA, University of Texas at Austin, 2000
Mikala J Gibson, Lecturer
Radio-Television-Film

BA, University of the Incarnate Word, 2000
Zoi Gkalitsiou, Assistant Professor
Speech, Language, and Hearing Sciences
MA, University of North Carolina at Greensboro, 2009
Lalitha Gopalan, Associate Professor
Radio-Television-Film
PhD, University of Rochester, 1993
Joshua G Gunn, Associate Professor
Communication Studies
PhD, University of Minnesota-Twin Cities, 2002
Liberty Hamilton, Assistant Professor
Speech, Language, and Hearing Sciences
PhD, University of California-Berkeley, 2013
Sharon E Jarvis, Associate Professor
Communication Studies
PhD, University of Texas at Austin, 2000
Roderick P Hart, Professor
Allan Shivers Centennial Chair in Communication
Communication Studies
PhD, Pennsylvania State University Park, 1970
Elin J Hartelius, Associate Professor
Communication Studies
PhD, University of Texas at Austin, 2008
Terry Hemeyer, Associate Professor of Practice
Advertising
MA, University of Denver, 1970
Maya L Henry, Associate Professor
Speech, Language, and Hearing Sciences
PhD, University of Arizona, 2009
Donald Wayne Howard, Associate Professor
Radio-Television-Film
MA, University of Texas at Austin, 1988
Jeff R Hunt, Adjunct Assistant Professor
Advertising
BJ, University of Texas at Austin, 1984
Dina D Inman, Assistant Professor of Instruction
Communication Studies
PhD, University of Texas at Austin, 2012
Andrew R Irvine, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2014
Noah Isenberg, Professor
George Christian Centennial Professorship
Radio-Television-Film
PhD, University of California-Berkeley, 1995
Jennifer L Jones Barbour, Assistant Professor of Instruction
Communication Studies
PhD, University of Illinois at Urbana-Champaign, 2006
Corinne A Jones, Assistant Professor
Speech, Language, and Hearing Sciences
PhD, University of Wisconsin-Madison, 2018
David S Junker, Associate Professor of Instruction Advertising

PhD, University of Wisconsin-Madison, 2004
Lee Ann Kahlor, Associate Professor
Advertising
PhD, University of Wisconsin-Madison, 2003
Sangeeta C Kamdar, Clinical Assistant Professor
Speech, Language, and Hearing Sciences
AuD, University of Texas at Austin, 2010
Octavio Kano-Galvan, Assistant Professor of Practice
Advertising
BFA, Universidad Nacional Autonoma de Mexico, 1996
Stuart David Kelban, Associate Professor
Radio-Television-Film
MFA, University of Virginia, 1989
Deena Kemp, Assistant Professor
Advertising
MA, University of South Florida, 2007
Diana Kerew-Shaw, Lecturer
Radio-Television-Film
BFA, Boston University, 1964
Jinsook Kim, Lecturer
Radio-Television-Film
PhD, University of Texas at Austin, 2019
Kendra D Koch, Adjunct Assistant Professor
Advertising
PhD, University of Texas at Austin, 2017
Karen J Kocher, Associate Professor of Practice
Radio-Television-Film
MFA, University of Texas at Austin, 1995
Rajinder Koul, Professor
Houston Harte Centennial Professorship in Communication
Speech, Language, and Hearing Sciences
PhD, Purdue University Main Campus, 1994
Shanti Kumar, Associate Professor
Radio-Television-Film
PhD, Indiana University at Bloomington, 1987
Sean R Labounty, Assistant Professor of Practice
Advertising
BSAdv, University of Texas at Austin, 1997
Tamar Laddy, Lecturer
Radio-Television-Film
MFA, University of Southern California, 2003
Huay-Bing Law, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2017
Rosemary Anne Lester-Smith, Assistant Professor
Speech, Language, and Hearing Sciences
PhD, University of Arizona, 2014
Anne Lewis, Associate Professor of Practice
Radio-Television-Film
BFA, School of Visual Arts, 2001
Deborah E Lewis, Associate Professor of Practice Radio-Television-Film

MFA, University of Texas at Austin, 1995
Richard M Lewis, Associate Professor
Radio-Television-Film
MFA, University of Texas at Austin, 1994
Cynthia Lieberman, Lecturer
Advertising
MA, Fielding Graduate Institute, 2010
Miranda K Lippold-Johnson, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2017
Chang Liu, Associate Professor
Speech, Language, and Hearing Sciences
PhD, Indiana University at Bloomington, 2002
Bradford Rodney Love, Associate Professor
Advertising
PhD, Michigan State University, East Lansing, 2007
Mirza Jeannette Lugo-neris, Clinical Assistant Professor
Speech, Language, and Hearing Sciences
PhD, University of Texas at Austin, 2016
Joel Lulla, Lecturer
Advertising
JD, University of North Carolina at Chapel Hill, 1982
Michael S Mackert, Professor
Advertising
PhD, Michigan State University, East Lansing, 2006
Madhavi Mallapragada, Associate Professor
Radio-Television-Film
PhD, University of Wisconsin-Madison, 2003
Galit Marmor-Lavie, Lecturer
Advertising
PhD, University of Texas at Austin, 2010
Madeline M Maxwell, Professor
Communication Studies
PhD, University of Arizona, 1980
Jennifer McClearen, Assistant Professor
Radio-Television-Film
PhD, University of Washington - Seattle, 2017
Matthew David McConaughey, Professor of Practice
Radio-Television-Film
BS, University of Texas at Austin, 1993
Cynthia Ann Mccreery, Associate Professor
Radio-Television-Film
BA, University of California-Santa Barbara, 2000
Matthew P McCutchin, Assistant Professor of Practice
Advertising
ALM, Harvard University, 2001
Matthew S McGlone, Professor
Communication Studies
PhD, Princeton University, 1994
Stephen J Mims, Lecturer
Radio-Television-Film
MA, University of Texas at Austin, 1987

John H Murphy, Professor
Advertising
PhD, University of Texas at Austin, 1974
Roland L Myers, Lecturer
Radio-Television-Film
BFA, University of Texas at Austin, 1999
Curran J Nault, Assistant Professor
Radio-Television-Film
PhD, University of Texas at Austin, 2013
Christa Rose, Lecturer
Advertising
MA, University of Texas at Austin, 2009
Susan Turner Nold, Senior Lecturer
Communication Studies
JD, University of Texas at Austin, 2004
Susan M O Connor, Lecturer
Radio-Television-Film
BA, University of Texas at Austin, 1994
Jeeyun Oh, Assistant Professor
Advertising
PhD, Pennsylvania State University Park, 2013
Mark Stephen Pannes, Lecturer
Advertising
JD, Fordham University, 1996
Korey A Pereira, Lecturer
Radio-Television-Film
BS, University of Texas at Austin, 2011
Maya C Perez, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2015
Alisa H Perren, Associate Professor
Radio-Television-Film
PhD, University of Texas at Austin, 2004
Michelle Hsieh Pho, Lecturer
Speech, Language, and Hearing Sciences
PhD, University of Texas at Austin, 2013
Stuart G Pollok, Lecturer
Radio-Television-Film
MFA, University of Southern California, 1993
Kathrynn Pounders, Assistant Professor
Advertising
PhD, Louisiana State University and Agricultural and Mechanical College, 2010

Simon Quiroz, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2013
Rohitash Rao, Assistant Professor of Practice
Advertising
BFA, Art Center College of Design, 1991
Paul J Raval, Associate Professor
Radio-Television-Film
MFA, University of Texas at Austin, 2004
Madeleine H Redlick, Assistant Professor of Instruction

Communication Studies
PhD, University of Texas at Austin, 2018
Erin Reilly, Professor of Practice
Advertising
MFA, Maine Media College, 2001
Scott F Rice, Associate Professor of Practice
Radio-Television-Film
MFA, University of Texas at Austin, 2003
Sandra Carolina Rivera, Lecturer
Advertising
MA, University of Texas at Austin, 2011
Joel D Rollins, Associate Professor of Instruction
Communication Studies
PhD, University of North Texas, 1996
Ryan Romero, Assistant Professor of Practice
Advertising
MA, University of Texas at Austin, 2004
Amanda Russell, Lecturer
Advertising
MBA, Mercy College, 2013
Thomas G Schatz, Professor
Mrs. Mary Gibbs Jones Centennial Chair in Communication
Radio-Television-Film
PhD, University of Iowa, 1976
Angeline Close Scheinbaum, Associate Professor
Advertising
PhD, University of Georgia, 2006
Nancy Schiesari, Professor
Radio-Television-Film
MA, Royal College of Art, 1978
Mary Schmitt, Assistant Professor
Speech, Language, and Hearing Sciences
PhD, Ohio State U Main Campus, 2013
David A Schneider, Lecturer
Radio-Television-Film
MA, Temple University, 2014
Joanna M Sciarrino, Professor
Isabella Cunningham Chair in Advertising
Advertising
MBA, Emory University, 1999
Suzanne Scott, Assistant Professor
Radio-Television-Film
PhD, University of Southern California, 2011
Timothy Andrew Scott, Lecturer
Advertising
MA, University of Texas at Austin, 2011
Adrien P Sebro, Lecturer
Radio-Television-Film
PhD, University of California-Los Angeles, 2019
Adriana Serrano, Assistant Professor
Radio-Television-Film
MFA, City University of New York Brooklyn College, 2003
Andrew B Shea, Professor

Radio-Television-Film
MA, California Institute of the Arts, 1985
Samantha Shorey, Assistant Professor
Communication Studies
MA, University of Massachusetts, 2014
Dwain Y Smith, Associate Professor
Radio-Television-Film
MFA, University of Texas at Austin, 2006
Spencer Smith, Assistant Professor
Speech, Language, and Hearing Sciences
PhD, University of Arizona, 2017
Liz Stavchansky de Lewis, Lecturer
Advertising
PhD, University of Texas at Austin, 2000
Paul J Stekler, Professor
Wofford Denius Chair in Entertainment Studies
Radio-Television-Film
PhD, Harvard University, 1983
Keri K Stephens, Associate Professor
Communication Studies
PhD, University of Texas at Austin, 2005
Sascha Stone Guttfreund, Associate Professor of Practice
Radio-Television-Film
BSc, University of Texas at Austin, 2014
Joseph Straubhaar, Professor
Amon G. Carter Centennial Professorship in Communication
Radio-Television-Film
PhD, Tufts University, 1981
Jurgen K Streeck, Professor
Communication Studies
PhD, Free University of Berlin, 1981
Natalie J Stroud, Professor
Communication Studies
PhD, University of Pennsylvania, 2006
Scott R Stroud, Associate Professor
Communication Studies
PhD, Temple University, 2006
Sharon L Strover, Professor
Philip G. Warner Regents Professorship in Communication
Radio-Television-Film
PhD, Stanford University, 1982
Todd M Thompson, Lecturer
Radio-Television-Film
MA, University of Texas at Austin, 2010
Beau M Thorne, Lecturer
Radio-Television-Film
MFA, University of Texas at Austin, 2006
Jeffrey Treem, Associate Professor
Communication Studies
PhD, Northwestern University, 2012
Anita L Vangelisti, Professor
Jesse H. Jones Centennial Professorship in Communication
Communication Studies

PhD, University of Texas at Austin, 1989
Heather Vaughn, Lecturer
Communication Studies
MA, University of Mississippi, 2005
Jun Wang, Associate Professor
Speech, Language, and Hearing Sciences
PhD, University of Nebraska - Lincoln, 2011
Samuel C Watkins, Professor
Radio-Television-Film
PhD, University of Michigan-Ann Arbor, 1994
Eric Taylor Webber, Lecturer
Advertising
BS, University of Texas at Austin, 1986
Gary B Wilcox, Professor
John A. Beck Centennial Professorship in Communication
Advertising
PhD, Michigan State University, East Lansing, 1982
Thomas Willett, Lecturer
Radio-Television-Film
MA, University of Texas at Austin, 1999
Jaime Lane Wright, Lecturer
Communication Studies
PhD, University of Texas at Austin, 2007
Amanda Zappler, Clinical Assistant Professor
Speech, Language, and Hearing Sciences
AuD, A T Still University of Health Sciences, School of Health Sciences, 2006

## College of Education Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Sondra K Abney, Assistant Professor of Practice
Kinesiology and Health Education
MEd, Concordia University at Austin, 2016
Lawrence D Abraham, Professor
Kinesiology and Health Education
EdD, Teachers College, Columbia University, 1975
Patricia Abril-Gonzalez, Assistant Professor
Curriculum and Instruction
MA, University of Colorado at Denver, 2009
Jennifer Keys Adair, Associate Professor
Curriculum and Instruction
PhD, Arizona State University Main, 2009
Ricardo C Ainslie, Professor
M. K. Hage Centennial Professorship in Education

Educational Psychology
PhD, University of Michigan-Ann Arbor, 1979
Patricia A Aronin, Adjunct Professor
Kinesiology and Health Education
MD, University of North Carolina at Chapel Hill, 1975
Robin D Atwood, Research Assistant Professor
Kinesiology and Health Education

EdD, University of Texas at Austin, 1999
Germine Gigi Awad, Associate Professor
Educational Psychology
PhD, Southern Illinois University Carbondale, 2005
Flavio S Azevedo, Associate Professor
Curriculum and Instruction
PhD, University of California-Berkeley, 2005
John Bartholomew, Professor
Teresa Lozano Long Endowed Chair in Kinesiology and Health Education
Kinesiology and Health Education
PhD, Arizona State University Main, 1996
Sarah Kate Bearman, Assistant Professor
Educational Psychology
PhD, University of Texas at Austin, 2005
Kimberly A Beckwith, Assistant Professor of Instruction
Kinesiology and Health Education
PhD, University of Texas at Austin, 2006
Tasha Beretvas, Professor
John L. and Elizabeth G. Hill Centennial Professorship
Educational Psychology
PhD, University of Washington - Seattle, 2000
Matthew Bowers, Assistant Professor of Instruction
Kinesiology and Health Education
PhD, University of Texas at Austin, 2011
Anthony L Brown, Professor
Curriculum and Instruction
PhD, University of Wisconsin-Madison, 2006
Christopher P Brown, Professor
Curriculum and Instruction
PhD, University of Wisconsin-Madison, 2004
Emily Cheshire Brown, Assistant Professor of Instruction Educational Psychology
PhD, Virginia Polytechnic Institute and State University, 2016
Jay Brown, Assistant Professor of Practice
Educational Leadership and Policy
PhD, University of Texas at Austin, 2016
Keffrelyn D Brown, Professor
Curriculum and Instruction
PhD, University of Wisconsin-Madison, 2006
Chris B Brownson, Clinical Associate Professor
Educational Psychology
PhD, University of Texas at Austin, 2001
Lawrence A Brownstein, Senior Lecturer
Educational Psychology
PhD, University of Texas at Austin, 1977
Diane P Bryant, Professor
Special Education
PhD, University of New Mexico Main Campus, 1986
Lynne J Bryant, Assistant Professor of Practice
Kinesiology and Health Education
PhD, University of Texas at Austin, 2017
Pamela S Buchanan, Assistant Professor of Instruction
Kinesiology and Health Education

MA, Sam Houston State University, 1988
Beth E Bukoski, Associate Professor of Practice
Educational Leadership and Policy
PhD, University of Texas at Austin, 2012
Aileen T Bumphus, Assistant Professor of Practice
Educational Leadership and Policy
PhD, University of Southern Mississippi, 2008
Rebecca Marie Callahan, Associate Professor
Educational Leadership and Policy
PhD, University of California-Davis, 2003
Lucy Camarillo, Assistant Professor of Practice
Curriculum and Instruction
MEd, University of Texas at Austin, 2009
Alfred R Cantu, Assistant Professor of Instruction
Curriculum and Instruction
MS, University of Texas at Austin, 2009
Debra Cantu, Assistant Professor of Practice
Educational Leadership and Policy
PhD, University of Texas at Austin, 2013
Norma V Cantu, Professor
Ken McIntyre Professorship for Excellence in School Leadership
Educational Leadership and Policy
JD, Harvard University, 1977
Cindy I Carlson, Professor
Educational Psychology
PhD, Indiana University at Bloomington, 1982
Sara Carpenter, Assistant Professor of Practice
Educational Psychology
PhD, University of Missouri - Saint Louis, 2018
Darla Marie Castelli, Professor
Catherine Mae Parker Centennial Professorship in Education
Kinesiology and Health Education
PhD, University of South Carolina - Columbia, 2002
Stephanie Washbourn Cawthon, Professor
Educational Psychology
PhD, University of Wisconsin-Madison, 2000
Joshua Childs, Assistant Professor
Educational Leadership and Policy
PhD, University of Pittsburgh, Pittsburgh Campus, 2015
Seung William Choi, Professor
Educational Psychology
PhD, University of Texas at Austin, 1996
Nathan Clemens, Associate Professor
Special Education
PhD, Lehigh University, 2009
Kevin 0 Cokley, Professor
Oscar and Anne Mauzy Regents Professorship for Educational Research and Development
Educational Psychology
PhD, Georgia State University, 1998
Amanda K Colbert, Lecturer
Kinesiology and Health Education
MPH, University of Texas Health Science Center at San Antonio, 2014

Sarah M Collins, Assistant Professor of Instruction
Educational Psychology
PhD, University of Texas at Austin, 2010
North A Cooc, Assistant Professor
Special Education
EdD, Harvard University, 2014
Edward F Coyle, Professor
Kinesiology and Health Education
PhD, University of Arizona, 1979
Kelly Crook, Associate Professor of Practice
Educational Leadership and Policy
PhD, University of Texas at Austin, 2003
Don S Crowley Jr, Assistant Professor of Practice
Kinesiology and Health Education
BS, University of Texas at Austin, 1990
Kelly Cruise, Assistant Professor of Practice
Curriculum and Instruction
MEd, University of Texas at Austin, 2010
Rosemary Magdalena Cuellar Torres, Assistant Professor of Practice
Curriculum and Instruction
MEd, University of Texas at El Paso, 2003
Denise Davila, Assistant Professor
Curriculum and Instruction
PhD, Ohio State U Main Campus, 2012
Noah De Lissovoy, Associate Professor
Curriculum and Instruction
PhD, University of California-Los Angeles, 2005
David Edward DeMatthews, Associate Professor
Educational Leadership and Policy
PhD, University of Maryland College Park, 2012
Christian Doabler, Assistant Professor
Special Education
PhD, University of Oregon, 2010
Susan K Dubois, Adjunct Assistant Professor
Kinesiology and Health Education
MD, University of Texas Health Science Center at Houston, 1988
Terrence M Eaton, Assistant Professor of Practice
Educational Leadership and Policy
PhD, Texas A \& M University, 2002
Criselda G Elizalde, Assistant Professor of Practice
Educational Leadership and Policy
JD, University of Texas at Austin, 1980
Michelle L Emery, Lecturer
Kinesiology and Health Education
MA, DePaul University, 2011
Nicholas M Enge, Lecturer
Kinesiology and Health Education
MS, Stanford University, 2012
John D Fair, Adjunct Professor
Kinesiology and Health Education
PhD, Duke University, 1970
Toni L Falbo, Professor
Educational Psychology

PhD, University of California-Los Angeles, 1973
Terry S Falcomata, Associate Professor
Special Education
PhD, University of Iowa, 2008
Brian K Farr, Clinical Associate Professor
Kinesiology and Health Education
MA, Ohio State U Main Campus, 1996
Roger P Farrar, Professor
Kinesiology and Health Education
PhD, University of Massachusetts, 1976
Maureen Patricia Fitzgerald, Assistant Professor of Instruction
Kinesiology and Health Education
PhD, Ohio State U Main Campus, 1990
Tracey Terece Flores, Assistant Professor
Curriculum and Instruction
PhD, Arizona State University Main, 2017
Christina Lin Fragale, Assistant Professor of Practice
Special Education
PhD, University of Texas at Austin, 2012
Maria E Franquiz, Professor
Curriculum and Instruction
PhD, University of California-Santa Barbara, 1995
Liliana M Garces, Associate Professor
Educational Leadership and Policy
EdD, Harvard University, 2011
Douglas C Garrard, Assistant Professor of Practice
Educational Leadership and Policy
EdD, University of Texas at Austin, 2006
Mary C Gerwels, Senior Lecturer
Educational Psychology
PhD, University of Texas at Austin, 1994
Erik Gnagy, Clinical Assistant Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 2012
Sallie Goach, Assistant Professor of Practice
Curriculum and Instruction
MEd, University of Texas at Austin, 2019
Juan C Gonzales, Professor of Practice
Educational Leadership and Policy
PhD, University of Illinois at Urbana-Champaign, 1981
Maria Jorgelina Gonzalez tristan, Assistant Professor
Curriculum and Instruction
PhD, Boston College, 2017
Jane S Gray, Assistant Professor of Practice
Educational Psychology
PhD, University of Texas at Austin, 2006
Terrance L Green, Associate Professor
Educational Leadership and Policy
PhD, University of Wisconsin-Madison, 2013
Lisa Griffin, Associate Professor
Kinesiology and Health Education
PhD, University of Western Ontario, 1999

Sheila Bernal Guzman, Lecturer
Curriculum and Instruction
PhD, University of Texas at Austin, 2006
Dorothy R Hall, Assistant Professor of Practice
Curriculum and Instruction
PhD, University of Texas at Austin, 2009
Lauren Hazledine Hampton, Assistant Professor
Special Education
PhD, Vanderbilt University, 2016
Corey M Hannah, Clinical Assistant Professor
Kinesiology and Health Education
EdD, University of Hartford, 2013
Louis Harrison, Professor
Charles H. Spence, Sr. Centennial Professorship in Education
Curriculum and Instruction
PhD, Louisiana State University and Agricultural and Mechanical College, 1997

Michelle Harrison, Research Assistant Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 2014
Conor Heffernan, Assistant Professor of Instruction
Kinesiology and Health Education
MPhil, University of Cambridge, 2016
Jennifer J Holme, Associate Professor
Educational Leadership and Policy
PhD, University of California-Los Angeles, 2000
Elaine K Horwitz, Professor
Curriculum and Instruction
PhD, University of Illinois at Urbana-Champaign, 1980
Hao-Yuan Hsiao, Assistant Professor
Kinesiology and Health Education
PhD, University of Delaware, 2015
Joan Hughes, Associate Professor
Curriculum and Instruction
PhD, Michigan State University, East Lansing, 2000
Thomas M Hunt, Associate Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 2007
Myra Infante Sheridan, Assistant Professor of Practice
Curriculum and Instruction
MFA, University of Texas - Pan American, 2011
Anita Israni, Assistant Professor of Instruction
Educational Psychology
PhD, University of Texas at Austin, 2015
Huriya Jabbar, Assistant Professor
Educational Leadership and Policy
PhD, University of California-Berkeley, 2014
Jody L Jensen, Professor
Kinesiology and Health Education
PhD, University of Maryland College Park, 1989
Judith R Jonas, Lecturer
Kinesiology and Health Education
PhD, University of Texas at Austin, 1996

Esbelle M Jowers, Research Assistant Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 1999
Sharon H Justice, Lecturer
Educational Leadership and Policy
PhD, Southern Illinois University Carbondale, 1974
Manuel J Justiz, Professor
A. M. Aikin Regents Chair in Education Leadership

Educational Leadership and Policy
PhD, Southern Illinois University Carbondale, 1977
Marilyn C Kameen, Professor
A. M. Aikin Regents Chair in Junior and Community College Education Leadership
Educational Leadership and Policy
EdD, University of Virginia (Old Code), 1974
Hyeon-Ah Kang, Assistant Professor
Educational Psychology
PhD, University of Illinois at Urbana-Champaign, 2016
Xiaofen Keating, Associate Professor
Curriculum and Instruction
PhD, University of Illinois at Urbana-Champaign, 2000
Timothy Z Keith, Professor
Educational Psychology
PhD, Duke University, 1982
Darren David Kelly, Assistant Professor of Instruction
Kinesiology and Health Education
PhD, University of Texas at Austin, 2012
Deborah C Kelt, Assistant Professor of Practice
Curriculum and Instruction
MA, University of Texas at Austin, 2008
Grace Kim, Assistant Professor
Curriculum and Instruction
PhD, University of California-Berkeley, 2017
Amy L Kinkade, Assistant Professor of Practice
Curriculum and Instruction
MEd, University of Texas at Austin, 1982
David A Klingbeil, Assistant Professor
Educational Psychology
PhD, University of Minnesota-Twin Cities, 2013
Eric Knuth, Professor
Curriculum and Instruction
PhD, University of Colorado at Boulder, 1999
Harold Willis Kohl III, Research Professor
Kinesiology and Health Education
PhD, University of Texas Health Science Center at Houston, 1993
Sophie Lalande, Assistant Professor
Kinesiology and Health Education
PhD, University of Auckland, 2008
Lara Latimer, Assistant Professor of Instruction
Kinesiology and Health Education
PhD, University of Texas at Austin, 2013
Cecil Wayne Lee, Assistant Professor of Practice Kinesiology and Health Education

BS, University of Texas at Austin, 1972
Linda Lee, Assistant Professor of Practice
Educational Leadership and Policy
PhD, University of Chicago, 2010
Min Liu, Professor
Curriculum and Instruction
EdD, West Virginia University, 1992
Alexandra Loukas, Professor
Barbie M. and Gary L. Coleman Professorship in Education
Kinesiology and Health Education
PhD, Michigan State University, East Lansing, 1997
Tia Madkins, Assistant Professor
Curriculum and Instruction
PhD, University of California-Berkeley, 2016
Beth Maloch, Professor
Elizabeth Shatto Massey Endowed Chair in Education
Curriculum and Instruction
PhD, Vanderbilt University, 2000
Zoe Mantarakis, Assistant Professor of Practice
Kinesiology and Health Education
BA, University of California-Berkeley, 2000
Jill A Marshall, Associate Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 1984
Charles Martinez, Professor
Sid W. Richardson Regents Chair in Community College Leadership, Lee
Hage Jamail Regents Chair in Education
Educational Psychology
PhD, Alliant International University-San Diego, 1997
Julie Maslowsky, Assistant Professor
Kinesiology and Health Education
PhD, University of Michigan-Ann Arbor, 2012
Christopher J McCarthy, Professor
Educational Psychology
PhD, Georgia State University, 1995
Nicole Kristen McLagan, Assistant Professor of Practice
Kinesiology and Health Education
PhD, University of Texas at Austin, 2014
Brian M Mills, Associate Professor
Kinesiology and Health Education
PhD, University of Michigan-Ann Arbor, 2012
Celena Mondie-Milner, Assistant Professor of Practice
Educational Leadership and Policy
PhD, Mercer U in Atlanta, 2015
Leslie A Moore, Senior Lecturer
Educational Psychology
PhD, University of Texas at Austin, 1987
Kathy Mosteller, Lecturer
Kinesiology and Health Education
BS, University of Alaska Anchorage, 1992
Katherine M Muenks, Assistant Professor
Educational Psychology
PhD, University of Maryland College Park, 2016

Sheri Mycue, Clinical Assistant Professor
Curriculum and Instruction
PhD, University of New Orleans, 2000
Kristin Neff, Associate Professor
Educational Psychology
PhD, University of California-Berkeley, 1997
Glenn L Nolly, Assistant Professor of Practice
Educational Leadership and Policy
PhD, University of Texas at Austin, 1997
Liesl Nydegger, Assistant Professor
Kinesiology and Health Education
PhD, Claremont Graduate University, 2015
Mark F O'Reilly, Professor
Audrey Rogers Myers Centennial Professorship in Education
Special Education
PhD, University of Illinois at Urbana-Champaign, 1992
Jessica J O'Bleness, Assistant Professor of Practice
Educational Psychology
PhD, University of lowa, 2015
Ruben D Olivarez, Professor
L. D. Haskew Centennial Professorship in Public School Administration

Educational Leadership and Policy
PhD, University of Texas at Austin, 1976
Martha N Ovando, Professor
Educational Leadership and Policy
PhD, University of Utah, 1981
Tolga Ozyurtcu, Assistant Professor of Instruction
Kinesiology and Health Education
PhD, University of Texas at Austin, 2014
Raymund A Paredes, Professor of Practice
Educational Leadership and Policy
PhD, University of Texas at Austin, 1973
Michael Parent, Assistant Professor
Educational Psychology
PhD, University of Florida, 2013
Keryn Elizabeth Pasch, Associate Professor
Kinesiology and Health Education
PhD, University of Minnesota-Twin Cities, 2007
James R Patton, Associate Professor of Instruction
Special Education
EdD, University of Virginia (Old Code), 1980
Katherina A Payne, Assistant Professor
Curriculum and Instruction
MA, Adelphi University, 2004
Peng Peng, Assistant Professor
Special Education
PhD, Vanderbilt University, 2014
Miguel Pinedo, Assistant Professor
Kinesiology and Health Education
PhD, University of California-San Diego, 2015
Sarah Rannells Powell, Associate Professor
Special Education
PhD, Vanderbilt University, 2009

Alina Pruitt, Assistant Professor of Instruction
Curriculum and Instruction
PhD, University of Texas at Austin, 2018
James E Pustejovsky, Assistant Professor
Educational Psychology
PhD, Northwestern University, 2013
Nayelli Ramos, Assistant Professor of Practice
Curriculum and Instruction
MEd, University of Texas at Austin, 2017
Karen J Rayne, Assistant Professor of Instruction
Educational Psychology
PhD, University of Texas at Austin, 2007
Richard J Reddick, Associate Professor
Educational Leadership and Policy
EdD, Harvard University, 2007
Paul E Resta, Professor
Ruth Knight Millikan Centennial Professorship
Curriculum and Instruction
PhD, Arizona State University Main, 1968
Pedro Reyes, Professor
Educational Leadership and Policy
PhD, University of Wisconsin-Madison, 1985
Sylvia Ramirez Reyna, Assistant Professor of Practice
Educational Leadership and Policy
PhD, Texas A \& M University, 2008
Geoff B Rich, Assistant Professor of Practice
Kinesiology and Health Education
MA, Southwestern Baptist Theological Seminary, 1995
Catherine Riegle-Crumb, Associate Professor
Curriculum and Instruction
PhD, University of Chicago, 2000
Aaron B Rochlen, Professor
Educational Psychology
PhD, University of Maryland College Park, 2000
Erin M Rodriguez, Assistant Professor
Educational Psychology
PhD, Vanderbilt University, 2012
Haydee M Rodriguez, Clinical Assistant Professor
Curriculum and Instruction
PhD, University of Texas at Austin, 2000
Laura Kelley Rojeski, Assistant Professor of Practice
Special Education
PhD, University of Texas at Austin, 2015
Ericka Roland, Assistant Professor of Practice
Educational Leadership and Policy
PhD, University of South Florida, 2018
Jason A Rosenblum, Assistant Professor of Instruction
Curriculum and Instruction
PhD, University of Texas at Austin, 2014
Victor Saenz, Professor
Educational Leadership and Policy
PhD, University of California-Los Angeles, 2005
Cynthia S Salinas, Professor

Ruben E. Hinojosa Regents Professorship in Education
Curriculum and Instruction
PhD, University of Texas at Austin, 1999
Mandy M Salinas, Assistant Professor of Instruction
Kinesiology and Health Education
PhD, University of Texas at Austin, 2017
Victor Sampson, Associate Professor
Curriculum and Instruction
PhD, Arizona State University Main, 2007
Trinidad San Miguel, Assistant Professor of Practice
Educational Leadership and Policy
PhD, University of Texas at Austin, 1996
Delida Sanchez, Associate Professor
Educational Psychology
PhD, Columbia University in the City of New York, 2002
Micheal Paige Sandbank, Assistant Professor
Special Education
PhD, Vanderbilt University, 2015
Michael T Sanders, Senior Lecturer
Kinesiology and Health Education
EdD, University of Tennessee, 1985
James L Schaller, Associate Professor
Special Education
PhD, University of Wisconsin-Madison, 1991
Diane L Schallert, Professor
Educational Psychology
PhD, Arizona State University Main, 1975
Julie Schell, Assistant Professor of Practice
Educational Leadership and Policy
EdD, Teachers College, Columbia University, 2009
Lauren Schudde, Assistant Professor
Educational Leadership and Policy
PhD, University of Wisconsin-Madison, 2013
Edwin R Sharpe Jr, Professor of Practice
Educational Leadership and Policy
PhD, University of Texas at Austin, 1980
Lisa Lynne Sigafoos, Assistant Professor of Practice
Special Education
PhD, University of Texas at Austin, 2018
Allison Skerrett, Professor
Curriculum and Instruction
PhD, Boston College, 2007
Jennifer C Smith, Assistant Professor of Instruction
Curriculum and Instruction
PhD, University of Arizona, 2002
Patricia Ann Somers, Associate Professor
Educational Leadership and Policy
PhD, University of New Orleans, 1992
Audrey M Sorrells, Associate Professor
Special Education
PhD, University of Florida, 1996
Emily Sparvero, Assistant Professor of Instruction Kinesiology and Health Education

PhD, University of Texas at Austin, 2008
Carol J Spaulding, Assistant Professor of Instruction
Kinesiology and Health Education
PhD, University of Texas at Austin, 2009
Jeanne Montgomery Spencer, Lecturer
Special Education
EdD, Auburn University, 1980
Dixie Stanforth, Associate Professor of Instruction
Kinesiology and Health Education
PhD, University of Texas at Austin, 2010
Philip R Stanforth, Clinical Associate Professor
Kinesiology and Health Education
MS, University of Arizona, 1978
Mary A Steinhardt, Professor
Kinesiology and Health Education
EdD, University of Houston, 1985
Audrey J Stone, Assistant Professor
Kinesiology and Health Education
PhD, University of Arkansas at Little Rock, 2010
Marie-Anne P Suizzo, Associate Professor
Educational Psychology
EdD, Harvard University, 1997
Ryan Sutton, Assistant Professor of Practice
Educational Psychology
PhD, Howard University, 2015
Deane Swanson, Lecturer
Kinesiology and Health Education
MEd, Springfield College, 1979
Elizabeth Swanson, Research Associate Professor PhD, University of Texas at Austin, 2008

Kathryn Klingler Tackett, Associate Professor of Practice
Special Education
PhD, University of Texas at Austin, 2009
Hirofumi Tanaka, Professor
Kinesiology and Health Education
PhD, University of Tennessee, 1995
Stephen West Taylor, Assistant Professor of Practice
Kinesiology and Health Education
DrJur, University of Kansas Main Campus, 1995
Janice S Todd, Professor
Kinesiology and Health Education
PhD, University of Texas at Austin, 1995
Jessica R Toste, Assistant Professor
Special Education
PhD, McGill University, 2011
Le Tran, Lecturer
Special Education
PhD, University of Texas at Austin, 2019
Galia I Tzvetkov, Assistant Professor of Practice
Kinesiology and Health Education
MA, National Sports Academy, 1992
Luis Urrieta, Professor

Suzanne B. and John L. Adams Endowed Professorship in Education Curriculum and Instruction
PhD, University of North Carolina at Chapel Hill, 2003
Angela Valenzuela, Professor
Educational Leadership and Policy
PhD, Stanford University, 1990
Sharon Vaughn, Professor
Manuel J. Justiz Endowed Chair in Math, Science, and Technology in
Teacher Education
Special Education
PhD, University of Arizona, 1981
Aaron Westerfield Voyles, Clinical Assistant Professor
Educational Leadership and Policy
EdD, Appalachian State University, 2015
Rachel Marie Watson, Assistant Professor of Instruction
Kinesiology and Health Education
MS, University of Texas at Austin, 2016
Melissa R Wetzel, Associate Professor
Curriculum and Instruction
PhD, Washington University in St Louis, 2007
Tiffany A Whittaker, Associate Professor
Educational Psychology
PhD, University of Texas at Austin, 2003
Molly Trinh Wiebe, Assistant Professor of Practice
Curriculum and Instruction
PhD, University of Texas at Austin, 2016
Joe Wilcox, Specialist
Educational Leadership and Policy
PhD, University of Texas at Austin, 2018
Brandy L Windham, Lecturer
Special Education
MEd, University of Texas at Austin, 2014
Mary J Worthy, Professor
Curriculum and Instruction
PhD, University of Virginia (Old Code), 1989
Danielle Wright, Assistant Professor of Practice
Educational Leadership and Policy
PhD, University of Texas at Austin, 2009
Veronica Yan, Assistant Professor
Educational Psychology
PhD, University of California-Los Angeles, 2014

## Cockrell School of Engineering Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Jacob A Abraham, Professor
Cockrell Family Regents Chair in Engineering \#8
Electrical and Computer Engineering
PhD, Stanford University, 1974
P A Abusali, Lecturer
Aerospace Engineering and Engineering Mechanics

PhD, University of Texas at Austin, 1983
Maruthi R Akella, Professor
E. P. Schoch Professorship in Engineering

Aerospace Engineering and Engineering Mechanics
PhD, Texas A \& M University, 1998
Deji Akinwande, Professor
Electrical and Computer Engineering
PhD, Stanford University, 2010
Farshid Alambeigi, Assistant Professor
Mechanical Engineering
MSE, Johns Hopkins University, 2017
David T Allen, Professor
Melvin H. Gertz Regents Chair in Chemical Engineering
Chemical Engineering
PhD, California Institute of Technology, 1983
Hal S Alper, Professor
Z. D. Bonner Professorship of Chemical Engineering

Chemical Engineering
PhD, Massachusetts Institute of Technology, 2006
Andrea Alu, Adjunct Professor
Electrical and Computer Engineering
PhD, Universita degli Studi Roma Tre, 2007
Catherine G Ambrose, Adjoint Associate Professor
Biomedical Engineering
PhD, University of Texas at Austin, 1992
Jeffrey G Andrews, Professor
Cockrell Family Chair in Engineering \#17
Electrical and Computer Engineering
PhD, Stanford University, 2002
Joshua Apte, Assistant Professor
Civil, Architectural, and Environmental Engineering
MS, University of California-Berkeley, 2008
Ari Arapostathis, Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1982
Biniam Kidanemariam Aregawi, Lecturer
Civil, Architectural, and Environmental Engineering
MS, Lawrence Technological University, 2011
Francois Baccelli, Professor
Simons Chair in Mathematics and Electrical and Computer Engineering
Electrical and Computer Engineering
These d'Etat, Universite de Paris XI, Paris-Sud, 1983
Vaibhav Bahadur, Associate Professor
Mechanical Engineering
PhD, Purdue University Main Campus, 2008
Aaron Blair Baker, Associate Professor
Biomedical Engineering
PhD, Harvard University, 2006
Efstathios Bakolas, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, Georgia Institute of Technology, 2011
Michael Baldea, Associate Professor
Chemical Engineering

PhD, University of Minnesota-Twin Cities, 2006
Matthew Thomas Balhoff, Professor
Bank of America Centennial Professorship in Petroleum Engineering
Petroleum and Geosystems Engineering
PhD, Louisiana State University and Agricultural and Mechanical College, 2005

Sanjay K Banerjee, Professor
Cockrell Family Regents Chair in Engineering \#4
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 1983
Seth Robert Bank, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#6
Electrical and Computer Engineering
PhD, Stanford University, 2006
James Andrew Bankson, Adjoint Associate Professor
Biomedical Engineering
PhD, Texas A \& M University, 2001
Suzanne Barber, Professor
AT\&T Foundation Endowed Professorship in Engineering
Electrical and Computer Engineering
PhD, University of Texas at Arlington, 1992
Jonathan F Bard, Professor
Mechanical Engineering
DSc, George Washington University, 1979
Joel W Barlow, Adjunct Professor
Chemical Engineering
PhD, University of Wisconsin-Madison, 1970
Ronald E Barr, Professor
Mechanical Engineering
PhD, Marquette University, 1975
Michael E Barrett, Research Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1996
Oguzhan Bayrak, Professor
Phil M. Ferguson Professorship in Civil Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Toronto, 1999
Joseph J Beaman Jr, Professor
Earnest F. Gloyna Regents Chair in Engineering
Mechanical Engineering
ScD, Massachusetts Institute of Technology, 1979
Mikhail A Belkin, Adjunct Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 2004
Adela Ben-Yakar, Professor
Harry L. Kent, Jr. Professorship in Mechanical Engineering
Mechanical Engineering
PhD, Stanford University, 2001
Jeffrey K Bennighof, Research Professor
Aerospace Engineering and Engineering Mechanics
PhD, Virginia Polytechnic Institute and State University, 1986
Srinivas V Bettadpur, Associate Professor
Aerospace Engineering and Engineering Mechanics

PhD, University of Texas at Austin, 1993
Amit Bhasin, Professor
Civil, Architectural, and Environmental Engineering
DPhil, Texas A \& M University, 2006
Chandra R Bhat, Professor
Joe J. King Chair of Engineering
Civil, Architectural, and Environmental Engineering
PhD, Northwestern University, 1991
J Eric Bickel, Associate Professor
Mechanical Engineering
PhD, Stanford University, 1999
George Biros, Professor
W. A. Tex Moncrief, Jr. Endowment in Simulation-Based Engineering and

Sciences - Endowed Chair No. 2
Mechanical Engineering
PhD, Carnegie Mellon University, 2000
Fabrizio Bisetti, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of California-Berkeley, 2007
David G Bogard, Professor
Baker Hughes Incorporated Centennial Professorship
Mechanical Engineering
PhD, Purdue University Main Campus, 1982
Raghu Bollapragada, Assistant Professor
Mechanical Engineering
MS, Northwestern University, 2015
Paul M Bommer, Distinguished Senior Lecturer
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1979
Roger T Bonnecaze, Professor
William and Bettye Nowlin Chair in Engineering
Chemical Engineering
PhD, California Institute of Technology, 1991
John D Borcherding, Adjunct Professor
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1972
Maura Borrego, Professor
Mechanical Engineering
PhD, Stanford University, 2003
David L Bourell, Professor
Mechanical Engineering
PhD, Stanford University, 1979
Alan C Bovik, Professor
Cockrell Family Regents Chair in Engineering \#3
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 1984
Stephen Boyles, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2009
Joan F Brennecke, Professor
Cockrell Family Chair in Engineering \#16
Chemical Engineering
PhD, University of Illinois at Urbana-Champaign, 1989

Amy Brock, Assistant Professor
Biomedical Engineering
PhD, Harvard University, 2004
Gregory L Brooks, Associate Professor of Practice
Civil, Architectural, and Environmental Engineering
MArch, University of Texas at Austin, 1996
Steven L Bryant, Adjunct Professor
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1986
Tan Thanh Bui, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, Massachusetts Institute of Technology, 2007
John H Byrne, Adjoint Professor
Biomedical Engineering
PhD, Polytechnic University, 1973
Carlos H Caldas, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 2003
Constantine Caramanis, Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 2006
Chih-Hao Chang, Associate Professor
Mechanical Engineering
PhD, Massachusetts Institute of Technology, 2008
Randall J Charbeneau, Professor
Jewel McAlister Smith Professorship in Engineering
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1978
William S Charlton, Professor
John J. McKetta Energy Professorship in Engineering
Mechanical Engineering
PhD, Texas A \& M University, 1999
James R Chelikowsky, Professor
W. A. Tex Moncrief, Jr. Chair in Computational Materials

Chemical Engineering
PhD, University of California-Berkeley, 1975
Dongmei Chen, Associate Professor
Mechanical Engineering
PhD, University of Michigan-Ann Arbor, 2006
Jingyi Chen, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, Stanford University, 2014
Ray T Chen, Professor
Keys and Joan Curry/Cullen Trust Endowed Chair
Electrical and Computer Engineering
PhD, University of California-Irvine, 1991
Derek Chiou, Adjunct Associate Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 1999
Kevin Clarno, Associate Professor
Mechanical Engineering
PhD, Texas A \& M University, 2004
Christian Claudel, Assistant Professor

Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 2010
Patricia Clayton, Assistant Professor
Civil, Architectural, and Environmental Engineering
MSCE, University of Washington - Seattle, 2010
Noel T Clemens, Professor
Cockrell Family Chair for Departmental Leadership \#2, Clare Cockrell
Williams Centennial Chair in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, Stanford University, 1991
John Cline, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2012
Thomas J Connolly, Lecturer
Aerospace Engineering and Engineering Mechanics
Mechanical Engineering
PhD, University of Texas at Austin, 2000
Lydia Maria Contreras, Associate Professor
Chemical Engineering
PhD, Cornell University, 2008
Elizabeth Cosgriff-Hernandez, Professor
L. B. (Preach) Meaders Professorship in Engineering

Biomedical Engineering
PhD, Case Western Reserve University, 2005
Brady R Cox, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2006
Richard H Crawford, Professor
Mechanical Engineering
PhD, Purdue University Main Campus, 1989
Alfonso Cuevas, Associate Professor of Instruction
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1990
Michael Arthur Cullinan, Assistant Professor
Mechanical Engineering
PhD, Massachusetts Institute of Technology, 2011
Adriana Costa Da Silveira, Adjunct Assistant Professor
Biomedical Engineering
PhD, University of Florida, 1998
Hugh C Daigle, Associate Professor
Petroleum and Geosystems Engineering
PhD, Rice University, 2011
Walter K Daniel, Lecturer
Aerospace Engineering and Engineering Mechanics
MS, Georgia Institute of Technology, 1986
Clinton N Dawson, Professor
John J. McKetta Centennial Energy Chair in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, Rice University, 1988
Gustavo A De Veciana, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#2
Electrical and Computer Engineering

PhD, University of California-Berkeley, 1993
Neil E Deeds, Lecturer
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1999
Mojdeh Delshad, Research Professor
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1986
Leszek F Demkowicz, Professor
W. A. Tex Moncrief, Jr. Chair in Computational Engineering and Sciences II
Aerospace Engineering and Engineering Mechanics
PhD, Cracow Univ of Technology, 1982
Brandi L DeMont, Lecturer
Biomedical Engineering
PhD, University of Texas at Austin, 2010
Ashish Deshpande, Associate Professor
Mechanical Engineering
PhD, University of Michigan-Ann Arbor, 2007
Mazen Diab, Lecturer
Biomedical Engineering
PhD, City University of New York The City College, 2011
Luigi Dibiase, Adjunct Associate Professor
Biomedical Engineering
MD, University of Bari, 2000
David DiCarlo, Associate Professor
Petroleum and Geosystems Engineering
PhD, Cornell University, 1994
Kenneth R Diller, Professor
Robert M. and Prudie Leibrock Endowed Professorship in Engineering
Biomedical Engineering
ScD, Massachusetts Institute of Technology, 1972
Georgios-Alex Dimakis, Associate Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 2008
Brian Dinsmoor, Lecturer
Chemical Engineering
MS, University of Texas at Austin, 1979
Dragan Djurdjanovic, Associate Professor
Mechanical Engineering
PhD, University of Michigan-Ann Arbor, 2002
Ananth Dodabalapur, Professor
Motorola Regents Chair in Electrical and Computer Engineering \#1
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1990
Berkin Dortdivanlioglu, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 2020
Ricardo H Dunia, Lecturer
Chemical Engineering
PhD, University of Texas at Austin, 1997
Andrew K Dunn, Professor
Donald J. Douglass Centennial Professorship in Engineering
Biomedical Engineering

PhD, University of Texas at Austin, 1997
Mary V Eberlein, Associate Professor of Instruction
Electrical and Computer Engineering
PhD, University of Tennessee, 1996
Thomas F Edgar, Professor
George T. and Gladys H. Abell Endowed Chair of Engineering
Chemical Engineering
PhD, Princeton University, 1971
Thomas A Edison, Senior Lecturer
Chemical Engineering
PhD, University of Maryland College Park, 1998
John G Ekerdt, Professor
Dick Rothwell Endowed Chair in Chemical Engineering
Chemical Engineering
PhD, University of California-Berkeley, 1979
Chadi Said El Mohtar, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, Purdue University Main Campus, 2008
Ayman Yehia El-Ezabi, Visiting Associate Professor
Electrical and Computer Engineering
PhD, North Carolina State University, 2000
Robert B Eldridge, Distinguished Senior Lecturer
Chemical Engineering
PhD, University of Texas at Austin, 1986
Janet L Ellzey, Professor
Mechanical Engineering
PhD, University of California-Berkeley, 1985
Stanislav Emelianov, Adjunct Professor
Biomedical Engineering
PhD, University of Moscow, 1992
Michael D Engelhardt, Professor
Adnan Abou-Ayyash Centennial Professorship in Transportation Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1989
James Engstrom, Visiting Professor
Chemical Engineering
PhD, California Institute of Technology, 1987
Mattan Erez, Professor
Electrical and Computer Engineering
PhD, Stanford University, 2007
David N Espinoza, Associate Professor
Petroleum and Geosystems Engineering
PhD, Georgia Institute of Technology, 2011
Brian L Evans, Professor
Engineering Foundation Professorship
Electrical and Computer Engineering
PhD, Georgia Institute of Technology, 1993
Scott Evans, Assistant Professor of Practice
Mechanical Engineering
PhD, University of Texas at Austin, 2005
Ofodike A Ezekoye, Professor
W. R. Woolrich Professorship in Engineering

Mechanical Engineering
PhD, University of California-Berkeley, 1991

William F Fagelson, Assistant Professor of Instruction
Electrical and Computer Engineering
PhD, University of Texas at Austin, 2004
Eric P Fahrenthold, Professor
Mechanical Engineering
PhD, Rice University, 1984
Donglei Fan, Associate Professor
Mechanical Engineering
PhD, Johns Hopkins University, 2007
Kasey M Faust, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, Purdue University Main Campus, 2015
Marc D Feldman, Adjunct Professor
Biomedical Engineering
MD, University of Pennsylvania, 1981
Gregory L Fenves, Professor
Cockrell Family Chair in Engineering \#15, Regents Chair in Higher Education Leadership, Ed and Caroline Hyman Endowed Presidential Leadership Chair
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1984
Paulo J Ferreira, Adjunct Professor
Mechanical Engineering
PhD, University of Illinois at Urbana-Champaign, 1996
Raissa Patricia Ferron, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, Northwestern University, 2008
Mark M Flynn, Assistant Professor of Instruction
Electrical and Computer Engineering
PhD, University of Texas at Austin, 2003
Kevin J Folliard, Professor
Warren S. Bellows Centennial Professorship in Civil Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1995
John Timothy Foster, Associate Professor
Petroleum and Geosystems Engineering
PhD, Purdue University Main Campus, 2009
David W Fowler, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Colorado at Boulder, 1965
Wallace T Fowler, Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1965
Douglas J Fox Jr, Adjunct Assistant Professor
Biomedical Engineering
MD, Washington University in St Louis, 1999
Benny D Freeman, Professor
William J. (Bill) Murray, Jr. Endowed Chair of Engineering
Chemical Engineering
PhD, University of California-Berkeley, 1988
Keith A Friedman, Senior Lecturer

Chemical Engineering
PhD, University of Texas at Austin, 2003
Venkat Ganesan, Professor
Kenneth A. Kobe Professorship in Chemical Engineering
Chemical Engineering
PhD, Massachusetts Institute of Technology, 1999
Vijay K Garg, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#5
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1988
George Georgiou, Professor
Dula D. Cockrell Centennial Chair in Engineering \#2
Biomedical Engineering
Chemical Engineering
PhD, Cornell University, 1987
Andreas Gerstlauer, Associate Professor
Electrical and Computer Engineering
PhD, University of California-Irvine, 2004
Ranjit Gharpurey, Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1995
Omar Ghattas, Professor
John A. and Katherine G. Jackson Chair in Computational Geosciences
Mechanical Engineering
PhD, Duke University, 1988
Joydeep Ghosh, Professor
Schlumberger Centennial Chair in Electrical Engineering
Electrical and Computer Engineering
PhD, University of Southern California, 1988
Robert B Gilbert, Professor
Cockrell Family Chair for Departmental Leadership \#3, Brunswick-
Abernathy Regents Professorship in Soil Dynamics and Geotechnical
Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1993
Yael R Glazer, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2018
Milos Gligoric, Assistant Professor
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 2015
David B Goldstein, Professor
Stanley P. Finch Centennial Professorship in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, California Institute of Technology, 1990
Shadi Goodarzi, Research Assistant Professor
Mechanical Engineering
PhD, Ecole des Hautes Etudes Commerciales, 2016
John B Goodenough, Professor
Virginia H. Cockrell Centennial Chair in Engineering
Electrical and Computer Engineering
Mechanical Engineering
PhD, University of Chicago, 1952
Kenneth E Gray, Professor

Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1963
Derek A Haas, Assistant Professor
Mechanical Engineering
PhD, University of Texas at Austin, 2008
Michael Richard Haberman, Assistant Professor
Mechanical Engineering
PhD, Georgia Institute of Technology, 2007
Hazem Hajj, Visiting Associate Professor
Electrical and Computer Engineering
PhD, University of Wisconsin Colleges, 1996
Matthew J Hall, Professor
Mechanical Engineering
PhD, Princeton University, 1987
Neal Hall, Associate Professor
Electrical and Computer Engineering
PhD, Georgia Institute of Technology, 2004
Gary A Hallock, Professor
Electrical and Computer Engineering
PhD, Rensselaer Polytechnic Institute, 1982
Mark F Hamilton, Professor
W.A. (Bill) Cunningham Professorship in Engineering

Mechanical Engineering
PhD, Pennsylvania State University Main Campus, 1983
Grani Adiwena Hanasusanto, Assistant Professor
Mechanical Engineering
PhD, Imperial College London, 2015
Alex Hanson, Assistant Professor
Electrical and Computer Engineering
SM, Massachusetts Institute of Technology, 2016
Raymond Jackson Harshbarger III, Adjunct Professor
Biomedical Engineering
MD, University of Rochester, 1994
Hillary Hart, Distinguished Senior Lecturer
Civil, Architectural, and Environmental Engineering
PhD, Bryn Mawr College, 1981
John J Hasenbein, Professor
Mechanical Engineering
PhD, Georgia Institute of Technology, 1999
Robert W Heath Jr, Professor
Cockrell Family Regents Chair in Engineering \#7
Electrical and Computer Engineering
PhD, Stanford University, 2002
Robert E Hebner, Research Professor
Mechanical Engineering
PhD, University of Missouri - Rolla, 1971
Zoya Heidari, Associate Professor
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 2011
Adam Heller, Research Professor
Chemical Engineering
PhD, Hebrew University, 1961
Todd A Helwig, Professor

Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1994
Deborah S Hempel-Medina, Senior Lecturer
Petroleum and Geosystems Engineering
MBA, Southern Methodist University, 2001
Lea Hildebrandt Ruiz, Assistant Professor
Chemical Engineering
PhD, Carnegie Mellon University, 2011
Nhat Minh Ho, Lecturer
Civil, Architectural, and Environmental Engineering
BArchE, University of Texas at Austin, 2010
Ben R Hodges, Professor
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1997
Erik M Holland, Lecturer
Civil, Architectural, and Environmental Engineering
MA, California State University-Northridge, 2015
Rodney Horton, Adjunct Professor
Biomedical Engineering
MD, University of Texas Southwestern Medical Center at Dallas, 1988
Trevor Daniel Hrynyk, Adjunct Assistant Professor
Civil, Architectural, and Environmental Engineering PhD, University of Toronto, 2013

Qin Huang, Professor
Dula D. Cockrell Centennial Chair in Engineering \#1
Electrical and Computer Engineering
PhD, University of Cambridge, 1992
Rui Huang, Professor
Bettie Margaret Smith Professorship in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, Princeton University, 2001
Thomas J Hughes, Professor
Peter O'Donnell, Jr. Chair in Computational and Applied Mathematics
Aerospace Engineering and Engineering Mechanics
PhD, University of California-Berkeley, 1974
Chun Huh, Research Professor
Petroleum and Geosystems Engineering
PhD, University of Minnesota-Duluth, 1965
Todd E Humphreys, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, Cornell University, 2008
Tanya Hutter, Assistant Professor
Mechanical Engineering
PhD, University of Cambridge, 2013
Gyeong S Hwang, Professor
Matthew Van Winkle Regents Professorship in Chemical Engineering Chemical Engineering
PhD, California Institute of Technology, 1999
Jean Incorvia, Assistant Professor
Electrical and Computer Engineering
PhD, Harvard University, 2015
Ilyas M Iyoob, Lecturer
Mechanical Engineering

PhD, University of Texas at Austin, 2007
Moriba Jah, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Colorado at Boulder, 2005
Vijay Janapa Reddi, Adjunct Associate Professor
Electrical and Computer Engineering
PhD, Harvard University, 2010
Ning Jiang, Associate Professor
Biomedical Engineering
PhD, Georgia Institute of Technology, 2005
Lizy K John, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#3
Electrical and Computer Engineering
PhD, Pennsylvania State University Main Campus, 1993
Blair Johnson, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, Cornell University, 2016
Keith P Johnston, Professor
M. C. (Bud) and Mary Beth Baird Endowed Chair

Chemical Engineering
PhD, University of Illinois at Urbana-Champaign, 1981
Bailey B Jones, Lecturer
Mechanical Engineering
MSME, University of Colorado at Boulder, 2002
Brandon A Jones, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Colorado at Boulder, 2010
Miguel Jose-Yacaman, Adjunct Professor
Chemical Engineering
PhD, Nat University of Mexico, 1973
Maria Juenger, Professor
Civil, Architectural, and Environmental Engineering
PhD, Northwestern University, 1999
Christine L Julien, Professor
Annis and Jack Bowen Endowed Professorship in Engineering
Electrical and Computer Engineering
DSc, Washington University in St Louis, 2004
Ari B Kahn, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, George Mason University, 2006
Loukas F Kallivokas, Professor
Civil, Architectural, and Environmental Engineering
PhD, Carnegie Mellon University, 1995
Lynn E Katz, Professor
Hussein M. Alharthy Centennial Chair in Civil Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Michigan-Ann Arbor, 1993
Fayez S Kazi, Assistant Professor of Practice
Civil, Architectural, and Environmental Engineering
MSE, University of Texas at Austin, 2001
Benjamin Keith Keitz, Assistant Professor
Chemical Engineering

PhD, California Institute of Technology, 2013
Sarfraz Khurshid, Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 2004
Hyun Jung Kim, Assistant Professor
Biomedical Engineering
PhD, Yonsei University, 2005
Spyridon A Kinnas, Professor
Civil, Architectural, and Environmental Engineering
PhD, Massachusetts Institute of Technology, 1985
Kerry A Kinney, Professor
L. P. Gilvin Centennial Professorship in Civil Engineering

Civil, Architectural, and Environmental Engineering
PhD, University of California-Davis, 1996
Mary Jo Kirisits, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 2000
Dale E Klein, Professor
Frank and Kay Reese Endowed Professorship in Engineering
Mechanical Engineering
PhD, University of Missouri - Columbia, 1977
Kara Kockelman, Professor
DeWitt C. Greer Centennial Professorship in Transportation Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1998
Joseph Hong Yui Koo, Lecturer
Mechanical Engineering
ScD, George Washington University, 1987
Brian A Korgel, Professor
Ernest Cockrell, Jr., Memorial Chair in Engineering
Chemical Engineering
PhD, University of California-Los Angeles, 1997
Desiderio Kovar, Professor
The BFGoodrich Endowed Professorship in Materials Engineering
Mechanical Engineering
PhD, Carnegie Mellon University, 1995
Jaydeep Prakash Kulkarni, Assistant Professor
Electrical and Computer Engineering
PhD, Purdue University Main Campus, 2009
Krishna Kumar, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Cambridge, 2015
Manish Kumar, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 2010
Kirby A Kuntz, Assistant Professor of Practice
Civil, Architectural, and Environmental Engineering
PhD, Pennsylvania State University Main Campus, 1994
Erhan Kutanoglu, Associate Professor
Mechanical Engineering
PhD, Lehigh University, 1999
Stelios Kyriakides, Professor
John Webb Jennings Chair in Engineering

Aerospace Engineering and Engineering Mechanics
PhD, California Institute of Technology, 1980
Larry W Lake, Professor
Shahid and Sharon Ullah Endowed Chair in Petroleum and Geosystems
Engineering
Petroleum and Geosystems Engineering
PhD, Rice University, 1973
Chad Matthew Landis, Professor
M. J. Thompson Regents Professorship in Aerospace Engineering and Engineering Mechanics
Aerospace Engineering and Engineering Mechanics
PhD, University of California-Santa Barbara, 1999
Sheldon Landsberger, Professor
Robert B. Trull Chair in Engineering
Mechanical Engineering
PhD, University of Toronto, 1982
Josh Langsfeld, Lecturer
Mechanical Engineering
PhD, University of Maryland College Park, 2017
Desmond F Lawler, Professor
Nasser I. Al-Rashid Chair in Civil Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of North Carolina at Chapel Hill, 1980
Jack C Lee, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#4
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1988
Michael Joseph Lee, Lecturer
Mechanical Engineering
MA, University of Texas at Austin, 2017
Benjamin D Leibowicz, Assistant Professor
Mechanical Engineering
PhD, Stanford University, 2016
Fernanda Lustosa Leite, Associate Professor
Civil, Architectural, and Environmental Engineering
DPhil, Carnegie Mellon University, 2009
Marsha J Lewis, Lecturer
Chemical Engineering
PhD, University of Texas at Austin, 2010
Wei Li, Professor
Bob R. Dorsey Professorship in Engineering
Mechanical Engineering
PhD, University of Michigan-Ann Arbor, 1999
Kenneth M Liechti, Professor
Aerospace Engineering and Engineering Mechanics
PhD, California Institute of Technology, 1980
Howard M Liljestrand, Professor
Civil, Architectural, and Environmental Engineering
PhD, California Institute of Technology, 1980
Thomas E Lindsay, Lecturer
Aerospace Engineering and Engineering Mechanics
Biomedical Engineering
PhD, University of Texas at Austin, 2015

Yuanyue Liu, Assistant Professor
Mechanical Engineering
PhD, Rice University, 2014
Raul G Longoria, Professor
Mechanical Engineering
PhD, University of Texas at Austin, 1989
Nanshu Lu, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, Harvard University, 2009
Nathaniel Lynd, Assistant Professor
Chemical Engineering
PhD, University of Minnesota-Twin Cities, 2007
Randy B Machemehl, Professor
Nasser I. Al-Rashid Centennial Professorship in Transportation Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1975
Raghav Mahalingam, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, Georgia Institute of Technology, 1999
David R Maidment, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1976
Krishan A Malik, Adjunct Professor
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1987
Filippo Mangolini, Assistant Professor
Mechanical Engineering
PhD, Universitat Zurich, 2011
Arumugam Manthiram, Professor
Cockrell Family Regents Chair in Engineering \#5
Mechanical Engineering
PhD, Indian Institute of Technology - Chennai, 1980
Lance Manuel, Professor
Texas Atomic Energy Research Foundation Professorship in Engineering
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1993
Diana Marculescu, Professor
Motorola Regents Chair in Electrical and Computer Engineering \#2,
Cockrell Family Chair for Departmental Leadership \#5
Electrical and Computer Engineering
PhD, University of Southern California, 1998
Radu Marculescu, Professor
Laura Jennings Turner Chair in Engineering
Electrical and Computer Engineering
PhD, University of Southern California, 1998
Mia K Markey, Professor
Biomedical Engineering
PhD, Duke University, 2001
Ronald D Matthews, Professor
Mechanical Engineering
PhD, University of California-Berkeley, 1977
Jennifer A Maynard, Professor
Henry Beckman Professorship in Chemical Engineering

Chemical Engineering
PhD, University of Texas at Austin, 2002
Robert B McCann, Adjunct Professor
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1975
Paul F McClure, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, Colorado State University, 1972
Mark W McDermott, Professor of Practice
Electrical and Computer Engineering
PhD, University of Texas at Austin, 2014
John S McLeod, Lecturer
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2000
Mark E Mear, Professor
Aerospace Engineering and Engineering Mechanics
PhD, Harvard University, 1986
Fatima A Merchant, Adjunct Associate Professor
Biomedical Engineering
PhD, University of Texas at Austin, 1995
Robert Melancton Metcalfe, Professor
Electrical and Computer Engineering
PhD, Harvard University, 1973
Jose del R Millan, Professor
Carol Cockrell Curran Chair in Engineering
Electrical and Computer Engineering
PhD, Universitat Autonoma de Barcelona, 1992
Delia Milliron, Professor
T. Brockett Hudson Professorship in Chemical Engineering

Chemical Engineering
PhD, University of California-Berkeley, 2004
Thomas E Milner, Professor
The Joe King Professorship
Biomedical Engineering
PhD, University of Arizona, 1991
Pawel Misztal, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Edinburgh, 2010
David Mitlin, Professor
Mechanical Engineering
PhD, University of California-Berkeley, 2000
Kishore Mohanty, Professor
W. A. Monty Moncrief Centennial Chair in Petroleum Engineering, W. A.

Monty Moncrief Centennial Chair in Petroleum Engineering
Petroleum and Geosystems Engineering
PhD, University of Minnesota-Duluth, 1981
Aryan Mokhtari, Assistant Professor
Electrical and Computer Engineering
PhD, University of Pennsylvania, 2017
Tessie J Moon, Professor
Mechanical Engineering
PhD, University of Illinois at Urbana-Champaign, 1989
Robert D Moser, Professor
W. A. Tex Moncrief, Jr. Chair in Computational Engineering and Sciences Mechanical Engineering
PhD, Stanford University, 1984
Charles B Mullins, Professor
Richard B. Curran Centennial Chair in Engineering
Chemical Engineering
PhD, California Institute of Technology, 1990
Stephen P Mulva, Lecturer
Civil, Architectural, and Environmental Engineering
PhD, Georgia Institute of Technology, 2004
Juan Murcia Delso, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, University of California-San Diego, 2013
Mustafa Nail Musta, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, Southern Methodist University, 2012
Peter B Nagel, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1999
Gyorgy Zoltan Nagy, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, Swiss Federal Institute of Technology, 2011
Mohsen Nakhaeinejad, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2010
Vallath Nandakumar, Assistant Professor of Instruction
Electrical and Computer Engineering
PhD, University of California-Berkeley, 1990
Dean P Neikirk, Professor
Cullen Trust for Higher Education Endowed Professorship in Engineering \#7
Electrical and Computer Engineering
PhD, California Institute of Technology, 1984
Richard R Neptune, Professor
Cockrell Family Chair for Departmental Leadership \#4, John T. MacGuire
Professorship in Mechanical Engineering
Mechanical Engineering
PhD, University of California-Davis, 1996
Quoc Phuc Nguyen, Professor
J. H. Herring Centennial Professorship in Petroleum Engineering

Petroleum and Geosystems Engineering
PhD, Delft University of Technology, 2004
Steven P Nichols, Professor
Mechanical Engineering
PhD, University of Texas at Austin, 1975
Evdokia Nikolova, Assistant Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 2009
Adam W Nokes, Lecturer
Aerospace Engineering and Engineering Mechanics
MS, University of Colorado at Boulder, 2007
Atila Novoselac, Professor
Civil, Architectural, and Environmental Engineering

PhD, Pennsylvania State University Main Campus, 2004
Shannon B O'Brien, Assistant Professor of Instruction
Civil, Architectural, and Environmental Engineering
PhD, University of Florida, 2007
William J O'Brien, Professor
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1998
James T O'Connor, Professor
C. T. Wells Professorship in Project Management

Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1983
J T Oden, Professor
Cockrell Family Regents Chair in Engineering \#2
Aerospace Engineering and Engineering Mechanics
PhD, Oklahoma State University Main Campus, 1962
Ryosuke Okuno, Associate Professor
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 2009
Hilary C Olson, Senior Lecturer
Petroleum and Geosystems Engineering
PhD, Stanford University, 1988

Jon E Olson, Professor
Lois K. and Richard D. Folger Leadership Chair in Petroleum and Geosystems Engineering, Frank W. Jessen Professorship in Petroleum Engineering
Petroleum and Geosystems Engineering
PhD, Stanford University, 1991

Raymond Lee Orbach, Professor
Mechanical Engineering
PhD, University of California-Berkeley, 1960
Michael E Orshansky, Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 2001
Zhigang Pan, Professor
Engineering Foundation Endowed Professorship No. 1
Electrical and Computer Engineering
PhD, University of California-Los Angeles, 2000
Michael P Pappas, Lecturer
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 2004

Sapun Harshad Parekh, Assistant Professor
Biomedical Engineering
PhD, University of California-Berkeley, 2008
Paola Passalacqua, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Minnesota-Twin Cities, 2009
Yale N Patt, Professor
Ernest Cockrell, Jr. Centennial Chair in Engineering
Electrical and Computer Engineering
PhD, Stanford University, 1966
Donald R Paul, Professor
Chemical Engineering
PhD, University of Wisconsin-Madison, 1965

Nicholas A Peppas, Professor
Cockrell Family Regents Chair in Engineering \#6
Biomedical Engineering
Chemical Engineering
ScD, Massachusetts Institute of Technology, 1973

Daniel L Peterson, Adjunct Professor
Biomedical Engineering
MD, University of Colorado at Boulder, 1988
Michael Ray Piana, Lecturer
Chemical Engineering
MBA, University of Texas at Austin, 1978
Jean-Philip Piquemal, Adjunct Professor
Biomedical Engineering
PhD, Universite de Paris VI, Pierre et Marie Curie, 2004

Michael E Poehl, Lecturer
Chemical Engineering
MBA, University of Houston, 1988
Gary A Pope, Professor
Petroleum and Geosystems Engineering
PhD, Rice University, 1972

Emily Porter, Assistant Professor
Electrical and Computer Engineering
PhD, McGill University, 2015
Roger L Priebe, Associate Professor of Instruction
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1997

Masa Prodanovic, Associate Professor
Petroleum and Geosystems Engineering
PhD, New York University, 2005
Jorge A Prozzi, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 2001
Mitchell W Pryor, Lecturer
Electrical and Computer Engineering
Mechanical Engineering
PhD, University of Texas at Austin, 2002
Daniel Puperi, Assistant Professor of Instruction
Biomedical Engineering
PhD, Rice University, 2016

Michael Pyrcz, Associate Professor
Petroleum and Geosystems Engineering
PhD, University of Alberta, 2004
Laxminarayan L Raja, Professor
Robert L. Parker, Sr. Centennial Professorship in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1996

D'Arcy C Randall, Associate Professor of Instruction
Chemical Engineering
PhD, University of Texas at Austin, 2001
Ellen M Rathje, Professor
Janet S. Cockrell Centennial Chair in Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1997

Manuel Karl Rausch, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, Stanford University, 2013
Krishnaswa Ravi-Chandar, Professor
Temple Foundation Endowed Professorship No. 1
Aerospace Engineering and Engineering Mechanics
PhD, California Institute of Technology, 1982

Leonard F Register, Professor
J. H. Herring Centennial Professorship in Engineering

Electrical and Computer Engineering
PhD, North Carolina State University, 1990
Pengyu Ren, Professor
Biomedical Engineering
PhD, University of Cincinnati Main Campus, 1999

Gary T Rochelle, Professor
Carol and Henry Groppe Professorship in Chemical Engineering
Chemical Engineering
PhD, University of California-Berkeley, 1977
Gregory J Rodin, Professor
Aerospace Engineering and Engineering Mechanics
PhD, Massachusetts Institute of Technology, 1986

Adrian Rodriguez, Lecturer
Mechanical Engineering
PhD, University of Texas at Arlington, 2014
Tomas M Rodriguez, Lecturer
Civil, Architectural, and Environmental Engineering
MS, University of Texas at Austin, 2009

Adrianne M Rosales, Assistant Professor
Chemical Engineering
PhD, University of California-Berkeley, 2013
Martin G Rumbaugh, Lecturer
Civil, Architectural, and Environmental Engineering
MS, University of Texas at Austin, 1998

Ryan P Russell, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 2004
Christopher G Rylander, Associate Professor
Mechanical Engineering
PhD, University of Texas at Austin, 2005

Henry G Rylander III, Professor
Harry H. Power Professorship in Engineering
Biomedical Engineering
MD, University of Texas Health Science Center at San Antonio, 1974
Marissa N Rylander, Associate Professor
Mechanical Engineering
PhD, University of Texas at Austin, 2005

Michael S Sacks, Professor
W. A. Tex Moncrief, Jr. Endowment in Simulation-Based Engineering and

Sciences - Endowed Chair No. 1
Biomedical Engineering
PhD, University of Texas at Arlington, 1992
Jason Derek Sagers, Lecturer
Mechanical Engineering

PhD, University of Texas at Austin, 2012

Shelly Elese Sakiyama-Elbert, Professor Cockrell Family Chair for Departmental Leadership \#1, Fletcher Stuckey Pratt Chair in Engineering
Biomedical Engineering
PhD, California Institute of Technology, 2000

Salvatore Salamone, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, Universita degli Studi di Palermo, 2007

Navid Saleh, Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, Carnegie Mellon University, 2007
Sujay Sanghavi, Associate Professor
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 2006

Gabriel Sanoja Lopez, Assistant Professor
Chemical Engineering
PhD, University of California-Berkeley, 2016
Pedro Enrique Santacruz, Assistant Professor of Instruction
Electrical and Computer Engineering
PhD, Rice University, 2013

Samantha Rose Santacruz, Assistant Professor
Biomedical Engineering
PhD, Rice University, 2014
Surya Santoso, Professor
Electrical and Computer Engineering
PhD, University of Texas at Austin, 1996

Philip S Schmidt, Professor
Mechanical Engineering
PhD, Stanford University, 1969

Michael J Schnieders, Harrington Faculty Fellow
Biomedical Engineering
DSc, Washington University in St Louis, 2007
Carolyn Conner Seepersad, Professor
J. Mike Walker Professorship in Mechanical Engineering

Mechanical Engineering
PhD, Georgia Institute of Technology, 2004
Polina Sela, Assistant Professor
Civil, Architectural, and Environmental Engineering
PhD, Technion-Israel Institute of Technology, 2011

Luis Sentis, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, Stanford University, 2007

Kamy Sepehrnoori, Professor
Petroleum and Geosystems Engineering
PhD, University of Texas at Austin, 1977
Sanjay Shakkottai, Professor
Temple Foundation Endowed Professorship No. 3
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 2002
Shyam Shankar, Assistant Professor
Electrical and Computer Engineering
PhD, Princeton University, 2010

Mukul M Sharma, Professor
W. A. Tex Moncrief, Jr. Centennial Chair in Petroleum Engineering

Petroleum and Geosystems Engineering
PhD, University of Southern California, 1985
Li Shi, Professor
Temple Foundation Endowed Professorship No. 4
Mechanical Engineering
PhD, University of California-Berkeley, 2000
Gurpreet Singh, Lecturer
Aerospace Engineering and Engineering Mechanics
Biomedical Engineering
PhD, University of Texas at Austin, 2014
Jayant Sirohi, Associate Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Maryland College Park, 2002
Richard W Smalling, Adjoint Professor
Biomedical Engineering
PhD, University of Texas Health Science Center at Houston, 1977
Daniel Richard Smith, Specialist
Mechanical Engineering
AAS, Austin Community College, 2016
Mark J T Smith, Professor
Electrical and Computer Engineering
PhD, Georgia Institute of Technology, 1984
Michael H Smolensky, Adjunct Professor
Biomedical Engineering
PhD, University of Illinois at Urbana-Champaign, 1971
Konstantin V Sokolov, Adjunct Associate Professor
Biomedical Engineering
PhD, Moscow State University, 1992
David Soloveichik, Assistant Professor
Electrical and Computer Engineering
PhD, California Institute of Technology, 2008
Wen Song, Assistant Professor
Petroleum and Geosystems Engineering
MS, University of Toronto, 2014
Gerald E Speitel Jr, Professor
C. W. Cook Professorship in Environmental Engineering

Civil, Architectural, and Environmental Engineering
PhD, University of North Carolina at Chapel Hill, 1985
S V Sreenivasan, Professor
Joe C. Walter, Jr. Chair in Engineering
Mechanical Engineering
PhD, Ohio State U Main Campus, 1994
Jeanne Casstevens Stachowiak, Associate Professor
Biomedical Engineering
PhD, University of California-Berkeley, 2008
Mark A Stadtherr, Research Professor
Chemical Engineering
PhD, University of Wisconsin-Madison, 1976
Wesley W Stidham, Assistant Professor of Practice
Civil, Architectural, and Environmental Engineering
BSME, University of Texas at Austin, 1995

Kenneth H Stokoe II, Professor
Jennie C. and Milton T. Graves Chair in Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Michigan-Ann Arbor, 1972
Venkat Subramanian, Professor
Mechanical Engineering
PhD, University of South Carolina - Columbia, 2001
Laura J Suggs, Professor
T. U. Taylor Professorship in Engineering

Biomedical Engineering
PhD, Rice University, 1998
Brian R Sullivan, Professor of Practice
Petroleum and Geosystems Engineering
JD, University of Texas at Austin, 1980
James Samuel Sulzer, Assistant Professor
Mechanical Engineering
PhD, Northwestern University, 2009
Nan Sun, Associate Professor
Electrical and Computer Engineering
PhD, Harvard University, 2011
Saikishan Suryanarayanan, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, Jawaharlal Nehru University, 2015
Earl E Swartzlander Jr, Professor
Electrical and Computer Engineering
PhD, University of Southern California, 1972
Steve Swinnea, Lecturer
Chemical Engineering
PhD, University of Texas at Austin, 1981
Eric M Taleff, Professor
Mechanical Engineering
PhD, Stanford University, 1995
Jon I Tamir, Assistant Professor
Electrical and Computer Engineering
PhD, University of California-Berkeley, 2018
Takashi Tanaka, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Illinois at Urbana-Champaign, 2012
Byron D Tapley, Research Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 1960
Mehran Tehrani, Assistant Professor
Mechanical Engineering
PhD, Virginia Polytechnic Institute and State University, 2012
Nina K Telang, Associate Professor of Instruction
Electrical and Computer Engineering
PhD, University of Notre Dame, 1995
Vivek Telang, Lecturer
Electrical and Computer Engineering
PhD, University of Notre Dame, 1991
David W Terreson, Adjunct Associate Professor
Biomedical Engineering
MD, University of Mississippi Medical Center, 1986

Ahmed Hossam Tewfik, Professor
Cockrell Family Regents Chair in Engineering \#1, Cockrell Family Chair
for Departmental Leadership \#5
Electrical and Computer Engineering
ScD, Massachusetts Institute of Technology, 1987
Andrea Lockerd Thomaz, Associate Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 2006
Edison Thomaz Jr, Assistant Professor
Electrical and Computer Engineering
PhD, Georgia Institute of Technology, 2016
Mohit Tiwari, Associate Professor
Electrical and Computer Engineering
PhD, University of California-Santa Barbara, 2011
Ufuk Topcu, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of California-Berkeley, 2008
Carlos Torres-Verdin, Professor
Brian James Jennings Memorial Endowed Chair in Petroleum and Geosystems Engineering
Petroleum and Geosystems Engineering
PhD, University of California-Berkeley, 1991
Nur A Touba, Professor
Electrical and Computer Engineering
PhD, Stanford University, 1996
Thomas M Truskett, Professor
Bill L. Stanley Endowed Leadership Chair in Chemical Engineering, Les
and Sherri Stuewer Endowed Chair in Chemical Engineering
Chemical Engineering
PhD, Princeton University, 2001
James W Tunnell, Associate Professor
Biomedical Engineering
PhD, Rice University, 2002
David Paul Tuttle, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 2015
Emanuel Tutuc, Professor
B. N. Gafford Professorship in Electrical Engineering

Electrical and Computer Engineering
PhD, Princeton University, 2004
Jonathan W Valvano, Professor
Electrical and Computer Engineering
PhD, Massachusetts Institute of Technology, 1981
Eric van Oort, Professor
B. J. Lancaster Professorship in Petroleum Engineering

Petroleum and Geosystems Engineering
PhD, University of Amsterdam, 1990
Leon W Vanstone, Lecturer
Aerospace Engineering and Engineering Mechanics
PhD, Imperial College London, 2015
Philip L Varghese, Professor
Zarrow Centennial Professorship in Engineering
Aerospace Engineering and Engineering Mechanics
PhD, Stanford University, 1983

Haris Vikalo, Professor
Electrical and Computer Engineering
PhD, Stanford University, 2003
Sriram Vishwanath, Professor
Electrical and Computer Engineering
PhD, Stanford University, 2004
Randi G Voss, Lecturer
Mechanical Engineering
PhD, University of Texas at Austin, 1995
C Michael Walton, Professor
Ernest H. Cockrell Centennial Chair in Engineering
Civil, Architectural, and Environmental Engineering
PhD, North Carolina State University, 1971
Junmin Wang, Professor
Accenture Endowed Professorship in Manufacturing Systems
Engineering
Mechanical Engineering
PhD, University of Texas at Austin, 2007
Yaguo Wang, Assistant Professor
Mechanical Engineering
PhD, Purdue University Main Campus, 2011
Jamie Warner, Professor
Hayden Head Centennial Professorship
Mechanical Engineering
PhD, University of Queensland, 2005
Daniel M Wasserman, Associate Professor
Electrical and Computer Engineering
PhD, Princeton University, 2004
Michael Webber, Professor
Josey Centennial Professorship in Energy Resources
Mechanical Engineering
PhD, Stanford University, 2001
Charles J Werth, Professor
Bettie Margaret Smith Chair in Environmental Health Engineering
Civil, Architectural, and Environmental Engineering
PhD, Stanford University, 1997
Heidi R Westerfield Ross, Lecturer
Civil, Architectural, and Environmental Engineering
MSCE, University of Texas at Austin, 1993
Mary F Wheeler, Professor
Ernest and Virginia Cockrell Chair in Engineering
Aerospace Engineering and Engineering Mechanics
Petroleum and Geosystems Engineering
PhD, Rice University, 1971
Karen E Willcox, Professor
Peter O'Donnell, Jr. Centennial Chair in Computing Systems, W.A. Tex
Moncrief, Jr. Endowment in Simulation-Based Engineering and Sciences

- Endowed Chair No. 5, Peter and Edith O'Donnell Distinguished Chair at

ICES
Aerospace Engineering and Engineering Mechanics
PhD, Massachusetts Institute of Technology, 2000
Eric B Williamson, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1996
Preston S Wilson, Professor

Paul D. and Betty Robertson Meek Centennial Professorship in Engineering
Mechanical Engineering
PhD, Boston University, 2002
Billy H Wood, Senior Lecturer
Mechanical Engineering
MArch, Texas A \& M University, 1977

Sharon L Wood, Professor
Cockrell Family Chair in Engineering \#14, Jack and Beverly Randall
Dean's Chair for Excellence in Engineering, Cockrell Family Dean's Chair
in Engineering Excellence, Dean's Chair for Excellence in Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of Illinois at Urbana-Champaign, 1986
Tracy A Wuster, Assistant Professor of Instruction
Electrical and Computer Engineering
PhD, University of Texas at Austin, 2011
Chong Xie, Adjunct Associate Professor
Biomedical Engineering
PhD, Stanford University, 2011

Ying Xu, Adjunct Associate Professor
Civil, Architectural, and Environmental Engineering
PhD, Virginia Polytechnic Institute and State University, 2009
Thomas Yankeelov, Professor
W. A. Tex Moncrief, Jr. Chair in Computational Engineering and Sciences IV - Computational Oncology, W. A. Tex Moncrief, Jr. Chair in Computational Engineering and Sciences IV - Computational Oncology Biomedical Engineering
PhD, State University of New York at Stony Brook, 2003
Hsin-Chih Yeh, Associate Professor
Biomedical Engineering
PhD, Johns Hopkins University, 2008
Ramesh Yerraballi, Professor of Instruction
Electrical and Computer Engineering
PhD, Old Dominion University, 1996
Ali E Yilmaz, Professor
Electrical and Computer Engineering
PhD, University of Illinois at Urbana-Champaign, 2005
Edward T Yu, Professor
Judson S. Swearingen Regents Chair in Engineering
Electrical and Computer Engineering
PhD, California Institute of Technology, 1991
Guihua Yu, Associate Professor
Mechanical Engineering
PhD, Harvard University, 2009
Ramin Zanbaghi, Lecturer
Electrical and Computer Engineering
PhD, Oregon State University, 2011
Renato Zanetti, Assistant Professor
Aerospace Engineering and Engineering Mechanics
PhD, University of Texas at Austin, 2007
Zhanmin Zhang, Professor
Civil, Architectural, and Environmental Engineering
PhD, University of Texas at Austin, 1996
Yuebing Zheng, Associate Professor

Mechanical Engineering
PhD, Pennsylvania State University Park, 2010
Jianshi Zhou, Research Professor
Mechanical Engineering
PhD, Northeast Normal University, 1991
Lei Zhou, Assistant Professor
Mechanical Engineering
SM, Massachusetts Institute of Technology, 2014
Hao Zhu, Assistant Professor
Electrical and Computer Engineering
PhD, University of Minnesota-Twin Cities, 2012
Janeta Zoldan, Assistant Professor
Biomedical Engineering
PhD, Technion-Israel Institute of Technology, 2004
Jorge G Zornberg, Professor
Hussein M. Alharthy Centennial Professorship in Civil Engineering,
Ashley H. Priddy Centennial Professorship in Engineering
Civil, Architectural, and Environmental Engineering
PhD, University of California-Berkeley, 1994
Gregory R Zwernemann, Professor of Practice
Aerospace Engineering and Engineering Mechanics
MS, University of Texas at Austin, 1978

## College of Fine Arts Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Peter E Abrami, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2015
Beverly D Acha, Assistant Professor
Art and Art History
MFA, Yale University, 2012
Nanette Acosta, Assistant Professor of Practice
Theatre and Dance
BFA, DePaul University, 1990
Christopher O Adejumo, Associate Professor
Art and Art History
PhD, Ohio State U Main Campus, 1997
Donnie R Albert, Senior Lecturer
Music
MM, Southern Methodist University, 1975
Corey Allen, Lecturer
Theatre and Dance
MFA, University of Illinois at Urbana-Champaign, 2009
Gregory D Allen, Professor
Music
MM, Peabody Institute of Johns Hopkins University, 1972
Megan Alrutz, Associate Professor
Theatre and Dance
PhD, Arizona State University Main, 2004
Charles Odell Anderson, Associate Professor
Theatre and Dance

MFA, Temple University, 2002
Ryan S Anthony, Visiting Professor
Music
MM, Cleveland Institute of Music, 1993
Kevin Jeffrey Auer, Lecturer
Design and Creative Technologies
MA, University of Texas at Austin, 2009
Michael Avila, Assistant Professor of Instruction
Theatre and Dance
MA, University of Houston, 2014
Nicole Awai, Assistant Professor
Art and Art History
MFA, University of South Florida, 1996
Adam Miller Batteau Baglereau, Lecturer
Theatre and Dance
MFA, University of Exeter, 2012
Christina Bain, Associate Professor
Art and Art History
PhD, University of Georgia, 2001
Annie N Baker, Associate Professor of Practice Theatre and Dance
MFA, City University of New York Brooklyn College, 2009
Michael Baker, Assistant Professor of Practice
Design and Creative Technologies
MFA, University of Maryland Baltimore County, 2001
Jean J Barrera, Specialist
Music
HS/GED, , 1970
Alexandra Bassett, Lecturer
Theatre and Dance
MFA, Columbia University in the City of New York, 2014
Alyson Beaton, Assistant Professor of Practice
Design and Creative Technologies
MFA, School of the Art Institute of Chicago, 2003
Andrea P Beckham, Associate Professor of Practice
Theatre and Dance
BA, University of Texas at Austin, 1986
Ronald Berry Jr, Lecturer
Theatre and Dance
BA, Earlham College and Earlham School of Religion, 1995
Cristobal Bianchi Geisse, Lecturer
PhD, University of London, 2011
Alexander Birchler, Associate Professor of Practice
Art and Art History
MFA, Nova Scotia College of Art and Design, 1992
Audrey D Blood, Lecturer
Art and Art History
MFA, Rhode Island School of Design, 2018
William Bloodgood, Associate Professor of Practice
Theatre and Dance
MFA, Pennsylvania State University Park, 1990
Mara Blumenfeld, Lecturer

Theatre and Dance
BS, Northwestern University, 1992
Paul E Bolin, Professor
Art and Art History
PhD, University of Oregon, 1986
Paul A Bonin, Associate Professor
Theatre and Dance
PhD, University of Texas at Austin, 2006
Delia Tovar Botbol, Lecturer
Music
BA, University of Texas at Austin, 1995
Penny Rae-sunshine Brandt, Lecturer
Music
PhD, University of Connecticut, 2017
Joel Braun, Associate Professor
Music
MM, The Juilliard School, 2007
Troy D Brauntuch, Professor
Art and Art History
BFA, California Institute of the Arts, 1975
Nathaniel O Brickens, Professor
Music
DMA, University of Texas at Austin, 1989
Andrew A Brownell, Assistant Professor
Music
DMA, Guildhall School of Music and Drama, 2010
Jason B Buchanan, Lecturer
Theatre and Dance
MFA, University of Texas at Austin, 2005
James W Buhler, Professor
Music
PhD, University of Pennsylvania, 1996
Chelsea Burns, Assistant Professor
Music
PhD, University of Chicago, 2016
Thomas A Burritt, Professor
Music
DMA, Northwestern University, 2000
William S Bussey, Lecturer
Theatre and Dance
BFA, University of Wisconsin-Milwaukee, 1983
William M Byrne, Lecturer
Design and Creative Technologies
MFA, School of Visual Arts, 2001
Miguel Campinho, Assistant Professor of Practice Music
DMA, University of Hartford, 2015
Katherine Canales, Distinguished Senior Lecturer
Design and Creative Technologies
BS, Stanford University, 2002
Charlotte Canning, Professor
Frank C. Erwin, Jr. Centennial Professorship in Drama Theatre and Dance

PhD, University of Washington - Seattle, 1991
Sarah A Canright, Associate Professor of Practice Art and Art History
BFA, School of the Art Institute of Chicago, 1964
Carlos A Capra, Lecturer
Music
DMA, University of Texas at Austin, 1999
Andrew I Carlson, Assistant Professor of Instruction
Theatre and Dance
PhD, University of Illinois at Urbana-Champaign, 2011
Laquetta L Carpenter, Assistant Professor
Theatre and Dance
MFA, Pennsylvania State University Park, 2007
Charles Daniel Carson, Associate Professor
Music
PhD, University of Pennsylvania, 2008
Kate Catterall, Associate Professor
Design and Creative Technologies
MA, Glasgow School of Art, 1992
Edward Chambers, Professor
Art and Art History
PhD, University of London, 1998
Stacey H Chang, Professor of Practice
Design and Creative Technologies
MS, Stanford University, 1998
Michael J Charlesworth, Professor
Art and Art History
PhD, The University of Kent, 1990
Lee R Chesney III, Associate Professor
Art and Art History
MFA, Indiana University at Bloomington, 1972
Daniel Ching, Associate Professor of Practice
Music
MMus, Cleveland Institute of Music, 1998
Barbara Chisholm, Lecturer
Theatre and Dance
BFA, The Catholic University of America, 1984
John R Clarke, Professor
Annie Laurie Howard Regents Professorship in Fine Arts
Art and Art History
PhD, Yale University, 1973
Rusty Cloyes, Associate Professor of Practice
Theatre and Dance
MFA, University of Texas at Austin, 2005
David S Cohen, Assistant Professor of Practice
Design and Creative Technologies
BFA, University of the Arts, 1997
Shavonne T Coleman, Lecturer
Theatre and Dance
MFA, Eastern Michigan University, 2017
Tyler James Coleman, Lecturer Design and Creative Technologies

BA, University of Advancing Technology, 2012
Eric Joseph Colleary, Lecturer
Theatre and Dance
PhD, University of Minnesota-Twin Cities, 2014
Jose Colucci Jr, Associate Professor of Practice
Design and Creative Technologies
PhD, Universidade de Sao Paulo, 1996
Leah Cox, Associate Professor
Theatre and Dance
MFA, Hollins University, 2014
Jeremy L Cudd, Assistant Professor of Practice
Theatre and Dance
MFA, Pennsylvania State University Park, 2007
Erin Michaela Cunningham, Assistant Professor of Practice
Art and Art History
MFA, University of Texas at Austin, 2007
Tina Marie Curran, Assistant Professor of Practice
Theatre and Dance
PhD, New York University, 2010
Clarke Stuart Curtis, Lecturer
Art and Art History
MFA, Clemson University, 2009
Mary Madge Darlington, Lecturer
Theatre and Dance
MFA, University of Texas at Austin, 2004
Neal A Daugherty, Associate Professor of Practice
Design and Creative Technologies
MFA, Louisiana State University and Agricultural and Mechanical College, 1996

Penelope J Davies, Professor
Art and Art History
PhD, Yale University, 1994
Brooke M Davis, Lecturer
Design and Creative Technologies
MA, Purdue University Main Campus, 2004
Christin Sawyer Davis, Assistant Professor of Practice
Theatre and Dance
MFA, American Conservatory Theater, 2007
Eden R Davis, Lecturer
Music
JD, Baylor University, 1978
Natalie A Davison, Lecturer
Design and Creative Technologies
BA, Georgia State University, 1993
Kathryn M Dawson, Associate Professor
Theatre and Dance
MFA, University of Texas at Austin, 2006
Paul Deemer, Specialist
Music
MM, University of Miami, 2010
Andrew F Dell'Antonio, Professor
Music

PhD, University of California-Berkeley, 1991

## Douglas J Dempster, Professor

Effie Marie Cain Regents Chair in Fine Arts, The Marie and Joseph D.
Jamail, Sr. Regents Professorship in Fine Arts
Theatre and Dance
PhD, University of North Carolina at Chapel Hill, 1983
Robert A Desimone, Professor
Music
DMA, University of Washington - Seattle, 1981
Eric S Dienstfrey, Lecturer
Music
PhD, University of Wisconsin-Madison, 2018
Steven Dietz, Professor
Theater for Youth Chair
Theatre and Dance
BA, University of Northern Colorado, 1980
Lucas Dimick, Lecturer
Design and Creative Technologies
MFA, School of the Art Institute of Chicago, 2008
Franchelle Dorn, Professor
Virginia L. Murchison Regents Professorship in Fine Arts
Theatre and Dance
MFA, Yale University, 1975
Lara Rose Dossett, Assistant Professor of Instruction
Theatre and Dance
MFA, University of Texas at Austin, 2014
Lucien Douglas, Associate Professor
Theatre and Dance
PhD, Michigan State University, East Lansing, 1996
Eric A Drott, Associate Professor
Music
PhD, Yale University, 2001
Robert A Duke, Professor
Marlene and Morton Meyerson Centennial Professorship in Music

## Music

PhD, Florida State University, 1983
Rachel N Durkin-Drga, Lecturer
Theatre and Dance
MFA, University of Illinois at Urbana-Champaign, 1991
John E Durst, Assistant Professor of Practice
Art and Art History
MFA, Yale University, 2016
Gregory Eaton, Lecturer
Music
BMus, University of Redlands, 1983
William A Edwards, Assistant Professor of Practice

## Music

MM, University of Texas at Austin, 1989
Jeff W Ellinger, Lecturer
Theatre and Dance
BA, University of Texas at Austin, 1977
Elizabeth Engelman, Lecturer
Theatre and Dance

MFA, Columbia University in the City of New York, 1996
Veit F Erlmann, Professor
History of Music Chair
Music
PhD, University of Cologne, 1978
Kyle Ellis Evans, Lecturer
Design and Creative Technologies
MFA, School of the Art Institute of Chicago, 2011
Scott Evans, Assistant Professor of Practice
Design and Creative Technologies
PhD, University of Texas at Austin, 2005
Sarah Fagan, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2019
Christy Faison, Lecturer
Theatre and Dance
HS/GED, , 1990
William A Fedkenheuer, Associate Professor of Practice
Music
BM, Rice University, 1998
Howard L Fine, Lecturer
Theatre and Dance
PhD, Rhode Island College, 2008
Eliot Fisher, Lecturer
Theatre and Dance
MFA, Goddard College, 2015
George F Flaherty, Associate Professor
Art and Art History
PhD, University of California-Santa Barbara, 2010
Monica Ann Fogelquist, Assistant Professor of Practice
Music
MM, University of Texas - Pan American, 2017
Brooke Elizabeth Frank, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2019
Jon E Freach, Associate Professor of Practice
Design and Creative Technologies
BFA, State University of New York at Fredonia, 1990
John M Fremgen, Associate Professor
Music
MMus, University of Southern California, 1993
Joshua Gall, Assistant Professor of Practice
Music
MM, University of Florida, 2014
Tiffany Joy Galus, Lecturer
Music
DMA, University of Texas at Austin, 2019
Gray B Garmon, Assistant Professor of Practice
Design and Creative Technologies
MArch, University of PennsyIvania, 2014
Marianne Gedigian, Professor
Sarah and Ernest Butler Professorship in Flute
Music

BM, Boston University, 1986
Sophia Gilmson, Associate Professor
Music
Diploma (Artist), Saint Petersburg State Conservatory, 1973
Joshua T Gindele, Associate Professor of Practice
Music
BMus, The Juilliard School, 2000
Erica Lynn Gionfriddo, Lecturer
Theatre and Dance
BFA, Shenandoah University, 2006
Andrea Giunta, Adjunct Professor
Art and Art History
PhD, University of Buenos Aires, 2001
James J Glavan, Professor
David Bruton, Jr. Regents Professorship in Fine Arts
Theatre and Dance
MA, Kent State University Main Campus, 1984
Carma Ryanne Gorman, Associate Professor
Design and Creative Technologies
PhD, University of California-Berkeley, 1998
Donald J Grantham, Professor
Frank C. Erwin, Jr. Centennial Professorship in Music
Music
DMA, University of Southern California, 1980
Andrea Grapko, Lecturer
Theatre and Dance
PhD, University of Colorado at Boulder, 2005
Kelcey C Gray, Assistant Professor of Practice
Design and Creative Technologies
MFA, Maryland Institute College of Art, 2013
Julia E Guernsey, Professor
Art and Art History
PhD, University of Texas at Austin, 1997
Jonathan F Gunn, Assistant Professor
Music
MM, Duquesne University, 1997
Joel J Guzman, Specialist
Music
HS/GED, , 1974
Michelle Habeck, Associate Professor
Theatre and Dance
MFA, Northwestern University, 1996
Scott S Hanna, Associate Professor of Practice
Music
DMA, University of Texas at Austin, 1999
Robert S Hatten, Professor
Marlene and Morton Meyerson Professorship in Music Music
PhD, Indiana University at Bloomington, 1982
Donalyn Heise, Visiting Associate Professor
Art and Art History
EdD, Nova Southeastern University, 2001
Jeffrey L Hellmer, Professor

Priscilla Pond Flawn Regents Professorship in Organ or Piano
Performance
Music
MM, University of Rochester, 1983
Linda D Henderson, Professor
Art and Art History
PhD, Yale University, 1975
Gregory A Hervey, Lecturer
Design and Creative Technologies
BA, University of Texas at Austin, 1989
David Russell Hickman, Visiting Professor
Music
MM, Wichita State University, 1974
Megan L Hildebrandt, Associate Professor of Practice
Art and Art History
MFA, University of South Florida, 2012
Merideth M Hillbrand, Lecturer
Art and Art History
MFA, University of California-Riverside, 2019
Matthew G Hinsley, Lecturer
DMA, University of Texas at Austin, 2003
Joan A Holladay, Professor
Art and Art History
PhD, Brown University, 1982
Adam Holzman, Professor
Parker C. Fielder Regents Professorship in Music
Music
MM, Florida State University, 1984

Cam A Houser, Lecturer
Design and Creative Technologies
MBA, University of Texas at Austin, 2010
Teresa Hubbard, Professor
William and Bettye Nowlin Endowed Professorship in Photography Art and Art History
MFA, Nova Scotia College of Art and Design, 1992
Patrick Hughes, Associate Professor
Music
MMus, University of Wisconsin-Madison, 1988
Jared C Huke, Lecturer
Design and Creative Technologies
BFA, University of Texas at Austin, 2002
Richard Livingstone Huntley, Lecturer
Music
MM, Manhattan School of Music, 2004
Richard M Isackes, Professor
Joanne Sharp Crosby Regents Chair in Design and Technology Theatre and Dance
MFA, Carnegie Mellon University, 1975
Branden Jacobs-Jenkins, Associate Professor of Practice
Theatre and Dance
MA, New York University, 2007
Kristin Wolfe Jensen, Professor
Music

MM, The Juilliard School, 1991

Ann C Johns, Distinguished Senior Lecturer
Art and Art History
PhD, University of Texas at Austin, 2000
Megan Laura Johns, Assistant Professor of Practice
Design and Creative Technologies
MTech, Carnegie Mellon University, 2013
J E Johnson, Lecturer
Theatre and Dance
BA, Bethel College, 1996
Annie May Johnston, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2016
Jerry F Junkin, Professor
Vincent R. and Jane D. DiNino Chair for Director of Bands

## Music

MMus, University of Texas at Austin, 1979
Calder G Kamin, Lecturer
BFA, Kansas City Art Institute, 2009
Ryan S Kelly, Assistant Professor of Practice
Music
DMA, University of Texas at Austin, 2014
Farkhad Khudyev, Assistant Professor
Music
MM, Yale University, 2010
Douglas Kinney, Lecturer
Music
HS/GED, , 1986
Mark Kovitya, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2019
Renee Lai, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2019
Sadie M Langenkamp, Lecturer
Theatre and Dance
BA, Southwestern University, 2009
Yuliya Lanina, Assistant Professor of Practice
Design and Creative Technologies
MFA, City University of New York Hunter College, 2010
John C Largess, Associate Professor of Practice
Music
BA, Yale University, 1995
Sam Lavigne, Assistant Professor
Design and Creative Technologies
MPS, New York University, 2015
Delaine E Leonard, Senior Lecturer
Music
MMus, University of Texas at Austin, 1984
Janice Leoshko, Associate Professor
Art and Art History
PhD, Ohio State U Main Campus, 1987

Lana L Lesley, Lecturer
Theatre and Dance
BA, University of Texas at Austin, 1991
Brian D Lewis, Professor
David and Mary Winton Green Chair in String Performance and Pedagogy
Music
MM, The Juilliard School, 1993
Hannah Lewis, Assistant Professor
Music
PhD, Harvard University, 2014
William L Lewis, Professor
Music
BM, Texas Christian University, 1967
Caroline S Liem, Lecturer
Theatre and Dance
MFA, University of Illinois at Urbana-Champaign, 1996
Samuel M Lipman, Lecturer
Design and Creative Technologies
MM, University of Texas at Austin, 2017
Beili Liu, Professor
Art and Art History
MFA, University of Michigan-Ann Arbor, 2003
Sondra Lomax, Lecturer
Theatre and Dance
MFA, York College, 1979
Doreen Lorenzo, Professor of Practice
Design and Creative Technologies
MS, Boston University, 1981
Kristin Lucas, Assistant Professor
Art and Art History
MFA, Stanford University, 2006
Kirk E Lynn, Associate Professor
Theatre and Dance
MFA, University of Texas at Austin, 2004
Alison Maggart Butler, Assistant Professor of Instruction
Music
PhD, University of Southern California, 2017
Karen L Maness, Lecturer
Theatre and Dance
BA, Whittier College, 1995
Christopher Martin, Visiting Professor
Music
BM, University of Rochester, 1997
Michael J Martin, Visiting Associate Professor
Music
MM, Northwestern University, 2008
Carra E Martinez, Lecturer
Theatre and Dance
PhD, University of Minnesota-Twin Cities, 2017
Gesel Mason, Associate Professor
Theatre and Dance
MFA, University of Colorado at Boulder, 2013
Earnest Mazique, Lecturer

Theatre and Dance
MA, Emerson College, 2006

Kathryn Kelley Mccarthy, Lecturer
Art and Art History
MFA, City University of New York Hunter College, 2018
Richard E McMaster, Assistant Professor of Practice
Art and Art History
MFA, Arizona State University Main, 2008

Joe Meersman, Lecturer
Design and Creative Technologies
BFA, University of Illinois at Urbana-Champaign, 2002
Zachary Richard Meisner, Assistant Professor of Practice
Art and Art History
MFA, University of Texas at Austin, 2017

John R Mills, Professor
Music
DMA, University of Texas at Austin, 1998
Caroline Westbrook Moore, Lecturer
Music
PhD, University of Texas at Austin, 2017
Robin D Moore, Professor
Music
PhD, University of Texas at Austin, 1995

Cynthia C Morrow, Assistant Professor of Practice
Music
DMA, Ohio State U Main Campus, 1989
James M Morrow Jr, Associate Professor
Music
DMA, University of Texas at Austin, 1996

Joel D Mott, Lecturer
Music
PhD, University of Texas at Austin, 2018
Stephennie Mulder, Associate Professor
Art and Art History
PhD, University of Pennsylvania, 2008
Karen Patricia Munnelly, Assistant Professor of Instruction
MA, Florida State University, 2005

Elisabeth R Murphy, Assistant Professor of Instruction
Art and Art History
MAEd, Texas Tech University, 2008
Julianna E Murphy, Lecturer
Design and Creative Technologies
BInDsn, North Carolina State University, 2015

Roger E Myers, Professor
Music
MM, University of Southern California, 1992
Luisa Nardini, Associate Professor
Music
PhD, Universita degli Studi di Roma La Sapienza, 2001

Anton Nel, Professor
Joe R. \& Teresa Lozano Long Chair in Piano
Music

MMus, University of Cincinnati Main Campus, 1984

Adele E Nelson, Assistant Professor
Art and Art History
PhD, New York University, 2012
Christopher D Norman, Assistant Professor of Practice
Design and Creative Technologies
BFA, Ringling School of Art and Design, 2008
Joel David Ockerman, Lecturer
Music
DMA, University of Texas at Austin, 2019

Moyosore Benjamin Okediji, Professor
Art and Art History
PhD, University of Wisconsin Colleges, 1995
Guido Olivieri, Associate Professor of Instruction
Music
PhD, University of California-Santa Barbara, 2005

Sven Ortel, Assistant Professor of Practice
Design and Creative Technologies
Theatre and Dance
BA, Rose Bruford College of Theatre and Performance, 2001
Isaac M Oster, Lecturer
Design and Creative Technologies
MS, University of Central Florida, 2007

Francie Ostrower, Professor
Theatre and Dance
PhD, Yale University, 1991
Dorothy Oshea Overbey, Assistant Professor of Practice
Theatre and Dance
BFA, Southern Methodist University, 1999

Christopher J Ozley, Lecturer
Design and Creative Technologies
DMA, University of Texas at Austin, 2018
Verena N Paepcke-Hjeltness, Associate Professor of Practice
Design and Creative Technologies
MFA, The Ohio State University Main Campus, 2003

Stephen C Page, Associate Professor
Music
DMA, University of Iowa, 2011

Athanasio Papalexandrou, Associate Professor
Art and Art History
PhD, Princeton University, 1998
Jiwon Park, Assistant Professor
Design and Creative Technologies
MFA, Rhode Island School of Design, 2013

Andrew A Parker, Assistant Professor
Music
DMA, University of Michigan-Ann Arbor, 2009
Bryan J Parkhurst, Harrington Faculty Fellow Music

PhD, University of Michigan-Ann Arbor, 2014

Chia Patino, Associate Professor of Practice
Music

DMA, Indiana University at Bloomington, 2008
Sara L Paul, Lecturer
Theatre and Dance
BA, University of Texas at Austin, 2012
Suzanne M Pence, Associate Professor
Music
DMA, University of Missouri - Kansas City, 1992
Monica Penick, Associate Professor
Design and Creative Technologies
PhD, University of Texas at Austin, 2007
Bruce W Pennycook, Professor
Design and Creative Technologies
Music
DMA, Stanford University, 1978
Carolina Perez, Assistant Professor of Practice
Design and Creative Technologies
Theatre and Dance
MFA, University of North Carolina School of the Arts, 2008
Jose Manuel Perez, Lecturer
Design and Creative Technologies
MFA, University of Texas at Austin, 2015
Bogdan P Perzynski, Professor
Art and Art History
MFA, Poznan Academy of Fine Arts, 1979
Russell Podgorsek, Lecturer
Music
DMA, University of Texas at Austin, 2013
Mary Ellen Poole, Professor
Florence Thelma Hall Centennial Chair in Music
Music
PhD, University of Illinois at Urbana-Champaign, 1994
Brant Pope, Professor
Z. T. Scott Family Chair in Drama

Theatre and Dance
PhD, Michigan State University, East Lansing, 2003
Peter B Protzmann, Lecturer
Design and Creative Technologies
MA, University of Kansas Main Campus, 2005
Robert Ramirez, Associate Professor
Theatre and Dance
MFA, University of Delaware, 1995
Justin Rankin, Lecturer
Design and Creative Technologies
AS, Art Institute of Dallas, 2004
Susan W Rather, Professor
Art and Art History
PhD, University of Delaware, 1986
Ann M Reynolds, Associate Professor
Art and Art History
PhD, City University of New York Graduate Center, 1993
Timothy D Rogers, Lecturer
MA, University of Maryland Baltimore, 2012
Rebecca Rossen, Associate Professor

Theatre and Dance
PhD, Northwestern University, 2006
Rick E Rowley, Associate Professor of Practice
Music
HS/GED, , 1973
Jami Rudofsky, Lecturer
Theatre and Dance
BFA, University of California-Los Angeles, 1994
Astrid Runggaldier, Assistant Professor of Instruction
Art and Art History
PhD, Boston University, 2009
Janice Lynch Ryan, Professor of Practice
Design and Creative Technologies
BBA, Baylor University, 1977
Michael D Sailors, Lecturer
Music
DMA, University of Texas at Austin, 2013
Wayne W Salzmann II, Specialist
Music
MM, University of Texas at Austin, 2010
KJ Sanchez, Associate Professor
Theatre and Dance
MFA, University of California-San Diego, 1992
Tamara Sanikidze, Associate Professor of Practice
Music
DMA, University of Maryland College Park, 2010
Bruce A Saunders, Lecturer
Music
MM, University of North Texas, 1986
Margo L Sawyer, Professor
Art and Art History
MFA, Yale University, 1982
Roxanne Schroeder-Arce, Associate Professor
Theatre and Dance
MFA, University of Texas at Austin, 2000
Laurie Pierce Scott, Associate Professor
Music
PhD, University of Texas at Austin, 1987
Sonia T Seeman, Associate Professor
Music
PhD, University of California-Los Angeles, 2002
Adriana Serrano, Assistant Professor
Theatre and Dance
MFA, City University of New York Brooklyn College, 2003
Yevgeniy Sharlat, Associate Professor
Music
DMA, Yale University, 2007
Patrick Forsythe Shaw, Assistant Professor of Practice
Theatre and Dance
MFA, University of Texas at Austin, 2015
Richard A Shiff, Professor
Effie Marie Cain Regents Chair in Art
Art and Art History

PhD, Yale University, 1973
Amy L Simmons, Senior Lecturer
Music
PhD, University of Texas at Austin, 2007
Sara M Simons, Assistant Professor of Instruction
Theatre and Dance
PhD, New York University, 2013
Stephen M Slawek, Professor
Music
PhD, University of Illinois at Urbana-Champaign, 1986
Patrick Lee Slevin, Clinical Assistant Professor
BM, Northwestern University, 2010
David A Small, Associate Professor
Music
MM, University of Cincinnati Main Campus, 1987
Jeffrey C Smith, Professor
Kay Fortson Chair in European Art
Art and Art History
PhD, Columbia University in the City of New York, 1979
Matthew Ray Smith, Assistant Professor of Practice
Design and Creative Technologies
MA, Angelo State University, 2012
Michael Smith, Professor
Art and Art History
BA, Colorado College, 1974
Polly Lanning Sparrow, Lecturer
Art and Art History
MFA, University of Texas at Austin, 1995
Jack Stamps, Associate Professor of Practice
Design and Creative Technologies
DMA, University of Texas at Austin, 2010
Honoria K Starbuck, Lecturer
Design and Creative Technologies
PhD, University of Texas at Austin, 2003
Rachael Angelica Starbuck, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2017
Anika Brady Steppe, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2018
Dawn Stienecker, Assistant Professor of Instruction
Art and Art History
PhD, University of North Texas, 2012
John S Stoney, Associate Professor
Art and Art History
MFA, Cranbrook Academy of Art, 1998
Nikita Storojev, Associate Professor
Music
MFA, Moscow P.I. Tchaikovsky Conservatory, 1979
Luanne Larson Stovall, Lecturer
Art and Art History
MFA, Tufts University, 2005

Stacy A Strakowski, Lecturer
Theatre and Dance
MM, University of Cincinnati Main Campus, 2001
Joshua G Straub, Lecturer
Music
DMA, University of Texas at Austin, 2016
David S Stuart, Professor
Linda and David Schele Chair in the Art and Writing of Mesoamerica
Art and Art History
PhD, Vanderbilt University, 1995
Gabriella Sturchio, Lecturer
Art and Art History
MFA, University of Texas at Austin, 2018
Daniel D Sutherland, Associate Professor
Art and Art History
MFA, Syracuse University Main Campus, 1991
James Raysor Sutton, Senior Lecturer
GED, , 1970
Rebecca Switzer, Lecturer
Theatre and Dance
MFA, University of Arizona, 1987
David J Tolin, Lecturer
Theatre and Dance
MFA, University of Texas at Austin, 2010
Paul K Toprac, Associate Professor of Instruction
Design and Creative Technologies
PhD, University of Texas at Austin, 2008
Christopher M Trapani, Assistant Professor
Music
DMA, Columbia University in the City of New York, 2017
Benjamin E Truppin-Brown, Lecturer
Theatre and Dance
BFA, Ithaca College, 2011
Bion Tsang, Professor
Joe R. \& Teresa Lozano Long Chair in Cello
Music
MM, Yale University, 1993
John R Turci, Assistant Professor of Instruction
Music
PhD, Yale University, 2004
Michael C Tusa, Professor
Music
PhD, Princeton University, 1983
Colette T Valentine, Associate Professor
Music
DMA, State University of New York at Stony Brook, 2005
Charles W Villarrubia, Professor
Music
MM, Boston University, 1988
Louis A Waldman, Associate Professor
Art and Art History
PhD, New York University, 1999
James Walker, Associate Professor of Practice

Design and Creative Technologies
MFA, Virginia Commonwealth University, 2013
Marianne Wheeldon, Professor
Music
PhD, Yale University, 1997
Darlene C Wiley, Professor
Music
MM, University of Illinois at Urbana-Champaign, 1969
Jason R Wilkins, Assistant Professor of Practice
Design and Creative Technologies
BA, University of Arkansas Main Campus, 2010
Holly A Williams, Professor
Theatre and Dance
MFA, Texas Woman's University - Denton, 1994
Jeff Williams, Associate Professor
Art and Art History
MFA, Syracuse University Main Campus, 2002
Scott R Witthoft, Associate Professor of Practice
Design and Creative Technologies
MS, Stanford University, 2008
Patti Wolf, Assistant Professor of Practice
Music
MM, Yale University, 1989
Ann Griffin Wrightson, Lecturer
Theatre and Dance
MFA, Temple University, 1977
Satoko S Yamamoto, Associate Professor of Practice

## Music

MMus, Cleveland Institute of Music, 1998
John A Yancey, Professor
John D. Murchison Regents Professorship in Art
Art and Art History
MFA, Georgia Southern University, 1993
Marjorie Yankeelov, Lecturer
MM, University of Cincinnati Main Campus, 2001

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

The following faculty list represents those appointed in the 2020 spring semester.

## Jay L Banner, Professor

Fred M. Bullard Professorship in Geological Sciences
Geological Sciences
PhD, State University of New York at Stony Brook, 1986
Jaime D Barnes, Associate Professor
Geological Sciences
PhD, University of New Mexico Main Campus, 2006
Thorsten Becker, Professor
Shell Companies Foundation Distinguished Chair in Geophysics
Geological Sciences
PhD, Harvard University, 2002
Christopher J Bell, Professor

Geological Sciences
PhD, University of California-Berkeley, 1997
Philip C Bennett, Professor
Geological Sciences
PhD, Syracuse University Main Campus, 1989
Daniel O Breecker, Associate Professor
Geological Sciences
PhD, University of New Mexico Main Campus, 2008
Meinhard Bayani Cardenas, Professor
Geological Sciences
PhD, New Mexico Institute of Mining and Technology, 2006
Ginny A Catania, Professor
Geological Sciences
PhD, University of Washington - Seattle, 2004
Elizabeth Jacqueline Catlos, Associate Professor
Geological Sciences
PhD, University of California-Los Angeles, 2000
Gail L Christeson, Lecturer
Geological Sciences
PhD, Massachusetts Institute of Technology, 1993
Julia Allison Clarke, Professor
John A. Wilson Professorship in Vertebrate Paleontology
Geological Sciences
PhD, Yale University, 2002
Mark P Cloos, Professor
Getty Oil Company Centennial Chair in Geological Sciences
Geological Sciences
PhD, University of California-Los Angeles, 1981
Kerry H Cook, Professor
Geological Sciences
PhD, North Carolina State University, 1984
Ian W Dalziel, Professor
Geological Sciences
PhD, University of Edinburgh, 1963
Edward Alvin Duncan, Professor of Practice
Geological Sciences
MA, University of Texas at Austin, 1987
Claudio Faccenna, Professor
John F. and Carolyn C. Bookout Endowed Chair in Structural Geology Geological Sciences
PhD, Sapienza University of Rome, 1993
Peter Barry Flemings, Professor
John A. and Katherine G. Jackson Chair in Energy and Mineral Resources
Geological Sciences
PhD, Cornell University, 1990
Sergey B Fomel, Professor
Geological Sciences
PhD, Stanford University, 2001
Rong Fu, Adjunct Professor
Geological Sciences
PhD, Columbia University in the City of New York, 1991
James E Gardner, Professor
Geological Sciences

PhD, University of Rhode Island, 1993
Marcus 0 Gary, Adjunct Assistant Professor
Geological Sciences
PhD, University of Texas at Austin, 2009
Omar Ghattas, Professor
John A. and Katherine G. Jackson Chair in Computational Geosciences
Geological Sciences
PhD, Duke University, 1988
Jennifer H Gillespie, Lecturer
Geological Sciences
PhD, University of Texas at Austin, 2011
Timothy Andrew Goudge, Assistant Professor
Geological Sciences
PhD, Brown University, 2015
Stephen P Grand, Professor
Shell Companies Foundation Centennial Chair in Geophysics
Geological Sciences
PhD, California Institute of Technology, 1986
Paul Hearty, Adjunct Associate Professor
Geological Sciences
PhD, University of Colorado at Boulder, 1987
Patrick Heimbach, Associate Professor
Geological Sciences
PhD, University of Hamburg, 1998
Mark A Helper, Distinguished Senior Lecturer
Geological Sciences
PhD, University of Texas at Austin, 1985
Marc Andre Hesse, Associate Professor
Geological Sciences
PhD, Stanford University, 2008
Brian K Horton, Professor
Alexander Deussen Professorship of Energy Resources
Geological Sciences
PhD, University of Arizona, 1998
Charles S Jackson, Lecturer
Geological Sciences
PhD, University of Chicago, 1998
Joel Peterson Johnson, Associate Professor
Geological Sciences
PhD, Massachusetts Institute of Technology, 2007
Charles Kerans, Professor
Robert K. Goldhammer Chair in Carbonate Geology, Wilton E. Scott
Centennial Professorship
Geological Sciences
PhD, Carleton University, 1982
Richard A Ketcham, Professor
The First Mr. and Mrs. Charles E. Yager Professorship
Geological Sciences
PhD, University of Texas at Austin, 1995
Wonsuck Kim, Adjunct Associate Professor
Geological Sciences
PhD, University of Minnesota-Twin Cities, 2007
J Richard Kyle, Professor

The Third Mr. and Mrs. Charles E. Yager Professorship
Geological Sciences
PhD, University of Western Ontario, 1977
John C Lassiter, Professor
Geological Sciences
PhD, University of California-Berkeley, 1995
Stephen E Laubach, Lecturer
Geological Sciences
PhD, University of Illinois at Urbana-Champaign, 1986
Luc L Lavier, Associate Professor
Geological Sciences
PhD, Columbia University in the City of New York, 1999
Jung-Fu Lin, Professor
Geological Sciences
PhD, University of Chicago, 2002
Staci L Loewy, Lecturer
Geological Sciences
PhD, University of Texas at Austin, 2002
Barbara J Mahler, Lecturer
Geological Sciences
PhD, University of Texas at Austin, 1997
Rowan Clare Martindale, Assistant Professor
Geological Sciences
PhD, University of Southern California, 2012
Ashley Michelle Matheny, Assistant Professor
Geological Sciences
PhD, Ohio State U Main Campus, 2016
Nathaniel Ross Miller, Lecturer
Geological Sciences
PhD, University of Texas at Dallas, 1995
David Mohrig, Professor
John E. Brick Elliott Centennial Endowed Professorship in Geological
Sciences
Geological Sciences
PhD, University of Washington - Seattle, 1994
Claudia I Mora, Professor
Geological Sciences
PhD, University of Wisconsin-Madison, 1988
Sharon Mosher, Professor
William Stamps Farish Chair in Geology, John A. and Katherine G.
Jackson Decanal Chair in the Geosciences
Geological Sciences
PhD, University of Illinois at Urbana-Champaign, 1978
Dev Niyogi, Professor
Geological Sciences
PhD, North Carolina State University, 2000
Cornel Olariu, Lecturer
Geological Sciences
PhD, University of Texas at Dallas, 2005
Adam Scott Papendieck, Lecturer
Geological Sciences
PhD, University of Texas at Austin, 2019
Camille Parmesan, Adjunct Professor

Geological Sciences
PhD, University of Texas at Austin, 1995
Judson Wiley Partin, Lecturer
Geological Sciences
PhD, Georgia Institute of Technology, 2008
Geeta Persad, Assistant Professor
Geological Sciences
PhD, Princeton University, 2016

Mary F Poteet, Assistant Professor of Practice
Geological Sciences
PhD, University of California-Berkeley, 2001
Terrence M Quinn, Professor
Geological Sciences
PhD, Brown University, 1989
Daniella M Rempe, Assistant Professor
Geological Sciences
PhD, University of California-Berkeley, 2016
Timothy B Rowe, Professor
J. Nalle Gregory Regents Professorship in Geological Sciences

Geological Sciences
PhD, University of California-Berkeley, 1986
Demian M Saffer, Professor
Geological Sciences
PhD, University of California-Santa Cruz, 1999
Mrinal K Sen, Professor
John A. and Katherine G. Jackson Chair in Applied Seismology
Geological Sciences
PhD, University of Hawaii at Manoa, 1987
Timothy Michael Shanahan, Associate Professor
Geological Sciences
PhD, University of Arizona, 2006
Kyle Thomas Spikes, Associate Professor
Geological Sciences
PhD, Stanford University, 2008
Ronald J Steel, Professor
Morgan J. Davis Centennial Chair in Petroleum Geology
Geological Sciences
PhD, University of Glasgow, 1972
Daniel Stockli, Professor
Chevron Centennial Professorship in Geology
Geological Sciences
PhD, Stanford University, 2000
Scott W Tinker, Professor
Edwin Allday Centennial Chair in Subsurface Geology
Geological Sciences
PhD, University of Colorado at Boulder, 1996
Nicola Tisato, Assistant Professor
Geological Sciences
PhD, Swiss Federal Institute of Technology, 2013
Darrel Tremaine, Lecturer
Geological Sciences
PhD, Florida State University, 2015
Clark R Wilson, Professor

Dave P. Carlton Centennial Professorship in Geophysics
Geological Sciences
PhD, University of California-San Diego, 1975
Zong-Liang Yang, Professor
John A. and Katherine G. Jackson Chair in Earth System Sciences
Geological Sciences
PhD, Macquarie University, 1992

## School of Information Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Amelia Acker, Assistant Professor PhD, University of California-Los Angeles, 2014

Anson Chase Airmet, Adjunct Assistant Professor MS, Art Center College of Design, 2015

Jennifer E Allen, Adjunct Assistant Professor
MS, University of Texas at Austin, 2017
Gabriel Elijah Bailey, Adjunct Assistant Professor
MS, University of Texas at Austin, 2019
Jakki Bailey, Assistant Professor
PhD, Stanford University, 2018
Brenda L Berkelaar, Lecturer
PhD, Purdue University Main Campus, 2010
Randolph G Bias, Professor
PhD, University of Texas at Austin, 1978
Craig Erben Blaha, Lecturer
MA, Claremont Graduate University, 1996
Roxanne Bogucka, Adjunct Assistant Professor
MLIS, University of Texas at Austin, 1997
Sarah G Britt, Adjunct Assistant Professor
MSInfoStds, University of Texas at Austin, 2016
Andrea Sophie Cato, Adjunct Assistant Professor
MS, University of Texas at Austin, 2011
Mary C Criner, Lecturer
PhD, Louisiana State University and Agricultural and Mechanical College, 2000

Sarah H Cunningham, Lecturer
MS, University of Texas at Austin, 2003
Andrew P Dillon, Professor
Vara Martin Daniel Regents Professorship in Libraries, Archives \& Information Studies
PhD, Loughborough University, 1991
Ying Ding, Professor
Bill and Lewis Suit Professorship
PhD, Nanyang Technological University, 2001
Philip Doty, Associate Professor
PhD, Syracuse University Main Campus, 1995
Rebecca K Elder, Adjunct Assistant Professor
MSLS, University of Texas at Austin, 2003
Mycal Elliott, Adjunct Assistant Professor

MDES, Illinois Institute of Technology, 2007
Kenneth Robert Fleischmann, Professor
PhD, Rensselaer Polytechnic Institute, 2004
Margaret M Foster, Adjunct Assistant Professor
MS, University of Texas at Austin, 1999
Patricia K Galloway, Professor
PhD, University of North Carolina at Chapel Hill, 2004
Kathryn E Golden, Adjunct Assistant Professor
MS, University of Texas at Austin, 2018
ANTHONY H GRUBESIC, Professor
PhD, The Ohio State University Main Campus, 2001
Stanley T Gunn Jr, Adjunct Assistant Professor
MLS, University of Texas at Austin, 1998
Danna Gurari, Assistant Professor
PhD, Boston University, 2015
Jacek Gwizdka, Associate Professor
PhD, University of Toronto, 2004
Lorraine J Haricombe, Professor
PhD, University of Illinois at Urbana-Champaign, 1992
Lance A Hayden, Adjunct Assistant Professor
PhD, University of Texas at Austin, 2009
James L Howison, Associate Professor
PhD, Syracuse University Main Campus, 2009
Barbara A Jansen, Adjunct Assistant Professor
PhD, University of Texas at Austin, 2014
Rajashree A Kamat, Adjunct Assistant Professor
MS, University of Texas at Austin, 2018
Steven Dennis Kantner, Adjunct Assistant Professor
MS, University of Texas at Austin, 2014
James B Kellison, Lecturer
PhD, University of Texas at Austin, 1998
Matthew Alan Lease, Associate Professor
PhD, Brown University, 2009
MIN KYUNG LEE, Assistant Professor
PhD, Carnegie Mellon University, 2013
Zandra I Lopez, Adjunct Assistant Professor
MLS, Emporia State University, 2005
Robert Sean Mccleskey, Lecturer
JD, St Mary's University, 1998
Molly K Mcgee, Adjunct Assistant Professor
MS, University of Texas at Austin, 2018
Eric T Meyer, Professor
Mary R. Boyvey Chair for Excellence, Louis T. Yule Regents Professorship
in Library and Information Science
PhD, Indiana University at Bloomington, 2007
Ann E Minner, Adjunct Assistant Professor
MLIS, University of Texas at Austin, 1998
Eric Nordquist, Clinical Associate Professor

MA, New Mexico State University Main Campus, 2004
Kristen S Oglesbee, Adjunct Assistant Professor
MSInfoStds, University of Texas at Austin, 2016
Karen L Pavelka, Senior Lecturer
MS, Columbia University in the City of New York, 1988
Megan Haralson Pearson, Adjunct Assistant Professor MS, University of Texas at Austin, 2019

Michelle R Peterson, Adjunct Assistant Professor
PhD, University of Florida, 2000
Casey Pierce, Harrington Faculty Fellow
PhD, Northwestern University, 2015
SOO YOUNG RIEH, Professor
PhD, Rutgers the State University of New Jersey Newark Campus, 2000
Walker Emerson Riley, Adjunct Assistant Professor
MS, University of Texas at Austin, 2017
Marion E Rocco, Adjunct Assistant Professor
MS, University of Texas at Austin, 2011
Amy B Rothbaum, Adjunct Assistant Professor
MS, University of Texas at Austin, 2016
Loriene Roy, Professor
PhD, University of Illinois at Urbana-Champaign, 1987
Alonzo Fleming Seay, Adjunct Assistant Professor
PhD, Carnegie Mellon University, 2006
Thomas G Serres, Adjunct Assistant Professor
HS/GED, , 2000
Stephen Slota, Lecturer
PhD, University of California-Irvine, 2017
Caroline Patricia Stratton, Lecturer
PhD, University of Texas at Austin, 2018
Sandra L Sweat, Adjunct Assistant Professor
MS, University of Texas at Austin, 2016
Stephanie Swenson Towery, Adjunct Assistant Professor
JD, University of Texas at Austin, 1994
Ciaran Trace, Associate Professor
PhD, University of California-Los Angeles, 2004
Christine Walczyk, Adjunct Assistant Professor
PhD, University of North Texas, 2016
Bettina M Warburg-Johnson, Adjunct Assistant Professor
MS, University of Oxford, 2010
Bo Xie, Professor
PhD, Rensselaer Polytechnic Institute, 2006
Yan Zhang, Associate Professor
PhD, University of North Carolina at Chapel Hill, 2009

## College of Liberal Arts Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Jeffrey B Abramson, Professor

Government
PhD, Harvard University, 1977
Jason Ira Abrevaya, Professor
Murray S. Johnson Chair in Economics
Economics
PhD, Massachusetts Institute of Technology, 1996
Robert H Abzug, Professor
Audre and Bernard Rapoport Regents Chair of Jewish Studies
History
PhD, University of California-Berkeley, 1977
Daniel A Ackerberg, Professor
Addison Baker Duncan Centennial Professorship in Economics Economics
PhD, Yale University, 1997
Paul C Adams, Professor
Geography and the Environment
PhD, University of Wisconsin-Madison, 1993
Abimbola Adunni Adelakun, Assistant Professor
African and African Diaspora Studies
PhD, University of Texas at Austin, 2017
Ari Adut, Associate Professor
Sociology
PhD, University of Chicago, 2004
Omoniyi Afolabi, Professor
African and African Diaspora Studies
PhD, University of Wisconsin-Madison, 1997
Dena Afrasiabi, Lecturer
Middle Eastern Studies
PhD, University of Texas at Austin, 2016
Kamran S Aghaie, Associate Professor
Middle Eastern Studies
PhD, University of California-Los Angeles, 1999
Yukie Aida, Senior Lecturer
Asian Studies
PhD, University of Texas at Austin, 1988
Olla N Al-Shalchi, Lecturer
Middle Eastern Studies
PhD, Old Dominion University, 2015
Bedour Alagraa, Assistant Professor
African and African Diaspora Studies
PhD, Brown College, 2019
Bethany L Albertson, Associate Professor
Government
PhD, University of Chicago, 2006
Marina Alexandrova, Senior Lecturer
Slavic and Eurasian Studies
PhD, University of Texas at Austin, 2010
Riyad Alhomsi, Lecturer
Middle Eastern Studies
PhD, University of Arizona, 2018
Kamran Ali, Professor
Anthropology
PhD, Johns Hopkins University, 1998

Chad Alvarez, Assistant Professor
Mexican American and Latina/o Studies
PhD, University of Chicago, 2014
MARIA JOSE ALVAREZ, Visiting Professor
Latin American Studies
PhD, University of Pittsburgh, Pittsburgh Campus, 2009
Natalie Amleshi, Lecturer
English
PhD, University of Pennsylvania, 2019
Michael R Anderson, Associate Professor of Instruction
Government
PhD, University of Texas at Austin, 2009
Ronald J Angel, Professor
Sociology
PhD, University of Wisconsin-Madison, 1981
Manuela Angelucci, Associate Professor
Economics
PhD, University College London, 2005
Sarah K Angulo, Lecturer
Psychology
PhD, University of Texas at Austin, 2008
Katherine M Arens, Professor
Germanic Studies
PhD, Stanford University, 1981
Eugenio Yatsuda Arima, Associate Professor
Geography and the Environment
PhD, Michigan State University, East Lansing, 2005
Minou Arjomand, Assistant Professor
English
PhD, Columbia University in the City of New York, 2013
Jossianna Arroyo Martinez, Professor
Peter T. Flawn Centennial Professorship in Spanish Language and Literature
African and African Diaspora Studies
Spanish and Portuguese
PhD, University of California-Berkeley, 1998
Javier Auyero, Professor
Joe R. \& Teresa Lozano Long Endowed Professorship \#3
Sociology
PhD, New Sch for Soc Research, 1998
Kiril Avramov, Lecturer
Slavic and Eurasian Studies
PhD, University of Sofia, 2008
Samy Ayoub, Assistant Professor
Middle Eastern Studies
PhD, University of Arizona, 2014
Hina Azam, Associate Professor
Middle Eastern Studies
PhD, Duke University, 2007
Mansi Bajaj, Lecturer
Asian Studies
PhD, University of Delhi, 2019
Samuel Baker, Associate Professor

English
PhD, University of Chicago, 2001
Sarah Lynn Baker, Lecturer
Middle Eastern Studies
PhD, University of Texas at Austin, 2018
Anandakrishnan Balakrishnan, Lecturer
Asian Studies
PhD, University of Delhi, 2017
Jorge Francisco Balat, Assistant Professor
Economics
PhD, Yale University, 2012
Reema Barakat, Lecturer
Middle Eastern Studies
MA, University of Texas at Austin, 2015
Zoltan D Barany, Professor
Frank C. Erwin, Jr. Centennial Professorship in Government Government
PhD, University of Virginia (Old Code), 1991
Janine Barchas, Professor
English
PhD, University of Chicago, 1995
Charles J Barnett, Lecturer
Plan II Honors
MA, Xavier University, 1978
J K Barret, Associate Professor
English
PhD, Princeton University, 2008
Phillip J Barrish, Professor
Tony Hilfer Professorship in American and British Literature
English
PhD, Cornell University, 1991
Jean-Bernard Basse, Visiting Professor
English
PhD, Universite de Paris X, Nanterre, 1998
Alice L Batt, Lecturer
Rhetoric and Writing
PhD, University of Texas at Austin, 1996
Sheryl Luzzadder Beach, Professor
Raymond Dickson Centennial Professorship \#1
Geography and the Environment
PhD, University of Minnesota-Twin Cities, 1990
Timothy Beach, Professor
C. B. Smith, Sr. Centennial Chair in United States-Mexico Relations \#2

Geography and the Environment
PhD, University of Minnesota-Twin Cities, 1989
Alex A Beasley, Assistant Professor
American Studies
PhD, Yale University, 2016
David I Beaver, Professor
Linguistics
PhD, University of Edinburgh, 1995
John T Beavers, Associate Professor
Linguistics

PhD, Stanford University, 2006
Deborah Beck, Associate Professor
Classics
PhD, Harvard University, 1997
Jennifer S Beer, Professor
Psychology
PhD, University of California-Berkeley, 2002
Christopher G Beevers, Professor
Wayne H. Holtzman Regents Chair in Psychology
Psychology
PhD, University of Miami, 2002
Kirsten L Belgum, Associate Professor
Germanic Studies
PhD, University of Wisconsin-Madison, 1989
Valerie R Bencivenga, Senior Lecturer
Economics
PhD, University of Toronto, 1985
Marvin C Bendele, Lecturer
American Studies
PhD, University of Texas at Austin, 2015
Chad J Bennett, Associate Professor
English
PhD, Cornell University, 2011
Vladislav Beronja, Assistant Professor
Slavic and Eurasian Studies
PhD, University of Michigan-Ann Arbor, 2014
Betsy A Berry, Senior Lecturer
English
PhD, University of Texas at Austin, 1994
Daina R Berry, Professor
Oliver H. Radkey Regents Professorship in History
African and African Diaspora Studies
History
PhD, University of California-Los Angeles, 1998
Lance Bertelsen, Professor
Iris Howard Regents Professorship in English Literature
English
PhD, University of Washington - Seattle, 1979
Aarti R Bhalodia, Lecturer
Asian American Studies
PhD, University of Texas at Austin, 2012
Venkataraman Bhaskar, Professor
Sue Killam Professorship in the Foundations of Economics
Economics
DPhil, University of Oxford, 1988
Saroj Bhattarai, Assistant Professor
Economics
PhD, Princeton University, 2010
Julia A Biggerstaff Haug, Clinical Assistant Professor
BA, University of Texas at Austin, 1997
Douglas G Biow, Professor
The Superior Oil Company - Linward Shivers Centennial Professorship in
Medieval and Renaissance Studies

French and Italian
PhD, Johns Hopkins University, 1990
David P Birdsong, Professor
French and Italian
PhD, Harvard University, 1979
Daniel J Birkholz, Associate Professor
English
PhD, University of Minnesota-Twin Cities, 1999
Marc Bizer, Professor
French and Italian
PhD, Princeton University, 1993
Mary E Blockley, Professor
English
PhD, Yale University, 1984
Carl S Blyth, Associate Professor
French and Italian
PhD, Cornell University, 1990
Hans C Boas, Professor
The Raymond Dickson, Alton C. Allen and Dillon Anderson Centennial
Professorship
Germanic Studies
PhD, University of North Carolina at Chapel Hill, 2000
Marion Enid Bodian, Professor
History
PhD, Hebrew University, 1988
Christoph Boehm, Assistant Professor
Economics
PhD, University of Michigan-Ann Arbor, 2016
Matthew R Bogan, Assistant Professor-ROTC
Air Force Science
MBA, Naval Postgraduate School, 2017
Daniel A Bonevac, Professor
Philosophy
PhD, University of Pittsburgh, Pittsburgh Campus, 1980
Paola Bonifazio, Associate Professor
French and Italian
PhD, New York University, 2008
Amy Elizabeth Booth, Adjunct Professor
Psychology
PhD, University of Pittsburgh, Pittsburgh Campus, 1998
Jason R Borge, Professor
Spanish and Portuguese
PhD, University of California-Berkeley, 2002
Pascale R Bos, Associate Professor
Germanic Studies
PhD, University of Minnesota-Twin Cities, 1998
Carlos E Bowles, Lecturer
MEd, University of Texas at Austin, 2002
Svetlana Boyarchenko, Associate Professor
Economics
PhD, Rostov State University, 1983
Casey A Boyle, Associate Professor
Rhetoric and Writing

PhD, University of South Carolina - Columbia, 2011
Henry W Brands, Professor
Jack S. Blanton, Sr. Chair in History
History
PhD, University of Texas at Austin, 1985
Sarah Brayne, Assistant Professor
Sociology
MA, Princeton University, 2012
Joel P Brereton, Professor
Asian Studies
PhD, Yale University, 1975
Daniel M Brinks, Professor
Government
PhD, University of Notre Dame, 2004
Benjamin Claude Brower, Associate Professor
History
PhD, Cornell University, 2005
Jonathan C Brown, Professor
History
PhD, University of Texas at Austin, 1976
Simone Arlene Browne, Associate Professor
African and African Diaspora Studies
PhD, University of Toronto, 2007
Jason M Brownlee, Professor
Government
PhD, Princeton University, 2004
Douglas S Bruster, Professor
Mody C. Boatright Regents Professorship in American and English
Literature
English
PhD, Harvard University, 1990
Erika M Bsumek, Associate Professor
History
PhD, Rutgers the State University of New Jersey New Brunswick Campus, 2000

Lawrence Ray Buchanan, Associate Professor
Philosophy
PhD, New York University, 2008
Tom Buckley, Specialist
Rhetoric and Writing
MA, Pennsylvania State University Park, 1985
J Budziszewski, Professor
Government
PhD, Yale University, 1981
Walter L Buenger Jr, Professor
Summerlee Foundation Chair in Texas History, Barbara White Stuart
Centennial Professorship in Texas History
History
PhD, Rice University, 1979
Barbara Ellen Bullock, Professor
French and Italian
PhD, University of Delaware, 1990
Melissa R Bunner, Clinical Assistant Professor

Psychology
PhD, University of Texas at Austin, 1997
Benjamin R Burnett, Lecturer
MEd, University of Texas at Austin, 2007
Virginia Garrard Burnett, Professor
Chair for Western Hemispheric Trade Studies, Joe R. \& Teresa Lozano
Long Endowed Professorships
History
PhD, Tulane University, 1986
Nicole Alexis Burrowes, Assistant Professor
African and African Diaspora Studies
PhD, City University of New York Graduate Center, 2015
W A Burton Jr, Adjunct Professor
Plan II Honors
LLB, University of Texas at Austin, 1968

Amanda Rose Bush, Lecturer
French and Italian
PhD, University of Texas at Austin, 2018
David M Buss, Professor
Psychology
PhD, University of California-Berkeley, 1981
Johnny S Butler, Professor
J. Marion West Chair for Constructive Capitalism

Sociology
PhD, Northwestern University, 1974
Matthew J Butler, Associate Professor
History
PhD, University of Bristol, 2000

Delia Sarah Byrnes, Lecturer
English
PhD, University of Texas at Austin, 2019
Marika Cabral, Assistant Professor
Economics
PhD, Stanford University, 2011
Craig A Campbell, Associate Professor
Anthropology
PhD, University of Alberta, 2009
Emmet E Campos, Lecturer
PhD, University of Texas at Austin, 2011
Jorge Canizares, Professor
Alice Jane Drysdale Sheffield Regents Professorship in History History
PhD, University of Wisconsin-Madison, 1995
Paola Canova, Assistant Professor
Anthropology
PhD, University of Arizona, 2014
Luis Ernesto Carcamo-Huechante, Associate Professor
Spanish and Portuguese
PhD, Cornell College, 2001
Don E Carleton, Senior Lecturer
History
PhD, University of Houston, 1978
Caryn L Carlson, Professor

Psychology
PhD, University of Georgia, 1984
Patrick J Carroll, Associate Professor of Instruction
Psychology
PhD, University of Massachusetts, 1983
Daniela Bini Carter, Professor
French and Italian
PhD, University of Texas at Austin, 1970

Mia E Carter, Associate Professor
English
PhD, University of Wisconsin-Milwaukee, 1992
Evan B Carton, Professor
Joan Negley Kelleher Centennial Professorship in Rhetoric and
Composition
English
PhD, Johns Hopkins University, 1979
Oscar H Casares, Associate Professor
English
MFA, University of Iowa, 2001
Julie C Casey, Lecturer
MA, University of Chicago, 1997
Katherine M Catmull, Lecturer
English
MA, University of Texas at Austin, 1984
Shannon Eileen Cavanagh, Professor
Sociology
PhD, University of North Carolina at Chapel Hill, 2003
Lydia A CdeBaca, Lecturer
English
PhD, University of Texas at Austin, 2012
Zeenia Challa, Lecturer
Geography and the Environment
JD, Texas Southern University, 2013
Frances Anne Champagne, Professor
Psychology
PhD, McGill University, 2004
Chih-Wei Chang, Lecturer
Asian Studies
MA, University of Texas at Austin, 2000
Sung-Sheng Yvonne Chang, Professor
Asian Studies
PhD, Stanford University, 1985
Terrence Leon Chapman, Associate Professor
Governmen
PhD, Emory University, 2007
Davida H Charney, Professor
Rhetoric and Writing
PhD, Carnegie Mellon University, 1985
Mounira M Charrad, Associate Professor
Sociology
PhD, Harvard University, 1980
Damien Charre, Lecturer
French and Italian

MA, Universite Paul Valery, Montpellier III, 2018
Indrani Chatterjee, Professor
History
PhD, University of London, 1996
Pramit Chaudhuri, Associate Professor
Classics
PhD, Yale University, 2008
Karma Ruth Chavez, Associate Professor Mexican American and Latina/o Studies
PhD, Arizona State University Main, 2007
Jacob Earl Cheadle, Professor
Sociology
PhD, Pennsylvania State University Park, 2005
Jeanette C Chen, Lecturer
Asian Studies
MA, Middlebury College, 1983
Chienyn Ju Chi, Lecturer
Asian American Studies
PhD, University of Texas at Austin, 2019
George S Christian, Adjunct Professor
English
PhD, University of Texas at Austin, 2000
Jessica Alice Church-Lang, Associate Professor Psychology
PhD, Washington University in St Louis, 2008
Tanya Elizabeth Clement, Associate Professor English
PhD, University of Maryland College Park, 2009
Adam John Clulow, Associate Professor

## History

PhD, Columbia University in the City of New York, 2008
Diane L Coffey, Assistant Professor
Sociology
PhD, Princeton University, 2015
Judith G Coffin, Associate Professor
History
PhD, Yale University, 1985
Olivier Coibion, Associate Professor
Economics
PhD, University of Michigan-Ann Arbor, 2007
Kevin O Cokley, Professor
Oscar and Anne Mauzy Regents Professorship for Educational Research and Development
African and African Diaspora Studies
PhD, Georgia State University, 1998
Juan Jose Colomina-alminana, Assistant Professor
Mexican American and Latina/o Studies
PhD, University of la Laguna, 2009
Jason Cons, Associate Professor
Anthropology
PhD, Cornell University, 2011
Chikako H Cooke, Lecturer
Asian Studies

MA, University of Wisconsin Colleges, 1995
Claire Sloan Cooley, Lecturer
Middle Eastern Studies
MA, University of Texas at Austin, 2015
Cary Cordova, Associate Professor
American Studies
PhD, University of Texas at Austin, 2005
Lawrence K Cormack, Professor
Psychology
PhD, University of California-Berkeley, 1992
Rikke P Cortsen, Lecturer
Germanic Studies
PhD, University of Copenhagen, 2012
Kurt Cousins, Lecturer
Sociology
MD, University of North Carolina at Chapel Hill, 2008
Ronald Covey, Professor
Anthropology
PhD, University of Michigan-Ann Arbor, 2003
James H Cox, Professor
Jane and Roland Blumberg Centennial Professorship in English English
PhD, University of Nebraska - Lincoln, 1999
Alison Craig, Assistant Professor
Government
PhD, The Ohio State University Main Campus, 2017
David F Crew, Professor
History
PhD, Cornell University, 1975
Kelley A Crews, Associate Professor
Geography and the Environment
PhD, University of North Carolina at Chapel Hill, 2000
Zachary A Crippen, Assistant Professor-ROTC
Air Force Science
MPhil, University of Oxford, 2014
Robert Crosnoe, Professor
Rapoport Centennial Professorship of Liberal Arts
Sociology
PhD, Stanford University, 1999
Megan J Crowhurst, Associate Professor
Linguistics
PhD, University of Arizona, 1991
Elizabeth Cullingford, Professor
Jane Weinert Blumberg Chair in English
English
PhD, University of Oxford, 1977
Anthony S Cunningham, Visiting Professor
Economics
PhD, University of Georgia, 2007
James Patrick Curley, Associate Professor
Psychology
PhD, University of Cambridge, 2003
Todd Anthony Curtis, Senior Lecturer

Classics
PhD, University of Newcastle upon Tyne, 2010
Peter H Dana, Senior Lecturer
Geography and the Environment
PhD, University of Texas at Austin, 1999
Jonathan Dancy, Professor
Philosophy
MA, University of Oxford, 1972
D D Davis, Professor
Rhetoric and Writing
PhD, University of Texas at Arlington, 1995
Donald R Davis Jr, Professor
Asian Studies
PhD, University of Texas at Austin, 2000
Janet M Davis, Professor
American Studies
PhD, University of Wisconsin-Madison, 1998
Kaya de Barbaro, Assistant Professor
Psychology
PhD, University of California-San Diego, 2012
Jack C De La Torre, Adjunct Professor
Psychology
PhD, University of Geneva, 1968
Lesley A Dean-Jones, Associate Professor Classics
PhD, Stanford University, 1987
Susan Deans-Smith, Associate Professor
History
PhD, University of Cambridge, 1984
John Deigh, Professor
Philosophy
PhD, University of California-Los Angeles, 1979
Lina Maria Del castillo, Associate Professor
History
PhD, University of Miami, 2007
Yvon Delville, Professor
Psychology
PhD, University of Massachusetts, 1992
Erik Dempsey, Lecturer
PhD, Boston College, 2007
Kim Denning-Knapp, Clinical Assistant Professor
MA, Pace University, 2019
Joshua Dever, Professor
Philosophy
PhD, University of California-Berkeley, 1998
Anthony F Di Fiore, Professor
Anthropology
PhD, University of California-Davis, 1997
Yoav Di-Capua, Professor
History
PhD, Princeton University, 2004
Rasha Diab, Associate Professor

Rhetoric and Writing
PhD, University of Wisconsin-Madison, 2009
Eric M Dieter, Lecturer
Rhetoric and Writing
PhD, University of Texas at Austin, 2013
Sinan Dogramaci, Associate Professor
Philosophy
PhD, New York University, 2009
Brian F Doherty, Senior Lecturer
English
PhD, University of Wisconsin-Milwaukee, 1996
Juan M Dominguez, Associate Professor
Psychology
PhD, State University of New York at Buffalo, 2002
Hector Dominguez-Ruvalcaba, Professor
Spanish and Portuguese
PhD, University of Colorado at Boulder, 1999
Michael P Domjan, Professor
Psychology
PhD, McMaster University, 1973
Wendy I Domjan, Distinguished Senior Lecturer
Psychology
PhD, University of Wisconsin-Madison, 1977
Stephen Donald, Professor
Edward Everett Hale Centennial Professorship in Economics
Economics
PhD, University of British Columbia, 1990
William Doolittle, Professor
Erich W. Zimmermann Regents Professorship in Geography
Geography and the Environment
PhD, University of Oklahoma Norman Campus, 1979
Julia L Driver, Professor
Philosophy
PhD, Johns Hopkins University, 1990
Kaori M Duffey, Lecturer
Asian Studies
MS, Kansas State University, 2002
Carolyn P Dunlap, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2000
Katherine Laura Dunlop, Associate Professor
Philosophy
PhD, University of California-Los Angeles, 2005
Jennifer V Ebbeler, Associate Professor
Classics
PhD, University of Pennsylvania, 2001
Maria Luisa Echavarria, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2014
Catharine H Echols, Associate Professor
Psychology
PhD, University of Illinois at Urbana-Champaign, 1987
Reid Glenn Echols, Lecturer

## English

PhD, University of Texas at Austin, 2019
Jules R Elkins, Lecturer
Geography and the Environment
PhD, University of California-Berkeley, 2008
Zachary S Elkins, Associate Professor
Government
PhD, University of California-Berkeley, 2003
Nora C England, Professor
Dallas TACA Centennial Professorship in the Humanities
Linguistics
PhD, University of Florida, 1975
Stephen Crossley Enniss, Adjunct Professor
English
PhD, University of Georgia, 1996
Mirasol Enriquez, Lecturer
Mexican American and Latina/o Studies
PhD, University of California-Los Angeles, 2012
Derek Epp, Assistant Professor
Government
PhD, University of North Carolina at Chapel Hill, 2015
Patience L Epps, Professor
Linguistics
PhD, University of Virginia, 2005
Katrin E Erk, Professor
Linguistics
PhD, Saarland University, 2002
Stefano M Eusepi, Associate Professor
Economics
PhD, University of Warwick, 2005
Jacqueline J Evans, Associate Professor of Instruction
Psychology
PhD, University of Texas at Austin, 2011
Matthew L Evans, Associate Professor
Philosophy
PhD, University of Texas at Austin, 2004
Rhonda L Evans, Senior Lecturer
Government
PhD, University of Texas at Austin, 2004
Karen J Ewing, Lecturer
Germanic Studies
MA, University of Texas at Austin, 2001
Oloruntoyin O Falola, Professor
Jacob and Frances Sanger Mossiker Chair in the Humanities \#2 History
PhD, Obafemi Awolowo University, 1981
Caroline Faria, Assistant Professor
Geography and the Environment
PhD, University of Washington - Seattle, 2009
Ashley Farmer, Assistant Professor
African and African Diaspora Studies
History
PhD, Harvard University, 2013

Yasmina Fawaz, Lecturer
French and Italian
PhD, University of Texas at Austin, 2018
Paul Ferrari, Research Associate Professor
Psychology
PhD, Florida Atlantic University, 2009
Linda Ferreira-Buckley, Associate Professor
English
Rhetoric and Writing
PhD, University of Pennsylvania, 1990
Michael G Findley, Professor
Government
PhD, University of Illinois at Urbana-Champaign, 2007
Stephen E Finn, Clinical Associate Professor
Psychology
PhD, University of Minnesota-Twin Cities, 1984
Kirsten Cather, Associate Professor
Asian Studies
PhD, University of California-Berkeley, 2004
Vivian Flanzer, Senior Lecturer
Spanish and Portuguese
MA, Universidade Federal do Rio de Janeiro, 1994
Richard R Flores, Professor
C. B. Smith, Sr. Centennial Chair in United States-Mexico Relations \#3

Anthropology
Mexican American and Latina/o Studies
PhD, University of Texas at Austin, 1989
George A Floyd, Associate Professor-ROTC
Naval Science
MPH, University of Hawaii at Manoa, 2001
George B Forgie, Associate Professor
History
PhD, Stanford University, 1972
Kevin M Foster, Associate Professor
African and African Diaspora Studies
PhD, University of Texas at Austin, 2001
Maria Franklin, Associate Professor
Anthropology
PhD, University of California-Berkeley, 1997
Alison K Frazier, Associate Professor
History
PhD, Columbia University in the City of New York, 1996
Jeffrey William Freels, Lecturer
PhD, George Mason University, 2015
Oliver Freiberger, Associate Professor
Asian Studies
PhD, Georg-August Universitat Gottingen, 1999
Joshua Frens-String, Assistant Professor
History
PhD, New York University, 2015
Eric Dean Frey, Clinical Assistant Professor
Psychology
PhD, Texas Tech University, 1999

Daniel G Fridman, Associate Professor
Sociology
PhD, Columbia University in the City of New York, 2010
Alan W Friedman, Professor
Arthur J. Thaman and Wilhelmina Dore' Thaman Endowed Professorship in English \#3
English
PhD, University of Rochester, 1966
Kim Fromme, Professor
Psychology
PhD, University of Washington - Seattle, 1988
Kirkland Alexander Fulk, Assistant Professor
Germanic Studies
PhD, University of North Carolina at Chapel Hill, 2013
Kelly Fulton, Lecturer
Sociology
PhD, University of Texas at Austin, 2004
Patricia M Garcia, Lecturer
English
PhD, Texas A \& M University, 2006
Seth W Garfield, Professor
History
PhD, Yale University, 1996
Thomas J Garza, Associate Professor
Slavic and Eurasian Studies
EdD, Harvard University, 1987
Andrew David Gaudet, Assistant Professor
Psychology
PhD, University of British Columbia, 2010
Brendan C Gaughen, Lecturer
American Studies
PhD, University of Texas at Austin, 2016
Bertram Gawronski, Professor
Psychology
PhD, Humboldt Universitat zu Berlin, 2001
Wilson S Geisler III, Professor
David Wechsler Regents Chair in Psychology
Psychology
PhD, Indiana University at Bloomington, 1975
John Gerring, Professor
Government
PhD, University of California-Berkeley, 1993
Michael L Geruso, Assistant Professor
Economics
PhD, Princeton University, 2012
David L Gilden, Professor
Psychology
PhD, University of Texas at Austin, 1982
Lyndon K Gill, Associate Professor
African and African Diaspora Studies
PhD, Harvard University, 2010
Samuel Ellis Ginsburg, Lecturer
Spanish and Portuguese

PhD, University of Texas at Austin, 2018
Jennifer Glass, Professor
Centennial Commission Professorship in the Liberal Arts \#4
Sociology
PhD, University of Wisconsin-Madison, 1983
Timothy Gohmann, Lecturer
Economics
PhD, University of Virginia, 1973
John M Gonzalez, Professor
J. Frank Dobie Regents Professorship in American and English Literature

English
PhD, Stanford University, 1998
F Gonzalez-Lima, Professor
George I. Sanchez Centennial Professorship in Liberal Arts Psychology
PhD, University of Pr Medical Sciences, 1980
Gloria Gonzalez-Lopez, Professor
Sociology
PhD, University of Southern California, 2000
Rachel Valentina Gonzalez-Martin, Assistant Professor
Mexican American and Latina/o Studies
PhD, Indiana University at Bloomington, 2014
Bridget Jeaneen Goosby, Professor
Sociology
PhD, Pennsylvania State University Park, 2003
Edmund T Gordon, Associate Professor
African and African Diaspora Studies
PhD, Stanford University, 198
Robbe Lieve Theofiel Goris, Assistant Professor
Psychology
PhD, Katholieke Universiteit Leuven, 2009
Samuel D Gosling, Professor
Psychology
PhD, University of California-Berkeley, 1998
Itzik Gottesman, Senior Lecturer
Germanic Studies
PhD, University of Pennsylvania, 1993
John P Gough, Lecturer
Economics
MLIS, University of Illinois at Urbana-Champaign, 2014
Samuel S Graham, Assistant Professor
Rhetoric and Writing
PhD, Iowa State University, 2010
Laurie B Green, Associate Professor
History
PhD, University of Chicago, 1999
Penny A Green, Senior Lecturer
Sociology
PhD, University of Texas at Austin, 1986

Kenneth F Greene, Associate Professor
Government
PhD, University of California-Berkeley, 2002
Mary H Greff, Lecturer

Slavic and Eurasian Studies
MA, University of Kansas Main Campus, 1999
Benjamin G Gregg, Associate Professor
Government
PhD, Princeton University, 1996
Zenzi Margareta Griffin, Professor
Psychology
PhD, University of Illinois at Urbana-Champaign, 1998
Karen Grumberg, Associate Professor
Middle Eastern Studies
PhD, University of California-Los Angeles, 2004
Sumit Guha, Professor
Frances Higginbotham Nalle Centennial Professorship in History History
PhD, University of Cambridge, 1982
Nancy C Guilloteau, Senior Lecturer
French and Italian
PhD, University of Texas at Austin, 1997
Joann Gulizio, Lecturer
Classics
PhD, University of Texas at Austin, 2011
Suchitra Gururaj, Lecturer
PhD, University of Texas at Austin, 2011
Andrea Dorothy Gustavson, Lecturer
American Studies
PhD, University of Texas at Austin, 2015
Laura G Gutierrez, Associate Professor
Mexican American and Latina/o Studies
PhD, University of Wisconsin-Madison, 2000
Lauren Jae Gutterman, Assistant Professor
American Studies
PhD, New York University, 2012
Mehdi Haghshenas, Senior Lecturer
Sociology
PhD, University of Texas at Austin, 1991
Sabine Hake, Professor
Texas Chair of German Literature and Culture
Germanic Studies
PhD, Universitat Hannover, 1984
Andreana P Haley, Professor
Psychology
PhD, University of Virginia, 2005
Harold William Hamblet Jr, Assistant Professor-ROTC
Military Science
MA, American Public University System, 2016
Sukjin Han, Assistant Professor
Economics
PhD, Yale University, 2012
Courtney Handman, Associate Professor
Anthropology
PhD, University of Chicago, 2010
Robert J Hankinson, Professor
Philosophy

PhD, University of Cambridge, 1985
Kathryn Paige Harden, Associate Professor
Psychology
PhD, University of Virginia, 2009
Julie Hardwick, Professor
John E. Green Regents Professorship in History
History
PhD, Johns Hopkins University, 1991
Michael P Harney, Professor
Spanish and Portuguese
PhD, University of California-Berkeley, 1983
John Hartigan, Professor
Anthropology
PhD, University of California-Santa Cruz, 1995
Jonathan Edward carey Harvey, Associate Professor
English
BA, University of Hull, 1989
Shahnaz Hassan, Senior Lecturer
Asian Studies
BA, University of the Punjab, 1989
Junko Hatanaka, Lecturer
Asian Studies
MA, University of Wisconsin-Madison, 1998
Raymond C Hawkins II, Clinical Assistant Professor Psychology
PhD, University of Pennsylvania, 1975
Mary Myleen Hayhoe, Professor
Psychology
PhD, University of California-San Diego, 1979

Mark D Hayward, Professor
Sociology
PhD, Indiana University at Bloomington, 1981
Elizabeth A Hedrick, Associate Professor
English
PhD, Columbia University in the City of New York, 1986
Kurt O Heinzelman, Professor
English
PhD, University of Massachusetts, 1978
Susan S Heinzelman, Associate Professor
English
PhD, University of Western Ontario, 1978
Marlone Deshaun Henderson, Associate Professor
Psychology
PhD, New York University, 2006
Geraldine Heng, Professor
Perceval Professorship in Medieval Romance, Historiography, and
Culture
English
PhD, Cornell University, 1990
Jacqueline M Henkel, Associate Professor
Rhetoric and Writing
PhD, University of Minnesota-Twin Cities, 1985
Nicholas A Henry, Assistant Professor

Germanic Studies
PhD, Pennsylvania State University Park, 2015

James R Henson, Lecturer
Government
PhD, University of Texas at Austin, 1996
Van Alan Herd, Lecturer
PhD, University of Oklahoma Norman Campus, 2008
Rosana R Heringer, Visiting Professor
Latin American Studies
PhD, Instituto Universitario de Pesquisas do Rio De Janeiro, 1997

Peter Hess, Associate Professor
Germanic Studies
PhD, University of Michigan-Ann Arbor, 1984
Richard Douglas Heyman, Lecturer
Geography and the Environment PhD, University of Washington - Seattle, 2004

Wayne R Hickenbottom, Senior Lecturer
Economics
PhD, University of Minnesota-Twin Cities, 1992
Kathleen M Higgins, Professor
Philosophy
PhD, Yale University, 1982
Christian Hilchey, Lecturer
Slavic and Eurasian Studies
PhD, University of Chicago, 2014
Angela Hill, Assistant Professor
Rhetoric and Writing
PhD, University of California-Berkeley, 2011
Michael C Hillmann, Professor
Middle Eastern Studies
PhD, University of Chicago, 1974

Heather Anne Hindman, Associate Professor
Asian Studies
PhD, University of Chicago, 2003
Zachary Ryan Hines, Lecturer
English
PhD, University of Texas at Austin, 2018

Lars Hinrichs, Associate Professor
English
PhD, Albert Ludwig University Freiburg im Breisgau, 2006
John G Hixon, Lecturer
Psychology
PhD, University of Texas at Austin, 1991

Neville Hoad, Associate Professor
English
PhD, Columbia University in the City of New York, 1998
Hiilei J Hobart, Assistant Professor
Anthropology
PhD, New York University, 2016

John M Hoberman, Professor
Germanic Studies
PhD, University of California-Berkeley, 1975

Steven D Hoelscher, Professor
Stiles Professorship in American Studies
American Studies
PhD, University of Wisconsin-Madison, 1995
Charles J Holahan, Professor
Psychology
PhD, University of Massachusetts, 1971

Stephanie S Holmsten, Assistant Professor of Instruction
Government
PhD, University of Texas at Austin, 2012
Ghada Housen, Lecturer
Middle Eastern Studies
BA, Univeristy of Damascus, 2003

Heather Houser, Associate Professor
English
PhD, Stanford University, 2010
Camilla H Hsieh, Senior Lecturer
Asian Studies
PhD, University of Texas at Austin, 1995
Kean Jia-Jiann Hsu, Research Assistant Professor
Psychology
PhD, University of Southern California, 2014

Madeline Y Hsu, Professor
History
PhD, Yale University, 1996
Thomas K Hubbard, Professor
James R. Dougherty, Jr. Centennial Professorship in Classics
Classics
PhD, Yale University, 1980

Alexander C Huk, Professor
Raymond Dickson Centennial Professorship \#2
Psychology
PhD, Stanford University, 2001

Bruce J Hunt, Associate Professor
History
PhD, Johns Hopkins University, 1984
Grayson Hunt, Lecturer
Women's and Gender Studies
PhD, New School University, 2013

Wendy A Hunter, Professor
Government
PhD, University of California-Berkeley, 1992

Coleman Hutchison, Associate Professor
English
PhD, Northwestern University, 2006
Syed A Hyder, Associate Professor
Asian Studies
PhD, Harvard University, 2000

Devrim Ikizler, Lecturer
Economics
PhD, University of Texas at Austin, 2011
Yasmiyn Irizarry, Assistant Professor
African and African Diaspora Studies

PhD, Indiana University at Bloomington, 2011
Gary J Jacobsohn, Professor
H. Malcolm Macdonald Chair in Constitutional and Comparative Law Government
PhD, Cornell University, 1972
Jonathan H Jarvis, Lecturer
Anthropology
MS, Mississippi State University, 2012
Nathan Michael Jensen, Professor
Government
PhD, Yale University, 2002
Jiwon Jeon, Lecturer
Sociology
PhD, University of Wisconsin-Madison, 1992
Stephen August Jessee, Associate Professor
Government
PhD, Stanford University, 2007
Monica A Jimenez, Assistant Professor
African and African Diaspora Studies
PhD, University of Texas at Austin, 2015
Patricia S Johansson, Lecturer
Germanic Studies
MA, University of Texas at Austin, 2010
Jane A Johnson, Senior Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 1996
Bret Anthony Johnston, Professor
English
MFA, University of Iowa, 2002
Brandon William Jones, Lecturer
PhD, University of Texas at Arlington, 2015
Bryan Davidson Jones, Professor
J. J. Jake Pickle Regents Chair in Congressional Studies

Government
PhD, University of Texas at Austin, 1970
Claire C Jones, Lecturer
French and Italian
PhD, University of Texas at Austin, 2013
Jacqueline Jones, Professor
Mastin Gentry White Professorship in Southern History
History
PhD, University of Wisconsin-Madison, 1976
Janine Jones, Lecturer
History
PhD, University of Texas at Austin, 2017
Theresa A Jones, Professor
Psychology
PhD, University of Texas at Austin, 1992
Bella B Jordan, Lecturer
Slavic and Eurasian Studies
PhD, University of Texas at Austin, 2002
Marcelo Paixao, Associate Professor
African and African Diaspora Studies

PhD, Instituto Universitario de Pesquisas do Rio De Janeiro, 2005
Peniel E Joseph, Professor
Barbara Jordan Chair in Ethics and Political Values
History
PhD, Temple University, 2000
Robert A Josephs, Professor
Psychology
PhD, University of Michigan-Ann Arbor, 1990
Cory F Juhl, Professor
Philosophy
PhD, University of Pittsburgh, Pittsburgh Campus, 1992
Alison Kafer, Associate Professor
English
PhD, Claremont Graduate University, 2005
Daniel M Kahozi, Lecturer
French and Italian
PhD, University of Texas at Austin, 2016
Neil D Kamil, Associate Professor
History
PhD, Johns Hopkins University, 1989
Bernadeta Kaminska, Lecturer
Germanic Studies
Slavic and Eurasian Studies
MA, Adam Mickiewicz University, 1988
Jonathan Kaplan, Associate Professor
Middle Eastern Studies
PhD, Harvard University, 2010
John W Kappelman Jr, Professor
Anthropology
PhD, Harvard University, 1987
Frane Karabatic, Lecturer
Slavic and Eurasian Studies
MA, University of Kansas Main Campus, 2018
Akemi Katayama, Lecturer
Asian Studies
MA, University of Alberta, 2012
Cheryl L Kaufman, Lecturer
History
PhD, University of Texas at Austin, 2011
Parviz K Kavoussi, Adjunct Assistant Professor
Psychology
MD, Baylor College of Medicine, 2002
James Charles Kearney, Lecturer
Germanic Studies
PhD, University of Texas at Austin, 2010
Elizabeth L Keating, Professor
Anthropology
PhD, University of California-Los Angeles, 1994
Ward W Keeler, Professor
Anthropology
PhD, University of Chicago, 1982
Timothy James Keilty, Assistant Professor-ROTC Military Science

MA, Columbia University in the City of New York, 2017
William R Kelly, Professor
Sociology
PhD, Indiana University at Bloomington, 1979
Orlando R Kelm, Associate Professor
Spanish and Portuguese
PhD, University of California-Berkeley, 1989
Alan Kessler, Visiting Professor
Government
PhD, University of California-Los Angeles, 1999
Martin W Kevorkian, Professor
English
PhD, University of California-Los Angeles, 2000
Eun joo Kim, Lecturer
Asian Studies
BA, Ewha Women's University, 1997
Mina Kim, Lecturer
Asian Studies
MA, Ewha Women's University, 2003
Troy M Kimmel Jr, Senior Lecturer
Geography and the Environment
BS, Texas A \& M University, 1983
Edward C Kirk, Professor
Anthropology
PhD, Duke University, 2003
Brendan Andrew Kline, Associate Professor
Economics
PhD, Northwestern University, 2012
Gregory W Knapp, Associate Professor
Geography and the Environment
PhD, University of Wisconsin-Madison, 1984
Dale A Koike, Professor
Spanish and Portuguese
PhD, University of New Mexico Main Campus, 1981
Jill Kolasinski, Lecturer
Plan II Honors
BA, Northwestern University, 1994
Robert C Koons, Professor
Philosophy
PhD, University of California-Los Angeles, 1987
David D Kornhaber, Associate Professor
English
PhD, Columbia University in the City of New York, 2009
Donna Marie Kornhaber, Associate Professor
English
PhD, Columbia University in the City of New York, 2009
David E Koss, Professor-ROTC
Naval Science
MA, National Defense University, 2013
Mikiya Koyagi, Assistant Professor
Middle Eastern Studies
PhD, University of Texas at Austin, 2015

Patricia Joann Kyle, Lecturer
French and Italian
PhD, Indiana University at Bloomington, 1991
Chiu-Mi Lai, Distinguished Senior Lecturer
Asian Studies
PhD, University of Washington - Seattle, 1990
Elon M Lang, Senior Lecturer
PhD, Washington University in St Louis, 2010
Elayne L Lansford, Clinical Assistant Professor
Psychology
PhD, University of Michigan-Ann Arbor, 1982
Peter N Lasalle, Professor
Susan Taylor McDaniel Regents Professorship in Creative Writing \#2
English
MA, University of Chicago, 1972
Travis Chi wing Lau, Lecturer
English
PhD, University of Pennsylvania, 2018
Barbara Laubenthal, Adjunct Associate Professor
Germanic Studies
PhD, Justus Liebig University Giessen, 2006
Daniel A Law, Associate Professor
Linguistics
PhD, University of Texas at Austin, 2011
Mark A Lawrence, Associate Professor
History
PhD, Yale University, 1998
David L Leal, Professor
Government
PhD, Stanford University, 1998
Marisol Lebron, Assistant Professor
Mexican American and Latina/o Studies
PhD, New York University, 2014
Hongjoo Joanne Lee, Associate Professor
Psychology
PhD, Yale University, 2002
Cristine H Legare, Associate Professor
Psychology
PhD, University of Michigan-Ann Arbor, 2008
Robert Lemon, Lecturer
Geography and the Environment
PhD, University of Texas at Austin, 2015
Jeffrey C Leon, Lecturer
Philosophy
PhD, University of Texas at Austin, 1993
Janice Leoshko, Associate Professor
Asian Studies
PhD, Ohio State U Main Campus, 1987
Philippa Judith Levine, Professor
Walter Prescott Webb Chair in History and Ideas
History
PhD, University of Oxford, 1984
Mark A Levy, Lecturer

JD, University of Texas at Austin, 2001
Marc S Lewis, Associate Professor
Psychology
PhD, University of Cincinnati Main Campus, 1973
Randolph R Lewis, Professor
American Studies
PhD, University of Texas at Austin, 1994
Rebecca J Lewis, Associate Professor
Anthropology
PhD, Duke University, 2004
Jarrod Alan Lewis-Peacock, Assistant Professor
Psychology
PhD, University of Wisconsin-Madison, 2010
Huaiyin Li, Professor
History
PhD, University of California-Los Angeles, 2000
Jessy Li, Assistant Professor
Linguistics
PhD, University of Pennsylvania, 2017
Tatjana Lichtenstein, Associate Professor
History
PhD, University of Toronto, 2009
Cheng-Wei Lin, Lecturer
Middle Eastern Studies
PhD, University of Michigan-Ann Arbor, 2018
Ken-Hou Lin, Associate Professor
Sociology
PhD, University of Massachusetts, 2013
Tse-Min Lin, Associate Professor
Government
PhD, University of Minnesota-Twin Cities, 1990
Yi-Chun Lin, Lecturer
Asian Studies
MA, National Taiwan University, 2010
Leigh L Linden, Associate Professor
Economics
PhD, Massachusetts Institute of Technology, 2004
Naomi E Lindstrom, Professor
Gale Family Foundation Professorship in Jewish Arts and Culture
Spanish and Portuguese
PhD, Arizona State University Main, 1974
John Michael Lisle, Lecturer
History
PhD, University of Texas at Austin, 2019
Jon E Litland, Assistant Professor
Philosophy
PhD, Harvard University, 2012
Amy H Liu, Associate Professor
Government
PhD, Emory University, 2009
Xuecheng Liu, Visiting Associate Professor Government

PhD, University of Texas at Austin, 1993
Yongfeng Liu, Lecturer
Asian Studies
MA, Texas A \& M University, 2013
Xavier Livermon, Associate Professor
African and African Diaspora Studies
PhD, University of California-Berkeley, 2006
Keith A Livers, Associate Professor
Slavic and Eurasian Studies
PhD, University of Michigan-Ann Arbor, 1995
James N Loehlin, Professor
Shakespeare at Winedale Regents Professorship
English
PhD, Stanford University, 1993
Mark G Longaker, Professor
Rhetoric and Writing
PhD, Pennsylvania State University Main Campus, 2003
Belem G Lopez, Assistant Professor
Mexican American and Latina/o Studies
PhD, Texas A \& M University, 2015
Michael Lopez, Clinical Associate Professor
MA, University of Texas - Pan American, 1991
William R Louis, Professor
Mildred Caldwell and Baine Perkins Kerr Centennial Chair in English History and Culture, Jo Anne Christian Centennial Professorship in British Studies
History
PhD, University of Oxford, 1962
Rebecca Lovitch, Lecturer
Linguistics
MA, Gallaudet University, 2014
Xiaobo Lu, Associate Professor
Government
PhD, Yale University, 2011
Silvia Luongo, Lecturer
French and Italian
MA, Universita degli Studi di Milano, 2010
Ayelet Haimson Lushkov, Associate Professor
Classics
PhD, Yale University, 2009
Robert C Luskin, Associate Professor
Government
PhD, University of Michigan-Ann Arbor, 1983
Oksana Lutsyshyna, Lecturer
Slavic and Eurasian Studies
PhD, University of Georgia, 2014
Edward Allen MacDuffie III, Associate Professor
English
PhD, Harvard University, 2006
Carol H MacKay, Professor
J. R. Millikan Centennial Professorship in English Literature

English
PhD, University of California-Los Angeles, 1979

Patricia Maclachlan, Professor
Mitsubishi Heavy Industries Professorship in Japanese Studies Government
PhD, Columbia University in the City of New York, 1996
Raul L Madrid, Professor
Harold C. and Alice T. Nowlin Regents Professorship in Liberal Arts

## Government

PhD, Stanford University, 1999
Jennifer W Maedgen, Lecturer
Psychology
PhD, University of Texas at Austin, 1998
Claire Maes, Lecturer
Asian Studies
PhD, Universiteit Gent, 2015
Anat Maimon, Lecturer
Middle Eastern Studies
BA, Tel Aviv University, 1984
Minkah Makalani, Associate Professor
African and African Diaspora Studies
PhD, University of Illinois at Urbana-Champaign, 2004
Eric S Mallin, Associate Professor
English
PhD, Stanford University, 1986
Darsana Manayathu Sasi, Lecturer
Asian Studies
PhD, University of Kerala, 2013
Hannes Mandel, Lecturer
Germanic Studies
MA, Princeton University, 2012
Sean O Manning, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2015
Dayanand Manoli, Assistant Professor
Economics
PhD, University of California-Berkeley, 2008
Arthur B Markman, Professor
Annabel Irion Worsham Centennial Professorship in Liberal Arts
Psychology
PhD, University of Illinois at Urbana-Champaign, 1992
Stephen H Marshall, Associate Professor
African and African Diaspora Studies
American Studies
PhD, Harvard University, 2002
Leticia Junqueira Marteleto, Associate Professor
Sociology
PhD, University of Michigan-Ann Arbor, 2001
Kristie M Martin, Clinical Assistant Professor
BA, University of Texas at Austin, 1984
Alberto A Martinez, Professor
History
PhD, University of Minnesota-Twin Cities, 2001
Srinivasa Raghavan Masthi Parthasarathi, Lecturer
Asian Studies

BA, Bangalore University, 1995
Tracie M Matysik, Associate Professor
History
PhD, Cornell University, 2001
Linda Mayhew, Lecturer
PhD, University of Texas at Austin, 2005
Susan Kay Mays, Lecturer
Asian American Studies
PhD, Columbia University in the City of New York, 2013
Alice Kyung McCoy-Bae, Lecturer
Asian Studies
MS, University of Texas at Austin, 2009
Elizabeth McCracken, Professor
James A. Michener Endowed Chair in Writing
English
MFA, University of Iowa, 1990
Eric Leon Mcdaniel, Associate Professor
Government
PhD, University of Illinois at Urbana-Champaign, 2004
Patrick J McDonald, Associate Professor
Government
PhD, Ohio State U Main Campus, 2002
Kelly McDonough, Associate Professor
Spanish and Portuguese
PhD, University of Minnesota-Twin Cities, 2010
James Pittman McGehee, Clinical Assistant Professor
Psychology
PhD, University of Texas at Austin, 2010
Maurie McInnis, Professor
Jacob and Frances Sanger Mossiker Chair in the Humanities \#1
American Studies
PhD, Yale University, 1996
John Mclver, Associate Professor of Instruction
Government
PhD, Indiana University at Bloomington, 1986
Mark H McManis, Research Associate Professor
Psychology
PhD, University of Florida, 1996
Amy Moore Meeks, Lecturer
Psychology
PhD, Virginia Polytechnic Institute and State University, 1985
Richard P Meier, Professor
Robert D. King Centennial Professorship of Liberal Arts
Linguistics
PhD, University of California-San Diego, 1982
Jeffrey L Meikle, Professor
American Studies
PhD, University of Texas at Austin, 1977
Jocelly Guie Meiners, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2013
Olivia Ingrid Mena, Lecturer
African and African Diaspora Studies

PhD, London School of Economics and Political Science, 2016
Martha Menchaca, Professor
Anthropology
PhD, Stanford University, 1987
Sofian Merabet, Associate Professor
Anthropology
PhD, Columbia University in the City of New York, 2009
Cindy M Meston, Professor
Psychology
PhD, University of British Columbia, 1995
Vagdevi V Meunier, Clinical Assistant Professor
Psychology
PsyD, Antioch New England Graduate School, 1997
Thoralf Meyer, Lecturer
Geography and the Environment
PhD, University of Virginia, 2014
Julia L Mickenberg, Professor
American Studies
PhD, University of Minnesota-Twin Cities, 2000
Jennifer A Miller, Associate Professor
Geography and the Environment
PhD, San Diego State University, 2003
Julie A Minich, Associate Professor
English
Mexican American and Latina/o Studies
PhD, Stanford University, 2008
Steven Mintz, Professor
History
PhD, Yale University, 1979
Eugenio Javier Miravete, Professor
Rex G. Baker, Jr., Professorship of Political Economy
Economics
PhD, Northwestern University, 1996
Mohammad A Mohammad, Associate Professor
Middle Eastern Studies
PhD, University of Southern California, 1989
Marie Helene Monfils, Professor
Psychology
PhD, University of Lethbridge, 2005
Michelle Montague, Associate Professor
Philosophy
PhD, University of Colorado at Boulder, 2002
Delia L Montesinos, Senior Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2000
Leonard Nathaniel Moore, Professor
George W. Littlefield Professorship in American History
History
PhD, Ohio State U Main Campus, 1998
Lisa L Moore, Professor
Archibald A. Hill Regents Professorship in American and English Literature
English

PhD, Cornell University, 1991
Lorraine Leu, Associate Professor
Spanish and Portuguese
PhD, King's College, University of London, 2000
Daisy Yvette Morales-Campos, Research Assistant Professor
Mexican American and Latina/o Studies
PhD, University of Texas Health Science Center at Houston, 2009
Tomas Q Morin, Assistant Professor
English
MFA, Texas State University, 2003
Robert G Moser, Professor
Government
PhD, University of Wisconsin-Madison, 1995
Michael William Mosser, Assistant Professor of Instruction Government
PhD, University of Wisconsin-Madison, 2002
Shalah Mostashari, Lecturer
Economics
PhD, University of Texas at Austin, 2010
Andreas I Mueller, Associate Professor
Economics
PhD, Stockholm University, 2011
Stephennie Mulder, Associate Professor
Middle Eastern Studies
PhD, University of Pennsylvania, 2008
Chandra L Muller, Professor
Alma Cowden Madden Centennial Professorship
Sociology
PhD, University of Chicago, 1991
Gretchen Murphy, Professor
Arthur J. Thaman and Wilhelmina Dore' Thaman Endowed Professorship
in English \#1
English
PhD, University of Washington - Seattle, 1999
Melissa D Murphy, Senior Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2008
Richard Murphy, Assistant Professor
Economics
PhD, University College London, 2014
Marc A Musick, Professor
Mike Hogg Professorship in Liberal Arts \#2, Doyle Professorship in Western Civilization, Frank C. Erwin, Jr. Centennial Honors Professorship Sociology
PhD, Duke University, 1997
Scott P Myers, Professor
Linguistics
PhD, University of Massachusetts, 1987
Kyungsun Na , Lecturer
Asian Studies
PhD, University of Texas at Austin, 1999
Zoltan Nadasdy, Adjunct Assistant Professor
Psychology

PhD, Rutgers the State University of New Jersey Newark Campus, 1999
Ian Michael Nauhaus, Assistant Professor
Psychology
PhD, University of California-Los Angeles, 2008
A Rebecca Neal-Beevers, Lecturer
Psychology
PhD, University of Miami, 2002
Neil R Nehring, Associate Professor
English
PhD, University of Michigan-Ann Arbor, 1985
William R Nethercut, Professor
Classics
PhD, Columbia University in the City of New York, 1963
Joan H Neuberger, Professor
History
PhD, Stanford University, 1985
Mary C Neuburger, Professor
History
PhD, University of Washington - Seattle, 1997
Irma Celina Nevarez, Lecturer
Spanish and Portuguese
MAEd, Instituto Tecnologico y de Estudios Superiores de Monterrey, 1998
Martha G Newman, Associate Professor
History
PhD, Stanford University, 1988
Hien V Nguyen, Associate Professor-ROTC
Air Force Science
MA, American Public University System, 2006
Quynh-Huong Nguyen, Lecturer
Women's and Gender Studies
MEd, Texas State University, 2018
Chiyo Nishida, Associate Professor
Spanish and Portuguese
PhD, University of Arizona, 1987
Linda Jeanne Noble, Professor
Psychology
PhD, University of California-Los Angeles, 1982
Diana R Norton, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2018
Avigail Noy, Assistant Professor
Middle Eastern Studies
PhD, Harvard University, 2016
Shannon B O'Brien, Assistant Professor of Instruction
Government
PhD, University of Florida, 2007
Muireann E O'Cinneide, Visiting Associate Professor
English
PhD, University of Oxford, 2004
Aaron O'Connell, Associate Professor
History
PhD, Yale University, 2009

Gerald S Oettinger, Associate Professor
Economics
PhD, Massachusetts Institute of Technology, 1993
Guillermina Ogando Lavin, Lecturer
Spanish and Portuguese
MA, Universidad Antonio de Nebrija, 2002
Youjeong Oh, Assistant Professor
Asian Studies
PhD, University of California-Berkeley, 2013
Chelsi West Ohueri, Assistant Professor
Slavic and Eurasian Studies
PhD, University of Texas at Austin, 2016
Jeannette Okur, Assistant Professor of Instruction
Middle Eastern Studies
PhD, Ankara University, 2007
Tatem M Oldham, Lecturer
MEd, University of Texas at Austin, 2004
Rebecca L Oliver, Lecturer
English
BA, Florida State University, 1994
Antonella D Olson, Distinguished Senior Lecturer
French and Italian
Laurea, Universita degli Studi di Roma La Sapienza, 1978
Lisa Olstein, Professor
English
MFA, University of Massachusetts, 2003
Robert A Olwell, Associate Professor
History
PhD, Johns Hopkins University, 1991
Robert M Oppenheim, Professor
Asian Studies
PhD, University of Chicago, 2003
Caitlin A Orsini, Assistant Professor
Psychology
PhD, University of Michigan-Ann Arbor, 2012
Stephanie L Osbakken, Lecturer
Sociology
PhD, University of Michigan-Ann Arbor, 2014
Lynette Osborne, Lecturer
Sociology
PhD, Purdue University Main Campus, 2006
Oghoadena Clementina Osezua, Lecturer
Anthropology
PhD, Obafemi Awolowo University, 2010
Abena Dove agyepoma Osseo-asare, Associate Professor History
PhD, Harvard University, 2005
Rachel L Ozanne, Lecturer
History
PhD, University of Texas at Austin, 2013
Thomas G Palaima, Professor
Robert M. Armstrong Centennial Professorship
Classics

PhD, University of Wisconsin-Madison, 1980
Nina J Palmo, Lecturer
Sociology
PhD, University of Texas at Austin, 2015
Vivian Pan, Clinical Assistant Professor
Psychology
PhD, Fordham University, 2009
Nitya Pandalai-nayar, Assistant Professor
Economics
PhD, University of Michigan-Ann Arbor, 2016
Lorraine S Pangle, Professor
Government
PhD, University of Chicago, 1999
Thomas L Pangle, Professor
Joe R. Long Endowed Chair in Democratic Studies
Government
PhD, University of Chicago, 1972
Catherine Panzarella, Clinical Professor
Psychology
PhD, Temple University, 1995
Erica Tara lily Parker, Lecturer
Linguistics
MA, University of California-San Diego, 2012
Deborah Parra-Medina, Professor
Mexican American and Latina/o Studies
PhD, University of California-San Diego, 1998
Na'ama Pat-EI, Associate Professor
Middle Eastern Studies
PhD, Harvard University, 2008
James Francis Patterson, Lecturer
Classics
PhD, University of Texas at Austin, 2015
Evangeleen Pattison, Lecturer
Sociology
PhD, University of Texas at Austin, 2019
Stephanie Paulos, Clinical Assistant Professor
Psychology
PhD, University of Texas at Austin, 2007
Pamela Marie Paxton, Professor
Linda K. George and John Wilson Professorship
Sociology
PhD, University of North Carolina at Chapel Hill, 1998
Ami Pedahzur, Professor
Ralph W. Yarborough Centennial Professorship of Liberal Arts
Government
PhD, University of Haifa, 1999
Heather G Pelletier, Lecturer
French and Italian
PhD, Vanderbilt University, 2004
James W Pennebaker, Professor
Liberal Arts Foundation Centennial Professorship
Psychology
PhD, University of Texas at Austin, 1977

Domino R Perez, Associate Professor
English
PhD, University of Nebraska - Lincoln, 1998
Jorge Perez, Professor
Spanish and Portuguese
PhD, University of California-Santa Barbara, 2003
Paula J Perlman, Professor
Classics
PhD, University of California-Berkeley, 1983
H W Perry Jr, Associate Professor
Government
PhD, University of Michigan-Ann Arbor, 1987
Anthony J Pete, Professor-ROTC
Military Science
MA, Texas State University, 1999
Marina Louise Peterson, Associate Professor
Anthropology
PhD, University of Chicago, 2005
Petar Petrov, Assistant Professor
Slavic and Eurasian Studies
PhD, University of Pittsburgh, Pittsburgh Campus, 2006
Elizabeth M Pettit, Professor
Barbara Pierce Bush Regents Professorship in Liberal Arts
Sociology
PhD, Princeton University, 1999
Stephen H Phillips, Professor
Philosophy
PhD, Harvard University, 1982
Tasha S Philpot, Professor
Government
PhD, University of Michigan-Ann Arbor, 2003
Herve Picherit, Associate Professor
French and Italian
PhD, Stanford University, 2008
Krzysztof Piekarski, Lecturer
Rhetoric and Writing
PhD, University of Texas at Austin, 2013
Marc Pierce, Associate Professor
Germanic Studies
PhD, University of Michigan-Ann Arbor, 2002
Monique Payne Pikus, Lecturer
Sociology
PhD, Northwestern University, 2004
Samantha Nicole Pinto, Associate Professor
English
PhD, University of California-Los Angeles, 2007
John G Pipkin, Lecturer
English
PhD, Rice University, 1997
Andrea Lea Pittard, Lecturer
Classics
PhD, University of Texas at Austin, 2018
Gabriela Polit, Associate Professor

Spanish and Portuguese
PhD, New York University, 2002
Molly H Polk, Lecturer
Geography and the Environment
PhD, University of Texas at Austin, 2016
Lito Elio Porto, Senior Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2000
Joseph E Potter, Professor
C. B. Smith, Sr. Centennial Chair in United States-Mexico Relations \#4

Sociology
PhD, Princeton University, 1975
Rose M Potter, Lecturer
Spanish and Portuguese
MA, University of Northern Iowa, 1984
Michelle Christina Velasquez-Potts, Lecturer
Women's and Gender Studies
PhD, University of California-Berkeley, 2019
Daniel A Powers, Professor
Sociology
PhD, University of Wisconsin-Madison, 1991
Aaron Thomas Pratt, Lecturer
English
PhD, Yale University, 2016
Alison Renee Preston, Professor
Dr. A. Wilson Nolle and Sir Raghunath P. Mahendroo Professorship in Neuroscience
Psychology
PhD, Stanford University, 2004
David F Prindle, Professor
Government
PhD, Massachusetts Institute of Technology, 1977
Ian N Proops, Professor
Philosophy
PhD, Harvard University, 1998
Jacob C Ptacek, Lecturer
Rhetoric and Writing
PhD, University of Texas at Austin, 2015
Tetyana Pudrovska, Associate Professor Sociology
PhD, University of Wisconsin-Madison, 2007
David G Quinto-Pozos, Associate Professor
Linguistics
PhD, University of Texas at Austin, 2002
Adam Thomas Rabinowitz, Associate Professor
Classics
PhD, University of Michigan-Ann Arbor, 2004
Megan Margaret Raby, Associate Professor
History
PhD, University of Wisconsin-Madison, 2012
Guy P Raffa, Associate Professor
French and Italian
PhD, Indiana University at Bloomington, 1991

Esther L Raizen, Associate Professor
Middle Eastern Studies
PhD, University of Texas at Austin, 1987
Dalpat Singh Rajpurohit, Assistant Professor
Asian Studies
MPhil, Jawaharlal Nehru University, 2008
Kelly Raley, Professor
Christie and Stanley E. Adams, Jr. Centennial Professorship in Liberal
Arts
Sociology
PhD, University of Wisconsin-Madison, 1994
Manuel Ramirez III, Professor
Psychology
PhD, University of Texas at Austin, 1963
Silvia D Ramirez, Lecturer
Spanish and Portuguese
Licenciado, Nat University of Mexico, 1974
Franky L Ramont, Senior Lecturer
Linguistics
MA, University of Nebraska - Lincoln, 1997
Carlos E Ramos, Associate Professor
Geography and the Environment
PhD, Colorado State University, 2004
Mark Ravina, Professor
Mitsubishi Heavy Industries Chair in Japanese Studies
History
PhD, Stanford University, 1991
Kimberly L Ray, Research Assistant Professor
Psychology
PhD, Florida International University, 2014
Wayne A Rebhorn Jr, Professor
Mildred Hajek Vacek and John Roman Vacek Chair in English, in Honor of
Professor Willet T. Conklin
English
PhD, Yale University, 1968
Robert L Reece, Assistant Professor
Sociology
PhD, Duke University, 2017
Cory A Reed, Associate Professor
Spanish and Portuguese
PhD, Princeton University, 1989
Denne N Reed, Associate Professor
Anthropology
PhD, State University of New York at Stony Brook, 2003
Lauretta Reeves, Associate Professor of Instruction
Psychology
PhD, Temple University, 1993
Roger William Reeves, Associate Professor
English
PhD, University of Texas at Austin, 2012
Mark Regnerus, Professor
Sociology
PhD, University of North Carolina at Chapel Hill, 2000

Pablo Reinoso-Andres, Lecturer
Spanish and Portuguese
MA, Universidad Internacional Menendez Pelayo, 2017
Ann M Repp, Associate Professor of Instruction
Psychology
PhD, University of Texas at Austin, 1994
Penne L Restad, Distinguished Senior Lecturer

## History

PhD, University of Texas at Austin, 1993
Heather R Rice, Lecturer
Slavic and Eurasian Studies
PhD, Indiana University at Bloomington, 2015
Elizabeth Richmond-Garza, Associate Professor English
PhD, Columbia University in the City of New York, 1992
Robin Vella Riehl, Lecturer
English
PhD, University of Texas at Austin, 2015
Andrew M Riggsby, Professor
Lucy Shoe Meritt Professorship in Classics

## Classics

PhD, University of California-Berkeley, 1993
Brian E Roberts, Professor
Government
PhD, Washington University in St Louis, 1986
Daron K Roberts, Lecturer
JD, Harvard University, 2007
Jason Edward Roberts, Lecturer
Slavic and Eurasian Studies
PhD, University of Texas at Austin, 2017
Patricia Roberts-Miller, Professor
Rhetoric and Writing
PhD, University of California-Berkeley, 1985
Enrique R Rodriguez, Professor
Anthropology
PhD, University of Chicago, 2002
Nestor P Rodriguez, Professor
Sociology
PhD, University of Texas at Austin, 1984
Peter Gerald Roma, Adjunct Assistant Professor
Psychology
PhD, American University, 2008
Sergio Romero, Associate Professor
Spanish and Portuguese
PhD, University of Pennsylvania, 2006
Sonia Roncador, Associate Professor
Spanish and Portuguese
PhD, New York University, 1999
Lilia Rosas, Lecturer
History
Mexican American and Latina/o Studies
PhD, University of Texas at Austin, 2012
Christopher S Rose, Lecturer

History
PhD, University of Texas at Austin, 2019
Mary Rose, Associate Professor
Sociology
PhD, Duke University, 1998
Arlene Rosen, Professor
Anthropology
PhD, University of Chicago, 1985
Sharmila Rudrappa, Professor
Sociology
PhD, University of Wisconsin-Madison, 2001
John P Rumrich, Professor
Celanese Centennial Professorship
English
PhD, University of Virginia, 1981
Matthew R Russell, Lecturer
Rhetoric and Writing
PhD, University of Texas at Austin, 2009
Cinzia Russi, Associate Professor
French and Italian
PhD, University of Washington - Seattle, 2003
John N Rutledge, Adjunct Professor
Psychology
MD, University of Oklahoma Health Sciences Center, 1980
Donnie Johnson Sackey, Assistant Professor
Rhetoric and Writing
PhD, Michigan State University, East Lansing, 2013
Michael A Sadler, Senior Lecturer
Economics
PhD, University of Texas at Austin, 1997
Alan M Sager, Lecturer
Government
PhD, Northwestern University, 1971
Aysegul Sahin, Professor
Richard J. Gonzalez Regents Chair in Economic Progress Based on
Freedom and Private Enterprise
Economics
PhD, University of Rochester, 2002
Richard M Sainsbury, Professor
Philosophy
DPhil, University of Oxford, 1970
Cesar A Salgado, Associate Professor
Spanish and Portuguese
PhD, Yale University, 1993
Aaron G Sandel, Assistant Professor
Anthropology
PhD, University of Michigan-Ann Arbor, 2017
Sahotra Sarkar, Professor
Philosophy
PhD, University of Chicago, 1989
Elizabeth D Scala, Professor
Ellen Clayton Garwood Centennial Professorship in Creative Writing \#2
English

PhD, Harvard University, 1994
Joseph Christopher Schaub, Lecturer
Asian Studies
PhD, University of Maryland College Park, 1999
Beatriz E Schleppe, Lecturer
French and Italian
PhD, University of Texas at Austin, 2003
Helen Schneider, Lecturer
Economics
PhD, Cornell University, 2002
David M Schnyer, Professor
Psychology
PhD, University of Arizona, 1998
Miriam Schoenfield, Associate Professor
Philosophy
PhD, Massachusetts Institute of Technology, 2012
Nicole Iverson Schrag, Lecturer
English
PhD, University of Texas at Austin, 2019
Ana Schwartz, Assistant Professor
English
PhD, University of Pennsylvania, 2017
Eyal Seidemann, Professor
Psychology
PhD, Stanford University, 1998
Martha A Selby, Professor
Asian Studies
PhD, University of Chicago, 1994
Suzanne K Seriff, Senior Lecturer
Anthropology
PhD, University of Texas at Austin, 1989
Sandro Sessarego, Associate Professor
Spanish and Portuguese
PhD, Ohio State U Main Campus, 2010
Gautami Hiru Shah, Senior Lecturer
Asian Studies
MS, Purdue University North Central Campus, 1988
Anousha Shahsavari, Lecturer
Middle Eastern Studies
MA, Shiraz University, 2005
Ahmed Shamim, Lecturer
Asian Studies
MA, City University of New York Graduate Center, 2011
Harel Shapira, Associate Professor
Sociology
PhD, Columbia University in the City of New York, 2010
Liza J Shapiro, Professor
Anthropology
PhD, State University of New York at Stony Brook, 1991
Daron R Shaw, Professor
Frank C. Erwin, Jr. Centennial Chair in State Government Government

PhD, University of California-Los Angeles, 1994
Kenneth I Shine, Adjunct Professor
Plan II Honors
MD, Harvard University, 1961
Snehal A Shingavi, Associate Professor
English
PhD, University of California-Berkeley, 2008
Faegheh S Shirazi, Professor
Middle Eastern Studies
PhD, Ohio State U Main Campus, 1985
Ellenor Marguerite Shoemaker, Adjunct Associate Professor
French and Italian
PhD, University of Texas at Austin, 2009
Jason D Shumake, Research Assistant Professor
Psychology
PhD, University of Texas at Austin, 2004
David S Sibley, Professor
John T. Stuart III Centennial Professorship in Economics
Economics
PhD, Yale University, 1973
Maria Sidorkina, Assistant Professor
Slavic and Eurasian Studies
PhD, Yale University, 2017
Jenny Lee Singleton, Professor
Linguistics
PhD, University of Illinois at Urbana-Champaign, 1989
Melissa E Skidmore, Lecturer
French and Italian
PhD, University of Texas at Austin, 2005
Vasiliki Skreta, Professor
Economics
PhD, University of Pittsburgh, Pittsburgh Campus, 2001
Daniel T Slesnick, Professor
Economics
PhD, Harvard University, 1982
James Slotta, Assistant Professor
Anthropology
PhD, University of Chicago, 2012
Shelly Dale Smartt, Lecturer
Spanish and Portuguese
MA, Texas A\&M University - Commerce, 1999
Rajka Smiljanic, Associate Professor
Linguistics
PhD, University of Illinois at Urbana-Champaign, 2002
Cherise Smith, Associate Professor
African and African Diaspora Studies
PhD, Stanford University, 2004
Christen Anne Smith, Associate Professor
African and African Diaspora Studies
Anthropology
PhD, Stanford University, 2007
Mark C Smith, Associate Professor American Studies

PhD, University of Texas at Austin, 1980
Nicole Smith, Lecturer
Philosophy
PhD, Bowling Green State University, 2013
Tara A Smith, Professor
Philosophy
PhD, Johns Hopkins University, 1990
Jasper A Smits, Professor
Psychology
PhD, University of Texas at Austin, 2004
Laura Snyder, Lecturer
Germanic Studies
MA, University of Kentucky, 2012
Zeynep Somer-Topcu, Associate Professor
Government
PhD, University of California-Davis, 2009
Stephen M Sonnenberg, Professor of Instruction
Plan II Honors
MD, Yeshiva University, 1965
Roy Sorensen, Professor
Philosophy
PhD, Michigan State University, East Lansing, 1982
David Sosa, Professor
Philosophy
PhD, Princeton University, 1996
Bartholomew H Sparrow, Professor
Government
PhD, University of Chicago, 1991
Dean E Spears, Assistant Professor
Economics
PhD, Princeton University, 2013
Denise A Spellberg, Professor
History
PhD, Columbia University in the City of New York, 1989
Clay Spinuzzi, Professor
Rhetoric and Writing
PhD, Iowa State University, 1999
Dana Jalbert Stauffer, Associate Professor of Instruction
Government
PhD, University of Toronto, 2005
Devin A Stauffer, Professor
Government
PhD, Boston College, 1998
Evan Marc Stein, Lecturer
PhD, University of Texas at Austin, 2019
Ann Huff Stevens, Professor
David Bruton, Jr. Regents Chair in Liberal Arts
Economics
PhD, University of Michigan-Ann Arbor, 1995
Kathleen C Stewart, Professor
Anthropology
PhD, University of Michigan-Ann Arbor, 1987

Jacob Stewart-Halevy, Assistant Professor
Anthropology
PhD, Yale University, 2015
Maxwell B Stinchcombe, Professor
E. C. McCarty Centennial Professorship

Economics
PhD, University of California-Berkeley, 1986
Michael B Stoff, Associate Professor
History
PhD, Yale University, 1977
Sandra B Straubhaar, Distinguished Senior Lecturer
Germanic Studies
PhD, Stanford University, 1982
Andrew Dale Straw, Lecturer
Slavic and Eurasian Studies
PhD, University of Texas at Austin, 2017
Galen Strawson, Professor
Chair in Philosophy
Philosophy
DPhil, University of Oxford, 1983
Deborah Streusand, Lecturer
English
PhD, University of Texas at Austin, 2019
Pauline T Strong, Professor
Anthropology
PhD, University of Chicago, 1992
Circe Dawn Sturm, Professor
Anthropology
PhD, University of California-Davis, 1997
Naoko Suito, Senior Lecturer
Asian Studies
PhD, University of Texas at Austin, 1991
Jeremi Suri, Professor
Mack Brown Distinguished Chair for Leadership in Global Affairs
History
PhD, Yale University, 2001
Madelin Sutherland-Meier, Associate Professor
Spanish and Portuguese
PhD, University of California-San Diego, 1983
Ryan James Swankie, Lecturer
French and Italian
PhD, University of Texas at Austin, 2018
William B Swann Jr, Professor
William Howard Beasley III Professorship in the Graduate School of
Business
Psychology
PhD, University of Minnesota-Twin Cities, 1978
William S Swearingen, Lecturer
Sociology
PhD, University of Texas at Austin, 1997
Manuel D Tahay Gomez, Lecturer
Latin American Studies
HS/GED, , 1979

Cynthia M Talbot, Professor
Asian Studies
History
PhD, University of Wisconsin-Madison, 1988
Midori Tanaka, Lecturer
Asian Studies
MA, University of Oregon, 1996
Eric Tang, Associate Professor
African and African Diaspora Studies
PhD, New York University, 2006
Rabun M Taylor, Professor
Floyd A. Cailloux Centennial Professorship

## Classics

PhD, University of Minnesota-Twin Cities, 1997
Michael J Telch, Professor
Psychology
PhD, Stanford University, 1982
Wen-Hua Teng, Senior Lecturer
Asian Studies
PhD, University of Texas at Austin, 1990
Sean M Theriault, Professor
Government
PhD, Stanford University, 2001
Caroline Desiree Thomas, Associate Professor
Economics
MSc, University College London, 2004
Henry G Thomas Jr, Adjunct Assistant Professor
Plan II Honors
MAEd, Harvard University, 1974
John S Thompson, Lecturer
Economics
PhD, Auburn University, 1998
Lisa B Thompson, Professor
African and African Diaspora Studies
PhD, Stanford University, 2000
Shirley E Thompson, Associate Professor
African and African Diaspora Studies
American Studies
PhD, Harvard University, 2001
Katharine Allen Tillman, Assistant Professor
Psychology
PhD, University of California-San Diego, 2017
Paul A Tombarge, Professor-ROTC
Air Force Science
MA, Naval Postgraduate School, 2004
Almeida J Toribio, Professor
Spanish and Portuguese
PhD, Cornell University, 1993
Rebecca M Torres, Associate Professor
Geography and the Environment
PhD, University of California-Davis, 2000
Robert Town, Professor

James L. and Nancy Powell Centennial Professorship in American
Economic Principles
Economics
PhD, University of Wisconsin Colleges, 1990
Stephen J Trejo, Professor
Economics
PhD, University of Chicago, 1988
Brian M Trinque, Lecturer
Economics
PhD, University of Texas at Austin, 1993
David M Tucker, Clinical Associate Professor
Psychology
PhD, University of Georgia, 1983
Elliot Max Tucker-Drob, Associate Professor
Psychology
PhD, University of Virginia, 2009
Jeffrey K Tulis, Professor
Government
PhD, University of Chicago, 1982
Alan Tully, Professor
Eugene C. Barker Centennial Professorship in American History
History
PhD, Johns Hopkins University, 1973
Matt W Turner, Lecturer
PhD, Yale University, 1991
Ann Twinam, Professor
Walter Prescott Webb Chair in History
History
PhD, Yale University, 1976
Michael Tye, Professor
Dallas TACA Centennial Professorship in the Liberal Arts
Philosophy
PhD, New York University, 1975
Debra J Umberson, Professor
Centennial Commission Professorship in the Liberal Arts \#1
Sociology
PhD, Vanderbilt University, 1985
Deborah Unferth, Associate Professor
English
MFA, Syracuse University Main Campus, 1998
Mark K Updegrove, Lecturer
BA, University of Maryland College Park, 1984
Fred Valdez Jr, Professor
Anthropology
PhD, Harvard University, 1987
Gladys S Valdez, Lecturer
Psychology
PhD, University of Texas at Austin, 2007
Matthew T Valentine, Lecturer
Plan II Honors
MFA, New York University, 2003
Rebecca Anne Van Der Horst, Lecturer
Classics

PhD, University of Texas at Austin, 2019
Vincent Vanderheijden, Lecturer
Germanic Studies
PhD, University of Texas at Austin, 2011
Antonio L Vasquez, Lecturer
Mexican American and Latina/o Studies
PhD, Michigan State University, East Lansing, 2013
Pavithra Vasudevan, Assistant Professor
African and African Diaspora Studies
MA, University of North Carolina at Chapel Hill, 2013
Priscilla Vaz, Lecturer
African and African Diaspora Studies
PhD, University of North Carolina at Chapel Hill, 2018
Jean-Baptiste Velut, Visiting Associate Professor
English
PhD, City University of New York Graduate Center, 2009
Maurizio Viroli, Professor
Government
PhD, European University Institute, 1985
Caitlin Von Liski, Lecturer
MS, University of Kansas Main Campus, 2010
Maria D Wade, Associate Professor
Anthropology
PhD, University of Texas at Austin, 1998
Jayme M Walenta, Lecturer
Geography and the Environment
PhD, University of British Columbia, 2010
Edward L Walker, Adjunct Professor
Plan II Honors
MBA, Harvard University, 1967
Juliet E K Walker, Professor
History
PhD, University of Chicago, 1976
Patrick F Walter, Lecturer
African and African Diaspora Studies
PhD, State University of New York at Buffalo, 2012
Denton Walthall, Assistant Professor
Classics
PhD, Princeton University, 2013
Vincent Yat-Chung Wang, Adjunct Professor
Psychology
PhD, Baylor College of Medicine, 2003
Peter Ward, Professor
C. B. Smith, Sr. Centennial Chair in United States-Mexico Relations \#1 Sociology
PhD, University of Liverpool, 1976
Amy M Ware, Lecturer
PhD, University of Texas at Austin, 2009
Anthony K Webster, Professor
Anthropology
PhD, University of Texas at Austin, 2004
Stephen M Wechsler, Professor

Linguistics
PhD, Stanford University, 1991
Alexander Ariel Weinreb, Professor
Sociology
PhD, University of Pennsylvania, 2000
Abigail Weitzman, Assistant Professor
Sociology
PhD, New York University, 2015
Rachel Wellhausen, Associate Professor
Government
PhD, Massachusetts Institute of Technology, 2012
Bruce Wells, Associate Professor
Middle Eastern Studies
PhD, Johns Hopkins University, 2003
Alexandra K Wettlaufer, Professor
Stuart W. Stedman Director's Chair in Plan II, Hayden W. Head Regents
Chair in the Plan II Honors Program
French and Italian
PhD, Columbia University in the City of New York, 1993
Kurt G Weyland, Professor
Mike Hogg Professorship in Liberal Arts
Government
PhD, Stanford University, 1991
Deborah E White, Senior Lecturer
Linguistics
MA, Gallaudet University, 1993
Kari L White, Associate Professor
Sociology
PhD, University of Texas at Austin, 2001
Stephen A White, Professor
Classics
PhD, University of California-Berkeley, 1987
Sarah Jey Whitehead, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2014
Justin T Wilcox, Assistant Professor-ROTC
Military Science
MBA, Webster University, 2018
Evgenia Mikhaylova Wilkins, Lecturer
Slavic and Eurasian Studies
PhD, University of Texas at Austin, 2017
Lynn R Wilkinson, Associate Professor
Germanic Studies
PhD, University of California-Berkeley, 1983
Jennifer M Wilks, Associate Professor
English
PhD, Cornell University, 2003
Christine L Williams, Professor
Elsie and Stanley E. (Skinny) Adams, Sr. Centennial Professorship in Liberal Arts
Sociology
PhD, University of California-Berkeley, 1986
Nina C Wilson, Clinical Assistant Professor

BA, University of Texas at Austin, 1995
Michael B Winship, Professor
Iris Howard Regents Professorship in English Literature \#2
English
DPhil, University of Oxford, 1990
William J Winslade, Adjunct Professor
Philosophy
PhD, Northwestern University, 1967
Traci-ann Simone patrice Wint, Lecturer
African and African Diaspora Studies
MA, University of Texas at Austin, 2012
Thomas E Wiseman, Professor
Economics
PhD, Northwestern University, 2001
Christopher Wlezien, Professor
Mike Hogg Professorship in Government
Government
PhD, University of Iowa, 1989
Hannah Chapelle Wojciehowski, Professor
Arthur J. Thaman and Wilhelmina Dore' Thaman Endowed Professorship

## in English \#2

English
PhD, Yale University, 1984
Michael Scott Wolford, Professor
Government
PhD, Emory University, 2008
Helena Woodard, Associate Professor
English
PhD, University of North Carolina at Chapel Hill, 1991
Anthony C Woodbury, Professor
Jesse H. Jones Regents Professorship in Liberal Arts
Linguistics
PhD, University of California-Berkeley, 1981
Paul B Woodruff, Professor
Darrell K Royal Regents Professorship in Ethics and American Society Philosophy
PhD, Princeton University, 1973
Marjorie C Woods, Professor
Sue Goldston Lebermann Endowed Professorship in Liberal Arts
English
PhD, University of Toronto, 1977
Jacqueline D Woolley, Professor
Psychology
PhD, University of Michigan-Ann Arbor, 1990
Fu Lye Woon, Clinical Assistant Professor

## Psychology

PhD, Brigham Young University, 2010
Amy Nathan Wright, Lecturer
PhD, University of Texas at Austin, 2007
Tracy A Wuster, Assistant Professor of Instruction
PhD, University of Texas at Austin, 2011
Charters S Wynn, Associate Professor
History

PhD, Stanford University, 1987
Michael Francis Wynne Jr, Senior Lecturer
Linguistics
MA, Gallaudet University, 2005
Raelene C Wyse, Lecturer
Spanish and Portuguese
PhD, University of Texas at Austin, 2018
Haiqing Xu, Associate Professor
Economics
PhD, Pennsylvania State University Park, 2011
Shohko Yanagisawa, Lecturer
Asian Studies
MA, Purdue University Main Campus, 2014
Li Yang, Lecturer
Asian Studies
PhD, University of Texas at Austin, 2010
Tal Yarkoni, Research Associate Professor
Psychology
PhD, Washington University in St Louis, 2009
David Scott Yeager, Associate Professor
Psychology
PhD, Stanford University, 2011
Philip Young Yoo, Lecturer
DPhil, University of Oxford, 2014
Dean H Young, Professor
William S. Livingston Endowed Chair in Writing
English
MFA, Indiana University at Bloomington, 1984
Hershini Young, Professor
African and African Diaspora Studies
PhD, University of California-Berkeley, 1999
Kenneth R Young, Professor
Geography and the Environment
PhD, University of Colorado at Boulder, 1990
Michael P Young, Professor
Sociology
PhD, New York University, 2000
Emilio Zamora, Professor
History
PhD, University of Texas at Austin, 1983
Maria Del pilar Zazueta, Lecturer
Latin American Studies
PhD, Columbia University in the City of New York, 2011
Anastasia Zervou, Lecturer
Economics
PhD, Washington University in St Louis, 2009
Gabrielle R Zuniga, Assistant Professor-ROTC
Air Force Science
MBA, Liberty University, 2016

## College of Natural Sciences Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Scott J Aaronson, Professor
Computer Science
PhD, University of California-Berkeley, 2004
Sarah Anne Abraham, Assistant Professor of Instruction
Computer Science
PhD, University of Texas at Austin, 2015
Liliana A Alba, Assistant Professor of Instruction
MEd, University of Texas at Austin, 2018
Richard W Aldrich, Professor
Karl Folkers Chair in Interdisciplinary Biomedical Research II
Neuroscience
PhD, Stanford University, 1980
Daniel J Allcock, Professor
Mathematics
PhD, University of California-Berkeley, 1996
Kelli Rae Allen, Assistant Professor of Practice
MS, Pittsburg State University, 1998
Albert T Almanza, Specialist
Chemistry
BS, University of Texas at Austin, 2014
Jose R Alvarado, Assistant Professor
Physics
PhD, Vrije Universiteit Amsterdam, 2013
Timothy R Andeen Jr, Assistant Professor
Physics
PhD, Northwestern University, 2008
Brian R Anderson, Assistant Professor of Instruction
Chemistry
PhD, University of Texas at Austin, 1994
Eric V Anslyn, Professor
Welch Regents Chair in Chemistry
Chemistry
PhD, California Institute of Technology, 1988
Dhivya Arasappan, Assistant Professor of Practice
MS, Virginia Commonwealth University, 2007
Todd J Arbogast, Professor
W. A. Tex Moncrief, Jr. Distinguished Professorship in Computational

Engineering and Sciences - Applied Mathematics
Mathematics
PhD, University of Chicago, 1987
Taft E Armandroff, Professor
Frank and Susan Bash Endowed Chair for the Director of McDonald Observatory
Astronomy
PhD, Yale University, 1988
Carrie Michelle Arnold, Lecturer
Statistics and Data Sciences

MS, Ball State University, 2009
Nigel S Atkinson, Professor
Neuroscience
PhD, Pennsylvania State University Main Campus, 1986
Jennifer Austin, Associate Professor of Instruction
Mathematics
MS, Florida State University, 2002
Francois Baccelli, Professor
Simons Chair in Mathematics and Electrical and Computer Engineering Mathematics
These d'Etat, Universite de Paris XI, Paris-Sud, 1983
Joshua Dana Baer, Adjunct Assistant Professor
Computer Science
BS, Carnegie Mellon University, 1999
Dia Nicholson Bagchi, Assistant Professor of Practice
PhD, University of Texas at Austin, 2016
Carlos R Baiz, Assistant Professor
Chemistry
PhD, University of Michigan-Ann Arbor, 2011
Chandrajit L Bajaj, Professor
CAM Chair in Visualization
Computer Science
PhD, Cornell University, 1984
Brett J Baker, Assistant Professor
Marine Science
PhD, University of Michigan-Ann Arbor, 2014
Dana Harry Ballard, Professor
Computer Science
PhD, University of California-Irvine, 1974
Zuzana Baranova, Assistant Professor of Instruction
Chemistry
PhD, Texas A \& M University, 2017
Allen J Bard, Professor
Norman Hackerman - Welch Regents Chair in Chemistry Chemistry
PhD, Harvard University, 1958
Matthew J Barnett, Specialist
Chemistry
BS, University of Texas at Austin, 2018
Don S Batory, Professor
David Bruton, Jr. Centennial Professorship in Computer Sciences \#1 Computer Science
PhD, University of Toronto, 1981
Angela Chappell Beasley, Assistant Professor of Instruction
Computer Science
MS, George Washington University, 2007
Josh T Beckham, Associate Professor of Practice
PhD, Vanderbilt University, 2008
William Beckner, Professor
Paul V. Montgomery Centennial Memorial Professorship in Mathematics Mathematics
PhD, Princeton University, 1975
David D Ben-Zvi, Professor

Mathematics
PhD, Harvard University, 1999
John Berman, Instructor
Mathematics
PhD, University of Virginia, 2018
Katherine A Biberdorf, Associate Professor of Instruction
Chemistry
PhD, University of Texas at Austin, 2014
Christopher Biggs, Lecturer
Marine Science
PhD, University of Texas at Austin, 2019
Joydeep Biswas, Assistant Professor
Computer Science
PhD, Carnegie Mellon University, 2014
George D Bittner, Professor
Neuroscience
PhD, Stanford University, 1967
Kirk D Blazek, Assistant Professor of Instruction
Mathematics
PhD, University of Washington - Seattle, 2006
Lauren Alexandra Blondeau, Assistant Professor of Instruction
Statistics and Data Sciences
PhD, University of Texas at Austin, 2014
Andrew Justin Blumberg, Professor
Mathematics
PhD, University of Chicago, 2005
James Bornholt, Assistant Professor
Computer Science
PhD, University of Washington - Seattle, 2019
Anne Dara Bowen, Lecturer
Computer Science
PhD, Universitat Zurich, 2011
Lewis P Bowen, Professor
Mathematics
PhD, University of Texas at Austin, 2002
Brendan Peter Bowler, Assistant Professor
Astronomy
PhD, University of Hawaii at Manoa, 2013
Michael Boylan-Kolchin, Associate Professor
Astronomy
PhD, University of California-Berkeley, 2006
Michel Breger, Adjunct Professor
Astronomy
PhD, University of California-Berkeley, 1969
Boris Breizman, Research Professor
Physics
PhD, Budker Institute of Nuclear Physics, 1978
Jennifer S Brodbelt, Professor
Rowland Pettit Centennial Chair in Chemistry
Chemistry
PhD, Purdue University Main Campus, 1988
Volker Bromm, Professor
Josey Centennial Professorship in Astronomy

Astronomy
PhD, Yale University, 2000
Deanna Buckley, Associate Professor of Practice
PhD, University of Texas at Austin, 2010
William C Bulko, Assistant Professor of Instruction
Computer Science
PhD, University of Texas at Austin, 1989
Peter Burton, Instructor
Mathematics
PhD, California Institute of Technology, 2017
Edward J Buskey, Professor
Marine Science
PhD, University of Rhode Island, 1983
Elena Caceres, Associate Professor
Physics
PhD, University of Texas at Austin, 1996
Luis A Caffarelli, Professor
Sid W. Richardson Foundation Regents Chair in Mathematics \#1
Mathematics
PhD, University of Buenos Aires, 1972
Catherine Calder, Professor
Statistics and Data Sciences
PhD, Duke University, 2003
Alan Campion, Professor
Dow Chemical Company Endowed Professorship in Chemistry
Chemistry
PhD, University of California-Los Angeles, 1977
Caitlin M Casey, Assistant Professor
Astronomy
PhD, University of Cambridge, 2011
Gustavo E Cepparo, Assistant Professor of Instruction
Mathematics
MS, Kansas State University, 1999
Siddhartha Chatterjee, Professor of Instruction
Computer Science
PhD, Carnegie Mellon University, 1991
Swarat Chaudhuri, Associate Professor
Computer Science
PhD, University of Pennsylvania, 2007
James R Chelikowsky, Professor
W. A. Tex Moncrief, Jr. Chair in Computational Materials

Physics
PhD, University of California-Berkeley, 1975
Ke Chen, Instructor
Mathematics
MA, University of Wisconsin-Madison, 2016
Thomas Chen, Professor
Mathematics
PhD, Swiss Federal Institute of Technology, 2001
Antonia Chimonidou, Assistant Professor of Practice Physics
PhD, University of Texas at Austin, 2009
Yae In Cho, Specialist

Chemistry
PhD, University of Texas at Austin, 2018
Eunsol Choi, Assistant Professor
Computer Science
MS, University of Washington - Seattle, 2015
Jacky Chong, Instructor
Mathematics
PhD, University of Maryland College Park, 2019
Mirela Ciperiani, Associate Professor
Mathematics
PhD, Princeton University, 2006
David Clark, Assistant Professor of Instruction Mathematics
PhD, McGill University, 1992
Gregory B Clark, Distinguished Senior Lecturer
PhD, University of Texas at Austin, 1992

William D Cochran, Research Professor
Astronomy
PhD, Princeton University, 1976
Shirley Cohen, Adjunct Assistant Professor
Computer Science
MS, University of Pennsylvania, 2007
William R Coker, Professor
Physics
PhD, University of Georgia, 1966
Laura Lee Colgin, Associate Professor
Neuroscience
PhD, University of California-Irvine, 2003
Sarah M Collins, Assistant Professor of Instruction
Statistics and Data Sciences
PhD, University of Texas at Austin, 2010
Christopher Scott Connelly, Assistant Professor of Instruction
MEd, University of Texas at Austin, 2006
William R Cook, Associate Professor
Computer Science
PhD, Brown University, 1989
Sara Louise Corson, Assistant Professor of Instruction
PhD, University of Virginia, 2011

Tara Theresa Craig, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 2015
Richard M Crooks, Professor
The Robert A. Welch Chair in Chemistry (Materials Chemistry) Chemistry
PhD, University of Texas at Austin, 1987
Milica Cudina, Assistant Professor of Practice
Mathematics
PhD, Carnegie Mellon University, 2006
Kathryn Dabbs, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 2017

Jeffrey E Danciger, Assistant Professor

Mathematics
PhD, Stanford University, 2011
Mark L Daniels, Professor of Practice
Mathematics
EdD, Walden University, 2007
Katherine M Davis, Associate Professor
Mathematics
PhD, Cornell University, 1974
Alejandro L De Lozanne, Professor
Physics
PhD, Stanford University, 1982
Alexander A Demkov, Professor
Physics
PhD, Arizona State University Main, 1995
Lauren J DePue Ward, Assistant Professor of Practice PhD, University of Texas at Austin, 2013

Tom James Devitt, Assistant Professor of Practice PhD, University of California-Berkeley, 2010

Inderjit S Dhillon, Professor
Gottesman Family Centennial Professorship in Computer Sciences
Computer Science
PhD, University of California-Berkeley, 1997
Robert Wayne Dickey, Professor
Nancy Lee and Perry R. Bass Regents Chair in Marine Science
Marine Science
PhD, Southern Illinois University Carbondale, 1984
Duane A Dicus, Professor
Physics
PhD, University of California-Los Angeles, 1968

Isil Dillig, Associate Professor
Computer Science
PhD, Stanford University, 2011
Harriet L Dinerstein, Professor
Astronomy
PhD, University of California-Santa Cruz, 1980
Jacques Distler, Professor
Physics
PhD, Harvard University, 1987
Todd Ditmire, Professor
Physics
PhD, University of California-Davis, 1995
Lauren K Dobbs, Assistant Professor
Neuroscience
PhD, Oregon Health and Science University, 2012
Ryan Doonan, Assistant Professor of Practice
PhD, University of Illinois at Chicago, 2006
Michael Wayne Downer, Professor
Professorship in Physics \#2
Physics
PhD, Harvard University, 1983
Glenn P Downing, Assistant Professor of Instruction
Computer Science

MS, Massachusetts Institute of Technology, 1977
Justin Michael Dragna, Assistant Professor of Instruction
Chemistry
PhD, University of Texas at Austin, 2011
Michael Drew, Associate Professor
Neuroscience
PhD, Columbia University in the City of New York, 2004
Juliana Rebecca Duncan, Assistant Professor of Practice
PhD, University of Texas at Austin, 2015
Dennis P Dunn, Assistant Professor of Practice
PhD, University of Texas at Austin, 2002
Kenneth H Dunton, Professor
Marine Science
PhD, University of Alaska Fairbanks, 1985
Gregory C Durrett, Assistant Professor
Computer Science
PhD, University of California-Berkeley, 2016
Anthony Greg Dylla, Assistant Professor of Practice
PhD, University of Maryland College Park, 2009
Victor L Eijkhout, Lecturer
Statistics and Data Sciences
PhD, Radboud Universiteit Nijmegen, 1990
Ron Elber, Professor
W. A. Tex Moncrief, Jr. Chair in Computational Life Sciences and Biology

Chemistry
PhD, Hebrew University, 1985
Pamela Garrison Elias, Associate Professor of Practice
MEd, University of Texas at Austin, 1993
Michael Endl, Lecturer
Astronomy
PhD, University of Vienna, 2001
Bjorn Engquist, Professor
CAM Chair I
Mathematics
PhD, Uppsala University, 1969
Deana L Erdner, Associate Professor
Marine Science
PhD, Massachusetts Institute of Technology, 1997
Brad Erisman, Assistant Professor
Marine Science
PhD, University of California-San Diego, 2008
James L Erskine, Professor
Trull Centennial Professorship in Physics \#2
Physics
PhD, University of Washington - Seattle, 1972
Andrew Jerome Esbaugh, Associate Professor
Marine Science
PhD, Queens University, 2005
Alexandra A Eusebi, Assistant Professor of Practice
PhD, University of California-Los Angeles, 1996
Richard Todd Evans, Lecturer
Statistics and Data Sciences

PhD, University of Illinois at Urbana-Champaign, 2008
Fatima H Fakhreddine, Professor of Instruction
Chemistry
PhD, University of Texas at Austin, 1999
Gregory A Fiete, Professor
Physics
PhD, Harvard University, 2003
Keely Delain Finkelstein, Assistant Professor of Instruction Astronomy
PhD, Ecole Nationale de Aviation Civile, 2008
Steven Lyle Finkelstein, Associate Professor
Astronomy
PhD, Arizona State University Main, 2008
Willy Fischler, Professor
Jane and Roland Blumberg Centennial Professorship in Physics
Physics
PhD, Vrije Universiteit Brussel, 1976
Jillian Rose Fisher, Specialist
Mathematics
BA, University of Texas at Austin, 2015
Richard Fitzpatrick, Professor
Physics
PhD, University of Sussex, 1988
Conrad R Fjetland, Lecturer
Chemistry
PhD, New Mexico Institute of Mining and Technology, 1998
Ernst-Ludwig Florin, Associate Professor
Physics
PhD, Technische Universitat Munchen/Munich, 1995
Fares Z Fraij, Assistant Professor of Instruction
Computer Science
PhD, University of Texas at El Paso, 2005
Daniel S Freed, Professor
Mildred Caldwell and Baine Perkins Kerr Centennial Professorship in
Mathematics
Mathematics
PhD, University of California-Berkeley, 1985
Katherine Freese, Professor
Jeff and Gail Kodosky Endowed Chair in Physics
Physics
PhD, University of Chicago, 1984
Rachel Kesler Friedman, Specialist
Chemistry
BS, University of Texas at Austin, 2017
Atlantis Yvonne Frost, Specialist
Chemistry
BS, Northeastern Illinois University, 2015
Lee A Fuiman, Professor
Perry R. Bass Chair in Fisheries and Mariculture
Marine Science
PhD, University of Michigan-Ann Arbor, 1983
Donald S Fussell, Professor
Trammell Crow Regents Professorship in Computer Science

Computer Science
PhD, University of Texas at Dallas, 1980
Anna Gal, Professor
Computer Science
PhD, University of Chicago, 1995
Cherish Marissa Gallegos, Specialist
Chemistry
BS, Northern Arizona University, 2018
Irene M Gamba, Professor
W. A. Tex Moncrief, Jr. Chair in Computational Engineering and Sciences III
Mathematics
PhD, University of Chicago, 1989
Derek Ryan Garza, Specialist
Chemistry
BS, University of Texas at Austin, 2019
Karl Gebhardt, Professor
Herman and Joan Suit Professorship in Astrophysics
Astronomy
PhD, Rutgers the State University of New Jersey New Brunswick Campus, 1994

Charles Gee Jr, Assistant Professor of Instruction
MEd, University of Texas at Austin, 2019
Kenneth W Gentle, Professor
Physics
PhD, Massachusetts Institute of Technology, 1966
Jordan Gerton, Visiting Professor
Physics
PhD, Rice University, 2001
Ahmed Gheith, Adjunct Professor
Computer Science
PhD, Georgia Institute of Technology, 1990
John E Gilbert, Professor
Mathematics
PhD, University of Oxford, 1963
Feliciano Giustino, Professor
Physics
PhD, Swiss Federal Institute of Technology, Lausanne, 2005
Austin M Gleeson, Professor
Physics
PhD, University of Pennsylvania, 1965
Paul Goldbart, Professor
Robert E. Boyer Chair in Natural Sciences, Mary Ann Rankin Leadership Chair for the College of Natural Sciences
Physics
PhD, Imperial College London, 1985
Nace L Golding, Professor
Neuroscience
PhD, University of Wisconsin-Madison, 1996
Marcel Goldschen, Assistant Professor
Neuroscience
PhD, University of Wisconsin-Madison, 2009
Robert E Gompf, Professor

Jane and Roland Blumberg Centennial Professorship in Mathematics

## Mathematics

PhD, University of California-Berkeley, 1984
Antonio Gonzalez III, Associate Professor of Practice
PhD, University of Texas at Austin, 2008
Oscar Gonzalez, Professor
Mathematics
PhD, Stanford University, 1996
Cameron M Gordon, Professor
Sid W. Richardson Foundation Regents Chair in Mathematics \#2 Mathematics
PhD, University of Cambridge, 1971
Vernita Gordon, Associate Professor
Physics
PhD, Harvard University, 2003
Mohamed G Gouda, Professor
Mike A. Myers Centennial Professorship in Computer Sciences Computer Science
PhD, University of Waterloo, 1977
Kristen L Grauman, Professor
Professorship in Computer Sciences \#4
Computer Science
PhD, Massachusetts Institute of Technology, 2006
Maria Pia Pia Gualdani, Associate Professor
Mathematics
PhD, Johannes Gutenberg Universitat Mainz, 2005
Ronny Hadani, Associate Professor
Mathematics
PhD, Tel Aviv University, 2006
Amanda Hager, Associate Professor of Instruction
Mathematics
PhD, University of lowa, 2010
Joseph Hannan, Specialist
Chemistry
BS, University of Texas at Austin, 2019
Anne K Hansen, Lecturer
PhD, University of Texas at Austin, 2004
Amber Hardison, Assistant Professor
Marine Science
PhD, College of William and Mary, 2010
Susan C Harkins, Assistant Professor of Instruction
EdD, University of Pittsburgh, Pittsburgh Campus, 1998
Shinko K Harper, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 1997
Kristen M Harris, Professor
Neuroscience
PhD, Northeastern Ohio Universities College of Medicine, 1982
R A Harris, Professor
M. June and J. Virgil Waggoner Chair in Molecular Biology

Neuroscience
PhD, University of North Carolina at Chapel Hill, 1973
Justin W Hart, Assistant Professor of Practice

PhD, Yale University, 2014
Kristin E Harvey, Associate Professor of Instruction
Statistics and Data Sciences
PhD, University of Texas at Austin, 2013
Keith Hawkins, Assistant Professor
Astronomy
PhD, University of Cambridge, 2016
Richard D Hazeltine, Professor
Physics
PhD, University of Michigan-Ann Arbor, 1968
Bjorn Hegelich, Associate Professor
Physics
PhD, Ludwig-Maximilians-Universitat Munchen, 2002
Daniel J Heinzen, Professor
The Fondren Foundation Centennial Chair in Physics
Physics
PhD, Massachusetts Institute of Technology, 1988
Raymond C Heitmann, Professor
Mathematics
PhD, University of Wisconsin-Madison, 1974
Graeme Andrew Henkelman, Professor
George W. Watt Centennial Professorship
Chemistry
PhD, University of Washington - Seattle, 2001
Thushani Herath, Assistant Professor of Instruction Chemistry
PhD, Wayne State University, 2015
Robert Herman, Specialist
Chemistry
BS, Fort Lewis College, 2019
Steven Vincent Hernandez, Assistant Professor of Instruction Statistics and Data Sciences
MSStat, University of Texas at Austin, 2015
Matthew A Hersh, Assistant Professor of Instruction
Statistics and Data Sciences
PhD, University of Kentucky, 2007
Gary J Hill, Research Professor
Astronomy
PhD, University of Hawaii at Hilo, 1988
Jo Anne C Holley, Assistant Professor of Practice
PhD, University of Illinois at Urbana-Champaign, 2015
Tepera R Holman, Assistant Professor of Instruction MEd, University of Texas at Austin, 2009

Kyong Joo Hong, Assistant Professor of Instruction
Statistics and Data Sciences
MA, University of Texas at Austin, 2013
Mackenzie A Howard, Research Assistant Professor
Neuroscience
PhD, University of Washington - Seattle, 2008
Qixing Huang, Assistant Professor
Computer Science
PhD, Stanford University, 2012

Alexander C Huk, Professor
Raymond Dickson Centennial Professorship \#2
Neuroscience
PhD, Stanford University, 2001
Kami Hull, Associate Professor
Chemistry
PhD, University of Michigan-Ann Arbor, 2009
Simon M Humphrey, Associate Professor
Chemistry
PhD, University of Cambridge, 2006
Warren A Hunt Jr, Professor
Computer Science
PhD, University of Texas at Austin, 1985
Alexander Huth, Assistant Professor
Computer Science
Neuroscience
PhD, University of California-Berkeley, 2013
Elizabeth Ilardi, Assistant Professor of Practice
PhD, University of California-Santa Barbara, 2011
Philip Isett, Professor
Mathematics
PhD, Princeton University, 2013
Arie Israel, Assistant Professor
Mathematics
PhD, Princeton University, 2011
Kate Jushchenko, Associate Professor
Mathematics
PhD, Texas A \& M University, 2011

Brent L Iverson, Professor
Warren J. and Viola Mae Raymer Professorship
Chemistry
PhD, California Institute of Technology, 1988
Daniel T Jaffe, Professor
Jane and Roland Blumberg Centennial Professorship in Astronomy
Astronomy
PhD, Harvard University, 1981
Akanksha Jain, Lecturer
Computer Science
PhD, University of Texas at Austin, 2016
Frank Siegfried Jenko, Adjunct Professor
Physics
PhD, Technische Universitat Munchen/Munich, 1998
Shardha Jogee, Professor
Rex G. Baker, Jr. and McDonald Observatory Centennial Research
Professorship in Astronomy
Astronomy
PhD, Yale University, 1999
Chand T John, Assistant Professor of Instruction
Computer Science
PhD, Stanford University, 2012
Spencer Owen Johnson, Specialist
Mathematics
BA, Pomona College, 2014

Travis H Johnson, Specialist
Chemistry
MS, University of Texas at Austin, 2007
Daniel Johnston, Professor
Karl Folkers Chair in Interdisciplinary Biomedical Research
Neuroscience
PhD, Duke University, 1974
Richard A Jones, Professor
Chemistry
PhD, University of London, 1978
Greyson Miller Kale, Specialist
Chemistry
MS, University of Texas at Austin, 2019
Vadim Kaplunovsky, Professor
Physics
PhD, Tel Aviv University, 1984
Sean M Keel, Professor
Mathematics
PhD, University of Chicago, 1989
Becky Kester, Lecturer
MEd, University of Texas at Austin, 2011
John W Keto, Professor
Physics
PhD, University of Wisconsin-Madison, 1972
Keenan J Kidwell, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 2014
Can Kilic, Associate Professor
Physics
PhD, Harvard University, 2006
Se Yong Kim, Specialist
Chemistry
BS, University of Texas at Austin, 2015
Lynn E Kirby, Assistant Professor of Practice
MLibArts, St Edward's University, 2007
Adam Richard Klivans, Professor
Computer Science
PhD, Massachusetts Institute of Technology, 2002
Daniel F Knopf, Professor
Mathematics
PhD, University of Wisconsin-Milwaukee, 1999
Hans A Koch, Professor
Mathematics
PhD, University of Geneva, 1979
Lars Koesterke, Lecturer
Statistics and Data Sciences
PhD, Christian Albrecht University of Kiel, 1994
Philipp Kraehenbuehl, Assistant Professor
Computer Science
PhD, Stanford University, 2014
Adam Levi Kraus, Associate Professor
Astronomy

PhD, California Institute of Technology, 2009
Rostyslav Kravchenko, Assistant Professor of Instruction
Mathematics
PhD, Texas A \& M University, 2010
Michael J Krische, Professor
The Robert A. Welch Chair in Science
Chemistry
PhD, Stanford University, 1997
Devdatta Kulkarni, Assistant Professor of Instruction
Computer Science
PhD, University of Minnesota-Twin Cities, 2009
Pawan Kumar, Professor
Edward Randall, Jr., M.D. Centennial Professorship in Astronomy Astronomy
PhD, California Institute of Technology, 1988
Brian La Cour, Clinical Assistant Professor
PhD, University of Texas at Austin, 2000
Lance Andrew Labun, Assistant Professor of Instruction
Physics
PhD, University of Arizona, 2011
Matthew Ladue, Specialist
MA, University of Texas at Austin, 2017
Laurent Lafleche, Instructor
Mathematics
MS, Universite Pierre et Marie Curie, 2016
Keji Lai, Associate Professor
Physics
PhD, Princeton University, 2006
Karen M Landolt, Assistant Professor of Instruction
Computer Science
JD, Northeastern University, 2000
Karol Lang, Professor
Jane and Roland Blumberg Professorship in Physics
Physics
PhD, University of Rochester, 1985
David A Laude, Professor
Chemistry
PhD, University of California-Riverside, 1984
Xiaoqin Li, Professor
Physics
PhD, University of Michigan-Ann Arbor, 2003
Calvin Lin, Professor
William David Blunk Memorial Professorship
Computer Science
PhD, University of Washington - Seattle, 1992
Antonio Linero, Assistant Professor
Statistics and Data Sciences
PhD, University of Florida, 2015
Rama T Lingham, Adjunct Associate Professor
Statistics and Data Sciences
PhD, Purdue University Main Campus, 1985
Rudolf Lioutikov, Assistant Professor of Practice

PhD, Technical University Darmstadt, 2018
Hang Liu, Lecturer
Statistics and Data Sciences
PhD, Ohio University Main Campus, 2005
Liu Liu, Lecturer
Mathematics
PhD, University of Wisconsin-Madison, 2017
Qiang Liu, Assistant Professor
Computer Science
PhD, University of California-Irvine, 2014
Si Liu, Lecturer
Statistics and Data Sciences
PhD, University of Colorado at Boulder, 2009
Zhanfei Liu, Associate Professor
Marine Science
PhD, State University of New York at Stony Brook, 2006
Hector E Lomeli, Assistant Professor of Instruction
Mathematics
PhD, University of Minnesota-Twin Cities, 1995
Andrew J Loveridge, Assistant Professor of Instruction
Physics
PhD, University of Wisconsin-Madison, 2018
Rafael Ezequiel Lozano, Specialist
Chemistry
BS, University of Texas at Austin, 2012
Jeffrey James Luci, Research Assistant Professor
Neuroscience
PhD, University of Iowa, 2002
John E Luecke, Professor
Mathematics
PhD, University of Texas at Austin, 1985
Allan H Macdonald, Professor
Sid W. Richardson Foundation Regents Chair in Physics \#1
Physics
PhD, University of Toronto, 1978
Albert James MacKrell, Assistant Professor of Practice PhD, University of California-Los Angeles, 1992

Francesco Maggi, Professor
Joe B. and Louise Cook Professorship in Mathematics Mathematics
PhD, Universita degli Studi di Roma La Sapienza, 2004
Swadesh M Mahajan, Research Professor
Physics
PhD, University of Maryland College Park, 1973
Michael J Mahometa, Assistant Professor of Instruction
Statistics and Data Sciences
PhD, University of Texas at Austin, 2006
Dmitrii E Makarov, Professor
Chemistry
PhD, Semenov Institute of Chemical Physics, 1992
Solomon Manukure, Assistant Professor of Instruction Mathematics

PhD, University of South Florida, 2016
Michael P Marder, Professor
Physics
PhD, University of California-Santa Barbara, 1986
Michela Marinelli, Associate Professor
Neuroscience
PhD, Universite Victor Segalen, Bordeaux II, 1997
Irina Stoilova Marinova, Assistant Professor of Instruction
Physics
PhD, University of Texas at Austin, 2011
Christina Markert, Professor
Physics
PhD, Johann Wolfgang Goethe University, 2001
John T Markert, Professor
Physics
PhD, Cornell University, 1987
Nathan Marti, Lecturer
Statistics and Data Sciences
PhD, University of Texas at Austin, 2001
Stephen F Martin, Professor
M. June and J. Virgil Waggoner Regents Chair in Chemistry

Chemistry
PhD, Princeton University, 1972
Theresa N Martines, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Arlington, 2008
Per-Gunnar J Martinsson, Professor
W.A. Tex Moncrief, Jr. Endowment in Simulation-Based Engineering and

Sciences - Endowed Chair No. 4
Mathematics
PhD, University of Texas at Austin, 2002
Richard A Matzner, Professor
Physics
PhD, University of Maryland College Park, 1967
Michael Mauk, Professor
Neuroscience
PhD, Stanford University, 1985
Mark M Maxwell, Professor of Practice
Mathematics
PhD, Oregon State University, 1994
Claire M Zagorski, Specialist
Chemistry
BA, University of Texas at Austin, 2006
James W McClelland, Professor
Marine Science
PhD, Boston University, 1998
Paul McCord, Associate Professor of Instruction
Chemistry
PhD, University of Texas at Austin, 1992
Bailey McMeans, Adjunct Assistant Professor
Marine Science
PhD, University of Windsor, 2012
Robert Messing, Professor

Neuroscience
MD, Stanford University, 1979
John C Meth, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 2010
Pedro Metola, Clinical Assistant Professor
PhD, University of Texas at Austin, 2013
S J Mihic, Associate Professor
Neuroscience
PhD, University of Toronto, 1992
Risto P Miikkulainen, Professor
Computer Science
PhD, University of California-Los Angeles, 1990
Kent F Milfeld, Lecturer
Statistics and Data Sciences
PhD, University of Texas at Austin, 1983
Charles D Mills, Assistant Professor of Instruction
Mathematics
PhD, University of Houston, 2017
Dong-Ha Min, Assistant Professor of Instruction
Marine Science
PhD, University of California-San Diego, 1999
Zachary L Miner, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 2011
Daniel P Miranker, Professor
Computer Science
PhD, Columbia University in the City of New York, 1987
Dennis Michael Mishler, Assistant Professor of Practice PhD, Yale University, 2009

Lauren A Mitchell, Specialist
Chemistry
PhD, University of Texas at Austin, 2014
Shyamal K Mitra, Associate Professor of Instruction
Computer Science
PhD, University of Texas at Austin, 1988
Ayat Mohammed, Lecturer
Computer Science
PhD, Virginia Polytechnic Institute and State University, 2017
Aloysius K Mok, Professor
Quincy Lee Centennial Professorship in Computer Science
Computer Science
PhD, Massachusetts Institute of Technology, 1983
Michael H Montgomery, Assistant Professor of Practice
PhD, University of Texas at Austin, 1998
Raymond J Mooney, Professor
Professorship in Computer Sciences \#3
Computer Science
PhD, University of Illinois at Urbana-Champaign, 1987
Elizabeth L Morgan, Assistant Professor of Instruction
MS, University of Texas at Austin, 2019
Hitoshi Morikawa, Associate Professor

Neuroscience
PhD, Kyoto University, 1999
Caroline V Morley, Assistant Professor
Astronomy
PhD, University of California-Santa Cruz, 2016
Philip J Morrison, Professor
Physics
PhD, University of California-San Diego, 1979
Dana Hadar Moshkovitz aaronson, Associate Professor
Computer Science
PhD, Weizmann Institute of Science, 2008
Peter Mueller, Professor
Mathematics
Statistics and Data Sciences
PhD, Purdue University Main Campus, 1991
Micah Murphy, Specialist
Chemistry
BS, University of Texas at Austin, 2019
Margaret E Myers, Lecturer
Statistics and Data Sciences
PhD, University of Maryland College Park, 1988
Ian Michael Nauhaus, Assistant Professor
Neuroscience
PhD, University of California-Los Angeles, 2008
Joseph Neeman, Assistant Professor
Mathematics
PhD, University of California-Berkeley, 2013
Sarah Nguyen, Specialist
Chemistry
BS, University of Texas at Austin, 2019
Joel H Nibert, Assistant Professor of Instruction
Mathematics
PhD, University of Southern California, 2012
Scott David Niekum, Assistant Professor
Computer Science
PhD, University of Massachusetts, 2013
Seth James Nielson, Adjunct Assistant Professor
Computer Science
PhD, Rice University, 2010
Hiroshi Nishiyama, Associate Professor
Neuroscience
PhD, Kyoto University, 2002
Qian Niu, Professor
Sid W. Richardson Foundation Regents Chair in Physics \#3
Physics
PhD, University of Washington - Seattle, 1985
Alison N Norman, Associate Professor of Instruction
Computer Science
PhD, University of Texas at Austin, 2010
Gordon S Novak Jr, Professor
Computer Science
PhD, University of Texas at Austin, 1976
Amanda M Oakley, Specialist

Chemistry
BS, University of Texas at Austin, 2018
Stella S Offner, Assistant Professor
Astronomy
PhD, University of California-Berkeley, 2009
Peter Onyisi, Associate Professor
Physics
PhD, Cornell University, 2008
Karen L Ostlund, Assistant Professor of Instruction
PhD, University of Minnesota-Twin Cities, 1983
Sonia Paban, Associate Professor
Physics
PhD, University of Barcelona, 1988
Zachariah Allen Page, Assistant Professor
Chemistry
PhD, University of Massachusetts, 2015
Devangi Nikunj Parikh, Assistant Professor of Instruction
Computer Science
PhD, Georgia Institute of Technology, 2012
Mary R Parker, Associate Professor of Instruction Statistics and Data Sciences
PhD, University of Texas at Austin, 1988
Stefania Patrizi, Assistant Professor
Mathematics
PhD, Universita degli Studi di Roma La Sapienza, 2010
Kristin D Patterson, Associate Professor of Instruction
PhD, University of Texas at Austin, 1998
Natasa Pavlovic, Professor
Mathematics
PhD, University of Illinois at Chicago, 2002
Samuel Payne, Professor
Pennzoil Company Regents Professorship in Mathematics
Mathematics
PhD, University of Michigan-Ann Arbor, 2006
Gergina V Pencheva, Assistant Professor of Instruction Mathematics
PhD, University of Pittsburgh, Pittsburgh Campus, 2007

Jonathan Perry, Assistant Professor of Instruction
Physics
PhD, Texas A \& M University, 2018
Timothy Perutz, Associate Professor
Mathematics
PhD, University of London, 2005
Simon Peter, Assistant Professor
Computer Science
PhD, Swiss Federal Institute of Technology, 2012
Christine L Peterson, Assistant Professor of Instruction
Computer Science
PhD, Temple University, 2012
Jonathan T Pierce, Associate Professor
Neuroscience
PhD, University of Oregon, 2000

Keshav K Pingali, Professor
W. A. Tex Moncrief, Jr. Chair in Distributed and Grid Computing Computer Science
ScD, Massachusetts Institute of Technology, 1986
Jesse R Pisel, Assistant Professor of Practice
PhD, Colorado School of Mines, 2015

C Greg Plaxton, Professor
Computer Science
PhD, Stanford University, 1989

George D Pollak, Professor
Neuroscience
PhD, University of Maryland College Park, 1970
Amira Wizig Pollock, Lecturer
MFA, University of Texas at Austin, 2009

Bruce W Porter, Professor
Computer Science
PhD, University of California-Irvine, 1984

Mary F Poteet, Assistant Professor of Practice
PhD, University of California-Berkeley, 2001
Andrew Potter, Assistant Professor
Physics
PhD, Massachusetts Institute of Technology, 2013

Jeaime Henri Powell, Lecturer
Statistics and Data Sciences
MS, Elizabeth City State University, 2010
William H Press, Professor
Leslie Surginer Endowed Professorship
Computer Science
PhD, California Institute of Technology, 1972

Alison Renee Preston, Professor
Dr. A. Wilson Nolle and Sir Raghunath P. Mahendroo Professorship in
Neuroscience
Neuroscience
PhD, Stanford University, 2004

Eric Price, Assistant Professor
Computer Science
PhD, Massachusetts Institute of Technology, 2013
Melinda Price, Adjunct Assistant Professor
Computer Science
BS, University of Texas at Austin, 1993

Nicholas J Priebe, Associate Professor
Neuroscience
PhD, University of California-San Francisco, 2001

Chris Prosise, Adjunct Assistant Professor
Computer Science
BSEE, Duke University, 1994
Lili Qiu, Professor
Computer Science
PhD, Cornell University, 200

Emily Que, Assistant Professor
Chemistry
PhD, University of California-Berkeley, 2009
Charles L Radin, Professor

Mathematics
PhD, University of Rochester, 1971
Sally Kathleen Amen Ragsdale, Associate Professor of Instruction Statistics and Data Sciences
MS, University of Texas at Austin, 2012
Md Saydur Rahman, Adjunct Professor
Marine Science
PhD, Univ of the Ryukyus, 2001
Mark G Raizen, Professor
Sid W. Richardson Foundation Regents Chair in Physics \#2
Physics
PhD, University of Texas at Austin, 1989
Vijaya Ramachandran, Professor
William B. Blakemore II Regents Professorship in Computer Sciences
Computer Science
PhD, Princeton University, 1983
Mary E Ramsey, Assistant Professor of Practice
PhD, University of Texas at Austin, 2007
Michael W Raney, Assistant Professor of Instruction
PhD, University of Texas at Austin, 1991
Jason Ray David Rarick, Lecturer
Statistics and Data Sciences
MA, University of Texas at Austin, 2012
Samuel David Raskin, Assistant Professor
Mathematics
PhD, Harvard University, 2014
Alyssa Nicole Ray, Assistant Professor of Instruction
MEd, Texas Tech University, 2015
Linda E Reichl, Professor
Physics
PhD, University of Denver, 1969
Stuart A Reichler, Associate Professor of Practice PhD, University of Texas at Austin, 1999

Christopher Scott Reilly, Assistant Professor of Instruction
Physics
PhD, University of Texas at Austin, 2019
Kui Ren, Professor
Mathematics
PhD, Columbia University in the City of New York, 2006
Nicolas Reyes, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 2019
Jackson Austin Reyna, Specialist
Chemistry
BS, University of Texas at Austin, 2018
Alex Macedo, Lecturer
Mathematics
PhD, University of Texas at Austin, 2017
Timothy E Riedel, Assistant Professor of Practice
PhD, University of Southern California, 2011
Judit G Ries, Lecturer
Astronomy

PhD, University of Texas at Austin, 1992
Jack L Ritchie, Professor
Physics
PhD, University of Rochester, 1984
Ritu Ritu, Lecturer
Statistics and Data Sciences
PhD, University of Alabama at Birmingham, 2010
Sean Thomas Roberts, Assistant Professor
Chemistry
PhD, Massachusetts Institute of Technology, 2009
Edward L Robinson, Professor
William B. Blakemore II Regents Professorship in Astronomy
Astronomy
PhD, University of Texas at Austin, 1973
Altha B Rodin, Associate Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 1988
Shelly R Rodriguez, Associate Professor of Practice
MA, University of Texas at Austin, 2003
Kara Joy Helmke Rogers, Assistant Professor of Practice
PhD, University of California-Berkeley, 2014
Michael Rose, Associate Professor
Chemistry
PhD, University of California-Santa Cruz, 2009
Christopher J Rossbach, Assistant Professor
Computer Science
PhD, University of Texas at Austin, 2009
David Rusin, Assistant Professor of Instruction
Mathematics
PhD, University of Chicago, 1984
Lorenzo A Sadun, Professor
Mathematics
PhD, University of California-Berkeley, 1987
Vladimir Samoylenko, Assistant Professor of Instruction
Chemistry
PhD, Taras Shevchenko National University of Kyiv, 2003
Moriah M Sandy, Assistant Professor of Practice
PhD, University of California-Santa Barbara, 2011
Abhra Sarkar, Assistant Professor
Statistics and Data Sciences
PhD, Texas A \& M University, 2014
Purnamrita Sarkar, Assistant Professor
Statistics and Data Sciences
PhD, Carnegie Mellon University, 2010
Kanthimathi Sathasivan, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 2011
Jennette Saunders, Specialist
Chemistry
BS, University of Texas at Austin, 2016
Livia Schiavinato Eberlin, Assistant Professor
Chemistry

PhD, Purdue University Main Campus, 2012
Roy F Schwitters, Professor
Sid W. Richardson Foundation Regents Chair in Physics \#4
Physics
PhD, Massachusetts Institute of Technology, 1971
James G Scott, Professor
Statistics and Data Sciences
PhD, Duke University, 2009
Michael D Scott, Professor of Instruction
Computer Science
MS, Rensselaer Polytechnic Institute, 1998
Madison Searle, Assistant Professor of Instruction
MA, University of Virginia, 1990
Eyal Seidemann, Professor
Neuroscience
PhD, Stanford University, 1998
Bart David Semeraro, Lecturer
Computer Science
Statistics and Data Sciences
PhD, University of Illinois at Urbana-Champaign, 1992
Eric Senning, Assistant Professor
Neuroscience
PhD, University of Oregon, 2009
Jonathan L Sessler, Professor
R. P. Doherty, Jr. - Welch Regents Chair in Chemistry

Chemistry
PhD, Stanford University, 1982
Shagufta Hasnain Shabbir, Assistant Professor of Instruction Chemistry
PhD, University of Texas at Austin, 2009
Hovav Shacham, Professor
Professorship in Computer Sciences \#5
Computer Science
PhD, Stanford University, 2005
Paul R Shapiro, Professor
Frank N. Edmonds, Jr. Regents Professorship in Astronomy Astronomy
PhD, Harvard University, 1978
Jason B Shear, Professor
Chemistry
PhD, Stanford University, 1994
Ruth I Shear, Professor of Practice
PhD, Griffith University, 1991
Jian Sheng, Adjunct Associate Professor
Marine Science
PhD, Johns Hopkins University, 2006
Chih-Kang Shih, Professor
Dr. Arnold Romberg Endowed Chair in Physics
Physics
PhD, Stanford University, 1988
Frank T Shirley, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 1984

Kyle Shufelt, Specialist
Chemistry
BS, Texas Christian University, 2012
Gennady Shvets, Adjunct Professor
Physics
PhD, Massachusetts Institute of Technology, 1995
Bernd Siebert, Professor
Sid W. Richardson Foundation Regents Chair in Mathematics \#4
Mathematics
PhD, Georg-August Universitat, 1992
Mihai Sirbu, Associate Professor
Mathematics
PhD, Carnegie Mellon University, 2004
Greg O Sitz, Professor
Physics
PhD, Stanford University, 1987
James Carter Smith, Specialist
Mathematics
BS, University of Texas at Austin, 2017
Lindsey J Smith, Associate Professor of Instruction
Statistics and Data Sciences
PhD, University of Texas at Austin, 2012
D Max Snodderly Jr, Professor
Neuroscience
PhD, Rockefeller University, 1969
Paola Sotelo, Assistant Professor of Instruction
Chemistry
PhD, University of Texas at Arlington, 2019
Stacy C Sparks, Professor of Instruction
Chemistry
PhD, University of Texas at Austin, 1999
James R Speller, Specialist
Chemistry
BS, University of Texas at Austin, 2018
Catherine A Stacy, Assistant Professor of Instruction
Statistics and Data Sciences
PhD, University of Texas at Austin, 2001
John F Stanton, Adjunct Professor
Chemistry
PhD, Harvard University, 1989
Daniel C Stanzione, Lecturer
Statistics and Data Sciences
PhD, Clemson University, 2000
Michael P Starbird, Professor
Mathematics
PhD, University of Wisconsin-Madison, 1974
Eric J Staron, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 2012
Florian Stecker, Instructor
Mathematics
MS, Ludwig-Maximilians-Universitat Munchen, 2015
Shannon N Stokes, Lecturer

Chemistry
PhD, University of Texas at Austin, 2009
Peter H Stone, Professor
David Bruton, Jr. Centennial Professorship in Computer Sciences \#3
Computer Science
PhD, Carnegie Mellon University, 1998
Gwendolyn M Stovall, Assistant Professor of Practice
PhD, University of Texas at Austin, 2011
John Rudi Strickler, Adjunct Professor
Marine Science
PhD, Swiss Federal Institute of Technology, 1969
Thomas Struppeck, Assistant Professor of Instruction
Mathematics
PhD, University of Texas at Austin, 1989
Salvatore Stuvard, Instructor
Mathematics
PhD, Universitat Zurich, 2017
Thibaud Olivier Taillefumier, Assistant Professor
Mathematics
Neuroscience
PhD, Rockefeller University, 2012
Ariel Jolishia Taylor, Assistant Professor of Practice
EdD, University of Houston, 2017
Melissa A Taylor, Specialist
MEd, University of Texas at Austin, 2012
William Taylor, Specialist
Chemistry
PhD, University of Texas at Austin, 2019
Anna Tenerani, Assistant Professor
Physics
PhD, Universite de Paris VI, Pierre et Marie Curie, 2012
Devarajan Thirumalai, Professor
Marvin K. Collie-Welch Regents Chair in Chemistry
Chemistry
PhD, University of Minnesota-Twin Cities, 1982
Peter Thomas, Professor
H-E-B Endowed Chair in Marine Science
Marine Science
PhD, University of Leicester, 1978
Xiaochuan Tian, Instructor
Mathematics
PhD, Columbia University in the City of New York, 2017

Paul K Toprac, Associate Professor of Instruction
Computer Science
PhD, University of Texas at Austin, 2008
Ngoc Tran, Assistant Professor
Mathematics
PhD, University of California-Berkeley, 2013
Philip U Treisman, Professor
Mathematics
PhD, University of California-Berkeley, 1985
Yen-Hsi Tsai, Professor
Mathematics

PhD, University of California-Los Angeles, 2002
Kiryl Tsishchanka, Assistant Professor of Instruction Mathematics
PhD, The National Academy of Sciences of Belarus, 1998
Maxim Tsoi, Professor
Physics
PhD, Universitat Konstanz, 1998
Robert A Van De Geijn, Professor
Computer Science
PhD, University of Maryland University College, 1987
David A Vandenbout, Professor
Chemistry
PhD, University of Texas at Austin, 1995
Alexis F Vasseur, Professor
John T. Stuart III Centennial Professorship in Mathematics Mathematics
PhD, Universite de Paris VI, Pierre et Marie Curie, 1999
Vijaychidambaram Velayudhan Pillai, Assistant Professor
Computer Science
PhD, University of Wisconsin Colleges, 2013
James W Vick, Professor
Mathematics
PhD, University of Virginia, 1968
Laura Villafuerte Altuzar, Assistant Professor of Instruction
Mathematics
PhD, Universidad Politecnica de Valencia, 2007
Tracy A Villareal, Professor
Marine Science
PhD, University of Rhode Island, 1989

Mikhail M Vishik, Professor
Mathematics
PhD, University of Moscow, 1980
Bindu Viswanathan, Assistant Professor of Instruction
Statistics and Data Sciences
PhD, Emory University, 1999
Paul Etienne Vouga, Assistant Professor
Computer Science
PhD, Columbia University in the City of New York, 2011
James Wadman, Specialist
Chemistry
BS, University of Texas at Austin, 2014
Francois Waelbroeck, Research Professor
Physics
PhD, University of Texas at Austin, 1988
Alisa H Walch, Associate Professor of Instruction
Mathematics
MA, University of Texas at Austin, 2008
Deborah R Walker, Associate Professor of Instruction Chemistry
PhD, University of Texas at Austin, 2005
Stephen G Walker, Professor
Mathematics
Statistics and Data Sciences

PhD, Imperial College of Science, Technology and Medicine, University of London, 1995

Weiran Wang, Specialist
Chemistry
PhD, University of Texas at Austin, 2019
Rachel A Ward, Associate Professor
Mathematics
PhD, Princeton University, 2009
Brent R Waters, Professor
Computer Science
PhD, Princeton University, 2004
Pamela J Way, Lecturer
PhD, University of Texas at Austin, 2002
Lauren J Webb, Associate Professor
Chemistry
PhD, California Institute of Technology, 2005
Karen A Weems, Assistant Professor of Instruction
MEd, University of Texas at Austin, 1989
Xuexin Wei, Assistant Professor
Neuroscience
PsyD, University of Pennsylvania, 2015
Steven Weinberg, Professor
Jack S. Josey - Welch Foundation Chair in Science Physics
PhD, Princeton University, 1957
Diane Joyce Whitmer, Adjunct Assistant Professor Neuroscience
PhD, University of California-San Diego, 2008
Rebecca A Wilcox, Assistant Professor of Instruction
PhD, University of Texas at Austin, 2009
Don Winget, Professor
Harlan J. Smith Centennial Professorship in Astronomy
Astronomy
PhD, University of Rochester, 1982
Emmett Witchel, Professor
Computer Science
PhD, Massachusetts Institute of Technology, 2004
Kristin D Wolesensky, Specialist
Mathematics
MS, University of Nebraska - Lincoln, 1990
William R Wolesensky, Assistant Professor of Instruction
Mathematics
PhD, University of Nebraska - Lincoln, 2002
Nathaniel Raley Woodward, Lecturer
Statistics and Data Sciences
MS, University of Texas at Austin, 2016
Matthew Worden, Assistant Professor of Instruction Chemistry
PhD, Kent State University Main Campus, 2015
John Wright, Assistant Professor
Computer Science
PhD, Carnegie Mellon University, 2016

Weijia Xu, Lecturer
Statistics and Data Sciences
PhD, University of Texas at Austin, 2006
Soo Hyun Yang, Assistant Professor of Practice
PhD, University of Texas at Austin, 2013
Zhen Yao, Associate Professor
Physics
PhD, Harvard University, 1997
John Anthony Yeazell, Assistant Professor of Instruction
Physics
PhD, University of Rochester, 1989
William D Young, Associate Professor of Instruction
Computer Science
PhD, University of Texas at Austin, 1988
Harold H Zakon, Professor
Neuroscience
PhD, Cornell University, 1981
Diana P Zamora-Olivares, Assistant Professor of Practice
PhD, University of Texas at Austin, 2014
Thaleia Zariphopoulou, Professor
Chair in Mathematics, V. F. Neuhaus Centennial Professorship in Finance Mathematics
PhD, Brown University, 1989
Boris Zemelman, Associate Professor
Neuroscience
PhD, Stanford University, 1997
Yuke Zhu, Assistant Professor
Computer Science
MS, Stanford University, 2015
Corwin Zigler, Associate Professor
Statistics and Data Sciences
PhD, University of California-Los Angeles, 2010
Aaron Zimmerman, Assistant Professor
Physics
PhD, California Institute of Technology, 2013
Gordan Zitkovic, Professor
Mathematics
PhD, Columbia University in the City of New York, 2003
Cynthia Zoski, Research Professor
Chemistry
PhD, Queens University, 1985
David I Zuckerman, Professor
Professorship in Computer Sciences \#1
Computer Science
PhD, University of California-Berkeley, 1991

## School of Nursing Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Christine W Abbyad, Clinical Associate Professor
PhD, University of Texas at Austin, 2008
Gayle J Acton, Associate Professor

PhD, University of Texas at Austin, 1993
Heather Theresa Azarmehr, Adjunct Assistant Professor MSN, University of Texas at Austin, 2016

Teresa B Bailey, Clinical Assistant Professor DNP, University of Texas at Austin, 2019

Jessica Lee Barr, Clinical Instructor
MSN, University of Texas at Austin, 2016
John E Bellquist, Lecturer
PhD, University of California-Berkeley, 1980
Adam Blank, Clinical Instructor
MSN, University of Texas at Austin, 2015
Richard Allen Brown, Research Professor
PhD, University of Oregon, 1981
Larissa Kay Brungot, Clinical Assistant Professor
MSN, University of Texas at Austin, 2014
Sharon L Carter, Clinical Assistant Professor
MS, Ball State University, 2011
Katie Castillo, Adjunct Assistant Professor
MSN, University of Texas at Austin, 2017
Jane Dimmitt Champion, Professor
PhD, University of Texas Health Science Center at San Antonio, 1994
Eduardo Che Chavez, Clinical Assistant Professor
PhD, University of Texas at Austin, 2019
Brittany Paige Christiansen, Clinical Assistant Professor
DNP, University of Texas at Austin, 2017
Heather E Cuevas, Assistant Professor
PhD, University of Texas at Austin, 2013
Valerie Danesh, Assistant Professor
PhD, University of Central Florida, 2015
Carol L Delville, Clinical Assistant Professor
PhD, University of Texas at Austin, 2008
Christine A Divin, Clinical Assistant Professor
PhD, University of Texas at Austin, 2015
Carly E Edgar, Clinical Instructor
MSN, Texas Woman's University - Denton, 2006
Alexandra A Garcia, Professor
PhD, University of Texas at Austin, 2002
Jennifer Lynn Gareau-Terrell, Clinical Assistant Professor
DNP, Texas Tech University Health Sciences Center, 2019
Carol D Gaskamp, Clinical Associate Professor
PhD, University of Kansas Main Campus, 2000
Leigh A Goldstein, Clinical Assistant Professor
PhD, University of Texas at Austin, 2013
Nancy M Guillet, Clinical Instructor
MSN, University of Texas at Austin, 2011
Tatyana G Gustafson, Clinical Instructor
MSN, University of Texas at Austin, 2007
Lorraine C Haertel, Clinical Assistant Professor

PhD, University of Texas at Austin, 1985
Patricia L Hamilton-Solum, Clinical Assistant Professor
PhD, University of Texas at Austin, 2011
J Taylor Harden, Visiting Professor
PhD, University of Texas at Austin, 1989
Tracie C Harrison, Professor
PhD, University of Texas at Austin, 2004
Rachel R Haungs, Clinical Instructor
MSN, Western Governors University Texas, 2018
Elizabeth M Heitkemper, Assistant Professor
PhD, Columbia University in the City of New York, 2017
Sherry G Hendrickson, Clinical Associate Professor
PhD, University of Texas at Austin, 2000
Ashley M Henneghan, Assistant Professor PhD, University of Texas at Austin, 2017

Janice F Hernandez, Clinical Assistant Professor
MSN, University of Texas at Austin, 2009
April Alonzo Herrera, Clinical Instructor
MSN, University of Texas at Austin, 2012
Amy E Holland, Clinical Instructor
MSN, University of Texas at Austin, 2007
Sharon D Horner, Professor
Dolores V. Sands Chair in Nursing Research
PhD, Medical College of Georgia, 1992
Shalonda E Horton, Clinical Assistant Professor
PhD, University of Texas at Austin, 2015
Sheryl A Innerarity, Clinical Associate Professor
PhD, Texas Woman's University - Denton, 1987
Karen Johnson, Associate Professor
PhD, University of Minnesota-Twin Cities, 2012
Glenda L Joiner-Rogers, Clinical Assistant Professor
PhD, University of Texas at Austin, 1988
Shelli Kesler, Associate Professor
PhD, Brigham Young University, 2000
Stephanie M Key, Clinical Instructor
MA, University of Texas at Austin, 1999
LaTashia V Kiel, Clinical Assistant Professor
MSN, University of Texas at Austin, 2014
Miyong Kim, Professor
La Quinta Motor Inns, Inc. Centennial Professorship in Nursing
PhD, University of Arizona, 1996
Jung Kwak, Associate Professor PhD, University of South Florida, 2006

Katelyn Leggio, Clinical Instructor
MSN, Nebraska Methodist College, 2015
Li-Chen Lin, Clinical Assistant Professor
PhD, University of Texas at Austin, 2009
Alyssa Lucas, Clinical Instructor

MSN, University of Texas at Austin, 2016
Kari Lynn McDonald, Clinical Assistant Professor
MSN, University of Texas at Austin, 2006
Claire E Meadows, Lecturer
PhD, University of Texas at Austin, 2019
Jessica Elizabeth Meinhardt-salazar, Clinical Instructor
MSN, University of Texas at Austin, 2011
Stephanie Morgan, Clinical Professor
PhD, University of Texas at Austin, 2013
Laura E Murphy, Clinical Instructor
MSN, University of Texas at Austin, 2009
Nicole Streuding Murry, Clinical Assistant Professor
PhD, University of Texas at Austin, 2018
Vinh T Nguyen, Lecturer
MEd, University of Texas at Austin, 2013
Esther Nwokocha, Clinical Instructor
MSN, Pennsylvania State University Park, 2016
Nico Osier, Assistant Professor
PhD, University of Pittsburgh, Pittsburgh Campus, 2016
Marnie Otto, Clinical Instructor
MSN, University of Texas at Austin, 2017
Kavita Radhakrishnan, Associate Professor
PhD, University of Massachusetts, 2011
Davika Reid, Clinical Assistant Professor
MSN, University of Texas at Austin, 2016
Donna L Rew, Professor
Denton and Louise Cooley and Family Centennial Professorship in
Nursing
EdD, Northern Illinois University, 1979
Mary E Roche, Clinical Instructor
MSN, University of Texas at Austin, 2012
Donna G Rolin, Clinical Associate Professor
PhD, New York University, 2012
Rosa N Schnyer, Clinical Assistant Professor
DAOM, Oregon College of Oriental Medicine, 2008
Kimberly F Sennet, Clinical Instructor
MSN, Johns Hopkins University, 2011
Amber Nicole Sherman, Clinical Instructor
MSN, University of Texas at Austin, 2016
Jason Spees, Clinical Instructor
MSN, University of Texas at Austin, 2019
Alexa M Stuifbergen, Professor
Laura Lee Blanton Chair in Nursing, James R. Dougherty, Jr. Centennial
Professorship in Nursing
PhD, University of Texas at Austin, 1988
Lisa L Sumlin, Clinical Assistant Professor
PhD, University of Texas at Austin, 2014
Danica Fulbright Sumpter, Clinical Assistant Professor

PhD, University of Pennsylvania, 2009
Laura M Swarts, Clinical Instructor
MSN, University of Texas at Austin, 2012
Jean C Taxis, Clinical Associate Professor
PhD, University of Texas at Austin, 2003
Joshua M Thomas, Clinical Instructor
MSN, University of Texas at Austin, 2018
Gayle M Timmerman, Associate Professor
PhD, Ohio State U Main Campus, 1994
Ana T Todd, Clinical Assistant Professor PhD, University of Texas at Austin, 2013

Kayleigh Amanda Todd, Clinical Instructor
MSN, University of Texas at Austin, 2015
Mary K Wakefield, Visiting Professor
PhD, University of Texas at Austin, 1985
Lorraine O Walker, Professor
Luci B. Johnson Centennial Professorship in Nursing
EdD, Indiana University at Bloomington, 1971
Veronica G Walker, Clinical Assistant Professor
PhD, University of Texas at Austin, 2014
Charlotte K Wilson, Clinical Instructor
MSN, Texas Woman's University - Houston, 1988
Darlene M Wilson, Clinical Instructor
MSN, University of Texas at Austin, 1998
Michelle L Wright, Assistant Professor
PhD, University of North Dakota Main Campus, 2014
Bo Xie, Professor
PhD, Rensselaer Polytechnic Institute, 2006
Linda H Yoder, Professor
PhD, University of Pennsylvania, 1992
Cara Young, Assistant Professor
PhD, Vanderbilt University, 2010
Aline C Zeringue, Clinical Instructor
MSN, University of Texas at Austin, 2001
Julie A Zuniga, Assistant Professor
PhD, University of Texas at Austin, 2013

## College of Pharmacy Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Daniel Acosta Jr, Adjunct Professor
PhD, University of Kansas Main Campus, 1974
Wyanza Renee Acosta, Clinical Professor
MS, University of Texas at Austin, 1998
Lydia Aguilera, Adjunct Assistant Professor
PharmD, University of Florida, 2008
Jon T Albrecht, Clinical Assistant Professor BS, Auburn University, 1982

Linda S Albrecht, Clinical Assistant Professor MBA, University of Texas at Arlington, 1990

Angela A Allerman, Clinical Assistant Professor PharmD, University of Texas at Austin, 1991

Analiza Amaya, Clinical Assistant Professor
PharmD, Texas Southern University, 1994
Crystal Anyiam, Instructor In Clinical Pharmacy PharmD, University of North Texas Health Science Center at Fort Worth, 2019

Vicente Aparicio, Adjoint Assistant Professor
PharmD, University of Texas at Austin, 2016
Ayesha A Araya, Instructor In Clinical Pharmacy PharmD, University of Texas at Austin, 2019

Aamer Attaar, Instructor In Clinical Pharmacy PharmD, Rutgers the State University of New Jersey New Brunswick Campus, 2018

Karen Elizabeth Ayma, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2019
Chase N Ayres, Instructor In Clinical Pharmacy
PharmD, University of Kentucky, 2018
Nathaniel T Baker, Instructor In Clinical Pharmacy
PharmD, Texas Tech University Health Sciences Center, 2018
Alexis Leigh Balko, Clinical Instructor
PharmD, University of Texas at Austin, 2006
Delong A Bao, Instructor In Clinical Pharmacy
PharmD, St John's University, 2019
Jamie C Barner, Professor
Clifford L. Klinck, Jr. Centennial Professorship in Pharmacy
Administration
PhD, Purdue University Main Campus, 1998
Colleen A Barthol, Adjunct Assistant Professor
PharmD, University of Missouri - Kansas City, 1998
Aubree E Bast, Instructor In Clinical Pharmacy
PharmD, Texas Tech University Health Sciences Center, 2019
Oralia V Bazaldua, Clinical Assistant Professor
PharmD, University of Oklahoma Health Sciences Center, 1996

William Benefield Jr, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1991
Heather Payton Blacksmith, Adjunct Assistant Professor
PharmD, Saint Louis College of Pharmacy, 2010
Taylor Brianna Blevins, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2018
Roland A Bodmeier, Adjunct Associate Professor PhD, University of Texas at Austin, 1986

Phillip D Bowman, Adjunct Assistant Professor
PhD, University of California-Santa Cruz, 1975
Rebecca L Brady, Clinical Instructor
PharmD, University of Texas at Austin, 2006
Joseph Brewster, Adjunct Assistant Professor

PharmD, University of Texas at Austin, 2015
Jacquelyn K Brondo, Instructor In Clinical Pharmacy PharmD, University of Texas at Austin, 2019

Carolyn M Brown, Professor
PhD, University of Florida, 1994
Delores A Brown, Instructor In Clinical Pharmacy
PharmD, University of Nebraska at Omaha, 2019
Aaron R Buchan, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2001
Angela Hughes Campbell, Clinical Instructor
PharmD, University of Texas at Austin, 2005
Kathryn A Campf, Instructor In Clinical Pharmacy
PharmD, Wilkes University, 2019
Todd W Canada, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1993
Laura A Cannon, Clinical Assistant Professor
PharmD, University of Kentucky, 2016
Ava E Cascone, Instructor In Clinical Pharmacy
PharmD, University of South Carolina - Columbia, 2019
Ashley Nicole Castleberry, Clinical Associate Professor
PharmD, University of Arkansas for Medical Sciences, 2011
Dara Rachael Chaffin, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2013
Chi-Yim J Chan-Lam, Clinical Assistant Professor
PharmD, University of California-San Francisco, 1986
Ashley Nwakaego Chasse, Adjunct Assistant Professor
PharmD, University of Oklahoma Health Sciences Center, 2013
Elaine Chiquette, Clinical Assistant Professor
PharmD, University of Texas at San Antonio, 1994
Charlene A Church, Clinical Instructor
PharmD, University of Texas at Austin, 1996
Brianna R Cobern, Instructor In Clinical Pharmacy PharmD, University of North Texas Health Science Center at Fort Worth, 2019

Sean M Coco, Instructor In Clinical Pharmacy
PharmD, University of the Incarnate Word, 2019
Andrea L Coffee, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1994
Claudia S Colombo, Adjunct Assistant Professor
PharmD, Saint Louis College of Pharmacy, 2002
Claudio J Conti, Adjunct Professor
PhD, University of Buenos Aires, 1983
M Lynn Crismon, Professor
James T. Doluisio Regents Chair in Pharmacy, Behrens Inc. Centennial Professorship in Pharmacy, The Hoechst-Roussel Centennial Endowed
Professorship in Pharmacy
PharmD, University of Texas at Austin, 1979
Austin W Crissman, Instructor In Clinical Pharmacy

PharmD, Texas Tech University Health Sciences Center, 2019
Michael M Crowley, Adjunct Professor
PhD, University of Texas at Austin, 2003
Barrett R Crowther, Adjunct Assistant Professor
PharmD, University of Wisconsin-Madison, 2009
Maria A Croyle, Professor
Glaxo Wellcome Inc. Endowed Professorship in Pharmacy
PhD, University of Michigan-Ann Arbor, 1997
Bianca Cruz, Adjoint Assistant Professor
PharmD, University of Texas at Austin, 2009
Zhengrong Cui, Professor
PhD, University of Kentucky, 2002
Nicole L Cupples, Adjunct Assistant Professor
PharmD, The University of Findlay, 2010
Molly Fiona Curran, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2014
Isabel Elizabeth Cwikla, Instructor In Clinical Pharmacy
PharmD, Ohio Northern University, 2018
Kevin N Dalby, Professor
Johnson \& Johnson Centennial Professorship in Pharmacy
PhD, University of Cambridge, 1992
Divya Merry Daniel, Adjunct Assistant Professor
PharmD, University of Tennessee Health Science Center, 2014
Renee K Danysh, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2006
Joseph F Dasta, Adjunct Professor
MS, Ohio State U Main Campus, 1976
Dewayne A Davidson, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2012
Patrick J Davis, Professor
Eckerd Centennial Professorship in Pharmacy
PhD, University of Iowa, 1976
Mikaela Dawn Debarba, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2016
Jennifer L Defilippi, Adjunct Assistant Professor
PharmD, Rutgers the State University of New Jersey New Brunswick
Campus, 1997
Sharon DeMorrow, Professor
PhD, University of Queensland, 1999
John Digiovanni, Professor
Coulter R. Sublett Chair in Pharmacy
PhD, University of Washington - Seattle, 1978
James C Dinunzio, Adjunct Assistant Professor
PhD, University of Texas at Austin, 2009
Heather H Dobie, Adjunct Assistant Professor
PharmD, University of North Carolina at Chapel Hill, 1997
Elysha Denise Donaldson, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2003
Bryson M Duhon, Clinical Assistant Professor

PharmD, University of Texas at Austin, 2011
Christine L Duvauchelle, Associate Professor
PhD, University of California-Santa Barbara, 1991
Kathryn E Dzintars, Adjunct Assistant Professor
PharmD, University of Pittsburgh, Pittsburgh Campus, 2003
Kelly L Echevarria, Clinical Assistant Professor
PharmD, Creighton University, 1997
Richard R Espinosa, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2001
Martha Frances Evans, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2017
Kirk Evan Evoy, Clinical Assistant Professor
PharmD, Purdue University Main Campus, 2013
Lisa E Farnett, Clinical Assistant Professor
PharmD, University of Texas Health Science Center at San Antonio, 1988
Lane Burton Farrell, Adjunct Assistant Professor
PharmD, University of Kansas Main Campus, 2014
Walter L Fast, Professor
PhD, Northwestern University, 1998
Susan M Fischer, Adjunct Professor
PhD, University of Wyoming, 1974
Laura K Fonken, Assistant Professor
PhD, The Ohio State University Main Campus, 2013
Maha Z Foote, Adjunct Associate Professor
PhD, University of Texas at Austin, 2000
Cynthia A Foslien, Clinical Assistant Professor
PharmD, University of Nebraska Medical Center, 1985
Ana Crystal Franco, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2007
Alan Frazer, Adjunct Professor
PhD, Peninsula College, 1969
Christopher R Frei, Professor
PharmD, University of Texas at Austin, 2001
Brian Emmanuel Frescas, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2019
Arsany M Gadallah, Instructor In Clinical Pharmacy
PharmD, Texas Tech University Health Sciences Center, 2019
Kailee Gaines, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2019
Conrado D Gamboa III, Adjunct Assistant Professor
BS, University of Texas at Austin, 1985
David B Garcia, Adjunct Professor
PhD, University of Texas at Austin, 1977
Kristin Ashley Garling, Clinical Assistant Professor
PharmD, Virginia Commonwealth University, 2008
Aida A Garza, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2007
Anyssa Sebia Garza, Adjunct Assistant Professor

PharmD, University of Texas at Austin, 2011
Gavino A Garza, Clinical Instructor
BS, University of Houston, 1981
Javier Rolando Garza, Adjunct Assistant Professor PharmD, University of Texas at Austin, 2012

Michael J Gass, Adjunct Assistant Professor
PharmD, Midwestern University (Arizona), 2007
Gerard W Gawrys, Adjunct Assistant Professor
PharmD, Saint Louis College of Pharmacy, 2011
Hannah Gaylord, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2019
Debadyuti Ghosh, Assistant Professor
PhD, Rice University, 2006
Emily A Gibbons, Instructor In Clinical Pharmacy
PharmD, University of Florida, 2019
Diane B Ginsburg, Clinical Professor
PhD, University of Texas at Austin, 2014
Nishi S Goel, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2008
Rueben A Gonzales, Professor
Jacques P. Servier Regents Professorship in Pharmacy
PhD, University of Texas at Austin, 1983
Carrie E Gonzalez, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2008
Andrea C Gore, Professor
Mildred Hajek Vacek and John Roman Vacek Chair in Pharmacology, in Honor of Professor C. C. Albers
PhD, University of Wisconsin-Madison, 1990
Stephen J Gore, Adjunct Assistant Professor
PharmD, University of Oklahoma Norman Campus, 1996
Roberta L Grant, Adjunct Assistant Professor PhD, University of Texas at Austin, 1995

Belinda K Green, Adjunct Assistant Professor
BS, University of Texas at Austin, 1990
Abigail R Grimm, Instructor In Clinical Pharmacy
PharmD, Auburn University, 2019
Catlin Lee Grisham-Takac, Adjunct Assistant Professor PharmD, Texas Tech University, 2015

Anndee Shaunessy Gritte, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2018
Veronica I Guerra, Adjunct Assistant Professor PharmD, University of Texas at Austin, 2011

Cynthia A Gutierrez, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2001
Ryan Lee Hadley, Adjunct Assistant Professor PharmD, Texas Tech University Health Sciences Center, 2015

Catherine S Hall, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1999

Reed C Hall, Adjunct Assistant Professor
PharmD, Midwestern University (Arizona), 2007
Sarah R Hardt, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2012
Darriell I Harris, Instructor In Clinical Pharmacy
PharmD, Texas Southern University, 2019
Christine R Heath, Instructor In Clinical Pharmacy
PharmD, Drake University, 2018
Katherine N Henson, Instructor In Clinical Pharmacy
PharmD, Texas Tech University Health Sciences Center, 2019
Lydia A Herrera, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2000
Jon D Herrington, Adjunct Associate Professor PharmD, Saint Louis College of Pharmacy, 1992

Russell A Higgins, Adjunct Assistant Professor
MD, University of New Mexico Main Campus, 2002
Lucas Grant Hill, Clinical Assistant Professor
PharmD, University of Missouri - Kansas City, 2013
April Janae Hinds, Adjunct Assistant Professor PharmD, University of Arkansas for Medical Sciences, 2013

Collin A Hovinga, Clinical Associate Professor
PharmD, Creighton University, 1997
John K Huang, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2003
Darrel W Hughes, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2006
Kyle A Hunt, Instructor In Clinical Pharmacy
PharmD, University of New England, 2019
Daniel Hurtado, Instructor In Clinical Pharmacy
PharmD, Texas A\&M University-Kingsville, 2019
Devon Jacobs, Instructor In Clinical Pharmacy
PharmD, Drake University, 2018
Kristin Marie Janzen, Clinical Assistant Professor PharmD, University of Texas at Austin, 2015

Theresa C Jaso, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2001
Tommy Y Jiang, Instructor In Clinical Pharmacy
PharmD, University of Houston, 2019
David G Johnson, Adjunct Associate Professor
PhD, University of Texas Southwestern Medical Center at Dallas, 1991
Melissa A Johnson, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 1997

Jason R Jokerst, Adjunct Assistant Professor
PharmD, University of Nebraska Medical Center, 2005
David J Jones, Adjunct Professor
PharmD, University of Texas Health Science Center at San Antonio, 1974
Sharon A Jung, Clinical Assistant Professor
PharmD, University of Texas Health Science Center at San Antonio, 1995

James A Karboski, Clinical Professor
PharmD, University of Texas at San Antonio, 1988
Dean L Kellogg Jr, Adjunct Professor
PhD, University of Texas Health Science Center at San Antonio, 1989
Monte A Kenaston, Adjunct Assistant Professor
PhD, University of Texas at Austin, 2010
Sean M Kerwin, Adjunct Associate Professor
PhD, University of California-Berkeley, 1989
Dawit Kidane-Mulat, Assistant Professor
PhD, Albert Ludwig University Freiburg im Breisgau, 2005
Emily Kirkpatrick, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2018
Kristina J Klein-Bradham, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2004
Jodi M Klocek, Clinical Assistant Professor
PharmD, University of Mississippi, 1996
Jim M Koeller, Professor
MS, University of Wisconsin-Madison, 1980
John Kozarich, Adjunct Professor
PhD, Massachusetts Institute of Technology, 1975
Sarah Elizabeth Kubes, Clinical Assistant Professor
PharmD, University of Houston, 2011
Andrea Laguado, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2018
Phillip H Lai, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2007
Yui-Wing F Lam, Clinical Associate Professor
PharmD, University of Minnesota-Twin Cities, 1984
Claire Anna Latiolais, Clinical Assistant Professor
PharmD, Purdue University Main Campus, 2015
Kenneth A Lawson, Professor
Smithkline Centennial Professorship in Pharmacy
PhD, University of Texas at Austin, 1992
Grace Lee, Assistant Professor
PhD, University of Texas at Austin, 2016
Seongmin Lee, Associate Professor
PhD, Purdue University Main Campus, 2004
Steven W Leslie, Professor
James E. Bauerle Centennial Professorship in Drug Dynamics
PhD, Purdue University Main Campus, 1974
Mitchell R Lestico, Clinical Assistant Professor
PharmD, University of Wisconsin-Madison, 1992
Yung Heather Leung, Instructor In Clinical Pharmacy
PharmD, University of Houston, 2019
Melissa R Lewis, Adjunct Assistant Professor
PharmD, University of New Mexico Main Campus, 2007
Lumeng Li, Instructor In Clinical Pharmacy
PharmD, University of Houston, 2019

Michelle Liang, Instructor In Clinical Pharmacy PharmD, St John's University, 2018

Sara Jean Linedecker-Smith, Adjunct Assistant Professor PharmD, Purdue University Main Campus, 2013

Justina Lipscomb, Clinical Assistant Professor
PharmD, Roseman University of Health Sciences, 2012
Kathryn Page Litten, Instructor In Clinical Pharmacy
PharmD, Belmont University, 2017
Hung-Wen Liu, Professor
George H. Hitchings Regents Chair in Drug Design PhD, Columbia University in the City of New York, 1981

Ashley Erin Lock, Instructor In Clinical Pharmacy PharmD, University of Mississippi, 2018

Debra A Lopez, Adjunct Professor
PharmD, University of Texas at Austin, 1999
Lindsey A Lu, Instructor In Clinical Pharmacy
PharmD, Saint Louis College of Pharmacy, 2019
Cindy Luu, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2008
Michael C Macleod, Adjunct Professor PhD, University of Oregon, 1974

Tenerica L Madison, Instructor In Clinical Pharmacy PharmD, University of Louisiana at Monroe, 2019

Christina Elaine Maguire, Instructor In Clinical Pharmacy PharmD, University of Georgia, 2018

Regina A Mangieri, Research Assistant Professor PhD, University of California-Irvine, 2008

Mohammed Maniruzzaman, Assistant Professor PhD, University of Greenwich, 2013

Chen Mao, Adjunct Assistant Professor
PhD, Purdue University Main Campus, 2006
Emory S Martin III, Clinical Assistant Professor
PharmD, University of California-San Francisco, 1984
Demi Martinez, Instructor In Clinical Pharmacy
PharmD, University of Houston, 2019
Brian Masek, Adjunct Professor
PhD, California Institute of Technology, 1987
Pamela R Maxwell, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1994
Theresa A Mays Hutchings, Clinical Assistant Professor
PharmD, University of Oklahoma Health Sciences Center, 1994
Chelsea C McDonnell, Instructor In Clinical Pharmacy
PharmD, University of Connecticut, 2018
Megan A McKee, Adjunct Assistant Professor
PharmD, University of Arizona, 2008
Nicole L McMaster, Clinical Assistant Professor
PharmD, University of Missouri - Kansas City, 2002
Connor A Medernach, Instructor In Clinical Pharmacy

PharmD, Drake University, 2018
Mina Mehvar, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2010
Kathryn G Merkel, Adjunct Assistant Professor PharmD, University of North Carolina at Chapel Hill, 2010

April Ann Messett, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2007
Lisa M Mican, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2000
Edward M Mills, Associate Professor
PhD, Purdue University Main Campus, 1997

Harshaben H Mistry, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2004

Leticia R Moczygemba, Associate Professor PhD, University of Texas at Austin, 2008

Deirdre M Monroe, Clinical Assistant Professor PhD, University of Texas at Austin, 2003

Eugene Moore, Clinical Assistant Professor
PharmD, Southeastern University, 1992
Tera D Moore, Clinical Assistant Professor
PharmD, University of New Mexico Main Campus, 2003
Rebecca D Moote, Clinical Associate Professor
PharmD, University of Texas at Austin, 2007

Vanessa K Morales, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2004

Clarissa Moreno, Adjunct Assistant Professor
PharmD, Texas Tech University Health Sciences Center, 2003
Lauren T Moreno, Instructor In Clinical Pharmacy
PharmD, University of the Incarnate Word, 2019
Vanessa Moreno, Instructor In Clinical Pharmacy
PharmD, Texas Tech University Health Sciences Center, 2019
Somshuvra Mukhopadhyay, Associate Professor
PhD, New York Medical College, 2008

Luis A Natividad, Assistant Professor
PhD, University of Texas at El Paso, 2012
Jordan D Nelson, Adjunct Assistant Professor
PharmD, Drake University, 2009
Jenny S Ngo, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2008
Thanhhao T Ngo, Clinical Assistant Professor
PharmD, University of Oklahoma Health Sciences Center, 2003
Michelle V Nguyen, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2007
Paul Nguyen, Instructor In Clinical Pharmacy
PharmD, University of Cincinnati Main Campus, 2019

Kimberly Nixon, Associate Professor
PhD, University of Texas at Austin, 2000
Suzanne Novak, Clinical Assistant Professor

PhD, University of Texas at Austin, 2005

Dannielle C O'donnell, Clinical Assistant Professor PharmD, Rutgers the State University of New Jersey Camden Campus, 1993

John T O'neill, Adjunct Assistant Professor Diploma (High School), , 1951

Natalie Osagie, Adjunct Assistant Professor
PharmD, Texas Southern University, 2010
Tina Ou, Instructor In Clinical Pharmacy
PharmD, Texas Tech University Health Sciences Center, 2019
Ian W Pace, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 1999

Neil C Pan, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2005
Deepali S Parikh, Adjunct Assistant Professor
PharmD, University of Pittsburgh, Pittsburgh Campus, 1999
Savannah Parker, Instructor In Clinical Pharmacy
PharmD, University of Louisiana at Monroe, 2019
Liza J Paul, Adjunct Assistant Professor
PharmD, University of Florida, 2004

Diana Paz, Adjunct Assistant Professor PhD, University of Houston, 2009

Kelton D Peck, Instructor In Clinical Pharmacy PharmD, University of Utah, 2019

Amanda Marie Pena, Adjoint Assistant Professor PharmD, University of Texas at Austin, 2011

Jennifer Nicole Pena, Instructor In Clinical Pharmacy
PharmD, Texas A\&M University-Kingsville, 2019
Jodie L Pepin, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2001
Maria D Person, Adjunct Associate Professor PhD, University of Chicago, 1991

Jay I Peters, Adjunct Professor
MD, Baylor College of Medicine, 1977
Leila Petok, Instructor In Clinical Pharmacy
PharmD, University of Houston, 2018
Patrick S Pevoto, Clinical Assistant Professor
MD, University of Texas Medical Branch, 1983
Tracie Phillips, Adjunct Assistant Professor
PhD, Texas A \& M University, 2006
Denise Pinal, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2006

Nathan D Pope, Clinical Associate Professor PharmD, Rutgers the State University of New Jersey New Brunswick Campus, 2002

Gabriel J Quintanilla, Adjunct Assistant Professor PharmD, University of Texas at Austin, 2002

Shelby Ramion, Instructor In Clinical Pharmacy

PharmD, Purdue University Main Campus, 2018
Isidro Ramirez Jr, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2003
Karen L Rascati, Professor
Stewart Turley/Eckerd Corporation Centennial Endowed Professorship in Pharmacy
PhD, University of Florida, 1986
Kristin C Reed, Adjunct Assistant Professor
PharmD, Auburn University, 2007
Judith Munoz Rendon, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2019
Ivan A Reveles, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2010
Kelly Renee Reveles, Assistant Professor
PharmD, University of Texas at Austin, 2010
Ann L Richards, Clinical Assistant Professor
PharmD, University of Nebraska Medical Center, 1981
John H Richburg, Professor
Gustavus and Louise Pfeiffer Professorship in Toxicology
PhD, Rutgers the State University of New Jersey Camden Campus, 1993
Jennifer L Ridings-Myhra, Clinical Associate Professor
MEd, Western Governors University Texas, 2016
Rochelle Mendiola Roberts, Lecturer
PhD, University of Texas at Austin, 2008
Brandi R Rodriguez, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2018
Mauricio L Rodriguez, Adjunct Assistant Professor
PharmD, Texas Southern University, 2003
Ralph Rodriguez, Adjunct Assistant Professor
MS, University of Texas at San Antonio, 1988
Norbert Rosario, Instructor In Clinical Pharmacy
PharmD, Wingate University, 2018
Chelsey Roscoe, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2018
Rebecca A Rottman, Clinical Assistant Professor
PharmD, University of Southern California, 2003
Andrew Rubio, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2019
Veronica C Rudder, Clinical Instructor
BD, University of Texas at Austin, 1983
Krystal M Rufus, Instructor In Clinical Pharmacy
PharmD, South University, 2017
Andres D Ruiz, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2008
Sharon K Rush, Clinical Associate Professor
BS, University of Texas at Austin, 1986
Laurajo Ryan, Clinical Professor
PharmD, University of Texas at Austin, 2000

Paula G Rychlik, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2005
Achinto Saha, Research Assistant Professor PhD, Tokushima Bunri University, 2010

Stephen R Saklad, Clinical Professor
PharmD, University of Southern California, 1978
Adrian Sandoval, Adjoint Assistant Professor
PharmD, Texas A \& M University - Kingsville, 2012
Carrie J Sartin, Instructor In Clinical Pharmacy
PharmD, Campbell University, 2018
Rahul M Sasane, Adjunct Assistant Professor
PhD, University of Texas at Austin, 1998
Aileen C Scheibner, Instructor In Clinical Pharmacy
PharmD, University of Minnesota-Twin Cities, 2019
Jennifer K Seltzer, Clinical Associate Professor
PharmD, University of Texas Health Science Center at San Antonio, 1984
Thomas C Shank, Clinical Assistant Professor
PharmD, University of Tennessee Health Science Center, 1983
Samrat Shrestha, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2019
Leslie R Simien, Adjunct Assistant Professor
PharmD, University of California-San Francisco, 2011
Julia Anne Sivinski, Clinical Instructor
PhD, University of Texas at Austin, 2002
Clay E Small, Instructor In Clinical Pharmacy
PharmD, Ohio Northern University, 2018
Josiah Paul Smith, Adjunct Assistant Professor
PharmD, Butler University, 2014
Hugh D Smyth, Professor
PhD, University of Otago, 2000
Sara L Solis, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2011
Lisa H Song, Adjunct Assistant Professor
PharmD, University of North Carolina at Chapel Hill, 2011
Maaya Srinivasa, Adjunct Assistant Professor
PharmD, Texas A \& M University - Kingsville, 2011
Mitzi A Stansberry, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2010
Hailey N Stiver, Instructor In Clinical Pharmacy
PharmD, University of South Carolina - Columbia, 2019
Yongchao Su, Adjunct Associate Professor
PhD, Iowa State University, 2011
Kristina Sucic, Adjunct Assistant Professor
PharmD, University of Pittsburgh, Pittsburgh Campus, 2012
Kimberly K Summers, Clinical Assistant Professor
PharmD, University of Missouri - Kansas City, 1995
Helen Sweiss, Instructor In Clinical Pharmacy
PharmD, University of Illinois at Chicago, 2018

Patricia A Tabor, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1983
Sharla K Tajchman, Adjunct Assistant Professor
PharmD, Rutgers the State University of New Jersey Camden Campus, 2007

Dean G Tang, Adjunct Associate Professor
PhD, Wayne State University, 1994
Yasar O Tasnif, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2002
Amber Nichole Taylor, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2018
Daniel S Taylor, Instructor In Clinical Pharmacy
PharmD, Wingate University, 2018
Holli L Temple, Clinical Associate Professor PharmD, University of Texas at Austin, 1999

Andrew P Ten Eick, Adjunct Associate Professor
PharmD, University of Iowa, 1996
Kristi A Traugott, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2008
Shana K Trice, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1997
Curtis L Triplitt, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1995
So Jung Uhm, Instructor In Clinical Pharmacy
PharmD, University of Texas at Austin, 2019
Kenneth J Utz, Adjunct Assistant Professor
PharmD, University of Oklahoma Health Sciences Center, 2006
Carla L Vandenberg, Associate Professor
PharmD, University of Texas at Austin, 1991
Karen Marie Vasquez, Professor
James T. Doluisio Regents Professorship in Pharmacy
PhD, Baylor College of Medicine, 1996
Lindsay Sara Vasquez, Adjunct Assistant Professor
PharmD, University of the Incarnate Word, 2012
Susie A Vasquez, Clinical Assistant Professor
PharmD, University of Texas at Austin, 1997
John F Villanacci, Adjunct Associate Professor PhD, University of Michigan-Ann Arbor, 1983

Leticia R Villela, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2003
Kristie A Vinklarek, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2001
Samantha Marie Vogel, Clinical Assistant Professor
PharmD, University of Texas at Austin, 2016
Thuy Duong TVu, Instructor In Clinical Pharmacy
PharmD, Texas A\&M University-Kingsville, 2019
Cheryl L Walker, Adjunct Professor
PhD, Tex HIth Sci C Dallas, U, 1984

Skyller Walkes, Assistant Professor of Instruction PhD, Texas State University, 2017

Janet C Walkow, Clinical Professor PhD, University of Texas at Austin, 1982

Guliang Wang, Research Assistant Professor PhD, Zhejiang University, 2002

Alan Bayard Watts, Adjunct Assistant Professor PhD, University of Texas at Austin, 2009

Christian P Whitman, Professor
Romeo T. Bachand, Jr. Regents Professorship in Pharmacy PhD, University of California-San Francisco, 1984

Nathan P Wiederhold, Adjoint Associate Professor PharmD, University of Texas at Austin, 2000

Robert O Williams III, Professor
Johnson \& Johnson Centennial Chair in Pharmacy
PhD, University of Texas at Austin, 1986
Traditha C Williams, Instructor In Clinical Pharmacy
PharmD, Midwestern University (Arizona), 2019
James Paul Wilson Jr, Associate Professor
PhD, Purdue University Main Campus, 1986
Stacy Wilson, Instructor In Clinical Pharmacy
PharmD, Texas Tech University Health Sciences Center, 2019
Holly N Winkler, Clinical Instructor
PharmD, University of Texas at Austin, 2006
Mark J Wong, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2004
Billy W Woodward, Clinical Associate Professor
BS, University of Texas at Austin, 1963
Consuelo M Worley, Clinical Assistant Professor MS, University of Texas at Austin, 2002

Chanin C Wright, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2001
Robert Wright, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 1996
Kun Yang, Assistant Professor
PhD, University of Delaware, 2016
Veronica S Young, Clinical Professor
PharmD, Creighton University, 1993
Stephanie Rose Younts, Adjunct Assistant Professor
PharmD, University of Texas at Austin, 2005
Edward M Zastawny, Adjunct Assistant Professor
PharmD, University of Texas Health Science Center at San Antonio, 1991
Feng Zhang, Assistant Professor
PhD, University of Texas at Austin, 1999

## Lyndon B. Johnson School of Public Affairs Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Gordon B Abner, Assistant Professor
PhD, Indiana University at Bloomington, 2017
Abigail Rosemary ann Aiken, Assistant Professor
PhD, University of Texas at Austin, 2014
Jacqueline L Angel, Professor
PhD, Rutgers the State University of New Jersey New Brunswick Campus, 1989

Barry V Bales, Clinical Professor
PhD, University of Texas at Austin, 1993
Richard Patrick Bixler, Assistant Professor of Practice
PhD, Colorado State University, 2014
Joshua W Busby, Associate Professor
PhD, Georgetown University, 2004
Victoria Maria Defrancesco, Assistant Professor of Practice
PhD, Duke University, 2007
Michele Y Deitch, Senior Lecturer
JD, Harvard University, 1986
Jacob Goodman Dizard, Lecturer
PhD, University of Texas at Austin, 2018
Edwin Dorn, Professor
PhD, Yale University, 1978
David J Eaton, Professor
Bess Harris Jones Centennial Professorship in Natural Resource Policy Studies
PhD, Johns Hopkins University, 1977
Angela Maria Evans, Professor of Practice
MA, University of Wisconsin-Madison, 1971
Raissa Fabregas Robles Gil, Assistant Professor
MS, University of Oxford, 2009
Sonia Feigenbaum, Adjunct Professor
PhD, Indiana University at Bloomington, 1996
Kenneth Flamm, Professor
Dean Rusk Chair in the Lyndon Baines Johnson School of Public Affairs PhD, Massachusetts Institute of Technology, 1979

Aldo Ricardo Flores, Visiting Professor
PhD, University of California-Los Angeles, 1996
James K Galbraith, Professor
Lloyd M. Bentsen, Jr. Chair in Government/Business Relations
PhD, Yale University, 1981
Charlee Garden, Associate Professor of Practice
MS, Stanford University, 1988
Matthew Gill, Adjunct Assistant Professor
MA, Naval War College, 2010
Michael H Granof, Professor

Ernst \& Young Distinguished Centennial Professorship of Accounting PhD, University of Michigan-Ann Arbor, 1972

Sherri R Greenberg, Professor of Practice MSc, University of London, 1981

Celeste Ward Gventer, Associate Professor of Practice
MA, Harvard University, 2000
Carolyn Heinrich, Research Professor
PhD, University of Chicago, 1995
Michael Hole, Research Assistant Professor
MD, Stanford University, 2014
William Inboden, Associate Professor
PhD, Yale University, 2003
Bobby R Inman, Professor
Lyndon B. Johnson Centennial Chair in National Policy
BA, University of Texas at Austin, 1950
Peniel E Joseph, Professor
Barbara Jordan Chair in Ethics and Political Values
PhD, Temple University, 2000
Alan Kessler, Visiting Professor
PhD, University of California-Los Angeles, 1999
Donald Kettl, Professor
Sid Richardson Chair in Public Affairs, Sid Richardson Chair in Public
Affairs
PhD, Yale University, 1978
Carey W King, Lecturer
PhD, University of Texas at Austin, 2004
Alan J Kuperman, Associate Professor
PhD, Massachusetts Institute of Technology, 2002
Erin Lentz, Assistant Professor
MS, Cornell University, 2005
Roberta G Lentz, Adjunct Associate Professor
PhD, University of Texas at Austin, 2008
Stephanie Leutert, Lecturer
MA, Yale University, 2016
Michael E Lind, Professor of Practice
JD, University of Texas at Austin, 1988
Martin Joseph Luby, Associate Professor
PhD, Indiana University at Bloomington, 2010
Ji Ma, Assistant Professor
MA, Beijing Normal University, 2013
William H McRaven, Professor
MA, Naval Postgraduate School, 1991
John O'Brien, Lecturer
MPA, University of Texas at Austin, 1981
Sheila M Olmstead, Professor
PhD, Harvard University, 2002
Todd A Olmstead, Associate Professor
PhD, Harvard University, 2000
Cynthia Osborne, Associate Professor

PhD, Princeton University, 2003
Francie Ostrower, Professor
PhD, Yale University, 1991
Rajeev Charles Patel, Research Professor
PhD, Cornell University, 2002
Miguel A Pavon, Adjunct Professor
MSEnvironE, Instituto Tecnologico y de Estudios Superiores de
Monterrey, 1995
Steven Wayne Pedigo, Professor of Practice
MS, Carnegie Mellon University, 2005
James Paul Pope, Professor of Practice
MA, Naval Postgraduate School, 1982
Varun Rai, Associate Professor
PhD, Stanford University, 2008
Lorinc Redei, Assistant Professor of Instruction
PhD, Central European University, 2013
Cale Reeves, Lecturer
PhD, University of Texas at Austin, 2019
Victoria E Rodriguez, Professor
PhD, University of California-Berkeley, 1987
Jaganath Sankaran, Assistant Professor
PhD, University of Maryland College Park, 2012
Bill Shute, Lecturer
JD, University of Houston, 1987
Larry Singell, Professor
PhD, University of California-Santa Barbara, 1988
Stephen Slick, Professor of Practice
JD, University of California-Los Angeles, 1983
Evan A Smith, Lecturer
MA, Northwestern University, 1988
William G Spelman, Professor
PhD, Harvard University, 1988
David W Springer, Professor
PhD, Florida State University, 1997
Paul J Stekler, Professor
Wofford Denius Chair in Entertainment Studies
PhD, Harvard University, 1983
Chandler W Stolp, Associate Professor
PhD, Carnegie Mellon University, 1982
Jeremi Suri, Professor
Mack Brown Distinguished Chair for Leadership in Global Affairs
PhD, Yale University, 2001
John P Thornborrow, Adjunct Assistant Professor
MBA, University of Texas at Austin, 1994
Paul Von hippel, Associate Professor
PhD, Ohio State U Main Campus, 2010
Peter Ward, Professor
C. B. Smith, Sr. Centennial Chair in United States-Mexico Relations \#1

PhD, University of Liverpool, 1976
Ruth Ellen Wasem, Professor of Practice
PhD, University of Michigan-Ann Arbor, 1990
Andrew Waxman, Assistant Professor PhD, Cornell University, 2016

Catherine Elizabeth Weaver, Associate Professor
PhD, University of Wisconsin-Madison, 2003
Alycia Welch, Lecturer
Patrick P Wong, Associate Professor
PhD, University of Wisconsin-Madison, 1988

## Steve Hicks School of Social Work Faculty

The following faculty list represents those appointed in the 2020 spring semester.

Tina E Adkins, Research Assistant Professor
PhD, University College London, 2015
Alyssa Aguirre, Assistant Professor of Practice
MSW, University of Michigan-Ann Arbor, 2009
Jess Paul Ambiee, Assistant Professor of Practice MSSW, University of Texas at Austin, 2012

Robert J Ambrosino, Adjunct Assistant Professor
PhD, State University of New York at Albany, 1971
Rosalie N Ambrosino, Adjunct Assistant Professor
PhD, University of Texas at Austin, 1985
Barbara S Anderson, Clinical Professor
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MSSW, University of Texas at Austin, 2004
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PhD, University of Southern California, 2014
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MSSW, University of Texas at Austin, 2009
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EdM, Harvard University, 2015
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Professorship in Autism and Neurodevelopmental Disabilities
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MSSW, University of Texas at Austin, 2003
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MSW, University of Texas at San Antonio, 2012
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Clara Pope Willoughby Centennial Professorship in Child Welfare
PhD, University of Michigan-Ann Arbor, 1993
Jose Ruben Parra-cardona, Associate Professor
PhD, Texas Tech University, 2004
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MA, The Episcopal Theological Seminary of the Southwest, 2001
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MSSW, University of Texas at Austin, 1998
Luis H Zayas, Professor
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[^0]:    1. The Core Curriculum (p. 23) requirements and the BBA Degree Requirements (p. 47)
    2. Management Information Systems 304, 325, 333K, 374, and 375 (may fulfill the writing and independent inquiry flags)
[^1]:    Total credit hours: 120

[^2]:    Total credit hours: 124

[^3]:    - A combination of college-level mathematics and basic sciences (some with experimental work) that includes mathematics through differential equations, physics, chemistry, and geology
    - Basic engineering and geologic topics that develop a working knowledge of fluid mechanics, strength of materials,

[^4]:    Fourth Year
    First Term
    Hours Second Term
    Hours
    3 M E 266K
    2
    M E 344
    ME144L
    ME 353
    ME366J
    1 M E 266P
    2
    3 Approved career gateway elective 3
    3 Approved mathematics/natural 3
    science elective
    Approved career gateway elective
    3 E 316L, 316M, 316N, or 316P
    3

