## Southern Methodist University <br> General Information Undergraduate Catalog 2017-2018

# Catalog Policy and Legal Statement 

## Bulletin of Southern Methodist University 2017-2018 Vol. CI

Southern Methodist University publishes a complete bulletin every year. The following catalogs constitute the General Bulletin of the University:

- Undergraduate Catalog
- Cox School of Business Graduate Catalog
- Dedman College of Humanities and Sciences Graduate Catalog
- Dedman School of Law Graduate Catalog
- SMU Guildhall Graduate Catalog
- Lyle School of Engineering Graduate Catalog
- Meadows School of the Arts Graduate Catalog
- Perkins School of Theology Graduate Catalog
- Simmons School of Education and Human Development Graduate Catalog

In addition, certain locations or programs provide their own schedules:

- Continuing Education
- Jan Term
- SMU Abroad
- SMU-in-Plano
- SMU-in-Taos (Fort Burgwin)
- Summer Studies

Every effort has been made to include in this catalog information that, at the time of preparation for publishing, most accurately represents Southern Methodist University. The provisions of the publication are not, however, to be regarded as an irrevocable contract between the student and Southern Methodist University. The University reserves the right to change, at any time and without prior notice, any provision or requirement, including, but not limited to, policies, procedures, charges, financial aid programs, refund policies and academic programs.

Catalog addenda are published online. An addendum includes graduation, degree, and transfer requirements that do not appear in the online catalog but apply in that academic year. Addenda, if applicable, are found on the left-hand navigation bar.

Information also is available at www.smu.edu.

## Notice of Nondiscrimination

Southern Methodist University (SMU) will not discriminate in any employment practice, education program, education activity, or admissions on the basis of race, color, religion, national origin, sex, age, disability, genetic information, or veteran status. SMU's commitment to equal opportunity includes nondiscrimination on the basis of sexual orientation and gender identity and expression. The Executive Director for Access and Equity/Title IX* Coordinator is designated to handle inquiries regarding the nondiscrimination policies, including the prohibition of sex discrimination under Title IX. The Executive Director/Title IX Coordinator may be reached at the Perkins Administration Building, Room 204, 6425 Boaz Lane, Dallas, TX 75205, 214-768-3601, accessequity@smu.edu.

Inquiries regarding the application of Title IX may also be directed to the Assistant Secretary for Civil Rights of the U.S. Department of Education.

* Title IX of the Education Amendments of 1972, 20 U.S.C. §§ 1681-1688.

Produced by the Office of the Registrar
Southern Methodist University
Dallas TX 75275-0221
2017

# University Calendar 

## Academic Year 2017-2018

www.smu.edu/registrar/academic_calendar.asp
This calendar includes a list of religious holidays for use in requesting excused absences according to University Policy 1.9. For religious holidays not listed, students should contact the Office of the Chaplain. Graduate programs in the Cox School of Business, SMU Guildhall, the Perkins School of Theology, the Dedman School of Law, and the Department of Dispute Resolution and Counseling within the Simmons School of Education and Human Development have different calendars.

## Fall Term 2017

April 10-28, Monday-Friday: Enrollment for fall 2017 continuing students for all undergraduates and for graduates in Dedman College, Lyle and Meadows.

May, July, August - TBA: Academic Advising, Enrollment and Orientation conferences for new first-year and transfer undergraduate students. Additional information about AARO is available from New Student Programs, Student Life Office, 214-768-4560, www.smu.edu/newstudent.

August 19, Saturday: Residence halls officially open at 9 a.m.
August 20, Sunday: Opening Convocation, McFarlin Auditorium.
August 21, Monday: First day of classes.
August 25, Friday: Last day to enroll, add a course, or drop a course without tuition billing while remaining enrolled for the term. Last day to file for graduation in December.

September 1, Friday: Last day to drop a course without academic record (tuition charges apply). Last day to withdraw from the university without academic record (withdrawal refund schedule applies). See Bursar's website for more information.

September 4, Monday: Labor Day. University closed.
September 6, Wednesday: Last day to declare pass/fail, no credit or first-year repeated course grading options. Also, last day to request an excused absence for the observance of a religious holiday.

September 22-24, Friday-Sunday: Family Weekend.
September 26, Tuesday: Early intervention grades due for first-year undergraduate students.
October 4, Wednesday: Last day for continuing undergraduate students to change their majors for spring 2018 enrollment.

October 9-10, Monday-Tuesday: Fall break.
October 22, Sunday: Midterm grades due for first-year and sophomore students.
October 30, Monday: 60 percent point of the term that federal financial aid has been earned if a student officially withdraws from SMU; prior to this date, a partial calculated return to federal programs will be required.

October 30-November 17, Monday-Friday: Enrollment for spring 2018 continuing students for all undergraduates and for graduates in Dedman College, Lyle and Meadows.

November 3, Friday: Last day to drop a course (grade of W).
November 3-4, Friday-Saturday: Homecoming Weekend.
November 9, Thursday: Last day for December graduation candidates to change grades of Incomplete, and to obtain a final grade for a grade of X or a missing grade from a previous term.

November 13, Monday: Students should file for May graduation. The last day to file is January 26, 2018.
November 21, Tuesday: Last day to withdraw from the University (grade of W).
November 22, Wednesday: No classes.
November 23-24, Thursday-Friday: Thanksgiving holiday. University closed.
November 29-December 4, Wednesday-Monday: No final examinations or unscheduled tests/papers.
November 30, Thursday: Last day for oral/written examinations for December graduate degree candidates.
December 4, Monday: Last day of classes.
December 5-6, Tuesday-Wednesday: Reading days.
December 7-13, Thursday-Wednesday: Examinations. (No examinations scheduled for Sunday.)
December 14, Thursday: Residence halls close at 10 a.m. for winter break. (December graduates and residential students who need winter break housing should contact the Department of Residence Life and Student Housing.)

December 16, Saturday: December Commencement Convocation. Official close of the term and conferral of degrees.

December 25-January 1, Monday-Monday: University closed.
December 25, Monday: Christmas Day.

## January Interterm 2018

Note: Some areas of instruction offer selected courses during the January interterm, December 14-January 18.
January 1, Monday: New Year's Day. University closed.

## Dallas Jan Term 2018

January 8, Monday: First day of classes.
January 9, Tuesday: Last day to declare pass/fail.
January 17, Wednesday: Last day to drop a course or withdraw from the University (grade of W).
January 18, Thursday: Last day of classes, including examinations. Also, official close of the term and conferral of degrees.

## Jan Term at SMU-in-Taos 2018

Note: The following dates are applicable only for SMU-in-Taos. Permission of SMU-in-Taos is required for all enrollments.

January 5, Friday: Wellness student travel day and arrival, 2-6 p.m.
January 7, Sunday: Regular session travel day and arrival, 2-6 p.m.
January 8, Monday: First day of classes.
January 9, Tuesday: Last day to declare pass/fail.
January 15, Monday: Martin Luther King, Jr. Day. University closed.
January 16, Tuesday: Last day to drop a course or withdraw from the University (grade of W).
January 17, Wednesday: Last day of classes, including examinations.
January 18, Thursday: Departure of Students. Official close of the term and conferral of degrees.

## Spring Term 2018

November 6-January 26, Monday-Friday: Enrollment for spring 2018 continuing students for all undergraduates and for graduates in Dedman College, Lyle and Meadows.

January - TBA: Academic Advising, Enrollment and Orientation conferences for new first-year and transfer undergraduate students. Additional information about AARO is available from New Student Programs, Student Life Office, www.smu.edu/newstudent, 214-768-4560.

January 1, Monday: New Year's Day. University closed.
January 12, Friday: Residence halls officially open at 9 a.m.
January 15, Monday: Martin Luther King, Jr. Day. University closed.
January 22, Monday: First day of classes.
January 26, Friday: Last day to enroll, add a course, or drop a course without tuition billing while remaining enrolled for the term. Last day to file for May graduation.

February 2, Friday: Last day to drop a course without academic record (tuition changes apply). Last day to withdraw from the university without academic record (withdrawal refund schedule applies). See Bursar's website for more information.

February 6, Tuesday: Last day to declare pass/fail, no credit or first-year repeated course grading options. Also, last day to request an excused absence for the observance of a religious holiday.

February 26, Monday: Early intervention grades due for first-year undergraduate students.
March 6, Tuesday: Last day for continuing undergraduate students to change their majors for fall 2018 enrollment.
March 12-18, Monday-Sunday: Spring break.
March 27, Tuesday: Midterm grades due for first-year and sophomore students.

March 30, Friday: Good Friday. University closed.
April 1, Sunday: Easter Sunday.
April 4, Wednesday: 60 percent point of the term that federal financial aid has been earned if a student officially withdraws from SMU; prior to this date, a partial calculated return to federal programs will be required.

April 10-27, Tuesday-Friday: Enrollment for summer 2018 and fall 2018 continuing students for all undergraduates and for graduates in Dedman College, Lyle and Meadows.

April 11, Wednesday: Last day to drop a course (grade of W).
April 13, Friday: Last day for May graduation candidates to change grades of Incomplete, and to obtain a final grade for a grade of X or a missing grade from a previous term.

April 16, Monday: Honors Convocation, 5:30 p.m.
April 25, Wednesday: Students should file for August or December graduation. Last day to file for August graduation is June 7. Last day to file for December graduation is the last day to enroll for fall 2018.

April 27, Friday: Last day to withdraw from the University (grade of W).
May 2-7, Wednesday-Monday: No final examinations or unscheduled tests or papers.
May 3, Thursday: Last day for oral/written examinations for graduate students who are May degree candidates.
May 7, Monday: Last day of classes; follows a Friday schedule.

May 8, Tuesday: Reading day.
May 9-15, Wednesday-Tuesday: Examinations. (No examinations scheduled Sunday.)
May 16, Wednesday: Residence halls officially close for non-graduating students.
May 18, Friday: Baccalaureate.
May 19, Saturday: Commencement Convocation. Also, official close of the term and conferral of degrees.
May 20, Sunday: Residence halls officially close for graduating seniors.

## May Interterm 2018

Note: Some areas of instruction may offer a limited number of selected courses during the May term, May 17-June 1. Each May term course may have unique start and end dates during May 17-June 1 to accommodate the particular needs of the course.

## Dallas May Term 2018

Classes meet 4 hours a day, Monday-Friday.
May 17, Thursday: First day of classes.
May 18, Friday: Last day to enroll or add courses. Also, last day to declare pass/fail, no credit or first-year repeated course grading options.

May 28, Monday: Memorial Day. University closed.
May 29, Tuesday: Last day to drop a course or withdraw from the University (grade of W).
June 1, Friday: Last day of classes, including examinations. Also, official close of the term and conferral of degrees.
June 7, Thursday: Last day to file for August graduation.

## May Term at SMU-in-Taos 2018

Note: The following dates are applicable only for SMU-in-Taos. Permission of SMU-in-Taos is required for all enrollments.

May 16, Wednesday: Student travel day and arrival, 2-6 p.m.
May 17, Thursday: First day of classes.
May 29, Tuesday: Last day to drop/withdraw from the University (grade of W).
June 1, Friday: Last day of classes, including examinations. Official close of the term and conferral of degrees.
June 2, Saturday: Departure of students.

## Summer Term 2018

Summer term consists of three primary sessions: first session, second session and a full summer session. Each primary session has different deadline dates. There are also shorter and longer sessions to accommodate the particular needs of various instructional units such as SMU Abroad, SMU-in-Taos and the Perkins School of Theology.

## Full Summer Session

Classes meet 2 hours, 15 minutes twice a week or 1 hour, 30 minutes three times a week.
May 28, Monday: Memorial Day. University closed.
June 4, Monday: First day of classes.
June 7, Thursday: Last day to enroll, add courses or drop courses without a grade record. Also, last day to file for August graduation.

June 13, Wednesday: Last day to declare pass/fail, no credit or first-year repeated course grading options.
July 4, Wednesday: Independence Day. University closed.
July 19, Thursday: Last day for August graduation candidates to change grades of Incomplete, and to obtain a final grade for a grade of X or a missing grade from a previous term.

July 26, Thursday: Last day to drop a course (grade of W).
August 1, Wednesday: Last day to withdraw from the University.
August 7, Tuesday: Last day of classes, including examinations. Official close of the term and conferral of degrees.

## First Session

Classes meet 2 hours a day, Monday-Friday.
May 28, Monday: Memorial Day. University closed.
June 4, Monday: First day of classes.
June 5, Tuesday: Last day to enroll, add courses or drop courses without a grade record.
June 7, Thursday: Last day to declare pass/fail, no credit or first-year repeated course grading options. Last day to file for August graduation.

June 26, Tuesday: Last day to drop a course (grade of W).
June 27, Wednesday: Last day to withdraw from the University.
July 3, Tuesday: Last day of classes, including examinations.

## Summer I Session at SMU-in-Taos

Note: The following dates are applicable only for SMU-in-Taos. Permission of SMU-in-Taos is required for all enrollments.

June 4, Monday: Travel day and arrival of students, 2-6 p.m.
June 5, Tuesday: First day of classes.
June 26, Tuesday: Last day to drop/withdraw from the University (grade of W).
June 29, Friday: Last day of classes, including examinations.
June 30, Saturday: Departure of students.

## Second Session

Classes meet 2 hours a day, Monday-Friday.
June 7, Thursday: Last day to file for August graduation.
July 4, Wednesday: Independence Day. University closed.
July 5, Thursday: First day of classes.
July 6, Friday: Last day to enroll, add courses or drop courses without a grade record.
July 10, Tuesday: Last day to declare pass/fail, no credit or first-year repeated course grading options.
July 16, Monday: Last day for August graduation candidates to change grades of Incomplete, and to obtain a final grade for a grade of X or a missing grade from a previous term.

July 26, Thursday: Last day to drop a course (grade of W).
July 30, Monday: Last day to withdraw from the University.

August 3, Friday: Last day of classes, including examinations.
August 7, Tuesday: Official close of the term and conferral of degrees.

## August Term at SMU-in-Taos 2018

Note: The following dates are applicable only for SMU-in-Taos. Permission of SMU-in-Taos is required for all enrollments.

July 31, Tuesday: Travel day and arrival of students, 2-6 p.m.
August 1, Wednesday: First day of classes.
August 15, Wednesday: Last day to drop/withdraw from the University (grade of W).
August 16, Thursday: Last day of classes, including examinations. Official close of the term and conferral of degrees.

August 17, Friday: Departure of students.

## Major Religious Holidays

(August 2017-August 2018)
The following list of religious holidays is for use in requesting excused absences according to University Policy 1.9. For religious holidays not listed, the instructor or supervisor may contact the Office of the Chaplain.

## Christian

Christmas: December 25, 2017
Good Friday: March 30, 2018
Easter Sunday: April 1, 2018
Easter Sunday (Orthodox): April 8, 2018

## Hindu

Janmashtami: August 15, 2017
Dasera: September 30, 2017
Diwali: October 19, 2017

## Jewish*

Rosh Hashanah: September 21-22, 2017<br>Yom Kippur: September 30, 2017<br>Sukkot/Simchat Torah: October 5/6, 2017 \& October 13, 2017

Purim: March 1, 2018
Hanukkah: December 12-20, 2017
Pesach (Passover): March 31-April 7, 2018
Shavuot: May 20-21, 2018

## Muslim

Eid al-Adha: September 1, 2017
Islamic New Year: September 21, 2017
Ashura: October 1, 2017
Mawlid an-Nabi: December 1, 2017
Ramadan: May 16-June 14, 2018
Eid al-Fitr: June 15, 2018

* All holidays begin at sundown before the first day noted and conclude at sundown on the day(s) noted.


## About SMU

## The Vision of Southern Methodist University

To create and impart knowledge that will shape citizens who contribute to their communities and lead their professions in a global society.

## The Mission of Southern Methodist University


#### Abstract

Southern Methodist University will create, expand and impart knowledge through teaching, research and service, shaping world changers who contribute to their communities and excel in their professions in a global society. Among its faculty, students and staff, the University will cultivate principled thought, develop intellectual skills and promote an environment emphasizing individual dignity and worth. SMU affirms its historical commitment to academic freedom and open inquiry, to moral and ethical values, and to its United Methodist heritage.


## Southern Methodist University

As a private, comprehensive university enriched by its United Methodist heritage and its partnership with the Dallas Metroplex, Southern Methodist University seeks to enhance the intellectual, cultural, technical, ethical and social development of a diverse student body. SMU offers undergraduate programs centered on the liberal arts; excellent graduate and continuing education programs; and abundant opportunities for access to faculty in small classes, research experience, international study, leadership development, and off-campus service and internships, with the goal of preparing students to be contributing citizens and leaders for our state, the nation and the world.

SMU comprises seven degree-granting schools: Dedman College of Humanities and Sciences, Edwin L. Cox School of Business, Dedman School of Law, Bobby B. Lyle School of Engineering, Meadows School of the Arts, Perkins School of Theology, and Annette Caldwell Simmons School of Education and Human Development.

Founded in 1911 by what is now the United Methodist Church, SMU is non-sectarian in its teaching and is committed to the values of academic freedom and open inquiry.

At its opening session in 1915, the University had two buildings, 706 students, a 35-member faculty and total assets of \$633,540.

Today, the University has more than 100 buildings, a total enrollment averaging more than 10,000 the past 10 years, a full-time faculty of 748 and assets of $\$ 2.9$ billion - including an endowment of $\$ 1.4$ billion (market value, May 31, 2016).

Offering only a handful of degree programs at its 1915 opening, the University presently awards over 100 baccalaureate degrees in more than 90 programs, with in five schools. The university also offers a variety of graduate programs in all of its seven schools.

Of the 11,739 students enrolled for the 2016 fall term, 6,521 were undergraduates and 5,218 were graduate students. The full-time equivalent enrollment was 6,406 for undergraduates and 3,825 for graduate students.

Nearly all the students in SMU's first class came from Dallas County, but now more than 50 percent of the University's undergraduate student body comes from outside Texas. In a typical school year, students come to SMU from every state; from more than 100 foreign countries; and from all races, religions and economic levels.

Undergraduate enrollment is 50 percent female. Graduate and professional enrollment is 46 percent female.

A majority of SMU undergraduates receive some form of financial aid. In 2016-2017, 79 percent of first-year students received some form of financial aid, and 29 percent of first-year students received need-based financial aid.

Management of the University is vested in a board of trustees of civic, business and religious leaders - Methodist and non-Methodist. The founders' first charge to SMU was that it become not necessarily a great Methodist university, but a great university.

## Academic Accreditation

Southern Methodist University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award bachelor's, master's, professional and doctoral degrees. Students should contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097 or call 404-679-4500 for questions about the accreditation of Southern Methodist University. Note: The commission is to be contacted only if there is evidence that appears to support an institution's significant noncompliance with a requirement or standard.

Individual academic programs are accredited by appropriate national professional associations.
In Dedman College, the Department of Chemistry undergraduate program is accredited by the American Chemical Society, and the Psychology Department's Ph.D. program in clinical psychology is accredited by the American Psychological Association.

The Cox School of Business is accredited by the Association to Advance Collegiate Schools of Business.
The Dedman School of Law is accredited by the American Bar Association.
The Guildhall receives its accreditation because SMU is an accredited institutional member of the National Association of Schools of Art and Design.

The Lyle School of Engineering undergraduate programs in civil engineering, computer engineering, computer science, electrical engineering, environmental engineering and mechanical engineering are accredited by the Engineering Accreditation Commission of The Accreditation Board for Engineering and Technology.

Programs in and/or affiliated with The Meadows School of the Arts receive their accreditation because Southern Methodist University is an accredited institutional member of the National Association of Schools of Art and Design, of Music, of Dance, and of Theater. The programs recognized under this accredited institutional membership are the art and art history programs, the Dance Division, the Music Division, the music therapy program, and the theater program. (NASM/NASAD/NASD/NAST 11250 Roger Bacon Drive, Suite 21, Reston, VA 20190-5248, Telephone: (703) 437-0700, Facsimile: (703) 437-6312, Email: info@arts-accredit.org).

Perkins School of Theology is accredited by the Commission on Accrediting of the Association of Theological Schools in the United States and Canada to award M.Div., M.A.M., M.S.M., M.T.S., Th.M. and D.Min. degrees.

Accredited programs in the Simmons School of Education and Human Development include the teacher education undergraduate and graduate programs, which are accredited by the State Board for Educator Certification of the Texas Education Agency. The SBEC and the TEA also accredits the M.Ed. in Accelerated School Leadership and the M.Ed. Urban Leadership. The M.S. in Counseling meets the licensure standards of the Texas State Board of Examiners of Professional Counselors and the Texas State Board of Examiners of Marriage and Family Therapists and the State Board for Educator Certification (TEA) School Counselor All Levels K-12.

## Admission

## Southern Methodist University General Admissions Policy

Consistent with its vision and mission, SMU seeks to enroll students who have the potential for academic success and who will enrich the collegiate community. The rich variety of perspectives SMU seeks are those that result from differences in racial, ethnic, linguistic, socio-economic, geographic, educational and religious backgrounds; different life experiences, and talents in the arts or athletics. It is the policy of SMU to examine individually each prospective student's application for admission to determine the nature and extent of the applicant's potential to succeed and to enrich the community. Through financial support, SMU endeavors to ensure that cost of attendance will not be a barrier to achieving its goal of a diverse community.

All degree-seeking first-year students, regardless of intended major, enter the University as SMU Pre-Majors, and they are advised through the University Advising Center. Students normally qualify for entry into a major and specific degree program during their sophomore year. Admission into any undergraduate degree program requires the completion of minimum academic standards determined by the school in which the program is based. The specific requirements for admission into each of SMU's undergraduate schools are outlined in the admission section of that school's information in this catalog.

SMU's Notice of Nondiscrimination is found in the catalog.

## First-Year Admission Criteria

Selection of degree-seeking students at SMU is based on several criteria: the high school curriculum, academic performance in the classroom, grade pattern, rank in class (if available), SAT and/or ACT scores, counselor and teacher recommendations, essay, behavioral record and extracurricular activities. Although no specific cutoff is applied to any single measure, generally a student who has both accomplished a strong academic record and exhibited a variety of noteworthy and personal achievements will contribute and benefit most from the SMU experience. Matriculation to the University is contingent upon continuing academic achievement and completion of the high school diploma. The Admission Committee may rescind offers of admission for students whose academic, extracurricular or behavioral records are not consistent with information presented in the application for admission. As an independent institution, SMU has no limits on enrollment based solely on geography or distinctions in tuition, fees or other costs based on the residency of the student.

## High School Curriculum

High school curricula, including curricular rigor, academic performance in the classroom, elective choices and senioryear course load, are considered in the admission review. Applicants should submit high school records with a minimum of 15 or more academic units. The recommended distribution for a minimum program is as follows: four units of English, three units of mathematics (algebra 1, plane geometry, algebra 2), three units of science (including two units of laboratory science), three units of social science and two units of a second language (a two-year sequence).

American Sign Language may be used to satisfy the second language requirement. Engineering applicants should have completed four years of math (including higher-level math beyond algebra 2) and a year each of chemistry and physics. Note: Most students who are successful in the admission process present credentials well in excess of the minimum course recommendations.

## Home School Criteria

Home school and distance learning applicants are expected to complete the equivalent of the high school curriculum as outlined above and submit SAT and/or ACT scores. In addition, students must submit the Home School Supplement form, which provides the education coordinator an opportunity to share his or her philosophy for homeschooling, comments concerning the grading scale and caliber of academic work completed, and a brief recommendation of the student. Access a checklist at www.smu.edu/admission/apply/firstyear/homeschool for the home school requirements. In addition to these requirements, SAT subject exams (suggested: English, literature, math and science) are highly encouraged for students who have taken the majority of high school coursework at home. Home-schooled students are eligible for federal student aid for college if they have "completed a secondary school education in a home school setting that is treated as a home school or private school under State law" [Section 484(d)(3) of the Higher Education Act of 1965].

## Application Timetable for First-Year Students

All prospective students must complete the application for admission and submit a $\$ 60$ nonrefundable application fee. Fee waivers are available for students who have demonstrated financial need. First-year applicants are reviewed on the admissions calendar as follows:

## Application Deadline: November 1

Early Decision 1 (binding)
Early Action (nonbinding)
Notification Date: By December 31

## Application Deadline: January 15

Early Decision 2 (binding)<br>Regular Decision (nonbinding)<br>Notification Date: By April 1

Note: The priority deadline for merit scholarship consideration is January 15. Applications for admission received after January 15 are considered if space is available. Notification will be rolling after April 1.

## Required Testing

SMU requires all applicants, except dual admission applicants to Meadows School of the Arts and students who graduate from secondary schools outside the United States, to submit ACT or SAT scores. Students whose native language is not English and whose entire secondary education has not been in an English-medium school are required to submit one of the following:

- TOEFL English language proficiency exam score of at least 550 on the paper-based test or at least 80 on the Internet-based test.
- IELTS English competency test score of at least 6.5 on the academic test.
- Pearson Test of English score of at least 57.

Note: Special attention is given to the writing and reading subscores of the TOEFL.

Students can obtain additional information about the College Board and its tests (SAT, SAT subject tests, TOEFL) by contacting their high school counselors or by contacting the College Board at www.collegeboard.org. Students can request further information about the ACT exam from their high school counselors or the ACT National Office at www.act.org.

## Test Optional Policy for Dual Admission applicants to SMU Meadows School of the Arts:

An SAT or ACT score report is not required for admission consideration from applicants who are seeking admission to Dual Admission programs in the Meadows School of the Arts (Music, Theatre, Dance, Art, Film-BFA). Applicants should only submit an SAT or ACT score report for academic merit scholarship consideration. Note that students who do not submit test scores will only be considered for artistic scholarships and need-based aid.

Students who do not submit test scores should list their Meadows major first on the application for admission. Students not admitted to Meadows via their portfolio or audition, but who still wish to be considered for admission to SMU, will be required to submit test scores at that time.

## Performing Arts Auditions/Visual Arts Consideration

In order to pursue one of the Dual Admission Program majors, all first-year and transfer students must be admitted both to the Meadows School of the Arts via audition or portfolio review, as well as to the University via the undergraduate application for admission. Admission to Meadows through the audition or portfolio process does not guarantee admission to the University. Information regarding audition and portfolio requirements and deadlines may be obtained at www.smu.edu/admission/arts or by contacting the Office of Recruitment, Meadows School of the Arts, Southern Methodist University, Dallas TX 75275-0356; phone 214-768-3217. The audition and/or portfolio review is both an admission review and a review for artistic scholarships.

Transfer students entering degree programs within the Division of Theatre may do so only in the fall term. Transfer students in the Division of Dance, Division of Music, Division of Art, and Division of Film \& Media Arts normally enter in the fall term; spring admission may be offered in exceptional cases. Entry in the fall is encouraged as course sequencing for transfer students beginning in the spring could delay graduation.

## Reserving a Place

All admitted students are required to submit a nonrefundable $\$ 685$ deposit and orientation fee. Admitted students who did not apply under a binding decision plan must submit this deposit by the May 1 deadline to reserve a place in the class. Students admitted under a binding decision plan will be notified of their deposit deadline when they are admitted. This deposit includes the nonrefundable housing deposit as well as the matriculation and orientation fees. All first-year and second year students must live on campus unless permission is granted to live at home by the dean of Residence Life and Student Housing. To facilitate advising and enrollment, students are required to submit their final high school transcript confirming graduation prior to enrolling.

## Credit by Examination

## Examinations Administered in High School

SMU grants credit and placement for scores of 4 or 5 on most Advanced Placement examinations taken in high school (see table below). Credit will be awarded only for exams taken while in high school. Students may not receive credit
for an AP exam, an International Baccalaureate exam and a college course covering the same subject matter; i.e., the course equivalency will only be awarded once. Credit by examination granted at SMU is considered resident credit.

An official copy of test results must be sent from the testing agency to the University Registrar's Office for credit. To facilitate advising and enrollment, students should submit their official scores no later than the first day of class.

| AP Examination | Scores | Credits | Course(s) Credited |
| :---: | :---: | :---: | :---: |
| American History | 4, 5 | 6 hrs | HIST 2311, HIST 2312 |
| Art | 4, 5 | 3 hrs | ASDR 1300/ASPH 1300/ASPT 1300 (student's choice) |
| Art History | 4, 5 | 6 hrs | ARHS 1300, ARHS 1302 |
| Biology | 4, 5 | 8 hrs | BIOL 1301/ BIOL 1101, BIOL 1302/BIOL 1102 |
| Chemistry | 4, 5 | 4 hrs | CHEM 1303/CHEM 1113 |
| Computer Science A, AB | 4, 5 | 3 hrs | CSE 1341 |
| Economics: |  |  |  |
| Macro | 4, 5 | 3 hrs | ECO 1312 |
| Micro | 4, 5 | 3 hrs | ECO 1311/PREX 4002 |
| English Language/C or Literature/C | 4, 5 | 6 hrs | DISC 1311, DISC 1312 |
| Environmental Science | 4, 5 | 3 hrs | GEOL 1315 |
| European History | 4, 5 | 6 hrs | HIST 2365, HIST 2366 |
| Government: |  |  |  |
| American | 4, 5 | 3 hrs | PLSC 1320 |
| Comparative | 4, 5 | 3 hrs | PLSC 1340 |
| Human Geography | 4, 5 | 3 hrs | HUM 10XX (3 hours) |
| Languages (Language or Literature): |  |  |  |
| Chinese Language/Culture | 4, 5 | 8 hrs | CHIN 1401, CHIN 1402 |
| French | 4, 5 | 8 hrs | FREN 1401, FREN 1402 |
| German | 4, 5 | 8 hrs | GERM 1401, GERM 1402 |


| Italian | 4, 5 | 8 hrs | ITAL 1401, ITAL 1402 |
| :---: | :---: | :---: | :---: |
| Japanese Language/Culture | 4, 5 | 8 hrs | JAPN 1401, JAPN 1402 |
| Latin | 4, 5 | 8 hrs | LATN 1401, LATN 1402 |
| Spanish | 4, 5 | 8 hrs | SPAN 1401, SPAN 1402 |
| Mathematics: |  |  |  |
| Calculus AB | 4, 5 | 3 hrs | MATH 1337 |
| Calculus BC | 3 if $A B$ subscore of 4 | 3 hrs | MATH 1337 |
| Calculus BC | 4, 5 | 6 hrs | MATH 1337, MATH 1338 |
| Music Theory | 4, 5 | 6 hrs | FETC 10XX (6 hours) |
| Physics: |  |  |  |
| Physics 1 | 4, 5 | 3 hrs | SCI 10XX (3 hours) |
| Physics 2 | 4, 5 | 3 hrs | SCI 10YY (3 hours) |
| Physics C (Mech) | 4, 5 | 3 hrs | PHYS 1303 |
| Physics C (E\&M) | 4, 5 | 3 hrs | PHYS 1304 |
| Psychology | 4, 5 | 3 hrs | PSYC 1300 |
| Statistics | 4, 5 | 3 hrs | STAT 2331 |
| World History | 4, 5 | 3 hrs | HUM 10YY (3 hours) |

## Notes

- AP credit in the sciences may be used to satisfy the Science and Engineering breadth requirement of the University Curriculum. The UC's Natural and Applied Science depth requirement must be satisfied through coursework at SMU or through transfer credit of a science course with lab from an accredited college or university.
- Physics does not award placement credit for labs.
- Duplicate credit is not allowed toward an SMU degree. Students who enroll in classes that duplicate Advanced Placement, International Baccalaureate or other test credit awards will lose these credits after the fifth day of the term. Once credit is revoked, it may not be awarded again. Students must report any credit by exam no later than the end of their first term of enrollment.


## College-Level Examination Program

SMU gives credit for CLEP subject examinations based on the specified minimum scores below:

| American Literature | 60 | 3 hrs | ENGL 20XX |
| :--- | :---: | :---: | :--- |
| English Literature | 60 | 3 hrs | ENGL 20YY |
| Macro Economics | 60 | 3 hrs | ECO 1312 |
| Micro Economics | 60 | 3 hrs | ECO 1311/PREX 4002 |

## SMU Departmental Examinations

SMU also awards credit for departmental examinations offered in a variety of disciplines. Such SMU credit may not transfer automatically to other universities. Credit for examinations awarded by other institutions will not transfer to SMU.

World Languages. All students whose native language is English are required to take a language placement examination. Scores on these examinations determine the world language competency of entering students so that they may be placed in classes appropriate to their level of achievement and degree program. Students may not enroll in a course below the level of their placement. When the student has successfully completed the course with a grade of $C$ or above, the student will retroactively earn up to 16 credit hours of University credit for the preceding courses in the beginning and intermediate levels of the language sequence. Students must enroll in the world language courses for a letter grade (not pass/fail) for the course to serve as a basis for granting retroactive credit. Language courses taken at other institutions cannot be used as a basis for granting retroactive credit. Although students may earn retroactive credit in more than one language, the maximum aggregate credit involving more than one language allowed to count toward graduation is 16 credit hours.

Physics. The Physics Department offers placement exams for PHYS 1303 and PHYS 1304. The placement exam, which must be taken in the first term that the student enrolls at SMU, is based on the final exam in the PHYS 1303 and PHYS 1304 courses. The department does not allow test credit for labs (e.g., PHYS 1105, PHYS 1106, PHYS 4211). The essential element of the lab is the hands-on experience; therefore, substitutes will not be accepted.

Mathematics. Math credit exams are offered for the courses listed below and must be taken prior to initial enrollment. Calculators are not permitted on these exams, except for MATH 1307. Students interested in credit exams for courses beyond this level may contact the Mathematics Department.

- MATH 1307 - Introduction to Mathematical Sciences
- MATH 1309 - Introduction to Calculus for Business and Social Science (suggested preparation = one full year of high school calculus)
- MATH 1337 - Calculus I (suggested preparation = one full year of high school calculus)
- MATH 1338 - Calculus II

Computer Science. The Computer Science and Engineering Department offers a credit exam for CSE 1341 Principles of Computer Science that must be taken prior to initial enrollment.

## Credit for Veterans

Students who are veterans and who have completed recruit training in the military may receive two hours of credit to satisfy the Personal Responsibility and Wellness component of the University Curriculum. The course credits awarded are as follows:

PRW 1199 (1). PRW I: Concepts of Wellness for Veterans. For military veterans who through their military service have met the student learning outcomes and requirements for PRW I.

PRW 2199 (1). PRW 2: Physical Fitness for Veterans. For military veterans who through their military service have met the student learning outcomes and requirements for PRW II.

## International Certificate Programs

SMU grants credit for the successful completion of the international certificate programs listed below. In certain cases, departmental examinations may be required as a part of the evaluation process.

1. The International Baccalaureate. Six to eight credits will be awarded for scores of 5,6 or 7 on International Baccalaureate higher-level exams in transferable subjects, with a maximum award of 32 credits. Students will not be awarded credit for standard-level exams.

| IB HL Examination | Scores | Credits | Course(s) Credited |
| :---: | :---: | :---: | :---: |
| Biology | 5, 6, 7 | 8 hrs | BIOL 1301/ BIOL 1101, BIOL 1302/BIOL 1102 |
| Chemistry | 5, 6, 7 | 4 hrs | CHEM 1303/CHEM 1113 |
| Economics | 5, 6, 7 | 6 hrs | ECO 1311, ECO 1312/PREX 4002 |
| Geography | 5, 6, 7 | 6 hrs | HUMA 10XX, 10YY |
| History: |  |  |  |
| Africa | 5, 6, 7 | 6 hrs | HIST 10XX, 10YY |
| Americas | 5, 6, 7 | 6 hrs | HIST 10XX, 10YY |
| Asia and Oceania | 5, 6, 7 | 6 hrs | HIST 10XX, 10YY |
| Europe, Islamic World | 5, 6, 7 | 6 hrs | HIST 2365 HIST 2366 |
| Europe, Middle East | 5, 6, 7 | 6 hrs | HIST 10XX, 10YY |
| Language A: |  |  |  |
| English A Literature | 5, 6, 7 | 6 hrs | DISC 1311, DISC 1312 |
| All other languages | 5, 6, 7 | 8 hrs | 1401, 1402 |
| Language B | 5, 6, 7 | 8 hrs | 1401, 1402 |
| English B | 5, 6, 7 | 6 hrs | LANG 10XX, 10YY |
| Mathematics | 5, 6, 7 | 6 hrs | MATH 1337, STAT 2331 |


| Music: |  |  |  |
| :--- | :---: | :--- | :--- |
| History | $5,6,7$ | 3 hrs | MUHI 10XX |
| Theory | $5,6,7$ | 3 hrs | MUTH 10XX |
| Physics | $5,6,7$ | 6 hrs | PHYS 1303, PHYS 1304 |
| Psychology | $5,6,7$ | 6 hrs | PSYC 1300, 10XX |

2. The General Certificate of Education A-Level (United Kingdom). Six to eight credits will be awarded for grades of $A$ and $B$ on A-level exams in transferable subjects, with a maximum award of 32 credits. Credits will not be awarded for a grade of $C$, or for O-level and AS-level exams. Credit awards for the Art and Design A, High Level exam are reviewed on a case-by-case basis by SMU's Art Division.
3. The Baccalaureate (France). Six to eight credits will be awarded for scores of 11 or above, with a maximum award of 32 credits.
4. The Abitur (Germany). Six to eight credits will be awarded for scores of 7 or above on each of the written exams in transferable subjects, with a maximum award of 32 credits. Credits will not be awarded for oral exams.
5. The Italian Maturita (Italy). For the Maturita Tecnica, Classica, Scientifica and/or Linguistica, credits will be awarded for scores of 6 or above in transferable subjects, with a maximum award of 32 credits.

## Notes

- The Language A exam is typically taken in the native language of the student.
- Language B is a second, third or fourth language studied by the student.
- For "all other languages" under Language A and for Language B, the course prefix will match the world language completed.
- IB credit in the sciences may be used to satisfy the Science and Engineering breadth requirement of the University Curriculum. The UC's Natural and Applied Science depth requirement must be satisfied through coursework at SMU or through transfer credit of a science course with lab from an accredited college or university.
- Physics does not award IB credit for labs.
- Students enrolled in courses at SMU for which IB credit has previously been awarded will have the IB credit rescinded, and the grade in the course will count toward the student's SMU GPA. Students are responsible for knowing and reporting their IB scores to SMU to prevent duplicate enrollment.


## Concurrent Dual Credit/College Programs

Students may receive credit for college courses taken prior to graduation from high school if the courses meet the criteria for transfer work outlined in the Transfer Admission Criteria section of this catalog. Official college transcripts are required for all college-level work attempted, regardless of transferability.

## Transfer Admission Criteria

Selection of transfer applicants is based on several criteria, including academic curriculum, performance, grade patterns, behavioral and extracurricular activities, as well as other relevant experiences. For all candidates who are not entering SMU directly from high school, the Admission Committee considers the rigor of the courses attempted. All transfer students are required to complete college algebra or a college-level math course before transferring to SMU. If algebra l, geometry and algebra II were taken in high school and graduation was fewer than three years ago, this requirement is waived. We recommend that all transfer applicants should have completed at least one course in

English composition, a lab science, a math course beyond college algebra and at least one course pertaining to the applicant's intended major. The committee weighs overall academic performance as well as evidence of recent improvement. For some applicants, high school performance is also a factor. Candidates with fewer than 30 hours are considered on an individual basis and are required to submit additional information, as well as SAT and/or ACT scores and high school records. Although the average GPA of successful transfer applicants is considerably higher, applicants with a GPA below 2.700 (on a 4.000 scale) are not typically successful in gaining admission. Candidates with a transferable GPA below 2.000 are not competitive for admission to the University.

Competitive applicants for admission will have completed the equivalent of one of the following math courses:

- MATH 1307 - Introduction to Mathematical Sciences
- MATH 1309 - Introduction to Calculus for Business and Social Science
- MATH 1337 - Calculus I
- STAT 2301 - Statistics for Modern Business Decisions
- STAT 2331 - Introduction to Statistical Methods

Students with more than 30 transferable hours may be admitted directly to the school of their intended major if the admission requirement of that school has been met. The specific requirements for admission into each of SMU's undergraduate schools are outlined in the admission section of that school's information in this catalog.

All transfer students who intend to major in dance, music or theatre must also audition. Art majors require the submission of a portfolio for consideration. Requirements and contact information are available in the First-Year Admission Criteria section under the heading Performing Arts Auditions/Visual Arts Consideration.

Prospective transfer students must complete an Undergraduate Application for Transfer Admission and submit a $\$ 60$ nonrefundable application fee. An official academic transcript that includes the last completed term from each college or university attended must be sent to SMU Undergraduate Admission, PO Box 750181, Dallas TX 75275-0181. In addition, applicants must submit a Statement of Good Disciplinary Standing from their current college or university.

A final high school transcript or GED high school equivalency test results should be sent to the address above to confirm high school diploma as well as world language and math background. A high school transcript and SAT or ACT scores, are required when less than 30 transferable hours have been earned. SAT or ACT exam results will not be required of students for whom five or more years have lapsed since high school or high school equivalent.

## Transfer Credit

Regardless of the number of transferable credit hours completed elsewhere, University policy requires that of the 122 minimum credit hours required for a degree, at least 60 hours must be SMU credit hours. That is, they must be earned in SMU courses, SMU credits or SMU-approved international programs.

No transfer credit is given for any correspondence course or work completed at a school that is not accredited by a regional or national accrediting agency. Only grades of C- or better in comparable courses are transferable to SMU for accepted students. Vocational-technical courses, courses below college level, credit by examination earned at another college or university, and PE activity courses in excess of two hours do not transfer. For courses not taught at SMU locations or in SMU-approved international programs, free-elective transfer credit may be awarded for appropriate courses completed with a grade of C- or better at regionally accredited colleges or universities that meet SMU's academic standards.

All attempted hours and earned grade points are used to calculate the transferable GPA for transferable courses, even if those courses have been repeated or are not transferable. For repeated courses with grades of C- or above, only the first attempt completed with a grade of C - or better is awarded credit. Transfer course grades are not calculated in major/minor GPAs. A grade of W (Withdrawn) is not used to calculate the transferable GPA. A grade of I (Incomplete) is calculated as F. A grade of IP (In Progress) for a current term is not calculated.

Note: For some majors requiring a subset of courses and specific GPAs for entry, the subset GPA is calculated using the first graded attempt of these courses, even if the first attempt of the course was failed or later repeated.

Official college transcripts are required for all college-level work attempted, regardless of transferability. Transcripts must be sent directly to SMU from the institution attended. A transcript issued to a student is acceptable provided it is received in a sealed, letterhead envelope with the institution's Office of the Registrar stamp. Transcripts must be dated fewer than three years prior to processing. Coursework from one institution that appears on an official transcript from another institution will not be accepted for transfer credit. An official transcript must be issued by each institution attended. Photocopies of transcripts provided by other institutions are not acceptable.

An online version of the transfer credit evaluation is available to transfer students prior to their enrollment.

## International Transcript Credit

All international university transcripts must be accompanied by a professional evaluation and an official transcript, including an English translation if it is not in English, and course descriptions or syllabi. It is the student's responsibility to procure this evaluation and to assume financial responsibility for it. An exception to this requirement is an exchange agreement between SMU and an international institution that is modeled after the U.S. education system. Instituto Technologico y de Estudios Superiores de Monterrey is the only institution with which SMU currently has such an agreement.

Because of the importance of this information, SMU accepts evaluations only from the following agencies of proven reliability:

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International Academic Credential Evaluators Inc.
PO Box 2585
Denton TX 76202-2585
Telephone: 940-383-7498
www.iacei.net
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World Education Services Inc.
PO Box 745 Old Chelsea Station
New York NY 10113-0745
Telephone: 212-966-6311
Toll-free: 1-800-937-3895
Email: infor@wes.org
www.wes.org
Josef Silny \& Associates Inc.
7101 SW 102 Avenue
Miami FL 33173
Telephone: 305-273-1616
Fax: 305-273-1338
Email: info@jsilny.com
www.jsilny.com
The evaluations provided by the above agencies should include an explanation that the institution is recognized by the ministry of education in the student's home country and is generally considered to offer at least the equivalent of U.S. higher education credit. In addition, it should include an explanation of the credits, the grading system and course levels, as well as a course-by-course evaluation.

The expertise and reliability of a professional evaluation report is recognized worldwide and is likely to be accepted by other academic institutions, employers and state licensing boards. However, the report is not binding to SMU and it will be considered a recommendation for SMU's independent decision of the credit to be given. Information and
applications from the agencies are available online. For more information, students should contact the Office of Admission.

# Application Timetable for Transfer Students 

Summer term entry: All data due no later than March 15.
Fall term entry/scholarship consideration: All data due no later than April 1.
Fall term entry: All data due no later than June 1.
Space-available applicants: All data due no later than August 1.
Spring term entry: All data due no later than November 1.
Note: The deadline for priority scholarship consideration is April 1 for fall entry and November 1 for spring entry.
It is not recommended that an application be submitted on or near the deadline. Earlier application is strongly recommended, particularly for those students applying for financial aid or University housing.

Application processing begins in early February (for the summer and fall terms) and in early October (for the spring term) upon receipt of pertinent data, including each official transcript through the last completed term.

## Reserving a Place

All degree-seeking admitted transfer students wishing to enroll at SMU are required to submit a $\$ 420$ transfer orientation and matriculation deposit to reserve a place in the academic program. This $\$ 420$ deposit should be sent to the Office of Admission. Space can be guaranteed only to those students who have submitted the deposit by the deadline noted in the acceptance packet. Note: This $\$ 420$ deposit is nonrefundable. Students seeking financial aid should wait until they receive their financial aid award before submitting a deposit.

Note that admitted transfer students cannot enroll at SMU until their final transcript has been received and evaluated for transferability and a Good Standing Form has been received from their last institution. For this reason, transfer students entering for the fall term are discouraged from attending the second summer term at their current institution before matriculation to SMU.

## Housing Deposit

Housing accommodations are offered on a space-available basis for new transfer students who are 20 or older. Transfer students who are 17-19 years old live on campus unless permission is granted to live at home by the dean of Residence Life and Student Housing. Housing links will be sent to interested transfer students once the student has been accepted and has sent a nonrefundable deposit of $\$ 520$, which includes an additional $\$ 100$ housing deposit, to the Office of Admission.

## International Student Admission

International citizens and U.S. passport holders studying outside the United States who apply to SMU as first-year and transfer undergraduate students are expected to meet all requirements for admission.

For admission consideration, students for whom English is not the native language and whose entire high school curriculum was not in an English-medium school are required to submit a test score from an internationally recognized English language test as explained in the Required Testing section of this catalog.

Students who are otherwise admissible but whose English proficiency scores are slightly below those mentioned above may be offered conditional admission pending successful completion of SMU's Intensive English Program prior to matriculation. Transfer students from U.S. institutions without an internationally recognized English language test score will be evaluated on the basis of college-level grades in English composition/rhetoric courses. All students whose English composition courses were completed at a university outside the United States are required to complete an SMU English language placement exam for appropriate course-placement.

International transfer students who have completed college-level work at a university outside the United States are required to submit the following (in English or with an English translation):

- An official transcript.
- Course descriptions.
- Professional evaluation. (More information is found in the International Tran-script Credit section of this catalog.)

The expenses to be incurred in attending the University are listed in the Financial Information section of this catalog. Additional costs that international students may expect include room and board during school holidays, travel expenses, international student health insurance, and the international student fee (foreign passport holders only). Need-based financial aid is not available for international students; however, first-year international students will be considered for academic scholarships if their application is complete by the January 15 deadline. Some academic scholarships require an SAT or ACT for consideration. Transfer international applicants will be considered for all transfer scholarships for which they are eligible, provided the appropriate application deadline has been met.

When an international student has been admitted, paid the appropriate enrollment deposit and provided adequate proof of sufficient financial funds, the International Student and Scholar Services Office will issue the I20 Certificate of Eligibility. The student will be required to produce the I-20, acceptance letter and proof of finances when applying at the U.S. embassy or consulate for a student visa.

All international students taking one or more credit hours must enroll in the University-offered health insurance plan unless they have a special waiver granted by the Dr. Bob Smith Health Center.

## Admission for Military Veteran

SMU welcomes applications from military veterans. Student veterans meet under-graduate admission criteria of the University as first year or transfer students. Veterans are considered for first-year admission if they graduated from high school within the last three years and have not completed any college coursework. Student veterans seeking to be competitive in the transfer admission process should have 24 or more term credit hours at a previous accredited college or university and a recommended 2.700 cumulative GPA (on a 4.000 scale). Additional information is available online at www.smu.edu/EnrollmentServices/Veterans and www.smu.edu/apply ("First Year Students" or "Transfer Students" links).

## Nondegree Students

Nondegree students are those who enroll in University courses for credit, but who do not intend to pursue an SMU degree. This category of students is normally limited to those who 1) are degree-seeking students in good standing and visiting from another four-year college or university, 2) have already earned a degree, or 3) are
participants in special SMU initiatives such as concurrent or summer enrollment opportunities for college and high school students. Nondegree students are admitted through the Division of Enrollment Services based on their likelihood to be successful in and benefit from SMU coursework as evidenced from their academic, behavioral and extracurricular history. They are eligible to register - on a space available basis - in classes for which they have satisfied SMU's prerequisites. Admission as a nondegree-seeking student does not qualify a student for admission to a degree program at SMU. Applications for nondegree-seeking students are found at www.smu.edu/nondegree ("Prospective Students" tab) or may be obtained from the Division of Enrollment Services, Blanton Student Services Building, Southern Methodist University, PO Box 750181, Dallas TX 752750181; phone 214-768-4272.

## Readmission of Students

If a student in good standing withdraws from SMU for one term, the student's file remains active and the student is able to register as though in continuous enrollment at the University (re-entry). Students who left on probation will return on probation. All holds must be cleared prior to enrollment. Re-entry students are responsible for meeting all financial aid, housing and advising deadlines.

After nonattendance for two or more regular (fall, spring) terms, students who formerly attended SMU, including those who have completed a degree, are required to submit an application for reinstatement or reactivation through the Division of Enrollment Services, Undergraduate Admission. The application is available at www.smu.edu/admission ("Apply" tab). Any student who has been suspended is also required to apply for reinstatement. Students who have been suspended are required to attach to their reinstatement application a statement indicating the reasons why they now are prepared to return to SMU. Although the Division of Enrollment Services facilitates the application process, an academic dean or the Committee on Academic Appeals determines reinstatement.

A student who has already earned an undergraduate degree at SMU and is seeking an additional undergraduate degree must apply for reactivation if the student has not attended SMU for two or more regular (fall, spring) terms.

Returning students are strongly advised to apply for reactivation or reinstatement at least 60 days prior to the start of the term of re-entry. Returning students should note that separate applications exist for financial aid and residence halls and that they should contact these offices as early as possible. The deadline for filing this application and supporting materials for domestic students is five business days prior to the first day of classes of the term of re-entry. International applicants must apply at least two weeks prior to the term of re-entry; however, they are encouraged to apply at least 90 days in advance in order to facilitate the immigration process. In addition, the availability of academic advising and courses may be limited immediately prior to and at the beginning of the term.

All students who return to SMU after any period of nonenrollment must forward official transcripts from each college or university attended since last enrolled at SMU. If the last term of enrollment at SMU was prior to fall 2000, official transcripts from each college or university attended prior to SMU also must be forwarded to the Division of Enrollment Services.

Students should be aware of specific policies regarding transfer courses taken after matriculation to SMU (see Transfer Courses From Other Institutions in the Academic Records and General and Enrollment Standards section of this catalog). In addition, each college within SMU has specific policies regarding reinstatement, reactivation, transfer credit and statute of limitations, so students should refer to their school's section of this catalog for that information.

## Academic Forgiveness

SMU's academic forgiveness policy permits a student to have academic work taken 10 or more years prior to the term of admission or readmission forgiven. Forgiven hours will not be included in the GPA nor used for actions such as the determination of admission, academic probation, suspension, honors, scholarships and graduation. Students should see the Academic Records and General and Enrollment Standards section in this catalog for details of this policy. The academic forgiveness application is available through the Division of Enrollment Services.

## Final Matriculation to the University

In addition to the nonrefundable deposit (and housing application and deposit for those seeking on-campus housing), the following items are required for final matriculation to the University:

Immunizations. All students (undergraduate, graduate, part-time and full-time, to include international and IEP/ESL students) are required to have an SMU medical history form on file in the Dr. Bob Smith Health Center before registration. To comply with SMU policy, all students must also submit to the health center their immunization records that provide proof of immunization against measles, mumps and rubella. These MMR immunizations must be documented by a physician, public health record, military health record or school health record. Students will not be allowed to register without immunization compliance. Texas state law requires that all new students under the age of 22 must provide documentation demonstrating they have been vaccinated against bacterial meningitis. The documentation must show evidence that a meningitis vaccine or booster was given during the five-year period preceding and at least 10 days prior to the first day of class of the student's first term. Students should provide the documentation at least 10 days before the first day of class. Students seeking exemption from this requirement due to health risk or conscience, including religious belief, should see the second page of the SMU medical history health form.

Students are encouraged to check their my.SMU account for immunization status. Immunizations are available at the health center. Health history forms are available on the health center's website.

Health Insurance. To ensure that students have appropriate health care coverage, SMU requires all domestic students taking nine or more credit hours, both undergraduate and graduate, to have health insurance through either an individual/family plan or the University-offered plan. All international students taking one or more credit hours must enroll in the University-offered plan unless they have a special waiver granted by the SMU's Dr. Bob Smith Health Center.

International Student Compliance. Students who have been issued an SMU I20 or DS2019 immigration document student visa ( $\mathrm{F} / \mathrm{J}$ visa) must complete the International Student Compliance online tutorial and must attend a required government check-in process with the International Student and Scholar Services Office prior to enrolling for classes.

# Tuition, Fees and Financial Aid 

## Tuition, Fees and Living Expenses

A catalog supplement, the Financial Information Bulletin, is issued each academic year. It provides the general authority and reference for SMU financial regulations and obligations, as well as detailed information concerning tuition, fees and living expenses.

Continuing students registering must ensure that payment for the full amount of charges is posted to their account by the payment due date showing on their bill. The due dates are also published on the Bursar website.

Billing notifications are sent to the student's SMU email address and to the designated authorized payer(s) email address when a bill is generated. The billing notification will provide instructions on how to view the bill online through SMUpay. If notification is not received two weeks prior to the due date, the student and/or designated authorized payer(s) should contact the Office of the University Bursar.

Payments made in person or mailed must be received by the Office of the University Bursar, located on the first floor of the Laura Lee Blanton Student Services Building, no later than 4 p.m. on the payment due date. Payments made online via electronic check or credit card must be posted no later than 11:59 p.m. Central Standard Time on the payment due date. Students and/or those paying on behalf of students who pay online automatically receive an electronic confirmation of payment; students and/or designated authorized payer(s) paying through other methods can also verify receipt of payment online.

Students enrolling after the payment due date must pay at the time of enrollment. Students whose accounts are not cleared by the payment due date or at the time of enrollment are subject to a late payment fee of $\$ 50$ for balances between $\$ 250$ and $\$ 999.99$, and $\$ 150$ for balances between $\$ 1,000$ and $\$ 5,000$. Balances more than $\$ 5,000$ are charged 3 percent of the outstanding balance, not to exceed $\$ 750$. Also, after the monthly payment due date has passed, a 1.5 percent past due fee will be assessed on the unpaid student and/or miscellaneous account each month until the balance is paid. The enrollment of students whose accounts remain unpaid after the payment due date may be canceled at the discretion of the University. Students are individually responsible for their financial obligations to the University.

All refunds except federal parent PLUS loans, prepayment accounts, the SMU Monthly TuitionPay Payment Plan and international wires will be made payable to the student. A credit card payment will only be refunded to the student if federal student loans have been applied to their account. International wires will be refunded by wire to the originating wire account less a $\$ 35$ wire-processing fee. The PLUS loan borrower can request the refund to be processed to the student by submitting a Parent PLUS Release form, located on the Bursar website. If the refund is issued by check, the student may request, in writing, that the refund be sent to another party.

Any outstanding debts to the University will be deducted from the credit balance prior to issuing a refund. Any outstanding debts to the University that include Title IV funds must have an Authorization to Credit Account form and/or an Authorization to Credit Account Parent form on file in order to transfer funds to cover current award year debts. Students need to sign the ACA form and the federal parent PLUS loan borrower needs to sign the ACAP form.

Any outstanding debts to the University that do not include Title IV funds will be deducted from the credit balance prior to issuing a refund. All other debts should be paid directly by the student.

A student whose University account is overdue or who in any other manner has an unpaid financial obligation to the University will be denied the recording and certification services of the Office of the Registrar, including the issuance of a transcript or diploma, and may be denied readmission until all obligations are fulfilled. The Division of Enrollment Services may stop the registration, or may cancel the completed registration, of a student who has a delinquent account or debt, and may assess all attorney's fees and other reasonable collection costs (up to 50 percent)
and charges necessary for the collection of any amount not paid when due. Matriculation in the University constitutes an agreement by the student to comply with all University rules, regulations and policies.

Arrangements for financial assistance from SMU must be made in advance of registration and in accordance with the application schedule of the Division of Enrollment Services, Financial Aid. A student should not expect such assistance to settle delinquent accounts.

During the registration process, students will be prompted to read and agree to the Student Rights and Responsibilities, which provides information regarding financial rights and obligations, SMU's Honor Code, the Code of Conduct, and the student appeals and complaints process.

## Refunds for Withdrawal From the University

Note: No refunds are made without an official withdrawal. Policies for official withdrawal, including medical and mandatory administrative withdrawal, are found under Withdrawal From the University in the Academic Records and General and Enrollment Standards section of this catalog.

Reduction of tuition and fees is determined by the effective date of the withdrawal and is based on the schedule listed in the Financial Information Bulletin.

Note: For students receiving financial aid (scholarships, grants or loans), when the withdrawal date qualifies for reduction of tuition and fees charges, the refund typically will be used to repay the student aid programs first and go to the student/family last. Further, government regulations may require that SMU return aid funds whether or not the University must reduce its tuition and fees (based on the Financial Information Bulletin); hence, a student whose account was paid in full prior to withdrawal may owe a significant amount at withdrawal due to the required return of student aid. Therefore, students who receive any financial aid should discuss, prior to withdrawal, the financial implications of the withdrawal with the Financial Aid Advising Office.

Medical withdrawals and mandatory administrative withdrawals allow a prorated refund of tuition and fees.

## Payment Plan Options

## SMU Monthly Payment Plan

The SMU TuitionPay Payment Plan administered by Higher One allows term charges to be paid in monthly installments. Students can enroll in a payment plan at www.tuitionpaymentplan.com/smu. Higher One consultants are available at 877-279-6092 to answer questions or help with the online enrollment process.

Annual payment plans are available in 12-month, 10-month and eight-month formats. Term payment plans are available in four-month, five-month and six-month formats. The summer payment plan is three months. Payment plan options are not available for intersession terms including JanTerm, MayTerm and August terms.

## SMU Prepayment Plan

The SMU Prepayment Plan (a single payment up front for all terms) allows families to avoid the effects of tuition and fee increases by paying for two, three or four years in one single payment at the current rate of tuition and fees. Questions should be addressed to the Division of Enrollment Services, Southern Methodist University, PO Box 750181, Dallas TX 75275-0181; phone 214-768-2799.

## Student Financial Aid

## Scholarships, Grants and Other Aid

For many SMU students, scholarships and other aid make the cost of attending this distinguished private university no more taxing - and often less so - on their families' financial resources than attending a public university.

SMU strives to provide the financial assistance required for an undergraduate education to any student who is offered admission and who has been determined to have need for such assistance by the Division of Enrollment Services, Financial Aid.

More than 72 percent of all students receive some form of financial aid. SMU has a generous program of merit-based scholarships and grants. Students seeking to participate in federal work-study and student and parent loan programs must file the Free Application for Federal Student Aid at www.fafsa.gov.

Certain special SMU scholarship and grant programs offer awards to the following types of students:

- Entering first-year, transfer and continuing students with high academic achievement or with talent in the arts.
- National Merit finalists and certain International Baccalaureate Diploma recipients.
- Dependent children and spouses of ordained United Methodist ministers engaged in full-time, churchrelated vocations.
- Texas residents. Primary consideration for merit scholarships and need-based financial aid will be given to the following:

1. Entering first-year students who
a. Complete the Admission Application, with all supporting materials, by January 15 .
b. File the Free Application for Federal Student Aid (www.fafsa.gov) and the College Scholarship Service/PROFILE (student.collegeboard.org/profile) by February 15. (The FAFSA is required for federal need-based aid consideration; the FAFSA and CSS/PROFILE are required for consideration for University funded need-based aid.) The SMU Title IV school code is 003613 and the PROFILE school code is 6660.
c. Complete the online SMU Application for Scholarships (access to the online application will be emailed after submission of the Admission application).
2. Transfer students who
a. Complete the Admission Application, with all supporting materials, by June 1.
b. File the CSS/PROFILE (student.collegeboard.org/profile) and the FAFSA (www.fafsa.gov) by June 1. (The FAFSA is required for consideration for federal need-based aid; the FAFSA and CSS/PROFILE are required for consideration for University funded need-based aid).
3. Continuing students who
a. File the FAFSA (www.fafsa.gov) or the FAFSA Renewal and the CSS/PROFILE (student.collegeboard.org/profile) by April 15, after the parents' and students' income tax returns have been filed with the Internal Revenue Service. Additional information is available from Division of Enrollment Services, Southern Methodist University, PO Box 750181, Dallas TX 75275-0181; 214-768-3417; enrol_serv@smu.edu; www.smu.edu/financial_aid.

## SMU Satisfactory Progress Measures for Federal, State and Institutional Financial Aid Eligibility

In accordance with the Higher Education Act of 1965 and federal policy, SMU maintains requirements of Satisfactory Academic Progress for students receiving federal financial aid. The standards below are also used for state and institutional funds. Students who are enrolling for a fifth year of undergraduate studies and are seeking institutional
financial assistance must provide a written appeal to the financial aid office and, as appropriate, must file financial aid applications (FAFSA and CSS/PROFILE) as well as obtain degree completion plans from their academic adviser.

Satisfactory academic progress is measured at the end of spring term until the student graduates. Students must meet three measures:

1. Qualitative Measure: At the end of spring term, a student must be making satisfactory academic progress measured by the student's cumulative GPA of 2.000 or better, which is the standard for graduation at SMU.
2. Quantitative Measure: At the end of spring term, a student must be making satisfactory academic progress measured by determining if the student has passed 75 percent of the classes he/she attempted during the academic year.
3. Program Time Limits: Students, both undergraduate and graduate, are not allowed to attempt more than $150 \%$ of the hours required to complete their degree. Students exceeding $150 \%$ are not eligible to receive federal, state or institutional aid.
A student who is not making qualitative or quantitative satisfactory academic progress toward his or her degree goal according to this policy may appeal to the Financial Aid Appeals Committee. Complete details on these measures and the appeals process is available online at smu.edu/financialaid, under Types of Aid.

## Veterans Certification

The University Registrar's Office certifies veterans each term for their benefits under federal programs. More information regarding the certification process is available from the University Registrar's Office at www.smu.edu/EnrollmentServices/Veterans and under Veterans in the Academic Records and General and Enrollment Standards section of this catalog.

# Student Life and Housing 

## Student Affairs


#### Abstract

The mission of the Division of Student Affairs (www.smu.edu/studentaffairs) is to develop, with others in the University, opportunities for students to become productive citizens through the creation of challenging environments that contribute to students' intellectual, spiritual, physical, social, cultural, moral and emotional growth, and, in so doing, engage them with the widest range of persons within the University and beyond. The vice president for student affairs oversees programs, services and activities that complement students' academic pursuits and promote their development, success and cocurricular learning.

Concern for and realization of the full development of each student in and out of the classroom constitutes one of the major goals of the University. Consequently, the division's programs are designed to support and supplement SMU's formal academic work. Many departments exist to provide services for the benefit and convenience of SMU students. The Division of Student Affairs encompasses a broad range of programs and services dealing with housing and residential matters, physical and mental wellness, personal and career counseling and testing, recreational sports and intramurals, religious affairs, multicultural student programs, as well as student conduct and community standard matters, new student orientation, leadership programs, volunteer opportunities and women's programs.


## Student Transitions \& Orientation

The Office of Student Transitions \& Orientation provides on-going programs and services that support students and families in transition to SMU and throughout the collegiate experience. The office supports a welcoming and inclusive atmosphere, connects students to University resources and people, acquaints new students with institutional expectations and values, promotes learning and discovery inside and outside of the classroom, and fosters pride in the SMU community.

## Academic Advising, Registration \& Orientation

Academic Advising, Registration \& Orientation (AARO) events for all incoming students take place in July, August and January. As part of the AARO sessions, students meet one-on-one with an academic adviser and register for classes. An extended orientation experience, Mustang Corral, is coordinated by the Office of Student Transitions \& Orientation during August each year.

## Academic Integrity and Code of Conduct

## The Honor Code of Southern Methodist University

Intellectual integrity and academic honesty are fundamental to the processes of learning and of evaluating academic performance, and maintaining them is the responsibility of all members of an educational institution. The inculcation of personal standards of honesty and integrity is a goal of education in all the disciplines of the University.

The faculty has the responsibility of encouraging and maintaining an atmosphere of academic honesty by being certain that students are aware of the value of it, understand the regulations defining it and know the penalties for departing from it. The faculty should, as far as is reasonably possible, assist students in avoiding the temptation to cheat. Faculty members must be aware that permitting dishonesty is not open to personal choice. A professor or instructor who is unwilling to act upon offenses is an accessory with the student offender in deteriorating the integrity of the University.

Students must share the responsibility for creating and maintaining an atmosphere of honesty and integrity. Students should be aware that personal experience in completing assigned work is essential to learning. Permitting others to prepare their work, using published or unpublished summaries as a substitute for studying required material, or giving or receiving unauthorized assistance in the preparation of work to be submitted are directly contrary to the honest process of learning. Students who are aware that others in a course are cheating or otherwise acting dishonestly have the responsibility to inform the professor and/or bring an accusation to the Honor Council.

Students and faculty members must share the knowledge that any dishonest practices permitted will make it more difficult for the honest students to be evaluated and graded fairly and will damage the integrity of the whole University. Students should recognize that their own interests and their integrity as individuals would suffer if they condone dishonesty in others.

## The Honor System

All SMU undergraduate students and graduate students enrolled in the Cox School of Business, Dedman College of Humanities and Sciences, Lyle School of Engineering, Meadows School of the Arts, and Simmons School of Education and Human Development are subject to the Honor Code and as such are required to demonstrate an understanding of and to uphold the Honor Code. Honor codes for graduate students enrolled in the Cox School of Business, Dedman College of Humanities and Sciences, Dedman School of Law, Lyle School of Engineering, Meadows School of the Arts, Perkins School of Theology and Simmons School of Education and Human Development are explained in their graduate catalogs.

In support of the Honor Code, the Honor Council has the responsibility to maintain and promote academic integrity. The Honor Council is composed of a minimum of 27 members selected through an application and interview process organized by the Honor Council Executive Board.

Academic dishonesty includes plagiarism, cheating, academic sabotage, facilitating academic dishonesty and fabrication. Plagiarism is prohibited in all papers, projects, take-home exams or any other assignments in which the student submits another's work as being his or her own. Cheating is defined as intentionally using or attempting to use unauthorized materials, information or study aids in any academic exercise. Academic sabotage is defined as intentionally taking any action that negatively affects the academic work of another student. Facilitating academic dishonesty is defined as intentionally or knowingly helping or attempting to help another to violate any provision of the Honor Code. Fabrication is defined as intentional and unauthorized falsification or invention of any information or citation in an academic exercise.

Suspected cases of academic dishonesty may be handled administratively by the appropriate faculty member in whose class the alleged infraction occurred or referred to the Honor Council for resolution. Suspected violations reported to the Honor Council by a student or by an instructor will be investigated and, if the evidence warrants, a hearing will be held by a board composed of a quorum of four members of the Honor Council.

Any appeal of an action taken by the Honor Council shall be submitted to the University Conduct Council in writing no later than four calendar days (excluding school holidays) after notification of the Honor Council's decision.

## Code of Conduct

The following are University procedures and standards with which every student must become familiar. The University considers matriculation at SMU an implicit covenant and a declaration of acceptance on the part of the student of all University regulations. The Student Conduct \& Community Standards Office, website www.smu.edu/studentconduct, promotes community, scholarship and civility by holding students accountable to the Student Code of Conduct and the Honor Code.

Standards of conduct are established through faculty, student and administrative efforts and are under continuous evaluation by the entire University community in order to assure reasonable and fair limits. At SMU, the student is assumed to have a high degree of loyalty and responsibility to the University and its well-being, as well as to himself or herself in personal, social and intellectual pursuits; the student's behavior both on and off campus is evidence of this.

Students at SMU will discover that they are encouraged to exercise a great amount of personal freedom as well as accompanying responsibilities. Through their personal capacities for intelligent thought and action, mature students understand that there are situations in which certain behavior must be modified for the benefit of others. The University stands firm in its commitments to the rights and freedoms of students, expecting in return the same respect and concern.

Due respect for the entire University community, faculty, staff and one's fellow students is always expected. The University expects all students to be responsible citizens and to abide by all federal, state and local laws. The University Code of Conduct applies to students both on and off campus. It is the University's expectation that students will avoid behaviors such as, but not limited to, the misuse of drugs and alcohol, dishonesty, gambling, hazing, or behavior that endangers or threatens to endanger the health and safety of any person.

Students are required to identify themselves when asked by a properly identified faculty or staff member, or by another student serving as a University staff member. Persons who are not members of the University community and without business on campus may be asked to leave.

## Conduct Review Process

Clear disciplinary procedures are an important part of the mission of SMU as an educational institution. The intent of the system of due process at SMU is to be educational and not merely punitive for students. The goal continues to be to produce quality citizens. The purpose of the conduct review process is to encourage personal responsibility.

Depending on the degree of misconduct, a student may be subject to sanctions ranging from an informal warning to expulsion from the University. In addition, a student may be assigned educational sanctions designed to promote personal growth and development. Should a student be asked to leave the University, he or she should do so in an expeditious and peaceful manner. The student should remain off campus until he or she receives written permission from the Office of Student Conduct \& Community Standards to return to campus. In the event of such separation, a student is still responsible for University financial obligations.

To ensure fairness and due process for all students in the conduct process, the student is granted an impartial hearing and the right to appeal to the University Conduct Council. A student who is appealing a sanction may remain in school until the decision and penalty are reviewed, unless otherwise determined by the Dean of Student Life, the Vice President for Student Affairs, or their designee. All actions related to the conduct review process are subject to presidential review.

Having voluntarily enrolled as students at Southern Methodist University and assumed a place in the University community, all students are presumed to be knowledgeable of, and have agreed to abide by the rules and regulations set forth in the Student Code of Conduct as outlined in the SMU Student Handbook, which is available online at www.smu.edu/StudentAffairs/StudentLife/StudentHandbook.

## Housing

The Department of Residence Life and Student Housing supports the goals of the University by creating residential communities that empower residents to value learning, citizenship and leadership in comfortable, well-maintained facilities. The department is responsible for the campus residential community, including all residence halls, SMU-owned apartments and SMU-owned Greek chapter houses.

## Hegi Family Career Development Center

www.smu.edu/career
The Hegi Family Career Development Center at SMU is dedicated to serving the needs of SMU students and alumni and assisting employers in reaching qualified candidates from SMU. The Career Development Center staff guides and encourages students and alumni in the development of skills necessary for lifelong career management and offers opportunities for employers to recruit students through campus events and online resources. At Hegi, the staff cares about helping students develop into well-rounded individuals, and is dedicated to values of consistency, authenticity and commitment to excellence.

- Career Express Drop-in Hours. The Career Center offers 15-minute sessions to drop-ins on a firstcome, first-served, basis. In these sessions, students can discuss career options or get help editing a resume. Additional information is available on our website at www.smu.edu/career.
- Counseling Appointments. The Career Center also provides opportunities for counseling appointments with a staff member. These longer sessions can help students navigate the more complex issues of career development including, self-understanding, goal creation and career strategies.
- Peer Mentors. Peer Mentors are highly trained student leaders who help fellow students navigate the career development process, including assisting with drop-ins, editing cover letters and resumes, and representing Hegi at campus events.
- Career Development Ambassadors. CDA is a student organization designed to provide career development opportunities on the SMU Campus. CDAs organize events for the SMU community, which inspire engagement in the career development process, develop students' career tools, and provide networking opportunities.
- Experiential Learning. Want to learn more about an industry, company or specific job? Experiential learning is the best way to do so. Below are some easy ways to get connected:
- Coffee Chats: Meet an employer in an informal setting to learn about their career journey.
- Mentors: Connect and develop a relationship with an SMU alum who is in a career you are interested in.
- Externship: Shadow an SMU alum for the day and learn about their career path and what they do on a daily basis. The SMU Connection program is a partnership with Alumni Relations, which provides students exposure to today's competitive and ever-changing job market.
- Informational Interview: Have a conversation with an alum and/or employer for an hour to learn out their education and career path.
- Employer Events. Our Office cultivates meaningful relationships with organizations and employers who are invested in networking with dynamic, talented and skilled students across SMU's liberal and communication arts communities. Throughout the year, the Career Center hosts 2-4 Career and Internship Fairs, along with a host of Employer Industry Panels, Company Information Sessions and Industry Training and Development Workshops. These events offer students an opportunity to work with employers and alumni and to learn the skills necessary to be successful in the workplace.


## Student Life

The Office of the Dean of Student Life (www.smu.edu/studentlife) educates students and the SMU community by providing purposeful opportunities for learning, growing, clarifying values, and developing decision-making and other skills that promote responsible citizenship and well-being. Located in the Hughes-Trigg Student Center, the office is a resource for students to consult when they need general information and assistance. The dean serves as a primary liaison for students and parents who have concerns about any aspect of their SMU experience.

## Student Activities

www.smu.edu/orgs
The mission of the Department of Student Activities is to advise and support student organizations and to encourage student development through involvement. Involvement outside the classroom is a tradition at SMU. Research shows that students who get involved outside the classroom tend to be more successful during their college experience. The department supports more than 200 extracurricular opportunities for SMU students through academic and professional associations, campus programming councils, community service coalitions, fraternities and sororities, governing boards, nine honor societies, multicultural organizations, political clubs, club sports, religious organizations, and special interest groups. Higher-education professionals advise and support specific areas of involvement, including diversity, programming and governance, and are available to answer student's day-to-day questions about getting involved.

The Student Activities Office is located on the third floor of the Hughes-Trigg Student Center, Suite 314. Additionally, Suite 300 is the hub of activity and resources for several SMU student organizations. Many out-ofclass programs planned and implemented by students are considered co-curricular in that they are designed to complement a student's educational experience. These student groups and their committees provide many opportunities for students to become involved as leaders or participants.

Additional information is available online, including organization interests or type, membership requirements, contact information and event calendars. The department can also assist students in forming a new organization.

- Eligibility Requirements. Campus activities and organizations are an integral part of the developmental experience for SMU students. Leadership skills and inter-personal, social and cultural enhancement are some of the benefits associated with out-of-class participation. Students who hold office in a student organization or represent the University as a member of a sponsored campus group (Mustang Band, University Choir, etc.) must be matriculated in a University degree-granting program and may not be on academic probation.


## Student Government

Through SMU's system of representative governance, students participate with faculty and administration in the University's decision-making process. The primary voice of students in this process is the student-elected Student Senate. The Student Code of Conduct in the SMU Student Handbook is reviewed and updated annually in conjunction with the Student Senate and contains the student code of rights and responsibilities.

## Fraternity and Sorority Life

Fraternities and sororities exist to develop an individual's potential through leadership opportunities and group effort. These groups are a social network for students at SMU. Fraternities and sororities were among the first organizations at SMU and are one of SMU's longest standing traditions. There are 16 national fraternities and 13 national sororities, and one national co-ed group on campus. The governing bodies for these groups are the

Interfraternity Council, the Multicultural Greek Council, the National Pan-Hellenic Council and the SMU Panhellenic Council. Students must meet the requirements as indicated in the SMU Student Handbook (Policies Pertaining to Social Fraternities and Sororities, section 1.02(b), and/or other council and fraternity and sorority life requirements) to join a fraternity or sorority. More details on fraternity and sorority programming and recruitment are available from the Student Activities websites at smu.edu/greeklife.

## Student Center

www.smu.edu/htrigg
The Hughes-Trigg Student Center supports the University's mission by serving as the hub of student life and student activities. The Student Center serves as the "living room" of the university and provides services, conveniences, amenities and programming designed to enhance the student experience on campus. The Student Center staff strives to provide a safe and communal environment to meet the diverse needs of all individuals. Our building includes a 6400 square foot ballroom, a tiered, amphitheater-style forum classroom, a 500-person capacity auditorium, two dining areas, a post office, an art gallery, office and meeting space for student organizations, several lounging and quiet areas, in which to study, and six meeting rooms.

## Student Media

The student media experience at SMU is one that offers aspiring media professionals the opportunity to work and learn in a fully converged news operation that combines print, online and broadcast platforms. Editors, writers and photographers of the SMU Campus Weekly, SMU's independent newspaper, work together with directors and videographers of SMU-TV, the student-run broadcast journalism program, to share content and produce timely and compelling packages for a shared news website at www.smudailycampus.com. SMU student media opportunities also include the student yearbook, Rotunda (www.smurotunda.com), which has chronicled the life and times on The Hilltop since 1915.

## Veterans Services

The Division of Student Affairs provides a coordinator of veteran support and services through the Office of the Dean of Student Life and Well-Being. The coordinator helps veterans navigate the campus community and connect with available resources on campus and in the greater Dallas community. A chartered student organization, U.S. Military Veterans of SMU (SMU MilVets), meets regularly to provide support to fellow veterans and to participate in fundraisers, care package drives, tailgating on the Boulevard during football games and other activities during the school year. The Veterans Center, in Hughes-Trigg Student Center, Suite 323, provides coffee, a refrigerator and microwave, printing, meeting and study space, and a relaxed setting for interacting with fellow veterans. The University Registrar's Office certifies veterans each term for their benefits under federal programs and the Office of Financial Aid works to provide individual aid packages. More information regarding services and benefits for veterans is available at www.smu.edu/veterans.

## Women \& LGBT Center

## www.smu.edu/womenandlgbtcenter

The Women \& LGBT Center empowers students within the university to increase awareness and understanding of gender equity issues by eliminating barriers, diminishing prejudices and creating a supportive climate and space for all. Through advocacy, information, referral services and leadership experiences, the center provides a safe haven for students passionate about issues of injustice and oppression. Student organizations advised here include the Women's Interest Network; Intersect; Campus YWCA; Women in Science and Engineering; and

Spectrum, a lesbian, gay, bisexual, transgender and ally organization. Also housed in the center is the SMU Women's Symposium (www.smu.edu/womsym), which is part of the Education of Women for Social and Political Leadership series, established in 1966. The center provides an informal, homelike atmosphere where members of the SMU community can meet.

## Health Services

www.smu.edu/healthcenter
The Dr. Bob Smith Health Center provides SMU students with comprehensive outpatient services, including primary medical care, counseling services, health education and laboratory, radiology and pharmacy services. The new 33,000-square-foot state-of-the-art clinic facility is centrally located on campus at 6211 Bishop Boulevard. The Health Center is certified by the Accreditation Association for Ambulatory Health Care (AAAHC) for meeting rigorous nationally recognized standards and committing to delivering the highest quality of care.

- Outpatient Medical Services. The Dr. Bob Smith Health Center provides a wide range of health services allowing students to receive quality outpatient care on campus. Services available include the treatment of acute illnesses, care of injuries, minor medical procedures, physical exams, STD testing, immunizations, allergy injections, laboratory testing and x-rays. The clinic is staffed by physicians, registered nurses and medical assistants. Physicians are available 8:30 a.m. to 4:30 p.m., Monday through Friday. For appointments and health information, students may call 214-768-2141 or visit www.smu.edu/healthcenter.
- Acute/After Hours Care. Students should call 911 for immediate response to life-threatening injuries or illnesses. For other urgent concerns after clinic hours, students should seek a local hospital or urgent care center. A listing of several hospital emergency rooms and after-hours urgent care facilities is provided for general reference on the Health Center website (www.smu.edu/healthcenter).
- Costs. The Health Services Fee, which is included in general student fees, covers routine medical visits and counseling appointments at the Health Center. Charges are assessed separately for lab services, xrays, immunizations, medical supplies, pharmacy and specialty care. Claims are filed for students participating in the SMU Student Health Insurance Plan. Students with other insurance plans may request an itemized receipt for insurance reimbursement.
- Mandatory Health Insurance Policy. SMU students are required to maintain insurance coverage as a condition of their enrollment. The University offers the SMU Student Health Insurance Plan (SHIP), which is administered by the Health Center's Student Insurance Office. The plan provides extensive coverage at a reasonable cost for most on- and off- campus medical care. Information is available at www.smu.edu/healthinsurance.
Domestic students taking nine or more credit hours and international students taking one credit hour or more are automatically enrolled in the Student Health Insurance Plan (SHIP) each semester unless they expressly waive coverage in my.SMU.edu. Domestic students' waiver submission deadline is available online at http://smu.edu/healthinsurance. Domestic students taking between one and eight credit hours are eligible to enroll in the Student Health Insurance Plan on a voluntary basis.
- Pharmacy. A full service pharmacy is conveniently located in the Dr. Bob Smith Health Center to meet students' prescription needs from 8:30 a.m. to 5:00 p.m., Monday through Friday. The pharmacy is in network with most insurance plans. Prescriptions and refills may be transmitted directly to the pharmacy from the physician.
- Immunizations. All students (undergraduate, graduate, part-time and full-time, to include international and IEP/ESL students) are required to have an SMU medical history form on file in the Dr. Bob Smith Health Center before registration. To comply with SMU policy, all students must also submit, to the Health Center, immunization records that provide proof of immunization against measles, mumps and rubella. These MMR immunizations must be documented by a physician, public health record, military health record or school health record. Students will not be allowed to register without immunization compliance.
Texas state law requires all new students entering an institution of higher education under the age of 22
to provide proof of immunization for bacterial meningitis. The meningitis vaccine or a booster dose must have been received during the five-year period prior to enrollment and at least ten days before the start of classes. Students seeking exemption from this requirement due to health risk or conscience, including religious belief, should see the second page of the SMU medical history health form. More information is found under Final Matriculation to the University in the Admission to the University section of this catalog.
Students are encouraged to check their my.SMU account for immunization status. Immunizations are available at the Health Center. Health history forms are available on the Health Center's website (www.smu.edu/healthcenter).
- Class Absence Due to Illness. The Health Center does not issue excuses from classes for illness. Please refer to the Health Center website (www.smu.edu/healthcenter) for the Class Excuse Policy.
- Confidentiality and Privacy. Confidentiality and privacy of student health information is of paramount importance at the Dr. Bob Smith Health Center. The Health Center follows all applicable state and federal laws related to the disclosure of medical and mental health information, and applies to the highest professional standards of care and privacy. All student-patient health service records information is confidential. No information about a student can be released to any third party without the student's written permission.
- Release of Medical Information. A copy of medical records may be released to a physician only with a written release by the student. A patient may sign a release allowing the Health Center to discuss specific medical information with their parents, significant others or health care representatives.
- Office of Health Education and Promotion. The Health Center provides health education programs and services to enhance the well-being of SMU students in support of their learning and success. Information is presented to help students make informed and healthy choices. The SMU health educator works with students to promote activities that create a healthy environment for the SMU community.
- Counseling Services. CS provides psychiatric evaluation, crisis intervention and group/individual/couples psychotherapy for students. All interviews are conducted on a voluntary and confidential basis. There is no charge to students who have paid the University health fee. Students can seek confidential help for concerns such as anxiety, depression, relationship issues, career/life planning, sexual identity, eating/body image concerns and sexual assault/sexual harassment matters. Alcohol and drug prevention is a free and confidential source of help and information to the SMU community, covering issues related to substance abuse and addiction. Any laboratory tests or pharmaceuticals ordered will be charged to the student. For more information regarding scheduling appointments, students should call 214-768-2277 between 8:30 a.m. and 5 p.m., Monday through Friday, or visit www.smu.edu/counseling.
- Testing Services. Testing Services offers fee-based testing to the Dallas-area community. These services include on-campus administration of national testing programs such as the LSAT, MPRE, GRE and others. Other testing offered includes credit by exam (CLEP), and correspondence examinations for local distance learners enrolled in other universities. For additional information, students should visit www.smu.edu/testingprogram or call the center at 214-768-2269.


## Child Care

SMU provides a licensed child care center for children ages 1 month to 5 years on a space-available basis. More information is available at www.smu.edu/StudentAffairs/Childcare or from the director of the center at SMU Preschool and Child Care Center, Southern Methodist University, PO Box 215, Dallas TX 75275-0215; phone 214-768-2278.

## Recreational Sports

www.smu.edu/recsports
Dedman Center for Lifetime Sports is a 170,000 square foot facility designed for recreational sports and wellness. The center provides racquetball courts, aerobic studios, an indoor running track, basketball courts, volleyball courts (indoor and outdoor), a climbing wall, a bouldering wall, a 25-meter recreational pool with five lanes, 15,000 square feet of fitness and weight equipment, and a Starbucks in the lobby area. These facilities are open to SMU students, faculty, staff and paying members.

A variety of services and programs are available, including fitness classes, intramural sports, sport clubs, the Outdoor Adventure program, personal training, personal assessments, massage therapy, swimming lessons and camps.

- Fitness. SMU Fitness offers group exercise classes, personal training sessions and massage therapy. Group X exercise classes are offered throughout the day to accommodate a variety of schedules. Different types of cardio, strength and flexibility classes are available. Experienced and knowledgeable trainers offer sessions to train members of the University community, either one-on-one or in groups, to meet their personal fitness goals. Licensed massage therapists offer chair or full-body massages. All SMU Fitness programs have a fee for participation.
- Intramural Sports. Many opportunities for team and individual competition are available through intramural sports such as golf, racquetball, tennis, and dodgeball. The five major sports are flag football, volleyball, basketball, soccer and softball. Leagues provide year-round opportunities to participate in a wide variety of sports and activities. Additional leadership opportunities are available for those interested in officiating or supervising various activities. Teams and individuals register online at www.imleagues.com/smu.
- Club Sports. Club sports offer an opportunity for students interested in concentrated training and participation in a sport. These recognized student organizations offer competition with other university/college club teams in baseball, cycling, ice hockey, men's and women's lacrosse, polo, rugby, men's and women's soccer, triathlon, ultimate Frisbee, volleyball, wakeboarding and water polo.
- Aquatics. SMU Aquatics features a five-lane, indoor recreational pool and an out-door, zero-depth entry fountain pool known as "The Falls." Students have opportunities to participate year-round in recreational swimming, sunbathing and water sports such as water basketball, volleyball and polo. Classes offered include water fitness, adult and child swimming lessons, children's group lessons, and American Red Cross lifeguard training.
- Outdoor Adventures. SMU Outdoor Adventures is the campus source for outdoor recreation and adventure, offering fun and challenging recreational adventure activities, community-building programs, and student leadership and personal growth opportunities. The Outdoor Adventure Center, located on the bottom floor of the Dedman Center for Lifetime Sports, is the place to rent outdoor recreation and picnic equipment. Students can sign up for SMU OA trips offering traditional and nontraditional outdoor adventure pursuits such as backpacking, rock climbing, caving and canoeing. SMU OA also manages the SMU Climbing Center, the indoor climbing and bouldering facility, and the Portable Challenge and Team Development course.
- Mustang Band. Founded in 1917, the Mustang Band was named the "Best College Marching Band" in Texas in Kirk Dooley's Book of Texas Bests. Long known as "the hub of SMU spirit," the band represents the University at football and basketball games, produces the Pigskin Revue during Homecoming and performs at special University- and community-related events. Membership is open to all SMU students by audition, regardless of major, and scholarships based on need and ability are available.
- Spirit Squads. The Mustang Cheerleaders, Mustang Pom Squad and Peruna mascot are integral parts of SMU's spirit tradition and are national award winners, having participated in the NCA/NDA Collegiate National Championships. Along with the Mustang Band, they make SMU's spirit contingent an outstanding one.
- Intercollegiate Athletics. SMU is a member of the National Collegiate Athletic Association (Division I-A). Men and women student-athletes compete in basketball, cross-country/track and field (women only), swimming and diving, golf, soccer, tennis, volleyball (women only), crew (women only), equestrian (women only), and football (men only).


## Office of the Chaplain and Religious Life

www.smu.edu/chaplain
The Office of the Chaplain and Religious Life offers resources of pastoral care and theological reflection that nurture spiritual and vocational development as well as the moral and ethical vision and character of students, faculty and staff. Dr. Stephen W. Rankin is the chaplain and minister to the University community. Chaplain Rankin leads and preaches at Underground, an ecumenically Christian, all-University service of worship, in Hughes-Trigg Theater each Wednesday during the term. Students, faculty and staff are invited to participate in this service through music, scripture readings or other expressions of worship. Other services, including the University Service of Memory, Ash Wednesday Service and memorial services as needed, are also planned and implemented by the Office of the Chaplain.

Presently, there are more than 30 religious life organizations. Alongside the Christian groups aligned with denominations, local Dallas-area congregations or national parachurch ministries, SMU also has an active Hillel chapter for Jewish students, a bustling Muslim Student Association and other faith groups of various traditions. A large number of undergraduate, graduate and professional students, as well as many of SMU's faculty, staff and administrators, participate in these dynamic religious communities.

In cooperation with the Department of Residence Life and Student Housing, the Office of the Chaplain places in each residential commons a residential community chaplain who provides a pastoral presence and help for students navigating the sometimes confusing concerns of life.

Additionally, the Office of the Chaplain partners with faculty members across campus to direct the Faith and Learning Scholars, an initiative involving a cohort of students who want the experience of integrating their faith with their academic pursuits. Similarly, the Civil Rights Pilgrimage, founded in 2004, is an eight-day spring break journey through the South whereby students encounter shrines of freedom and meet heroes of the civil rights movement. This collaboration with Dedman College offers students a transformative opportunity while earning academic credit.

Chaplains are available for personal counseling and spiritual direction with students, faculty and staff during office hours. The Office of the Chaplain is located in the Hughes-Trigg Student Center, Suite 316. Adjacent to this office is the Quiet Place, a setting for meditation, prayer and reflection for all faiths. The Quiet Place is open daily and available with no prior reservation needed.

## Community Engagement and Leadership

www.smu.edu/cel
The Community Engagement and Leadership Center, a department in the Division of Student Affairs, develops student leaders through educational and transformational experiences that equip them to have a positive impact on social change. CEL advises and supports two student-run service-based organizations, Alternative Breaks and Mustang Heroes, which provide students the opportunity to participate in service trips in Dallas and throughout the United States. CEL also hosts the annual Stampede of Service and MLK Day of Service.

The leadership programs available to students include the Emerging Leaders First-Year Leadership Development Program, the Crain Leadership Summit, the Mustang Intersections Leadership Retreat for Diversity and Social Change, and the Lonestar LeaderShape Institute. CEL also supports student leadership development through the

Caswell Leadership Program, a grant opportunity for a group of selected students to develop projects focused on organizational leadership, faith-based leadership, community-based leadership, environmental leadership, fraternity and sorority leadership or culturally competent leadership.

## Multicultural Student Affairs

The Office of Multicultural Student Affairs works collaboratively with the campus community to provide support for students of color and to create an environment that fosters inclusivity and a deeper understanding of diversity. The office focuses on holistic development, advocacy and comprehensive student success. In addition, the office sponsors diversity and social justice education programs such as Inter-SECTIONS and Real Talk to provide opportunities for the exchange of ideas and experiences that enhance student perspectives, and offers various leadership opportunities through culturally based student organizations, peer dialogue leader positions and the CONNECT Mentoring and Retention Program. For more information, visit our website at www.smu.edu/StudentAffairs/Multicultural.

## Residence Accommodations

The University prides itself on offering a full living and learning experience for its resident students. The mission of the Department of Residence Life and Student Housing is to advance the goals and objectives of the University by creating residential communities that empower residents to value learning, citizenship and leadership. To this end, RLSH seeks opportunities to promote an intellectual culture in SMU's residential communities that complements an already flourishing campus social culture. RLSH is responsible for residence halls, 11 Residential Commons and 10 SMU-owned Greek chapter houses. This responsibility includes making sure that facilities are well maintained and that students have opportunities to grow personally and excel academically.

## Housing Policy for All Students

All incoming first-year undergraduate students are required to live on campus during their first two years at SMU. Exceptions may be granted on the basis of a financial, medical or personal hardship at the discretion of the dean of RLSH to those students from Dallas/Fort Worth who live with a parent or legal guardian in the primary residence of the parent or guardian. For housing purposes, the two years means the first two years of college. Incoming transfer students who are over the age of 16 and under the age of 20 are required to live on-campus for their first year at SMU. For 2016-2017, upperclass and graduate students are not required to live on campus but may apply on a space-available basis.

## Applications for Residence


#### Abstract

Applications for on-campus housing for new undergraduate students are accepted after a student has been admitted to the University and paid the University deposit to the Office of Undergraduate Admissions. After the deposit has been processed, new students receive an email with instructions for completing the online application and housing license agreement. The University deposit includes the matriculation fee, orientation fee and advance housing deposit. These fees are nonrefundable. Notification of assignment will be made by RLSH. The housing license agreement is for the full academic year (fall and spring terms). Room charges for the fall term will be billed and are payable in advance of the term for students who register before August 1, and room charges for the spring term will be billed and are payable in advance of that term for students who register before December 1. Students who register after these dates must pay at the time of registration. Room charges for the full academic year will be due and payable should a student move out at any time during the school year. Accommodations for shorter periods are available only by special arrangement with RLSH before acceptance of


the housing license agreement. It is important that applicants become familiar with the license agreement, as it is a legally binding document.

## Residence Halls and Apartments

## Residential Commons at SMU


#### Abstract

Most undergraduate residence halls at SMU are designated as Residential Commons. Entering students are assigned to a Residential Commons in a distributed manner so that each Commons is representational of the incoming class. Incoming students live in their RC for their first two years at SMU. All rooms are furnished with extra-long twin size beds, dressers, desks, chairs, and closets or wardrobes for clothes. Each student is expected to furnish a pillow, bed linens, bed covers, bed-spread, towels, mattress pad and study lamp.


## Upperclass, Graduate Student and Family Halls


#### Abstract

Several residential facilities are designated for upperclass students (juniors and seniors, and sophomores on a space-available basis), graduate students and students with families (married couples with or without children, or single parents with children). Moore Hall and Daniel House feature apartment-style accommodations for upperclass students. The Service House is a small, upperclass hall with a thematic focus of community service run in conjunction with the SMU Office of Community Engagement and Leadership. Martin Hall, an efficiency apartment hall, houses a combination of graduate students and senior undergraduate students. Hawk Hall, a one-bedroom-apartment facility, houses single graduate students and married students (graduate and undergraduate) with families. Families with no more than two children may be housed in Hawk Hall.


## Special Housing Needs

Students having special housing needs because of a disability should contact the SMU Office of Disability Accommodations and Success Strategies in order to establish eligibility for accommodations. When applying for housing, students should also submit information to RLSH regarding a request for accommodations. DASS and RLSH will work together with the student on their specific situation to make necessary accommodations.

## General Housing Information

In the Residential Commons, each room is equipped with in-room cable television service and Ethernet and wireless connections to the University's digital network and online systems. All residential facilities are airconditioned, and rooms have individual climate control. Washing machines and dryers are located in all residence halls and adjacent to Daniel House.

Undergraduate students living in traditional residence halls are required to purchase a meal plan offered by SMU Dining Services. Like the housing license agreement, the meal plan obligation is for the entire academic year and is billed and paid for on a term basis. Students living in Moore, Martin and Hawk halls as well as the Daniel House and Service House are exempt from the meal plan requirement. With the exception of Daniel House and Moore, Martin and Hawk halls, special accommodations for winter break housing must be arranged with RLSH prior to the beginning of the break. For more information, students should visit www.smu.edu/housing or contact the Department of Residence Life and Student Housing, Southern Methodist University, PO Box 750215, Dallas TX 75275-0215; phone 214-768-2407; fax 214-768-4005; housing@smu.edu.

## Enrollment and Academic Records

The standards herein are applicable to all students at the University and constitute the basic authority and reference for matters pertaining to University academic regulations and records management. Enrollment in the University is a declaration of acceptance of all University rules and regulations. A complete University Policy Manual is available at www.smu.edu/policy. Additional information regarding rules and regulations of the University can be found in this catalog. Undergraduate students must follow the University-wide requirements that are in effect for the academic year of matriculation to SMU. The applicable requirements of majors and minors are those in effect during the academic year of matriculation to SMU or those of a subsequent academic year. Students may not follow a catalog for an academic year in effect prior to their matriculation term. Students who are not enrolled for three or more years will return to SMU under the current catalog.

## General Policies

## Confidentiality of Education Records

The Family Educational Rights and Privacy Act of 1974 is a federal law that grants students the right to inspect, obtain copies of, challenge, and, to a degree, control the release of information contained in their education records. The act and regulations are very lengthy, and for that reason, SMU has issued its own FERPA-based guidelines that are available at the University Registrar's Office FERPA website www.smu.edu/FERPA. Policy 1.18 of the University Policy Manual also discusses this law.

In general, no personally identifiable information from a student's education record will be disclosed to any third party without written consent from the student. Several exceptions exist, including these selected examples: 1) information defined by SMU as directory information may be released unless the student requests through my.SMU Self-Service that it be withheld, 2) information authorized by the student through my.SMU Self-Service may be released to those individuals designated by the student and 3) information may be released to a parent or guardian if the student is declared financially dependent upon the parent or guardian as set forth in the Internal Revenue Code. Additional information is available at www.smu.edu/LegalDisclosures/FERPA.

## Student File Number

The University assigns each student an eight-digit SMU identification number, which is used to verify each student's identity and is provided without additional charges. The student should furnish the SMU ID number on all forms when requested, as this number is the primary means the University has to verify the identity for each student's academic records and transactions related to the records.

## Name Change

A student who has a change in name must provide to the University Registrar's Office his or her Social Security card or the form issued by the Social Security Administration. A valid passport may also be used to complete a name change. Enrollment or records services for the student under a name different from the last enrollment cannot be accomplished without one of the above documents. All transcripts and diplomas are issued only under a person's legal name as recorded by the University Registrar's Office.

## Email and Mailing Addresses, Telephone, and Emergency Contact

Each student must provide the University Registrar's Office with both a home and local (mailing) address, both a home and local telephone number and contact information of a designated emergency contact. Students enrolling at SMU authorize the University to notify their emergency contacts in the event of a situation affecting their health, safety, or physical or mental well-being, and to provide these contacts with information related to the situation.

International students are required to provide a residence address (physical street address where they are currently living) as their mailing (local) address. International students will be prevented from enrolling if a U.S. address is not provided.

Students are expected to keep current all their addresses and telephone numbers, including emergency contact details, through my.SMU, the University's Web-based self-service system. Students may be prevented from enrolling if their information is insufficient or outdated. Changes to parent information should be reported by contacting records@smu.edu, and the email should include the student's full name and SMU student ID number.

The University issues all students an email address. Students may have other email addresses, but the Universityassigned email address is the official address for University electronic correspondence, including related communications with faculty members and academic units.

Official University correspondence may be sent to students' mailing addresses or SMU email addresses on file. It is the responsibility of students to keep all their addresses current and to regularly check communications sent to them since they are responsible for complying with requests, deadlines and other requirements sent to any of their mailing addresses on file or to their SMU email.

## Cell Phones

The University requests that students provide mobile/cell telephone numbers, as they are one means of communicating with students during an emergency. Mobile/cell telephone numbers may also be used by University officials conducting routine business. Students who do not have a mobile/cell telephone or do not wish to report the numbers should provide this information to the University through my.SMU Self-Service. Students may be prevented from enrolling if their mobile/cell telephone numbers are not on file or if they have not declared "no cell" or "prefer not to report" in my.SMU.

## Ethnicity

SMU requires that a valid ethnic group category be on file for all students. SMU's policies and the Family Educational Rights and Privacy Act of 1974 protect the confidentiality and privacy of this information. A student's ethnic group category can be viewed in my.SMU, Self-Service Student Center.
U.S. Citizens or Permanent Residents. Ethnicity is self-determined. Students of multiple ethnic backgrounds may select multiple ethnic group categories. If the ethnic group value is incorrect, the student should go to the University Registrar's Office in the Laura Lee Blanton Student Services Building and complete an Ethnic/Racial Category Update Form.

International Students Living in the U.S. While Attending School. Selecting an ethnic group category is not required unless the student becomes a U.S. citizen or permanent resident.

## Transcript Service

A transcript is an official document of the permanent academic record maintained by the University Registrar's Office. The permanent academic record includes all SMU courses attempted, all grades assigned, degrees received and a summary of transfer hours accepted. Official transcripts and certifications of student academic records are issued by the University Registrar's Office for all students. Copies of high school records and transfer transcripts from other schools must be requested from the institutions where the coursework was taken.

Transcripts are $\$ 12.25$ per copy. Additional copies in the same request mailed to the same address are $\$ 3.50$. Additional copies mailed to different addresses are $\$ 12.25$ a copy. PDF transcripts are $\$ 16.00$ per email address and are available only for students who attended after summer 1996.

Note: No incomplete or partial transcripts, including only certain courses or grades, are issued.
Transcripts cannot be released unless the student has satisfied all financial and other obligations to the University. Instructions for requesting a transcript to be mailed or picked up on campus are available at www.smu.edu/registrar ("Transcript Requests" link). A student may request his or her official transcript through the online my.SMU Student Center. Requests are processed through the National Student Clearinghouse. Telephone and email requests are not accepted. Students or their specified third party can pick up their transcripts at the University Registrar's Office, 101 Blanton Student Services Building.

Transcripts may be released to a third party as specified by the student on the Student's Consent for SMU to Release Information to Student's Specified Third Party form accessible at www.smu.edu/LegalDisclosures/FERPA/Forms.

Note: Chapter 675, S.B. 302. Acts of the 61st Texas Legislature, 1969 Regular Session, provides as follows: Section I. No person may buy, sell, create, duplicate, alter, give or obtain; or attempt to buy, sell, create, duplicate, alter, give or obtain a diploma, certificate, academic record, certificate of enrollment or other instrument which purports to signify merit or achievement conferred by an institution of education in this state with the intent to use fraudulently such document or to allow the fraudulent use of such document. Section II. A person who violates this act or who aids another in violating this act is guilty of a misdemeanor and upon conviction is punishable by a fine of not more than $\$ 1,000$ and/or confinement in the county jail for a period not to exceed one year.

## Veterans

The University Registrar's Office certifies veterans each term for their benefits under federal programs, including the Yellow Ribbon Program. Most academic programs at SMU qualify for U.S. Department of Veterans Affairs benefits, making an SMU education accessible and affordable. Veterans are required to provide specific documents before they can be certified with the VA's Veterans Benefits Administration. Specific information regarding the certification process is available from the University Registrar's Office at www.smu.edu/enrollmentServices/Veterans.

## Final Examination

Final course examinations shall be given in all courses where they are appropriate, must be administered as specified on the official examination schedule and shall not be administered during the last week of classes. Exceptions to the examination schedule may be made only upon written recommendation of the chair of the department sponsoring the course and with the concurrence of the dean of that school, who will allow exceptions only in accordance with guidelines from the Office of the Provost.

## Complaint Procedures for Students With Disabilities

The complaint procedures for students with disabilities are available in the Disability Accommodations \& Success Strategies office and online at www.smu.edu/Provost/ALEC/DASS.

## Classification of Students

A student's classification is determined by the number of hours earned or by the degree-seeking status of the student:

First Year 0-29 credit hours earned

Sophomore 30-59 credit hours earned
Junior $\quad 60-89$ credit hours earned
Senior $\quad 90$ or more credit hours earned

Nondegree not a candidate for a degree

## Credit Hour Loads

The unit of measure for the valuation of courses is the credit hour. Based upon the federal definition of a credit hour, each credit hour requires one hour of direct faculty instruction and a minimum of two hours per week of preparation on the part of students, for approximately 15 weeks a semester. Most courses are valued for three credit hours, i.e., three contact hours per week and at least six hours of preparation. For three-credit-hour courses deployed via different course types, modes of delivery, or calendars, total number of direct contact hours should be equal to or greater than 45 hours, with the total out-of-class work equal to or greater than 90 hours. Courses that deviate from this standard must provide documentation illustrating how the number of contact hours and/or work outside the course equate to this standard within the term in which the course is offered.

A full-time load in the fall, spring and summer terms is 12 hours for undergraduates. Students who enroll for fewer than these minimum hours are designated part-time students. The normal undergraduate enrollment for each of the regular terms is 15 credit hours. An undergraduate student enrolled in an engineering co-op course or enrolled for six hours of student teaching is considered a full-time student.

Cautionary Note: Federal financial aid agencies and some other agencies require a minimum number of hours of enrollment for full-time status and do not make exceptions for internship, co-op or student-teaching enrollments. Students on financial aid should consult a Financial Aid Office adviser regarding minimum enrollment requirements for their situation.

Minimum and Maximum Course Loads. Minimum and maximum course loads allowed are based on the school of record. Each student should be fully aware that hours taken beyond 18 in any term will be charged to his or her student account.

SMU Pre-Majors. Students who have not yet declared a major and who wish to enroll for more than 18 hours must have the approval of their academic adviser and the University Advising Center.

Dedman College of Humanities and Sciences. Majors in Dedman College who wish to enroll for more than 18 hours must have the approval of their adviser and the Office of Records and Academic Services.

Cox School of Business. B.B.A. students may enroll for more than 18 hours per term provided their cumulative GPAs (SMU, all-college and business) are 2.000 or higher to show satisfactory progress toward completion of the degree.

Lyle School of Engineering. Students must have the approval of their academic adviser to enroll for fewer than 12 hours or more than 18 hours during a fall or spring term. Normally, a student must have a GPA of 3.000 or higher to enroll for more than 18 hours. An exception is made during the term in which a student is to graduate. Credit will not be allowed for more than 21 hours in a term.

Meadows School of the Arts. Students are not permitted to enroll during a fall or spring term for more than 18 hours unless their GPA for the preceding term is at least 3.000. During the term in which a student is to graduate, he or she may enroll for 19 hours (or nine hours for a summer session) regardless of the preceding term GPA. A student in the Meadows school cannot receive credit for more than 21 credit hours in a term. A student with a GPA below 2.000 for the preceding term will not be permitted to enroll for more than 13 hours.

Simmons School of Education and Human Development. A student in the Simmons School with a declared major in applied physiology and sport management or educational studies may enroll for up to 18 hours per term. A student may petition to take up to 21 credit hours in a term provided he or she meets the following criteria:

1. The student has a cumulative GPA of 3.000 or higher and has demonstrated academic success while enrolled in 18 hours in prior terms.
2. The student needs to take the extra hour(s) in order to graduate at the end of the term in which he or she is enrolling.
3. The student has gained permission from his or her adviser.

## Stop Enrollment/Administrative Withdrawal

Insufficient or improper information given by the student on any admission or enrollment form - or academic deficiencies, disciplinary actions and financial obligations to the University - can constitute cause for the student to be determined ineligible to enroll or to be administratively withdrawn.

## Academic Forgiveness

A student can declare courses taken 10 or more years prior to the term of admission or readmission to be forgiven, which means the work is not included in the GPA or hours earned when determining admission, academic probation, suspension, honors and graduation. A student should request academic forgiveness at the time of admission or readmission. The student can select the term at which academic forgiveness starts. Academic forgiveness applies to all courses taken during or prior to that term, regardless of the grades earned. Academic forgiveness cannot be applied to only some courses for a term or to only selected terms within the forgiveness period. Once academic forgiveness is declared and the student has enrolled, academic forgiveness cannot be rescinded. Forgiven academic work taken at SMU remains on the permanent academic record, with a notation of "academic forgiveness" on the record. Currently enrolled students cannot request academic forgiveness. Transfer applicants must provide transcripts from all institutions attended, including those where all work may be forgiven.

## Transfer Courses From Other Institutions

Courses taken prior to matriculation at SMU: Credit may be awarded for college courses a student takes prior to matriculation at SMU, including courses a student takes before graduating from high school, if the courses meet the criteria for transfer work outlined in the Admission to the University, Transfer Admission Criteria section of this catalog. Credit may be denied for educational reasons.

Courses taken after matriculation to SMU: Once students have matriculated at SMU, they may transfer no more than 30 hours to SMU from accredited colleges and universities. Students who complete more than 30 transferable hours after matriculating can designate which of their courses apply to the 30-hour limit. Students may change the designation of the courses. Students should make these transfer-credit designations in consultation with their records offices.

Courses taken at another US institution where the instruction is in the US: To ensure in advance that a course taken at another accredited college or university will transfer and that proper credit will be awarded, the student taking the course should obtain prior approval from the chair of the department, the records office of the school at SMU that normally offers the course, the adviser, and the student's school of record. Petitions for preapproval of transfer work are available in the schools' records offices. Students who fail to get prior approval for transfer work taken within the United States may petition later for transfer credit, but they have no assurance that credit will be awarded. In either case, permission may be denied for educational reasons.

Note: SMU schools have differing policies regarding the transferability of courses from two-year institutions, and with very few exceptions, post-matriculation transfer work must be completed at accredited, four-year institutions.

Official college transcripts are required for all college-level work attempted, regardless of transferability. Military transcripts are also required for students receiving VA benefits; more information is available at www.smu.edu/EnrollmentServices/Veterans. Students are responsible for making sure a transcript of all transfer work attempted is sent to the University Registrar's Office immediately following completion of the work.

Courses taken at a US institution where the instruction is in an international location and courses taken at a non-US institution: Students must obtain approval for the transferability and applicability of course work prior to completing courses where the instruction is at an international location, both where the course enrollments are through an accredited US institution and where they are through an international institution recognized as offering the equivalency of US college-level work. Detailed instructions, deadlines and approval forms can be found on the SMU Abroad website. The approval review will consider the collegiate quality of the program and/or institution. Approval for transferability will not be given after the course work is started.

## Enrollment Policies

## Course Scheduling and Enrollment Cycles

When students enter their school of record and into a specific degree program, they are assigned an academic adviser. Students should consult with the adviser for course scheduling, schedule changes, petitions, degree requirements and other such academic concerns. Advisers normally will have established office hours. The school's records office monitors progress and maintains official degree plans for all students in a school. Students should schedule conferences with their academic advisers and the school's records office upon admission to a school and prior to their final term to ensure that they are meeting all University and graduation requirements.

Each fall, spring and summer term has an enrollment period during which the formal process of enrollment in the University is completed. Prior to each enrollment period, the University Registrar's Office will publish enrollment instructions.

To assist new and readmitted students in making a comfortable, satisfying transition to University academic life, programs of academic advising, enrollment and orientation are conducted prior to each term. Information concerning the programs is distributed by the Office of Student Transitions \& Orientation.

Each student is personally responsible for complying with enrollment procedures and for ensuring the accuracy of his or her enrollment. Students are expected to confirm the accuracy of their enrollment each term. Students
who discover a discrepancy in their enrollment records after the close of enrollment for the term should immediately complete a Petition for Enrollment Policy Exception. Petitions are to be submitted to the appropriate records office within six months of the term in which the discrepancy appeared; contact information for submitting a Petition for Enrollment Policy Exception can be viewed on the University Registrar's Office website at www.smu.edu/EnrollmentServices/Registrar/Enrollment/EnrollmentPolicyException. Petitions submitted later than six months after the discrepancy may not be considered.

## Schedule Changes

The deadline for adding courses, dropping courses without grade record and changing sections for each enrollment period is listed on the Official University Calendar (www.smu.edu/registrar). Students are encouraged to seek assistance from their advisers when considering whether to add or drop a course. A student may drop a course with a grade of $W$ (Withdrew) through approximately midterm by using the my.SMU SelfService Student Center. The specific deadline is listed on the Official University Calendar.

After the deadline date on the Official University Calendar, the student may not drop a class. All schedule changes must be processed by the deadline date specified on the Official University Calendar. Note: Schedule changes are not complete for official University record purposes unless finalized in the University Registrar's Office.

Student-Athletes. Students must consult with the Athletic Compliance Office prior to dropping a course. In the consultation, the student will review the effects the drop might have on his or her athletic participation and financial aid. After the consultation, the Athletic Compliance Office will update my.SMU to allow the student to process the drop, if necessary. The consultation is advisory; students are responsible for their enrollment. For assistance regarding scholarships or other aspects of being a student-athlete, students should contact the Office of the Assistant Athletic Director for Student-Athlete Development.

International Students. Students must consult with the International Student \& Scholar Services office prior to dropping a course. If dropping a course will cause the student to be enrolled in fewer than 12 hours, the student's immigration status could be affected. After the consultation, the International Student \& Scholar Services office will update my.SMU to allow the student to process the drop, if necessary. The consultation is advisory; students are responsible for their enrollment.

Students on Merit or Need-based Financial Aid. Students should consult with their financial aid adviser prior to dropping a course. If dropping a course will cause the student to be enrolled in fewer than 12 hours, the student's financial aid status may be affected. After the consultation, the student may drop a course through my.SMU Self-Service. The consultation is advisory; students are responsible for their enrollment. Questions regarding this procedure or financial aid should be directed to the Office of Financial Aid.

## Withdrawal From the University

Policies on refunds for withdrawal from the University are found in the Financial Information section of this catalog and in the Financial Information Bulletin, which can be accessed online at www.smu.edu/bursar/Policies. No refunds are made without an official withdrawal.

Students should be aware of the difference between a drop and a withdrawal and remember that they have different deadlines and separate financial policies. The deadlines for each are posted each term on the Official University Calendar at www.smu.edu/registrar. A drop occurs when a student removes one or more courses from his or her schedule and remains enrolled in at least one credit hour for the term. A withdrawal occurs when removing the course or courses will result in the student being enrolled in zero hours for the term.

If a student removes all courses from his or her schedule prior to the first day of the term, the transaction is considered a cancellation and does not result in financial penalty or impact the student's transcript.

A student who wishes to withdraw (resign) from the University before the end of a term or session must initiate a Student Petition for Withdrawal form and secure approval from his/her school's records office. The records office will then submit the form to the Office of the University Registrar. The effective date of the withdrawal is the date on which the Student Petition for Withdrawal is processed in the University Registrar's Office. Discontinuance of class attendance or notification to the instructors of intention to withdraw does not constitute an official withdrawal.

The enrollment of students who withdraw on or before the tenth day of the fall or spring semester as listed on the Official University Calendar will be canceled. Courses and grades are not recorded for canceled enrollments; however, the student will owe a portion of his/her tuition and fees. Additional information is available in the Financial Information Bulletin, which can be accessed online at www.smu.edu/bursar/Policies. A student who withdraws after the tenth class day of the fall or spring semester will receive the grade of W in each course in which he or she enrolled.

Medical withdrawals and mandatory administrative withdrawals allow a prorated refund of tuition and fees and have conditions that must be met prior to re-enrollment at SMU. Medical withdrawals can only be authorized by a licensed physician or psychologist counselor in the Dr. Bob Smith Health Center. Mandatory administrative withdrawals can be authorized only by the vice president for student affairs. As a matter of University policy, and in compliance with federal regulations, retroactive medical withdrawals cannot be granted. The last day for a medical withdrawal is the last day of class instruction for the term from which the student is withdrawing.

Withdrawing students living in SMU housing must check out of the residence halls with the Department of Residence Life and Student Housing per established procedures.

## Audit Enrollment (Course Visitor)

Individuals desiring to audit (visit) a class, including those concurrently enrolled for regular coursework, are required to process an Audit Permit form. Audit Permit forms must be completed, approved and received in the University Registrar's Office no later than the last day to enroll for the term. Forms are available at www.smu.edu/registrar/FormsLibrary. Space must be available in the class. The following regulations are applicable:

1. Classroom recitation and participation are restricted; availability of course handouts, tests and other materials is restricted; no grade is assigned and no credit is recorded; no laboratory privileges are included.
2. The individual's name does not appear on class rosters or grade rosters.
3. Regular admission and enrollment procedures are not conducted for auditors.
4. The audit fee is nonrefundable.

Undergraduate students enrolled full time, for any given term ( 12 hours for fall and spring, six hours per summer session, or 12 hours for the full summer term) may audit one three-hour course at no charge.
5. If credit is desired, the course must be enrolled for and repeated, as a regular course, and the regular tuition must be paid.

## No-Credit Enrollment

Enrollment for no credit is accomplished in the conventional manner of enrollment, with regular admission and enrollment procedures being required. The student pays the regular tuition and fees, participates in class activities, and receives the grade of $N C$ upon completion of the coursework. The student must indicate in writing no later than the 12th day of classes (the fourth day of classes in summer sessions; the second day of classes in intersession terms) that he or she wishes to take a course for no credit. Permission of the instructor or department is required for this type of enrollment, and the student is listed on class rolls. This enrollment is different from audit enrollments, for which no enrollment or grade is recorded.

SMU Abroad students should also see the Grade Options for Courses Taken on SMU Abroad Programs section of this catalog.

## Class Attendance

Regular class attendance is required. At the beginning of the course, the instructor announces policies regarding the effect of class attendance on the student's standing in the course. These policies may include dropping a student from the course for nonattendance after a certain number of absences. All reasons for absence should be submitted at once to the instructor.

The satisfactory explanation of absence may release a student from disciplinary action but does not relieve a student from responsibility for the work of the course during his or her absence. A student who misses an announced test, examination or laboratory period in a regular course of study and has the permission of the instructor may be given an opportunity to make up the work at the instructor's convenience. The instructor determines in all instances the extent to which absences and tardiness affect each student's grade.

Students may be dropped by a course instructor or academic dean for nonattendance or tardiness with a grade of $W$ until the calendar deadline to drop. After the deadline, students must remain enrolled in the course.

Students may also be dropped by a course instructor for inappropriate classroom behavior. The instructor must submit the request by the University deadline to drop. After the deadline, the student must remain enrolled in the class and receive a final grade of $F$.

Students who miss two successive class meetings during the official add-drop period at the beginning of each term are subject to being dropped from the class. To avoid this possibility, students should contact the instructor or the department concerned immediately following such a series of absences.

A student who has a passing grade in a course at the time of the final examination, but who misses the examination and satisfies the dean that the absence was unavoidable, may secure from the dean permission to take the examination at a time convenient for the instructor.

## Excused Absences for University Extracurricular Activities and Religious Holidays

Students who participate in officially sanctioned, scheduled University extracurricular activities or observe a religious holiday should be given an opportunity to make up class examinations or other graded assignments missed as a result of this participation or related travel. The manner in which examinations or other assignments missed because of these activities are to be made up is left to the discretion of each individual faculty member. However, students should not be penalized in any way for these excused absences and should be informed by the instructor at the beginning of the term, preferably in writing, of the instructor's makeup policy. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up this work, and to obtain any class notes or other course material missed due to absence prior to taking any subsequent examinations or submitting any subsequent graded assignments.

This statement of University policy applies for all students. To minimize the difficulties caused for both studentathletes and their instructors by excused absences due to University-sanctioned athletic activities or related travel, the Athletic Department shall 1) make available to all student-athletes and their academic advisers prior to registration a copy of the student's activity and travel schedule for the upcoming term, so as to facilitate the student's enrollment in class sections that will minimize activity and travel conflicts; and 2) require all studentathletes to provide a copy of that term's activity and travel schedule, and a copy of this Statement of University Policy, to each of their instructors at the first class meeting of the term.

Other University colleges and departments whose students will miss classes because of their participation in officially sanctioned, scheduled University extracurricular activities, related travel, or observing of religious holidays are encouraged to adopt similar procedures to minimize the difficulties caused by such absences.

A list of religious holidays for use in requesting excused absences is available on the Official University Calendar. Students must notify the class instructor in writing by the 12th day of the term of any such absences that will occur during that term. Accommodations are to be made without penalty. More information can be found in the University Policy Manual, available at www.smu.edu/policy.

## Absence Due to Illness

The Dr. Bob Smith Health Center does not provide documentation for granting excused absences from class. If students are absent for illness, they should talk to their professors about how they might catch up with the material missed. If students are seriously ill and require hospitalization or an extended absence, students should talk to their professors and the Office of Student Life to decide how to deal with the interruption in their studies. To facilitate communication with their professors about their absence, students may submit the Absence from Class Form available at www.smu.edu/healthcenter.

## Interpretation of Course Numbers

Each SMU course has a four-digit course number. The first number indicates the general level of the course (3000-level and higher is considered advanced).

| 1000-1999 | First-year |
| :--- | :--- |
| $2000-$ <br> 2999 | Sophomore |
| $3000-$ <br> 3999 | Junior |
| $4000-$ |  |
| 4999 | Senior |
| $5000-5999$ | Senior or Graduate |
| $6000-$ |  |
| 9999 | Graduate |

The second digit specifies the number of credit hours; exceptions are noted below.

| Digit | Credit Hours |
| :---: | :--- |
| 0 | $0, .5$ or $10-15$ |
| 1 | 1 or 1.5 |

The third and fourth digits are used to make the course number unique within the department.

## Grade Policies

A student's grades are available to him or her through my.SMU Student Center.

## Grade Scale

The grade of a student in any course is determined by the instructor of the course. The following grades are authorized for recording on the student's official undergraduate academic record maintained by the University Registrar's Office.

| Grades | Description | Grade Points per Term Hour |
| :---: | :---: | :---: |
| A | Excellent Scholarship | 4.000 |
| A- | Excellent Scholarship | 3.700 |
| B+ | Good Scholarship | 3.300 |
| B | Good Scholarship | 3.000 |
| B- | Good Scholarship | 2.700 |
| C+ | Fair Scholarship | 2.300 |
| C | Fair Scholarship | 2.000 |
| C- | Fair Scholarship | 1.700 |
| D+ | Poor Scholarship | 1.300 |
| D | Poor Scholarship | 1.000 |
| D- | Poor Scholarship | 0.700 |
| F | Fail | 0.000 |
| P, CR | Pass, Credit | * |
| I | Incomplete | * |
| NC | No Credit Received | * |
| X | No Grade Received in Registrar's Office | * |
| WP/W | Withdrawal Passing/Withdrew | * |

Note: Asterisks denote grades not included in a student's GPA.

## Grade of F, D, W, and Missing/Blank

Failing is graded $F$. If the student's work is incomplete, poor quality and not acceptable, a grade of $F$ will be given. After such a grade, credit may be obtained only by repeating the course.

The grade of $D$ represents performance below average expectations. Students receiving a $D$ in a course that is a prerequisite to another course should consult with their advisers about repeating the course so that they will be adequately prepared for work in the following course. Courses passed with a grade of $D, D$ - or $D+$ will generally not count toward major or minor requirements.

The grade of $W$ cannot be recorded unless completion of the official drop or withdrawal process has occurred by the applicable deadline during the term of enrollment. Only the grade of $W$ may be recorded if the student has officially dropped courses from the schedule or withdrawn (resigned) from the University for the term. The grade of $W$ may not be revoked or changed to another grade because the act of officially dropping/withdrawing is irrevocable.

The grade of X is a temporary administrative grade used when an official grade has not been received from the instructor. The grade of X will be changed to F if a grade is not received within 60 days of the end of the term. Graduation candidates must clear all X's prior to the deadline on the Official University Calendar, which may allow less time than 60 days. Failure to do so can result in removal from the degree candidacy list and/or conversion of the grade of X to the grade of F .

A missing or blank grade also indicates an official grade has not been received from the instructor. Graduation candidates must receive a grade for all course enrollments prior to the deadline on the Official University Calendar. Failure to do so can result in removal from the degree candidacy list and/or the assignment of a grade of F .

## Grade of Incomplete

A student may temporarily receive a grade of Incomplete ( $I$ ) if at least 50 percent of the course requirements have been completed with passing grades, but for some justifiable reason acceptable to the instructor, the student has been unable to complete the full requirements of the course.

At the time a grade of $I$ is given, the instructor must stipulate in my.SMU the requirements and completion date that are to be met and the final grade that will be given if the requirements are not met by the completion date.

The maximum period of time allowed to clear the Incomplete is 12 months. If the Incomplete grade is not cleared by the date set by the instructor or by the end of the 12-month deadline, whichever is earlier, the grade of $I$ will be changed to the grade provided by the instructor at the time the Incomplete was assigned or to a grade of $F$ if no alternate grade was provided.

The grade of $I$ is not given in lieu of a grade of $F$ or $W$, or other grade, each of which is prescribed for other specific circumstances.

The grade of $I$ in a course does not authorize a student to attend or enroll in the course during a later term. Graduation candidates must clear all Incompletes prior to the deadline on the Official University Calendar, which may allow less time than 12 months. Failure to do so can result in removal from the degree candidacy list and/or conversion of the grade of $I$ to the grade indicated by the instructor at the time the grade of $I$ was given.

# Grade Options for Courses Taken on SMU Abroad Programs 

Courses taken on SMU Abroad fall and spring term programs may not be taken on a no-credit or pass/fail basis. The only exception to this policy is for courses designated by SMU's academic departments with no credit or pass/fail as their only grading basis option.

Courses taken on SMU Abroad summer programs and during Jan Term (January) may not be taken for a grade of NC (No Credit), but students may petition for one of these courses to be graded on a pass/fail basis. Students must petition approval for the pass/fail option from the program director and the faculty member teaching the course. The deadline to complete the Undergraduate Pass/Fail Option Declaration form to petition for a course taken on an SMU Abroad summer program is the payment deadline for the program; for Jan Term classes, the deadline is no later than the second day of classes for Jan Term. Forms are available in the schools' records offices.

## Grade Point Average

A student's grade point average (cumulative GPA) is computed by multiplying the credit hours of each course attempted by the grade points earned in the particular course and then dividing the total number of grade points by the total number of hours attempted, excluding those hours for which grades are shown with an asterisk on the grade chart. The GPA is truncated, not rounded, at three decimal places.

## Grade Changes

Changes of grades, including change of the grade of $I$, are initiated by the course instructor and authorized by the academic chair and by the academic dean of the school in which the course was offered. If a student requests a grade change, the instructor may ask the student to provide the request as a written petition, which may become an official part of any further process at the instructor's discretion. Changes of grades may be made only for the following authorized reasons: to clear a grade of $I$, to correct a processing error or to reflect a re-evaluation of the student's original work. A change of grade will not be based on additional work options beyond those originally made available to the entire class.

Changes of grades of $I$ should be processed within a calendar year of the original grade assignment. Other changes of grades must be processed by the end of the next regular term. No grade will be changed after 12 months or after a student's graduation, except in cases where a grade is successfully appealed - provided that written notice of appeal is given within six months following graduation - and in extenuating circumstances authorized by the academic dean and approved by the University Registrar's Office.

## Grades for Repeated Courses

## First-Year Repeat

Effective for students entering SMU fall 2017 or later, students may repeat up to three courses taken at SMU for which grades of $D+$ or lower were received, provided these courses were completed before or during a student's first two consecutive regular terms following matriculation (regardless of the student's enrollment or withdrawal). The grade from the repeated course, even if lower, will be the grade used to calculate the student's GPA. A course may be repeated only once under this policy, and it must be repeated within the next two regular terms (regardless of the student's terms of enrollment or withdrawal, but not counting a term of academic suspension) following the term in which the course was initially taken. Exceptions to the two-term restriction may be requested from the University Registrar's Office if the course is not taught again within that period.

Note: Students must repeat the exact same course originally taken to be considered a repeat. The course must be taken at SMU. Not every course is offered again and thus may not be available to be repeated.

Students who are disciplinarily suspended may petition for an extension. The student must declare to his or her academic dean by the 12th day of classes which courses he or she will repeat under this policy. Only the repeated course and not the initial credit hours count toward the number needed for graduation. Both the initial and the second grades are shown on the student's permanent academic record. Academic standing, as determined by the initial grade, stands. Students are cautioned that for some purposes, such as admission into an academic program, both grades or only the initial grade may be used.

## Regular Repeat

In all other cases, students will be allowed to repeat courses according to the following rules: Both the initial and the second grades will be recorded on the student's permanent academic record. Both grades will be included in the calculation of the GPA and in the determination of academic probation, suspension, dismissal, honors and graduation. Only the repeated course and not the initial credit hours count toward the number of hours needed for graduation.

Note: Students cannot take or repeat a course that is a prerequisite for a course already satisfactorily completed.
The courses a student can repeat are determined by the school of record:
Dedman College of Humanities and Sciences. Students can repeat courses in which the original grade was $D+$ or below. Other requests to repeat courses can be made by petition in consultation with the academic adviser/department through the Dedman Office of Records and Academic Services.

Cox School of Business. Students can repeat only those courses in which the original grade was a $D+$ or below.
Lyle School of Engineering. Students can repeat courses in which the original grade was a $C$ - or below. Such courses can be repeated only once.

Meadows School of the Arts. Students can repeat courses in which the original grade was a $C$ - or below. Such courses can be repeated only once.

Simmons School of Education and Human Development. Students majoring in applied physiology and sport management can repeat a course once in which the original grade was a $D+$ or below. Students in the Department of Teaching and Learning's educational studies degree program must repeat all required teacher education courses if they earn below a grade of $C$. All other undergraduate students in the Simmons School may repeat a course once if the original grade was a $C$ - or below.

## Pass/Fail Option

Students may take one course per term on a pass/fail basis. The maximum total credit with a grade of Pass that may count toward a degree is 12 hours. In addition to these courses, students may take up to four additional PRW2 courses beyond the courses required for their degree requirements. Only one additional PRW2 course may be taken per term. These additional PRW2 courses are graded on a pass/fail basis only and do not count toward the minimum hours for a student's degree requirements or toward the one pass/fail course per term limitation.

A student must indicate intention to take a course pass/fail no later than the 12th day of classes (the fourth day of classes in summer sessions; the second day of classes in intersession terms) by filing a form available in the school's records office. Students participating in SMU Study Abroad should review the deadlines under Grade Options for Courses Taken on SMU Abroad Programs. After the declaration of intent, students may not change their pass/fail declaration back to a letter grade. If a department grades a course pass/fail for all students by departmental policy, a
declaration by the student is not required. A failed course cannot be repeated on a pass/fail basis, except for those courses designated as pass/fail-only courses.

Students should consult with their advisers before declaring the pass/fail option for any course, as some courses may not be taken pass/fail. In general, elective courses may be taken on a pass/fail basis. With the exception of courses only offered on a pass/fail basis, courses required to fulfill the University Curriculum may not be taken pass/fail. Courses in the academic majors and minors also are excluded; however, in some programs, courses may be taken pass/fail after the minimum program requirements have been met. SMU schools may have different pass/fail policies for major and minor courses; students should see the academic requirements in each school's section of this catalog for information on pass/fail grading. There may also be other courses required to meet certain professional accreditation standards or entrance requirements, such as teacher preparation and preprofessional studies, that may not be taken pass/fail by a particular student. The departments or advisers concerned with these requirements will make these exclusions known to the students.

Under the pass/fail option, pass $(P)$ grades are $A, B$ and $C$ (including $C$-); failing ( $F$ ) grades are $D+, D, D$ - and $F$. A student who declares pass/fail is not entitled to know the regular letter grade, and a pass/fail grade cannot be changed to a regular letter grade (or vice versa) after the pass/fail grade has been assigned. The grade of $P$ is not calculated in the GPA, although the credit hours are included in the total number of hours earned. The grade of $F$ is calculated in the GPA. No courses in the Simmons School's educational studies degree program may be taken on a pass/fail basis.

## Grade Appeals

A student who feels that an assigned grade is other than the grade earned must first discuss the matter with the course instructor to determine if the discrepancy is caused by error or misunderstanding. At the time of the initial discussion, the student may be asked to provide a written petition requesting the change of grade.

A student who is not satisfied by the instructor's decision on a request for a grade change, and who maintains that the original grade was capriciously or unfairly determined, may appeal to the chair of the department in which the course was offered (or, in the case of a nondepartmental course, to a faculty agent designated by the dean of the school offering the course). After discussing the matter with the student, and bearing in mind that the final authority in matters of academic judgment in the determination of a grade rests with the course instructor, the chair (or faculty agent) will consult with the course instructor, who will subsequently report to the student the disposition of the appeal.

A student who is not satisfied by the disposition of the appeal may appeal the decision to the dean of the school offering the course. The dean will take action as he or she deems appropriate. A student may appeal the dean's decision to the provost. In their actions, the dean and the provost must respect the principle that the determination of a grade rests with the course instructor.

## Grade Forgiveness

SMU's policy for omitting courses from a student's GPA is found under Academic Forgiveness in the General Policies section of this catalog.

# Academic Advising and Satisfactory Progress Policies 

## Academic Advising

Academic advising is an important process for each undergraduate student at SMU. Each student must meet with his or her assigned academic adviser prior to enrolling for an academic term. At this meeting, the adviser will assist the student in planning majors and minors and a program of study, understanding the Degree Progress Report, and scheduling courses that will count toward graduation requirements. After the initial required advising session, the student is encouraged to seek assistance from the adviser when considering whether to add or drop courses.

For an effective advising relationship, the student must be prepared when meeting with the adviser. The student must initiate the advising appointment. Prior to the meeting, the student should obtain through my.SMU a Degree Progress Report that provides detailed information concerning completion of degree requirements. The student should also be familiar with different academic programs of interest. The adviser will give assistance to the student, but the student has the final responsibility for the accuracy of the enrollment, the applicability of courses toward the degree requirements, and his or her academic performance.

Students are assigned an academic adviser by their academic dean's office, records office or major department. A student who enrolls without first meeting with his or her assigned academic adviser may be subject to sanctions including, but not limited to, cancellation of the term enrollment and restriction from the self-service enrollment functions.

## Mandatory Declaration of Major

Students officially declare their major when they have made a firm choice and when they have met the specific program entrance requirements for their intended school and department. For most students, the declaration of the major occurs in the sophomore year. Students are expected to qualify for and to declare a major no later than upon completion of 75 credit hours, including credits by examination and transfer credits, in order to continue their studies at SMU. Students in the Simmons School's educational studies degree program must declare a second major as well; they cannot graduate with an educational studies degree alone.

## Change of Academic Program

Undergraduate students who desire to change their academic program - that is, transfer from one school to another within the University, change their degree objective, change their major or change their minor - should first notify the records office of the school in which they are currently enrolled. Students can change their academic program at any time during a term. The program change is effective on the date received, approved and processed. However, changes should be made at least one week prior to enrollment for a term for the change to be effective for that enrollment.

A nondegree, visiting student who wishes to be admitted to an undergraduate program offered by a school of the University must meet all standard University admission requirements.

## Concurrent Degree Programs

Students can simultaneously earn two degrees from two schools of the University with approval of the records offices of each school. The requirements for each degree must be met. Students should meet with advisers in both schools at an early date to prepare a proposed plan of study and to complete the processing of all necessary forms.

## Leave of Absence

A leave of absence is a temporary leave from the University - a kind of "timeout" - that may be necessary during an academic career. Students may elect to take leaves of absence for a variety of reasons, including 1) medical reasons due to accident or illness, 2) family crises or other personal situation that requires an extended absence from school, 3) financial issues that may take time to resolve, and 4) academic difficulties that may best be handled by taking time to refocus on college work.

Typically, a leave of absence is for one term or one academic year. A student may extend a leave of absence by contacting his or her academic department representative. The process to return to SMU after a leave-of-absence period can be an easy one, especially if the student has gone through the steps to file for a leave of absence and planned ahead for the return. Following SMU's leave-of-absence guidelines helps 1) assure that the degree requirements per the catalog of record when the student initially matriculated at SMU still apply upon return, 2) assist with financial aid processing, and 3) provide the support needed to return to SMU and successfully finish the degree.

The SMU Leave of Absence Policy provides students with a formal process to "stop out" of SMU for either voluntary or involuntary reasons. Typically, a leave of absence is for a temporary departure from the institution; however, intended permanent withdrawals from SMU will also be processed under the Leave of Absence Policy.

In addition, students who are participating in study-away programs that do not fall under the auspices of SMU should complete the Leave of Absence Form. The completion of this process will assist all respective offices at SMU to create and monitor a formal, centralized record of the status for all students who are not enrolled. The Leave of Absence Form and Leave of Absence procedures are available at www.smu.edu/registrar ("Forms Library" link).The University Policy Manual is available at www.smu.edu/policy.

The first step to effect a leave of absence is for the student to arrange an appointment to meet with his or her academic adviser, who will then assist the student with the process.

## Academic Progress

The University sets the goal and expects that all undergraduate students will make regular and satisfactory progress toward their degrees. There are three categories that may apply when an undergraduate student is not making satisfactory academic progress: 1) academic probation, 2) academic suspension or 3) academic dismissal. This policy sets out the standards and procedures for each of these categories. In addition, a student who has been suspended may seek academic reinstatement under the standards set out in this policy.

## Definitions: Academic Probation, Academic Suspension, Academic Reinstatement and Academic Dismissal


#### Abstract

Academic Probation. Academic probation is a serious warning that the student is not making satisfactory academic progress. A student on academic probation is still eligible to enroll and is considered in good standing for enrolling in classes and for certification purposes. Academic probation is not noted on the permanent academic record; however, a student on academic probation may be subject to certain conditions during the period of probation and will be subject to academic suspension if he or she does not clear academic probation. For academic probation periods and guidelines, students should see the Academic Probation sections below under the appropriate school of record.


Academic Suspension. Academic suspension is an involuntary separation of the student from SMU. Academic suspension is for at least one regular term. The term of suspension might be for a longer period depending on the
policy of the school of record or the terms of the individual student's suspension. Students suspended from one school are suspended from the University.

The status of academic suspension is recorded on a student's permanent academic record. While on academic suspension, a student is not in good academic standing for certification purposes and is not eligible to enroll at SMU. Students who have served their suspension and who are eligible to return may not enroll for any intersession terms without permission from their school of record.

Credits earned at another college or university during a term of suspension may not be applied toward an SMU degree. A grade point deficiency must be made up through enrollment at SMU.

Academic Reinstatement. A student who has been on academic suspension once may apply for reinstatement to SMU. If reinstated, the student may enroll in classes, and he or she is considered in good academic standing for purposes of certification. A student who is reinstated remains on academic probation until the conditions of academic probation are satisfied.

Academic Dismissal. A second suspension results in an academic dismissal from the University. Academic dismissal is final, with no possibility of reinstatement or readmission to the University. Academic dismissal is recorded on the student's permanent academic record.

## University-wide Requirements

Academic Probation. For all undergraduate students, a student will be placed on academic probation if he or she fails to meet the following:

1. For a student who enters SMU directly from high school or a student who enters SMU with fewer than 15 transfer hours, when the student fails to complete the Discernment and Discourse sequence and/or the Quantitative Foundation requirements of the University Curriculum after the completion of 60 units earned as SMU credit.
2. For a part-time student or a student who enters SMU with at least 15 transfer hours, when the student fails to complete the Discernment and Discourse sequence and/or the Quantitative Foundation requirements of the University Curriculum after completion of 30 units through enrollment at SMU.
Academic Suspension. For all undergraduate students, a student will be placed on academic suspension if he or she fails to meet the following:
3. For a student who enters SMU directly from high school or a student who enters SMU with fewer than 15 transfer hours, when the student fails to complete the Discernment and Discourse sequence and/or the Quantitative Foundation requirements of the University Curriculum after the completion of 75 units earned as SMU credit.
4. For a part-time student or a student transferring more than 15 hours, when the student fails to complete the Discernment and Discourse sequence and/or the Quantitative Foundation requirements of the University Curriculum after completion of 45 units earned as SMU credit.

## SMU Pre-Majors

Academic Probation. For SMU Pre-Majors, once a student's cumulative SMU GPA falls below 2.000, the student is placed on academic probation at the beginning of the next enrolled term (fall, spring or summer). The student has the next two enrolled regular terms (fall, and spring) and the first summer term following the probation start date to raise his or her cumulative SMU GPA to at least a 2.000. A student has the opportunity to enroll only for one summer term while on academic probation. The summer term must be at SMU.

When the student is placed on academic probation because his or her cumulative SMU GPA is below 2.000, then the student will be assigned to a designated probation counselor. At the beginning of his or her next term at SMU, the student will be required to complete a self-assessment and share this self-assessment with the probation counselor,
who will then work with each student to determine the appropriate academic interventions. These academic interventions can include, but are not limited to, the following:

1. Re-evaluation of course enrollments and pre-major objectives.
2. Biweekly academic counseling sessions with the probation counselor (or his or her designee).
3. Enrollment in courses, such as HDEV 1110-Reading and Learning Strategies or HDEV 1211 - Success Strategies, aimed at improving academic performance.
Evaluation of medical and/or psychological needs such as the need for drug or alcohol education.
Participation in tutoring and/or study skills workshops.
The student will sign a contract that stipulates the agreed-upon academic interventions.
Academic Suspension. If a student does not achieve a cumulative SMU GPA of at least a 2.000 according to the stipulations stated above, then he/she will be placed on academic suspension. A student is suspended effective the first day of the next term (fall, spring or summer), and the suspension period includes a minimum of one regular term (fall or spring). Credits earned at another college or university during a term of suspension may not be applied toward an SMU degree. A grade point deficiency must be made up at SMU.

A student may petition to the University Committee on Academic Petitions for an additional, consecutive probationary term if the term GPA during the student's probationary period indicates academic improvement and if the student has undergone all academic recovery efforts agreed upon in the contract with the probation counselor.

As soon as possible after the student is placed on academic suspension, the student should contact the probation counselor if he/she has any desire or intent to seek reinstatement after the period of academic suspension. The probation counselor will work with the student to determine appropriate conditions that the student should satisfy to be eligible for reinstatement. These conditions might include the completion of coursework with a certain minimum GPA; however, reinstatement is not guaranteed.

Academic Reinstatement. A student who has been academically suspended once may apply for academic reinstatement to the University. Reinstatement to the University is not guaranteed. A student is not eligible to request reinstatement until the end of the time period of academic suspension. The request for reinstatement should be submitted to the University Committee on Academic Petitions, which will make a decision on the request. Ordinarily, the decision whether to grant reinstatement will be based primarily on whether the student has satisfied the conditions set out for the period of academic suspension.

A student who is reinstated after academic suspension has two regular enrolled terms (fall and spring) in which to earn a cumulative SMU GPA of at least a 2.000 . A student will return on academic probation and may not be reinstated for a summer term. Students who do not earn a cumulative SMU GPA of at least a 2.000 within two regular terms (fall and spring) after having been academically suspended will be permanently dismissed.

Academic Dismissal. A second suspension is final, resulting in dismissal from the University with no possibility of readmission.

## Declared Majors

## Dedman College of Humanities and Sciences

Academic Probation. Students who have a declared major in Dedman College and whose cumulative SMU GPA falls below 2.000 are placed on academic probation. Academic probation is for a minimum of one regular term (excluding intersessions and summer sessions). The dean may impose special conditions in exceptional probationary situations. Students are removed from academic probation status when they achieve a cumulative GPA of 2.000 or higher.

Academic Suspension. Declared Dedman students whose cumulative GPA remains below 2.000 following a term of academic probation will be suspended. Suspension is for a minimum of one term, not counting intersessions or
summer sessions. Credits earned at another college or university during a term of suspension may not be applied toward an SMU degree. A grade point deficiency must be made up through enrollment at SMU.

Reinstatement on Probation Following Suspension. Students who have been suspended once may apply for reinstatement to the University, but reinstatement is not guaranteed. In certain cases, prescribed conditions, including the completion of coursework elsewhere, must be met before a student will be approved for reinstatement. Students who have been reinstated to the University following suspension remain on probation and are normally allowed two regular terms within which to make up their academic deficiencies and return to good standing. However, special conditions for the first term may be set in individual cases.

Academic Dismissal. A second suspension is final, resulting in dismissal from the University with no possibility of readmission.

## Cox School of Business

Academic Probation. A student will be placed on academic probation for one regular term following the term in which the SMU term, cumulative or business GPA falls below 2.000. The business GPA is effective at nine business credits earned. A student on probation must enroll for a minimum of nine hours and a maximum of 12 hours in the term of probation, will not be allowed to enroll for an internship or directed study, and must meet with the director of academic advising for the B.B.A. program or a designee at appropriate intervals during the term, to be determined by the director. Coursework taken in intersession or summer terms will not affect probationary status. Students who do not meet all requirements of probation will not be removed from probation even if the GPA rises to 2.000 or higher.

Academic Suspension. A student on academic probation who fails to maintain an SMU term, cumulative or business GPA of 2.000, or who fails to complete successfully a minimum of nine credit hours in the term of probation, will be suspended. A student who has been suspended must petition the director of the B.B.A. program for reinstatement, but this petition will not be considered until the student has been suspended for at least one full regular term (summer sessions and intersessions excluded). For example, a student suspended at the end of the spring term may petition for reinstatement for the beginning of the next spring term, but no sooner.

Reinstatement on Probation Following Suspension. Petitions for reinstatement must set forth clearly the reasons for the previous unsatisfactory academic record and must delineate the new conditions that have been created to prevent the recurrence of such performance. Each petition is considered individually on its own merits. After consideration of the petition and perhaps after a personal interview, the student may be reinstated on academic probation if the suspension was the student's first. Reinstated students must meet all requirements of academic probation.

Academic Dismissal. A second suspension is final, resulting in dismissal from the University with no possibility of readmission.

Failure at Other Colleges. Students who are on academic probation or academic suspension from other colleges will not be admitted to the Cox School of Business until they are no longer on probation or suspension with their home school. Students who have received academic suspension twice from any college or university will not be admitted to the Cox School. Failure to disclose any such suspensions will be grounds for dismissal from the Cox School.

## Lyle School of Engineering

Academic Probation. A declared Lyle student whose SMU term or cumulative GPA falls below 2.000 may be placed on academic probation. The minimum period of probation is one regular term (excluding intersessions and summer sessions). The student remains on probation until the overall GPA is 2.000 or higher or until he or she is suspended. A student on probation may enroll in a maximum of 13 credit hours per fall or spring term and a maximum of eight credit hours per summer term during the term(s) of probation. The student is not allowed to serve
as an officer of any organization representing either the Lyle School of Engineering or SMU. The student on probation may not participate in any extracurricular activities that might interfere with or detract from academic efforts.

Academic Suspension and Reinstatement on Probation Following Suspension. A student on probation who fails to maintain a GPA of at least 2.000 during an academic term will be suspended. A student who has been suspended may petition the dean for reinstatement, but this petition will not be considered until the student has been suspended for at least one full regular term. For example, a student suspended at the end of the spring term may petition for reinstatement for the beginning of the next spring term, but not sooner. Petitions for reinstatement must set forth clearly the reasons for the previous unsatisfactory academic record and must delineate the new conditions that have been created to prevent the recurrence of such performance. Each petition is considered individually on its own merits. After consideration of the petition and perhaps after a personal interview, the student may be reinstated on academic probation if the suspension was the student's first.

Academic Dismissal. A second suspension is final, resulting in dismissal from the University with no possibility of readmission.

## Meadows School of the Arts

Academic Probation. A declared Meadows student who fails to maintain an SMU cumulative or term GPA of 2.000 in a regular term (excluding intersessions and summer sessions) will be placed on academic probation for the following regular academic term. A student on academic probation may enroll for a maximum of 13 credit hours and must achieve a term and cumulative 2.000 GPA at the end of the term.

Note: A student who fails to meet divisional artistic standards may be placed on artistic probation at any time.
Academic Suspension and Reinstatement on Probation Following Suspension. A student who fails to meet the terms of academic probation will be suspended for one regular academic term, after which the student may apply for reinstatement. A student may petition the senior associate dean for reconsideration, and the student may be reinstated on academic probation.

A student who fails to meet divisional artistic standards may be suspended from the division at any time.
Academic Dismissal. A second suspension is final, resulting in dismissal from the University with no possibility of readmission.

## Simmons School of Education and Human Development

Academic Probation. Declared Simmons School students in the applied physiology and sport management major whose cumulative SMU GPA falls below 2.000 are placed on academic probation. Academic probation is for a minimum of one regular term (excluding intersessions and summer sessions). The dean may impose special conditions in exceptional probationary situations. Students are removed from academic probation status when they achieve a cumulative GPA of 2.000 or higher.

Declared Simmons School students in the educational studies degree whose cumulative SMU GPA falls below 2.500 and whose SMU education courses GPA fall below 3.000 are placed on academic probation. Academic probation is for a minimum of one regular term (excluding intersessions and summer sessions). The dean may impose special conditions in exceptional probationary situations. Students are removed from academic probation status when they achieve a cumulative GPA of 2.500 or higher and an education courses GPA of 3.000 or higher.

Academic Suspension. Declared Simmons School students in the applied physiology and sport management major whose cumulative GPA remains below 2.000 in any regular term following a term of academic probation will be suspended. Declared Simmons School students in the educational studies degree program whose cumulative GPA remains below 2.500 in any regular term following a term of academic probation will not be permitted to continue in the educational studies degree program. While not suspended from the University, these students are not permitted
to pursue an educational studies degree. Suspension is for a minimum of one term, not counting intersessions or summer sessions. Credits earned at another college or university during a term of suspension may not be applied toward an SMU degree. A grade point deficiency must be made up through enrollment at SMU.

Reinstatement on Probation Following Suspension. Students who have been suspended once may apply for reinstatement to the University, but reinstatement is not guaranteed. In certain cases, prescribed conditions, including the completion of coursework elsewhere, must be met before a student will be approved for reinstatement. Students who have been reinstated to the University following suspension remain on probation, and they are normally allowed two regular terms within which they can make up their academic deficiencies and return to good standing. However, special conditions for the first term may be set in individual cases.

Academic Dismissal. A second suspension is final, resulting in dismissal from the University with no possibility of readmission.

## Academic Petitions and Waivers

Petitions and/or requests for waivers concerning University requirements, graduation requirements and the evaluation of transfer work should be submitted to the student's school of record office. Additional information is found under Grade Appeals in the Grade Policies section of this catalog. Petitions and/or requests for waivers concerning a major or a minor should be submitted to the appropriate department chair or program coordinator/director for consideration.

## SMU Credit Requirement

University policy requires that of the 122 minimum required credit hours for an undergraduate degree, at least 60 hours must be earned as SMU credit. In other words, 60 hours must be completed through enrollment at SMU's Dallas campus, SMU-in-Plano, SMU-in-Taos, SMU Abroad programs and/or in SMU-approved international programs, and/or by test and other credits awarded by SMU departments as SMU courses. Credit hours earned in venues not listed above that are applied toward the 122 minimum will be recorded as transfer credits. Therefore, regardless of the number of transferable credits completed elsewhere, to receive an SMU undergraduate degree, students must earn 60 credit hours through enrollment at SMU. Of the 122 minimum required credit hours for an undergraduate degree, only two hours may be Personal Responsibility and Wellness courses. For further degree requirements, students should refer to the individual school sections of this catalog.

## Transfer Coursework

Policies for transfer coursework are found under Transfer Courses From Other Institutions in the General Policies section of this catalog.

## Graduation Policies

## Apply to Graduate

Students must file an Application for Candidacy to Graduate with their school's records office no later than the last day of the first week of the term in which they will complete all degree requirements. Applications are filed through my.SMU Self-Service Student Center by the deadline date on the Official University Calendar.

Students who file an application after the published deadline may be required to pay a nonrefundable late fee. Late applications may be denied after the start of the next term, and the Application for Candidacy to Graduate applied to
the next conferral date. Students taking coursework at another institution and transferring the course(s) back to SMU are responsible for ensuring that the University Registrar's Office receives their official transcript in order for their degree to be conferred for the anticipated graduation term.

SMU has three degree conferral periods for most programs: fall (December), spring (May) and summer (August). In addition, students who complete their degree requirements during a Jan Term (January), May term or August term will have their degrees conferred at the conclusion of the intersessions.

## Commencement Participation

An All-University Commencement Convocation is held in May for students enrolled and on schedule to complete degree requirements during the spring term. Students enrolled and on schedule to complete all degree requirements during the following summer session may also participate in the University Commencement Convocation, although their degrees will not be conferred until August. Students may also participate in departmental or school ceremonies according to the policies of the departments or schools.

An All-University December Commencement Convocation is held each year for students completing degree requirements during the fall term. Students who completed degree requirements during the previous summer session may also participate. Students on schedule and enrolled to complete all degree requirements during the following Jan Term (January) intersession may also participate in the December ceremony, although their degrees will be conferred in January.

A student may participate once in either the All-University Commencement Convocation in May or the All-University December Commencement Convocation for a given degree, but not both.

To participate in a ceremony, a student must apply online and file with their school's records office an Application for Candidacy to Graduate or Intent to Participate Form.

## Degree Honors

There are three classes of graduation honors: summa cum laude, magna cum laude and cum laude. The awarding of graduation honors will be determined by minimum GPAs announced at the beginning of each academic year for each of the five undergraduate schools - Dedman, Cox, Lyle, Meadows and Simmons. The minimum GPAs generally will represent the top 5 percent, 10 percent and 15 percent of graduates in the school. Students earning a degree with majors in two or more schools will receive the highest degree honors for which they are eligible.

The minimum GPAs for each school will be determined by pooling all graduates in the school from the previous three academic years and determining the GPAs in each school that represent the top fifth, 10 th and 15 th percentiles. The GPA used is the lower of the student's SMU cumulative GPA and all-college GPA (this includes transfer work) and includes undergraduate coursework only.

The minimum graduation honors GPAs for students graduating during the 2017-2018 academic year will be announced in October 2017. Students may obtain information about minimum GPAs required in past years from their academic schools or online at www.smu.edu/registrar/Academic Records.

Separate from earning graduation honors, students who have completed the requirements of the University Honors Program may earn honors in the liberal arts. Departmental distinction may also be awarded in Dedman College of Humanities and Sciences, Lyle School of Engineering, Meadows School of the Arts, and Simmons School of Education and Human Development; the Cox School of Business awards the honors in business distinction to students who have successfully completed the requirements for the Cox B.B.A. Honors Program. These honors require completion of requirements prescribed by the department or school. Further information may be obtained from the individual departments and schools.

## Statute of Limitations for Degree Plans

A student who has been readmitted to the University following an absence of more than three years will be expected to meet all requirements for graduation current at the time of readmission.

## University-wide Requirements

In keeping with the University's educational mission, all undergraduates are required to complete a program of study that emphasizes the values of what historically has been known as a liberal education - namely, learning to read, write and think critically and acquiring a basic understanding of human society in all its dimensions. The courses and experiences included in this program of study provide a solid and broad education that will equip students to compete and adapt to the rapidly changing contemporary world and complement more focused study in the major.

The University Curriculum is the vehicle through which SMU ensures that all undergraduates meet the general education requirements stipulated by the Southern Association of Colleges and Schools Commission on Colleges, specifically, "Through general education, students encounter the basic content and methodology of the principle areas of knowledge: humanities and fine arts, social and behavioral sciences, and natural sciences and mathematics. Courses in each of these specific areas introduce a breadth of knowledge and reinforce cognitive skills and effective learning opportunities for each student. Therefore, it is important that courses selected by students do not focus on skills, techniques and procedures specific to that student's occupation or profession. Such courses may also include interdisciplinary courses." The list of all UC courses available each term can be accessed online at www.smu.edu/Academics/OfficeofGeneralEducation/UniversityCurriculum.

## The University Curriculum

The motto of Southern Methodist University, Veritas Liberabit Vos ("the truth shall set you free"), epitomizes the ideals of an SMU education and is the fundamental principle for the University Curriculum. The wisdom to acquire and critically reflect on existing knowledge and the insight and capacity to create new knowledge - the hallmarks of an educated person - exemplify the characteristics SMU seeks to instill in its students.

The University Curriculum constitutes roughly one-third of the baccalaureate degree plan for all SMU students. It consists of three main coursework components plus a number of specified Proficiencies and Experiences. The heart of the University Curriculum is its Foundations, Breadth and Depth requirements. UC-2016 Foundations requirement consists of Discernment and Discourse (DISC), Personal Responsibility and Wellness (PRW), Quantitative Foundations (QF), Second Language (SL) and Ways of Knowing (KNW). Breadth consists of Creativity and Aesthetics (CA), Historical Contexts (HC), Individuals, Institutions and Cultures (IIC), Language and Literature (LL), Philosophical and Religious Inquiry and Ethics (PRIE), Science and Engineering (SE) and Technology and Mathematics (TM). The Depth requirement consists of History, Social and Behavioral Sciences (HSBS), Humanities and Fine Arts (HFA), and Natural and Applied Sciences (NAS).

The number of courses and/or credit hours required to complete the University Curriculum will vary according to the individual student's academic background, preparation, major and curricular choices. The list of UC courses will vary by term, especially with respect to identified and approved UC Proficiencies and Experiences courses, and will be listed on the Office of the Registrar Web page. Each student has access to a regularly updated and individualized Degree Progress Report that charts their progress and identifies courses the student can use to meet the various requirements. Students are advised to work closely with divisional/departmental and University advisers in navigating the UC requirements and planning their coursework each term. UC requirements can be met through any part of the student's undergraduate career, including work in the major or minor, elective courses or approved activities.

## Summary of University Curriculum Requirements

## University Curriculum Foundations

A university education must provide students in all majors with the tools to embark on a lifetime of learning. UC Foundations courses assure that students read and write critically, possess basic quantitative reasoning skills,
understand the concepts of lifelong personal responsibility and wellness, and explore how different academic disciplines define and create knowledge. Because these skills are essential for a successful college experience, Foundations courses should be completed within a student's first four terms of enrollment.

## Discernment and Discourse

The University Curriculum emphasizes academic reading, writing and oral expression in the Discernment and Discourse sequence. The Discernment and Discourse sequence introduces students to academic thought and communication in seminars that allow students to work closely with faculty in small classes. All seminars share the goal of assisting students in the development of critical reading, expository and analytical writing, oral communication, and research protocols.

Most students will satisfy this requirement by taking DISC 1311 in the fall and DISC 1312 in the spring. Students scoring lower than a 500 on the SAT Critical Reading section or lower than 21 on the ACT English section will begin in DISC 1311. Students scoring at or above 500 (SAT Critical Reading) or at or above 21 (ACT English) will begin in DISC 1312. Students scoring a 4 or 5 on the Advanced Placement English Language/English Literature Test and students scoring 5, 6 or 7 on the IB English A Literature higher-level exam will place out of DISC 1312 and begin with DISC 1313. Students participating in the University Honors Program satisfy this requirement with DISC 2305 and DISC 2306 in the fall and spring of their first year. Each term, students must be enrolled in and may not drop Discernment and Discourse until they have completed the requirement. A minimum grade of C - is required to pass each course.

- DISC 1311 - Foundations of Written and Oral Discourse
- DISC 1312 - Introduction to Academic Discourse
- DISC 1313 - Inquiry Seminar
- DISC 2305-Honors Humanities Seminar I
- DISC 2306 - Honors Humanities Seminar II


## Quantitative Foundation

Quantitative reasoning refers to the ability to understand, evaluate and use quantitative information. Quantitative information takes many forms, and quantitative reasoning skills span a vast spectrum from basic numerical manipulations to advanced statistics and mathematics. One three-credit course is required to ensure that students possess these necessary skills. Students scoring a 4 or 5 on the Calculus AB, Calculus BC or Statistics Advanced Placement tests and students scoring 5, 6 or 7 on the IB Mathematics higher-level exam will place out of this requirement. Math placement testing is also available through SMU's Mathematics Department examinations. The list of UC Quantitative Foundation courses offered each term can be accessed at www.smu.edu/registrar.

## Personal Responsibility and Wellness

All students complete this requirement by completing two one-credit courses. Taken during the first year, PRW1 introduces students to the University and explores three sets of issues: 1) the role of personal responsibility in coping with college and life's other transitional periods; 2) challenges and opportunities such as managing time and stress, benefiting from diversity and autonomy, dealing with pitfalls related to alcohol and drugs, and exploring resources and activities on campus; and, 3) personal finance decisions while at SMU and later in life, including managing money, using credit cards and making major purchases.

In PRW2 (physical fitness courses), students work with instructors to establish personal goals and fitness plans for the term. A variety of individual and group fitness courses will be available, with each course containing core objectives and student-learning outcomes based on health-related fitness components. Grades will be given based on attendance, understanding of training/health principles and satisfactory improvement toward the goals that students set for themselves. The list of PRW courses available each term can be accessed at www.smu.edu/registrar.

## Ways of Knowing

Ways of Knowing (KNW) courses are interdisciplinary courses that explore how natural scientists, social scientists, humanists, artists, engineers, and professionals in business and education address important issues. Sometimes taught collaboratively by faculty members from different departments and organized around a major topic or "big question," KNW courses develop students' understanding of the multiple approaches whereby different disciplines define, acquire and create knowledge, including the ethical considerations involved. Students are required to complete either one KNW or a departmental course that is tagged with Ways of Knowing. The list of courses available each term can be accessed at www.smu.edu/registrar.

- KNW 2000 - Special Topics
- KNW 2001 - The Oxford Experience
- KNW 2002 - Understanding Contemporary France Through the Perspectives of World War II
- KNW 2199 - The Taos Experience: Everyday Life and Rituals
- KNW 2300 - Introduction to Engineering Design
- KNW 2301 - Politics, Communication, and the Media
- KNW 2302 - John F. Kennedy: His Life, His Times, and His Legend
- KNW 2303 - Under the Influence: Discourses of Inebriation, Addiction, and Recovery
- KNW 2304- Meaning of Conflict in Human Relationships
- KNW 2305-Musical Acoustics
- KNW 2306 - The Kids Are All Right
- KNW 2307 - Gender and the Written Word: From Newspapers to Novels
- KNW 2308 - Mathematical Models of Cognition
- KNW 2309 - Theology and Economics: God, Faith, and Money
- KNW 2310 - The Art of Science
- KNW 2311 - Perspectives on American Business Through the Lens of General Motors
- KNW 2312 - Religious and Social Meanings of the Holy Land
- KNW 2313 - Science and Politics in the Nuclear Age
- KNW 2315 - Ethnoviolence
- KNW 2330-Spanish Civilization
- KNW 2333 - Introduction to the Scientific Method: Critical and Creative Thinking
- KNW 2399-Special Topics
- KNW 2367- The Greater Dallas Experience
- KNW 3360 - The North American Great Plains
- KNW 3375-Corporate Responsibility and Ethical Leadership
- KNW 3399-Special Topics


## Second Language

SMU students are expected to demonstrate proficiency in reading, writing, speaking, and understanding a second language equal to the first years' study of the language at the university level. There are varieties of ways to satisfy the second language requirement:

Entering students can place out of this requirement in ONE of the following ways:

- Scoring a 4 or 5 on Advanced Placement (AP) language exam.
- Scoring a 5, 6, or 7 on the International Baccalaureate (IB) higher-level language exam.
- Placing beyond 4th semester language on the SMU placement test (students will be contacted by the World Language and Literature adviser for further testing).
- Demonstrating native literacy in a language other than English.
- Transferring in two sequential terms of a second language taken at any regionally accredited, postsecondary institution.

Students can meet the second language requirement at SMU in ONE of the following ways:

- Take 2 terms of a brand-new language.
- Continue a language already studied.
- Take two sequential terms of a second language at any regionally accredited, post-secondary institution.


## University Curriculum Breadth Requirements

Students are required to complete seven Breath courses in the three areas of Humanities and Fine Arts (HFA); Science, Technology, Engineering, and Mathematics (STEM); and History, Social and Behavioral Sciences (HSBS). Humanities and Fine Arts consists of the divisions of Creativity and Aesthetics (CA); Philosophical and Religious Inquiry and Ethics (PRIE); and Language and Literature (LL). Science, Technology, Engineering, and Mathematics consists of the divisions of Pure and Applied Sciences (PAS) and Technology and Mathematics (TM). History, Social and Behavioral Sciences consists of the divisions of Historical Contexts (HC) and Individuals, Institutions and Cultures (IIC). Students must complete one course in each division (CA, PRIE, LL, PAS, TM, HC, and IIC) for a total of seven. Courses may meet the requirements of two divisions as long as the divisions are in different areas. Such double counting could, in principle, reduce the seven-course requirement to four. The Breadth courses introduce students to fundamental ideas in disciplines associated with each division. Breadth courses may satisfy Proficiency and Experiences requirements (see below). The maximum of 22 credits reflects that lab-based science courses may be four credits.

The list of UC Breadth courses available each term can be accessed at www.smu.edu/Academics/OfficeofGeneralEducation/UniversityCurriculum.

## Creativity and Aesthetics (CA)

To develop an understanding of and appreciation for the creative impulse in a variety of artistic, cultural and historical contexts, graduates of SMU will be able to identify, explore and explain concepts fundamental to the visual, literary and performing arts through critical analysis, performance or the act of personal creation. Creativity and Aesthetics courses also seek to expose students to the fundamental role that creativity plays in maintaining a robust, adaptive and prosperous society. Students take one course from the Creativity and Aesthetics division.

## Philosophical and Religious Inquiry and Ethics (PRIE)

Students often enter college asking questions such as who am I, why am I here, what constitutes a good life? Philosophical and religious inquiry helps them explore approaches humanity has taken to answer these and other questions. With the resurgence of religion worldwide such, exploration is timely. This inquiry also serves as the basis for thoughtful choice and action. Students must take one course from the Philosophical and Religious Inquiry and Ethics division.

## Language and Literature (LL)

Students will demonstrate how symbolic systems communicate meaningfully within their language communities. Students will analyze and create meaningful texts such as analytical essays, literary works, computer code, logical proofs, musical compositions, and films. Students must take one course from the Language and Literature division.

## Historical Contexts (HC)

To understand societies in the contemporary world and the forces that have shaped them, graduates of SMU will be able to identify and analyze problems, events and documents or artifacts from the past and know how to situate them in their appropriate social, political, economic, and cultural contexts. Students take one course from the Historical Contexts division.

## Individuals, Institutions and Cultures (IIC)

To understand complex social systems, graduates of SMU will explore contemporary efforts to document and analyze the interaction of individuals, cultures and institutions that shape economic, political and social experiences. Students take one course from the Individuals, Institutions and Cultures division.

## Science and Engineering (SE)

To be active, engaged citizens in a global society, graduates of SMU will be able to engage in scholarly discourse in science and engineering and to understand the implications of these disciplines. Students should be aware of the meaning and methods of science and engineering, and of the ways that both disciplines shaped and continue to shape the world around us.

## Technology and Mathematics (TM)

Technology plays an increasingly important role in the lives of our students, which will only expand after graduation. Underlying most modern technologies are advances in mathematics. Students will discover the history, uses, and implications of mathematics and technology that shape our world. Students must take one course from the Technology and Mathematics division.

## University Curriculum Depth Requirements

The Depth courses provide more advanced knowledge or the application of fundamental ideas to other disciplinary areas. Students are required to complete three Depth courses in the three areas of Humanities and Fine Arts (HFA), History, Social and Behavioral Sciences (HSBS), and Natural and Applied Sciences (NAS).

Most students will fulfill at least one and often two Depth requirements with coursework required for their major. Courses may meet the requirements of two divisions as long as the divisions are in different areas. Such double counting could, in principle, reduce the three-course requirement to two. Depth courses may satisfy Proficiency and Experiences requirements. Students may use a second Science and Engineering (SE) Breadth course to satisfy the Natural and Applied Sciences (NAS) Depth requirement. Only one SE requirement (lecture and lab) can be met through AP credit. The maximum of 10 credits reflects that lab-based science courses may be four credits.

## Proficiencies and Experiences

To prepare SMU graduates for both career development and lifelong learning, the University Curriculum requires all undergraduates to develop and refine writing, quantitative reasoning, oral communication and information literacy skills beyond the introductory level provided through Foundations courses. The University Curriculum also encourages all undergraduates to apply curricular knowledge to the diverse, global communities in which they will live and work. The following UC Proficiencies and Experiences (P\&E), required of all undergraduate students, may be met through credit-bearing coursework or approved, noncredit activities that have been identified as meeting that requirement.

All students must complete two additional P\&Es from among Community Engagement, Global Engagement, and Quantitative Reasoning through credit-bearing coursework or through non-credit activities that have been identified as meeting the P\&E Student Learning Outcomes (SLOs).

All students must complete two additional P\&Es through credit-bearing coursework or through non-credit activities that have been identified as meeting the P\&E Student Learning Outcomes (SLOs).

A list of courses offering opportunities each term for fulfilling UC Proficiencies and Experiences requirements can be accessed at www.smu.edu/registrar. Students should see their adviser or the Office of the University Curriculum for approved non-credit activities that satisfy P\&Es.

## Writing

Building on the Discernment and Discourse sequence, students will enhance their writing ability by composing coherent, well-supported and carefully edited essays and reports suitable for a range of different audiences and purposes. Students must complete at least one Writing P\&E.

## Quantitative Reasoning

Building on the Quantitative Foundations requirement, students will enhance their mathematical or statistical abilities in activities that require substantial quantitative reasoning.

## Information Literacy

Satisfying the Information Literacy proficiency requires students to engage in independent research; data generation and/or analysis; or identifying, evaluating and using material data beyond what is provided by the professor or covered in class.

## Oral Communication

Students will engage in substantial activities, inside or outside the classroom that develop oral communication skills, such as arguing a position, presenting spontaneous ideas, presenting reports and projects, or performing presentations and speeches fluently.

## Community Engagement

The Community Engagement experience requirement challenges students to engage in a reflective way in substantial community-based activities where communities are groups of people with a shared identity held together by ties of affinity or necessity not easily broken. This requirement may be satisfied by engaging in communities that are civic, religious, professional, familial, ethnic or otherwise constituted.

## Human Diversity

The Human Diversity proficiency requirement challenges students to explore in a reflective way basic issues related to race, ethnicity, gender, or societal difference. This requirement may be satisfied by taking courses or participating in on- or off-campus projects that bring together aspects of human diversity in a creative and meaningful way. It is recommended that students complete this requirement in their first year.

## Global Engagement

The Global Engagement experience requirement challenges students to participate in a reflective way by partaking in activities outside or inside the classroom or by engaging intellectually with cultures outside the U.S. or in immigrant communities inside the U.S. This requirement may be satisfied by taking courses or participating in on- and offcampus projects, which are sustained over time. Many SMU Abroad courses satisfy this requirement.

## University Curriculum Protocols

1. Credit earned by examination may be used to fulfill requirements in the Foundations and Breadth categories.
2. With the exception of courses that are offered only with pass/fail grading, courses taken to fulfill UC requirements may not be taken pass/fail.
3. Following SMU matriculation, students must meet Discernment and Discourse, Quantitative Foundation, Personal Responsibility and Wellness, and Ways of Knowing UC Foundations requirements through SMU coursework.
4. PRW1 should be completed during the first 30 hours of undergraduate work.
5. A minimum grade of C-is required in all DISC-sequence courses, and students must be enrolled in and may not drop Discernment and Discourse until they have completed the DISC requirement.
6. Students may request consideration of a course transferred from another regionally accredited institution. All UC student requests for substitution must include concrete assessment evidence that the proposed alternative course or experience satisfies the specific Student Learning Outcomes associated with the requirement. The request form is then vetted by the student's academic adviser and reviewed by SMU departments where appropriate before it is submitted to the associate dean for general education or the assistant dean for the University Curriculum for approval consideration. Appeals may be made to the Committee on Academic Petitions.
7. Probation and suspension rules related to the Foundations components of the University Curriculum are found under "Academic Progress: University-wide Requirements" in the Academic Records and General and Enrollment Standards section of this catalog.

## Educational Facilities and Services

## Altshuler Learning Enhancement Center

The A-LEC is devoted to helping students become more interdependent, self-confident and efficient learners. In addition, its mission is to help students respond effectively to specific academic challenges, to articulate and attain their own educational goals, and to succeed at any level of the undergraduate curriculum. Each year, about one third of SMU's undergraduate students participate in A-LEC programs, courses and services, including more than half of first and second year students. All A-LEC services are available to undergraduate students at no cost. Some services are available on a drop-in basis and others are available by appointment. Students may be referred to the A-LEC by their advisers, faculty or a resident assistant, but most students choose to come on their own. More information is available online at www.smu.edu/alec.

Tutoring Services. The A-LEC offers subject-specific tutoring in most first- and second-year courses. Tutorials are offered in individual, small-group and review session formats. The tutoring schedule changes regularly and updates can be found on the A-LEC website.

Writing Center. English department faculty members assist undergraduate students at any stage of the writing process, from planning a draft to learning from previously graded papers. Faculty assist with all undergraduate writing assignments, from DISC through applications to graduate school.

Workshops. Each fall, the A-LEC offers about 40 study strategy workshops; in spring, approximately 20 are offered. Among the topics covered are note taking, time management, test-taking strategies and textbook study and reading.

HDEV 1110 - Reading and Learning Strategies Each academic year, hundreds of SMU students take HDEV 1110 to develop their advanced reading and learning skills. Every fall, some sections are reserved for premed students, transfer students and students with documented learning differences. Students can register for HDEV 1110 at the same time they register for their other courses.

HDEV 1211 - Success Strategies This course helps students develop strategies for creating success in their academic, professional and personal lives. Students engage in ongoing self-assessment and journal writing, learn study skills, and explore campus resources. The course is designed for students on academic probation and for those who are dissatisfied with their grades. Students can register for HDEV 1211 at the same time they register for their other courses.

Academic Counseling. Full-time staff members are available to work individually with students on study strategies. Some specialize in working with students with learning differences or students on academic probation.

Disability Accommodations and Success Strategies. DASS offers any qualifying SMU student with a disability comprehensive support services, including classroom accommodations. DASS assists with physical accessibility issues, referrals, and housing/dining accommodations for many conditions such as physical, visual or hearing disabilities and medical or psychiatric disorders. For undergraduate students with a learning disability and/or attention-deficit/hyperactivity disorder, academic coaching with DASS learning specialists is available in the areas of transitioning, learning strategies, educational planning and self-advocacy. All services are at no cost to the student. More information on the accommodations process and DASS resources is available online at www.smu.edu/provost/alec/dass.

## SMU Libraries

www.smu.edu/libraries

SMU libraries are one of the greatest assets of the University. The SMU libraries comprise the largest private research library in Texas and rank third in the state with over four million volumes. Service to Southern Methodist University students, faculty and staff is the primary goal of all libraries at SMU. The University's library system is divided into a number of different units

1. Central University Libraries
2. Underwood Law Library
3. Bridwell Library
4. Business Library

## Central University Libraries

www.smu.edu/cul
The largest of the SMU library units is Central University Libraries (CUL), with holdings of more than three million volumes, including nearly one million e-books. CUL comprises the Fondren Library, the Hamon Arts Library, the DeGolyer Library and the University Archives, the Emily C. Norwick Center for Digital Solutions, and the Fort Burgwin Library at SMU-in-Taos. CUL also supports SMU programs at the SMU-in-Plano campus.

Fondren Library serves students, faculty and staff in the areas of humanities, social sciences, business, education, science, and engineering, with print and online resources. Subject librarians assigned to each discipline offer personal research services to students to support teaching and learning. Subject librarians collaborate with faculty to integrate information literacy concepts into university curriculum to support the academic mission of the university. Within Fondren Library, students have access to 1,000 seats of study space, including bookable study rooms and conference rooms with supportive learning technology. The Caren Prothro Learning Commons and nearby Collaborative Commons provide both individual and collaborative group spaces conducive to creative work, as well as a Starbucks café and the IT Help Desk to provide sustainance and technical assistance to the University community. For quiet study, the Fondren Foundation Centennial Reading Room is a beautiful setting with vaulted ceilings and handmade wooden tables with reading lamps in a large sunlit space. The bold visual impact of this iconic reading room epitomizes the discovery, inspiration and community for which SMU is known. In addition to physical spaces, CUL also manages the SMU Digital Repository, called SMU Scholar, which houses the scholarly output of the SMU faculty and graduate students. To support the research of the university, Fondren Library also provides document delivery to faculty, staff and students, as well as access to holdings from other libraries via interlibrary loan. Strengths of the Fondren Library collections include, but are not limited to, classical studies, late 18th- and early 19th-century English literature, American history, Texas history, contemporary biography and literature, anthropology, political science, economics and other social sciences.

The Hamon Arts Library, adjoining the south side of the Owen Arts Center of the Meadows School of the Arts, provides resources for the study of art history, communications, dance, film, music, theatre and visual art. With nearly 250,000 volumes of books, sound recordings and video recordings, the library's collections support the Meadows curriculum and are particularly strong in European and American arts. The library also provides conference room facilities; group audio-visual study and presentation rooms; and public computers for research, study and arts-specific software projects. Two special collections units are administered by Hamon Arts Library:

The Jerry Bywaters Special Collections focus on the cultural history of the American Southwest. Visual arts holdings include archival materials and works of art on paper documenting the careers of artists such as Jerry Bywaters, Otis and Velma Davis Dozier, E.G. Eisenlohr, Octavio Medellin, Olin Travis and Janet Turner as well as correspondence of 19th-century French painter Rosa Bonheur. Performing arts holdings include two Japanese
gigaku masks dating from the 7th to the 10th centuries, the papers of Oscar-winning actress Greer Garson, and materials documenting the careers of longtime SMU music faculty members Paul van Katwijk and Lloyd Pfautsch.

The G. William Jones Film and Video Collection, founded in 1970, holds more than 10,000 films and videos on a wide array of subjects, in all types of formats. The Jones Collection is best known for its Tyler, Texas, Black Film Collection and for the Sulphur Springs Collection of pre-nickelodeon films.

DeGolyer Library is a noncirculating special collections branch of CUL that contains more than 160,000 volumes. In addition to rare books, it holds nearly 2,500 separate manuscript collections, nearly 1.5 million photographs and negatives, 2,000 newspaper and periodical titles, 3,000 maps, and an extensive collection of printed ephemera. Subject strengths include the American West, Mexico, railroad history, business history, and the history of science and technology.

The University Archives, part of the DeGolyer Library, are the official repository for SMU administrative and historical records of the University. The archives contain manuscripts, photographs, publications, records, and artifacts documenting the establishment and growth of the University. SMU administrators, faculty, local historians and media representatives are its principal users, but students and visiting scholars often use its materials for a variety of research projects.

The Norwick Center for Digital Solutions (nCDS), located in the staff-access-only area of the Fondren Library, focuses on digitizing CUL's collections of rare photo-graphs, manuscripts, imprints, art work, film, musical recordings, and other unique items for increased access via the CUL Digital Collections website (digitalcollections.smu.edu/all/cul). The nCDS serves as a teaching lab, with digital collections development and Digital Humanities practicums available to students. The center is also affiliated with the SMU Digital Repository, SMU Scholar (digitalrepository.smu.edu), and other repositories within the library system.

The Fort Burgwin Library, located in SMU-in-Taos, serves students and faculty in the SMU-in-Taos program. It is focused on the history, literature, cultures and environment of New Mexico and the Southwest. The library contains approximately 9,000 books and a small collection of journals and maps, and houses the Fred Wendorf Information Commons, a computer facility and library constructed in 2004.

## Underwood Law Library

library.law.smu.edu
Underwood Law Library, one of the 30 largest law libraries in the country and the largest private law library in the Southwest, houses more than 665,000 volumes and primarily serves the faculty and students of the Dedman School of Law. The collection includes state and federal legislative, judicial and administrative materials; law periodicals; law treatises; U.S., international and foreign documents; and U.S. government documents relating to the legal profession. Strengths of the collection are in taxation, securities, corporate law, labor law, air and space law, commercial and banking law, constitutional law, and law and medicine. The library's collection of antiquarian law books, including the McKnight Antiquarian Book Collection, is one of the leading collections of its kind in the country, with volumes printed as early as 1474 . The Kay and Ray Hutchison Legal Resource Learning Center in the Underwood Law Library is a computer-learning lab located on the third floor.

## Bridwell Library

www.smu.edu/bridwell
Bridwell Library, primarily serving the faculty and students of the Perkins School of Theology, is the University's principal research resource for the fields of theology and religious studies. It offers a print collection of nearly 400,000 volumes and 1,350 current periodical titles, and it provides access to a wide array of digital books, journals and databases. Among the library's special collections are significant holdings in early printing, English and

American Methodism, theology, religion, and the book arts. The interpretation of these collections is accomplished through class instruction, lectures, publications and exhibitions. Reference librarians are available to help students discover and use the many resources of Bridwell Library.

## Business Library


#### Abstract

www.cox.smu.edu/bic The Business Library of the Cox School of Business is located in room 150 of the Maguire Building. This library is open to all students regardless of major. The mission of the library is to provide the SMU community with authoritative business information, regardless of format; support the integration of information and technology into the curriculum; and act as a center for research and development for state-of-the-art information technology applications in the business education field. In support of this mission, students, faculty and staff have access to course-specific in-class instruction sessions, open enrollment research workshops and reference assistance from dedicated business librarians to enhance their use of current business news and financial, industry and market data from premier providers. The Business Library includes the Kitt Investing and Trading Center, quiet and group study areas, 70 computer workstations in individual and group areas, a multimedia studio, a group presentation practice room, a periodicals area, facility wide wireless access, more than 400 electronic resources, and a variety of print resources, including the Hillcrest Foundation International Resource Library, the Edwin L. Cox Business Leadership Center Resource Collection, the Maguire Energy Institute Resource Collection and the Cox Career Services Collection. Librarians are available all hours that the business library is open, providing research assistance in person and virtually via email and telephone.


## Scholars' Den

The Scholars' Den is a gathering space for members of the various scholar groups at SMU. Its mission is to foster scholarship and community among its member groups by providing a hospitable place to study and hold scholarly events. Located in Clements Hall, the Scholars' Den features group-meeting space, study areas, a kitchen/dining area and an informal lounge where students can gather to collaborate on academic and extracurricular projects.

## Laboratories and Research Facilities

The University provides laboratories and equipment for courses in accounting, advertising, anthropology, art, biology, chemistry, communication studies, creative computation, languages, Earth sciences, film and media studies, journalism, psychology, physics, health and physical education, dance, music, theatre, and statistics, as well as civil, computer, electrical, environmental and mechanical engineering. The University is also home to a number of centers and institutes that are detailed in each of the school sections of this catalog. University facilities not listed below are described in sections for the individual schools.

ManeFrame II. SMU has one of the top supercomputers in the nation, ManeFrame II, which is capable of more than 625 trillion mathematical operations per second. Housed in the data center, ManeFrame II is available for faculty and student research in subjects ranging from particle physics to human behavior, water quality and drug discovery.

SMU-in-Taos. SMU-in-Taos, Fort Burgwin, is located 10 miles south of Taos, New Mexico. The facility includes classrooms, laboratories, offices, a computer center and a library, as well as living accommodations for students and faculty. The Fort Burgwin archaeology curation facility houses more than 1 million archaeological specimens from research projects conducted by SMU faculty and students. Northern New Mexico offers a multiplicity of research opportunities for both natural and social scientists. Pot Creek Pueblo, located on the fort's property, is one of the largest prehistoric archaeological sites in the Taos region.

## Museum

The Meadows Museum, founded by the late philanthropist Algur H. Meadows and located at 5900 Bishop Boulevard, houses one of the finest and most comprehensive collections of Spanish art in the world, as well as selected masterpieces of modern European sculpture, from Rodin and Maillol to David Smith and Claes Oldenburg. The holdings of the museum number more than 3,500 objects including paintings, sculpture, decorative arts and works on paper from the Middle Ages to the present. Artists represented include El Greco, Velázquez, Ribera, Zurbarán, Murillo, Goya, Picasso, Dalí, and Miró. The Meadows Museum hosts a regular program of loan exhibitions each year in its temporary exhibition galleries and sponsors an active program of public lectures, tours, films, concerts and symposia, as well as children's art programs and family days throughout the year. Museum collections are often used by SMU faculty in their courses. The museum membership program includes exhibition previews, tours of private collections and opportunities for travel. Docent tours of the collection are available to school, University and adult groups. The Meadows Museum, in addition to its collection, houses a museum shop and special event rooms. Additional information is available at www.meadowsmuseumdallas.org.

## Office of Information Technology

The Office of Information Technology provides computing, information processing, and communications resources to satisfy the needs of faculty, students, and staff. These services include an SMU email account, access to enrollment and financial data online, Internet access, telephone services, Web-based services, technical support, and a variety of software and hardware discounts.

SMU offers high-speed network connections throughout campus. Students can take advantage of both wired and wireless connections throughout all areas of the residence halls. Wireless coverage also extends throughout the campus in most classrooms, libraries, common areas, and several outdoor locations. In addition to on-campus Internet connections, OIT provides off-campus access to resources via a virtual private network connection and access to other research institutions Wi-Fi networks through eduroam.

All students receive an SMU email account, which will remain active after graduation. The email account may be accessed online via Office 365 (office365.smu.edu). Students also have access to a variety of Web-based services such as my.SMU, personal blog space (people.smu.edu), unlimited cloud storage space (smu.edu/box), and the Canvas Learning Management System (smu.edu/canvas). Academic information, including grade history, financial information, and class registration, is available through the my.SMU system.

OIT also provides complimentary on-campus IT support. Located in Fondren Library West, the IT Help Desk provides technical assistance for most computing issues Monday through Thursday from 8 a.m. to 9 p.m., Fridays from 8 a.m. to 6 p.m., Saturdays from 12 p.m. to 5 p.m., and Sundays from 11 a.m. to 8 p.m. during the regular semester. Times will vary for breaks and summer. Phone or in-house support is available for on- and off-campus connectivity issues. The IT Help Desk also offers phone support for the Microsoft Office Suite and other common applications. The OIT website (smu.edu/oit) provides information, step-by-step instructions, and answers to many frequently asked questions. Training On-Demand is also available through lyndaCampus (smu.edu/lynda) for additional software.

Although most students have a personal laptop, SMU provides a number of public computer labs. Typically, the labs contain both Mac and PC workstations and support a variety of applications. Printing is also available through our PaperCut Pay-for-Print System (smu.edu/printing). If needing to purchase a personal copy of the software, discounts on software and computer hardware purchases are available throughout the year. More information can be found on the OIT website at smu.edu/oit.

For additional information on services provided by IT, students should visit www.smu.edu/oit or call the Help Desk (214-768-HELP or 214-768-4357). SMU related technology news and updates are available on Twitter (@smuoit) and the IT Connect blog (blog.smu.edu/itconnect).

## Educational Programs

## Academic Programs

SMU offers degrees in five undergraduate and graduate schools and three graduate professional schools: the Dedman College of Humanities and Sciences, the Edwin L. Cox School of Business, the Dedman School of Law, the Linda and Mitch SMU Guildhall, the Bobby B. Lyle School of Engineering, the Algur H. Meadows School of the Arts, the Joe and Lois Perkins School of Theology, and the Annette Caldwell Simmons School of Education and Human Development. The University offers a range of distinguished graduate and professional programs, and since its beginnings in 1915, SMU has remained committed to the concept of a rigorous and relevant liberal arts undergraduate education. All SMU undergraduate degree programs reflect this commitment by encouraging students to combine broad, interdisciplinary inquiry with in-depth study in a particular field of interest.

## Preface to the Curriculum

All SMU undergraduates participate in general education. General education provides students with a broad background in the liberal arts, which is essential to their growth as educated human beings. The general education curriculum is designed to help students put their majors into context, to promote valuable skills that students acquire in and outside the classroom in preparation for the modern workplace, to enable and encourage students to engage in their civic responsibilities in college and beyond, and to create a passion and platform for life-long learning. The elements of general education are fundamental, breadth, depth and co-curricular proficiency requirements. These elements are designed to build on one another over the four-year undergraduate experience. Students begin in fundamentals with a focus on writing, quantitative reasoning, foreign language proficiency, wellness, and ways of knowing. The latter exposes students to multiple lenses through which to view a particular problem or issue while comparing the strengths and weaknesses of these approaches. The breadth requirements, typically met in the first two years, provide students an opportunity to explore a variety of interdisciplinary interests. Depth requirements, often met in the major, enable students to apply what they learn in breadth courses to an area of focus. Finally, during their time at SMU, students gain a variety of skills that are recognized through the co-curricular proficiency requirements. These include writing in the discipline, oral communication, diversity of and engagement in the human experience, and information literacy. Thus, general education is an integral part of students' learning and growth as they work toward graduating with a major or majors.

SMU undergraduate students choose curricula from over 100 baccalaureate degrees in more than 90 subject areas offered by the five undergraduate schools.

## Baccalaureate Degree Programs

## Dedman College of Humanities and Sciences

Bachelor of Arts
Bachelor of Science

## Cox School of Business

Bachelor of Business Administration

## Lyle School of Engineering

Bachelor of Arts
Bachelor of Science

Bachelor of Science in Civil Engineering
Bachelor of Science in Computer Engineering
Bachelor of Science in Electrical Engineering
Bachelor of Science in Environmental Engineering
Bachelor of Science in Mechanical Engineering

## Meadows School of the Arts

Bachelor of Arts
Bachelor of Fine Arts
Bachelor of Music

## Simmons School of Education and Human Development

Bachelor of Science
For the degrees available in specific fields of study, students should consult the appropriate school's section in this catalog.

## Honors Programs

## www.smu.edu/univhonors

The University offers a variety of honors and distinction programs to encourage research and creative scholarship among its best students.

The University Honors Program, the largest of these programs, is open to students in all majors and designed to prepare high performing students to meet the challenges of rapid change and take advantage of the possibilities this dynamic world presents. To this end, the program emphasizes the values of a liberal arts education, namely, the ability to read, write and think critically, and the acquisition of a basic under-standing of human society in all its dimensions. Along with these objectives, the program provides exceptional opportunities for international study and the exploration of topics across disciplines.

The University Honors Program focuses on University Curriculum courses taken over the course of a student's career at SMU. Students begin with a two-term, first-year honors humanities seminar that encourages critical reflection about major concepts and works of literature that have shaped the modern world. Classes are small ( 15 or fewer students), with students in several honors sections occasionally meeting together as a larger group. Designed to be broad and introductory, and drawing on material from the past and present, the course offerings explore the way different disciplines raise questions and construct knowledge about the human experience.

In addition to the first-year honors humanities sequence of DISC 2305 and DISC 2306, students also take at least four honors seminars (Breadth and Depth courses or Ways of Knowing courses, or a one-credit-hour sophomore seminar that introduces research methods and opportunities) from among the honors offerings.

The final requirement is for the Senior Culminating Project - designed to draw the student out of the classroom and into the larger society - applying the knowledge learned to the outside world. There are many possibilities for this project, including the senior thesis in the major (see below), a Richter Fellowship, an Engaged Learning project or fellowship or other research fellowship, as well as certain internships.

The University Honors Program creates an intellectual community of students and faculty that extends beyond the classroom. Beginning with several orientation activities, special events throughout the year provide additional occasions for coming together. Honors students and faculty are encouraged to attend dinners, programs, seminars and book discussions that may be organized around scholars, artists or other distinguished visitors to the campus. Honors students benefit, too, from the sense of solidarity and community found in a campus venue dedicated to bringing together students in all University honor and scholar programs, the Scholars' Den. The program also takes
advantage of the Dallas/Fort Worth Metroplex. Visits to museums, studios, theatres and live-music venues allow students to experience the myriad opportunities for learning that only a large urban center can provide. At the same time, the University Honors Program at SMU is not segregated from the campus. Honors students interact with their fellow students in nonhonors classes; in the student center; on the playing fields; and in the numerous student governing, social, pre-professional, political, cultural and social organizations that enhance student life at SMU.

Entrance to the University Honors Program is by invitation prior to matriculation or by application after at least one term of coursework at SMU. At the end of their undergraduate years, students who maintain a 3.000 GPA in their honors courses and at least a 3.300 overall GPA receive a diploma inscribed with the designation "Honors in the Liberal Arts." More information about the University Honors Program is available on the website (www.smu.edu/univhonors) or from the director, Dr. David D. Doyle, Jr. (ddoyle@smu.edu).

The Richter Research Fellowship Program provides funding for undergraduates to travel and conduct independent research under a faculty adviser's supervision. All honors students who have completed their second year are eligible to apply. Often this research work is connected to a student's senior honors capstone or distinction project, although that is not a requirement to apply for the fellowship. Richter projects have included researching literacy in Ghana, education for non-native English speaking children in rural California, environment/government correlation in Fiji and women's reproductive health in Ethiopia. The Richter Fellowships are available only to those students who are members of the University Honors Program.

Department and Division Honors. In addition to the University Honors Program, individual schools, departments and divisions of the University offer honors or distinction programs to exceptional students in their upperclass years. The strongest SMU students are encouraged to participate in honors programs at both the University level (the University Honors Program) and the departmental level. Depending on the major, students take a series of honors courses and seminars in their departments or divisions. Many departments and divisions also offer internships and re-search programs to upperclass students majoring in their fields. Such activities provide practical experience and specialized training within the major. Students completing honors or distinction programs within their departments or divisions graduate with an "Honors in" designation specific to their department or division. More information on these programs can be found under the individual department and division listings in this catalog.

The following is a list of schools with honors programs and departments that offer honors within the major, with a general overview of the programs:

## Dedman College

Anthropology Significant independent research paper.

| Biochemistry | Independent reading, research and a senior thesis. |
| :--- | :--- |
| Biological Sciences | Independent reading, research and a senior thesis. |
| Chemistry | Independent research project and a senior thesis. |

Economics

English
ENGL 5310, followed by either an independent study in which the student writes a senior thesis or a graduate seminar, and a minimum of 36 credit hours in the major.

Major research project and thesis, and an oral defense before a faculty committee.

| International and Area Studies | Senior thesis and an oral exam on the topic of the thesis. |
| :---: | :---: |
| Markets and Culture | SOCI 4396, distinction thesis and oral exam by faculty. |
| Medieval Studies | Distinction paper (with original research), an oral exam or a review by a distinction committee. |
| Philosophy | Substantial writing project under the guidance of a department faculty member. |
| Physics | Independent reading, research and a senior thesis (under the direction of a department faculty member) that will be presented to a faculty committee. |
| Political Science | Distinction thesis, oral exam and two advanced courses related to the topic of the thesis. |
| Psychology | Distinction courses and an independent research study (under the direction of a faculty mentor) submitted for conference presentation or publication. |
| Religious Studies | Directed research tutorial followed by an independent studies course and a senior thesis. |
| Sociology | Original research (based on a topic covered in a 3000- or 4000-level course) and a journal-length article written under the supervision of a departmental faculty member, who then determines if distinction is to be awarded. |
| World Languages | Two extra courses beyond the major requirements; at least one must include a major research paper. |
| Cox School of Business |  |
| BBA Honors Program | 18 credit hours of business honors courses ( 12 credit hours at the junior/senior level) with a 3.500 business honors GPA. |
| Lyle School of Engineering |  |
| Computer Science and Engineering <br> Electrical Engineering | Successful completion of a senior thesis course, independent research project approved by the academic adviser, defense of the thesis through a public presentation and oral examination before a faculty committee, and a 3.500 major GPA. |
| Meadows School of the Arts |  |
| Art History | Individual research project, defended before a committee. |
| Communication Studies | Honors thesis and 6 credit hours of COMM honors courses. |
| Film and Media Arts | Thesis project. |
| Journalism | Honors thesis and 6 credit hours of honors journalism courses. |

Applied Physiology,
Sport Management and Departmental distinction program.
Wellness

Teaching and Learning Educational studies majors: Departmental distinction project.

## Engaged Learning

www.smu.edu/engagedlearning
SMU recognizes that students enhance their academic experiences when actively engaged in research, service, internships and other creative, entrepreneurial activities related to their studies. Through Engaged Learning, students learn beyond the classroom; they bring their disciplinary training and intellectual skills to bear on issues in real-world settings. As a result, they cultivate professional skills related to their chosen fields.

Engaged Learning Fellowships. Students choose to develop their own independent learning projects or to participate in engaged learning activities offered by departments, offices and programs throughout the University. Such projects are student-driven, linked to their education and go beyond regular classroom work. SMU supports Engaged Learning projects through a grants program and notes project titles on students' transcripts under the heading "Engaged Learning, SMU's most prestigious undergraduate engagement program."

Projects typically span two academic years. Students apply during the annual November 15-February 15 application cycle or during the senior cycle August 15 -September 15. Students, with input from their mentors, work on projects through the summer and fall, present their findings at the fall or spring Engaged Learning Symposium in their semester of graduation and submit project reports, suitable for publication, by April 15 for May graduates or November 15 for December graduates. The Office of Engaged Learning provides structure and guidance throughout.

Big Ideas. Big iDeas are a big deal at SMU. SMU supports students' turning their passions into reality. Students pitch their big ideas in the fall for a chance to win $\$ 1000$ to turn their ideas into prototypes in time for the winter Demo Day Fair. Students pitch their Big iDeas Business Plans for a chance to win $\$ 5000$ and mentoring to turn their plans into actual businesses. Big iDeas offer students space in the CUBE, the idea incubator that is operated for students by students.

More information about Engaged Learning programs is available on the website or from the Engaged Learning staff (engagedlearning@smu.edu).

## Academic Advising for SMU Pre-Majors

Through the University Advising Center, every student entering SMU as a first-year or premajor transfer student collaborates with a professional academic adviser. Advisers help students acquire the skills to plan their majors and minors, schedule courses, and resolve academic problems that may arise. Computerized Degree Progress Reports provide students with detailed information concerning completion of degree requirements. The Advising Center, which is located on the fourth floor of the Blanton Student Services Building, has received national recognition for its innovative programs and outstanding staff.

## Academic Advising for Majors

After completing 24 credit hours and meeting other program admission requirements, students may be eligible to transfer their records to an adviser in the school that houses their major field of study. Those who elect study in the humanities, sciences or social sciences enter Dedman College of Humanities and Sciences. Others, depending on their qualifications and interests, may enter the Cox School of Business, Lyle School of Engineering, Meadows School of the Arts, or Simmons School of Education and Human Development. The University requires students to qualify for and declare a major upon completion of 75 credit hours, including credit by examination and transfer work. Upon declaration of a major in one of the schools, students work with a major adviser in that school.

## English as a Second Language Program

www.smu.edu/esl

Students whose first language is not English may encounter special challenges as they strive to function efficiently in the unfamiliar language and culture of an American university setting. Dedman College offers the following ESL resources to students from all schools and departments of SMU. Students may apply on the ESL website.

More information about the ESL Program is available on the website or from the director, John E. Wheeler (jwheeler@smu.edu).

## The Courses (ESL)

ESL 1001 (o). ESL COMMUNICATION SKILLS. The goal of this course is to improve ESL students' oral and aural interactive skills in speaking, giving presentations, pronunciation, listening, and American idiomatic usage so that they may become more participatory in their classes and integrate more readily with their native Englishspeaking peers. It is designed to meet the needs of undergraduate and graduate students who may be fully competent in their field of study yet require specialized training to effectively communicate in an American classroom setting. The course is free of charge, noncredit bearing, and transcripted as pass or fail. Prerequisite: ESL Program approval required.

ESL 1002 (o). ESL COMMUNICATION SKILLS II. Building on skills developed in ESL 1001, students make use of their knowledge and practice to explore various aspects of American studies. In addition to speaking and presentation skills, reading and writing are also exploited as a means for students to gain a deeper understanding of American culture, customs, attitudes, and idiomatic use of the language. The course is noncredit and no-fee, and is transcripted as pass or fail. ESL 1001 is recommended as a precursor but is not a prerequisite. Prerequisite: ESL Program approval required.

ESL 20XX (o). INTENSIVE ENGLISH PROGRAM. All 2000-level ESL courses are exclusive to the Intensive English Program. This multilevel, yearlong program is designed to prepare students and professionals for academic success at the university level. The course of study consists of English for academic purposes, TOEFL-related skills, and American culture. It is open to currently enrolled and newly incoming students, as well as to those not affiliated with SMU. On-campus housing and meals are available during the 6 -week summer term. This is a noncredit, nontranscripted program, and separate tuition fees are charged. Prerequisite: ESL Program approval required.

ESL 3001 (0). ADVANCED GRAMMAR FOR WRITERS. This course helps students develop their grammar and writing skills within the context of academic readings. Problem areas of English grammar and style are explored through periodic assignments, research documentation methods, and a final research project. The course is free of charge, noncredit bearing, and transcripted as pass or fail. Prerequisite: ESL Program approval required.

ESL 3002 (o). ADVANCED ACADEMIC WRITING. Building on principles of grammar and style covered in ESL 3001, this course helps students further improve the writing skills needed for their particular academic careers,
using academic texts as a basis for out-of-class writing assignments and a final research project. The course is free of charge, noncredit bearing, and transcripted as pass or fail. Prerequisite: ESL Program approval required.

ESL 4001 (o). ESL PRONUNCIATION SKILLS. Students improve their pronunciation by focusing on sentence stress, rhythm, intonation, and body language while learning to mimic American speech patterns. With the instructor's assistance and extensive individual feedback, students develop personal strategies and exercises to become more aware of their own weaknesses. The course is free of charge, noncredit bearing, and transcripted as pass or fail. Prerequisite: ESL Program approval required.

DISC 1311 (3), 1312 (3), 1313 (3). ESL DISCERNMENT AND DISCOURSE. The ESL sequence of Discernment and Discourse aims to provide students with the tools they need to successfully complete writing assignments required of them during their University coursework. The ultimate goal is to bring students' analytical reading and writing skills in line with the standards expected of their native English-speaking peers. Explores the principles of effective writing that are taught in regular rhetoric classes and also gives students extra practice in vocabulary development, grammar skills, standard American English pronunciation, and conversational fluency. The DISC 1313 courses are specially designed around themes that are pertinent to the realities and experiences of non-native speakers of English. ESL sections of D\&D grant students the same amount of credit as do regular D\&D classes, and "ESL" will not appear on the transcript. Prerequisite: ESL Program approval required.

## Conversation Buddy Program

At the beginning of each term, all students are notified via campus email of the opportunity to practice their language skills in an informal, one-on-one setting out-side the classroom for one to two hours a week.

## ESL Self-Study Lab

A collection of materials is available for self-study use at the Fondren Library Information Commons. Students will find materials to help them improve their pronunciation, listening, vocabulary and grammar skills.

## SMU Abroad

www.smu.edu/abroad
Global experience is an integral part of an undergraduate education at SMU. The SMU Abroad Office serves the University by developing and coordinating its inter-national undergraduate programs, and by providing support services during and after the experience abroad. SMU Abroad programs are comprised of faculty-led summer programs and SMU-approved programs offered during the academic year. SMU Abroad programs offer opportunities for students to encounter diverse global communities and intellectual traditions through SMU's international partnerships and global initiatives. SMU Abroad courses also enhance and enrich the University's curriculum with experiential learning experiences around the world.

Students must be in good academic and disciplinary standing at SMU to participate in SMU Abroad programs. SMU summer programs require a 2.500 cumulative GPA; many programs require 3.000 or higher. For SMU-approved term abroad programs, a minimum cumulative GPA of 2.700 is required, although the most competitive programs require a GPA as high as 3.500 or 3.700 .

## Eligibility and Application Process

Students may study abroad as soon as the first summer of their undergraduate career. Rising sophomores, juniors and seniors may apply for summer or term pro-grams abroad. Study abroad in the final senior term is not
recommended. Transfer students normally must complete one term at SMU in order to apply for study abroad, as the student's SMU GPA will be considered in the application process.

Students must apply to study abroad by the deadlines published on the SMU Abroad website: October 1 for spring term, March 1 for fall term and February 1 for summer.

## Earning Credit

Students will remain enrolled at SMU during the period of study abroad, and credits earned abroad count as courses earned in residence. SMU Abroad students are eligible for all institutional and federal financial aid, provided the student remains enrolled in six credits in an SMU summer program and at least 12 credits during an SMU-approved term abroad program. Grades earned abroad will be posted to the SMU transcript and will be calculated in the student's GPA.

Students may fulfill major or minor requirements, University Curriculum requirements, and electives and language requirements through academic course-work completed on SMU Abroad programs. Specific information about procedures and policies for earning credit is provided on the SMU Abroad website. Students are urged to seek guidance on how to integrate study abroad coursework into their four-year plan of study through their undergraduate advisers. All SMU Abroad programs offer courses eligible for SMU credit.

Policies for courses taken at a US institution where the instruction is in an international location and for courses taken at a non-US institution can be found under General Policies/Transfer Policies from Other Institutions in the Enrollment and Academic Records section of the catalog.

## Programs and Courses

A complete list of SMU Abroad programs is available on the website. Individual courses approved in the last several years are listed at www.smu.edu/abroad in the SMU Abroad course database. All new abroad courses must be petitioned for approval before the period of study abroad begins. Information on the course petitioning process is available on the SMU Abroad website. Students may also request UC credit for courses taught by non-SMU faculty on term and summer programs through SMU Abroad; more information can be found on the SMU Abroad website. Students who wish to take courses on a no-credit or pass/fail basis should review the Grade Options for Courses Taken on SMU Abroad Programs and the Pass/Fail Option sections found under Grade Policies in this catalog.

SMU Abroad students will be charged SMU tuition at the SMU tuition rate on campus, as well as miscellaneous fees and a fee for mandatory international health insurance. Students will be billed by SMU at the usual time. SMU in turn will pay the academic costs of the abroad program. Details on SMU Abroad costs and billing procedures are available on the SMU Abroad website.

## Summer Programs

Most summer programs are led by SMU faculty, and the programs and courses offered vary from year to year. In summer 2016, SMU Abroad students participated in faculty-led and internship programs in Australia, Costa Rica, China, the Czech Republic, France, Germany, Indonesia, Ireland, Italy, Japan, Spain, South Africa and the United Kingdom. Summer 2017 programs and courses abroad are listed at www.smu.edu/abroad.

## SMU-Approved Programs

SMU partners with well-established study abroad program providers to offer a diverse array of study abroad opportunities around the world. Term program options include study at universities, study abroad programs on specific disciplinary subjects, language immersion programs and programs with field study and intern-ship
components taught in English in non-English-speaking countries. More than 150 programs are preapproved for SMU students, with courses available in all disciplines.

Students applying to study abroad on SMU-approved term programs apply to the study abroad program directly for admission according to the program's own dead-lines. They also apply to SMU Abroad to study abroad. All courses are preapproved, and students are registered at SMU during their time abroad. The dual application ensures that students are properly registered at SMU and registered as a participant on the study abroad program, as well.

Students should consult the study abroad program Web pages for specific information on individual study abroad programs and deadlines. Each applicant for an SMU-approved term program will be assigned an SMU study abroad adviser who will offer guidance throughout the program application process.

## International Student and Scholar Services

www.smu.edu/international/isss
The International Student and Scholar Services Office provides immigration services to students, scholars and professors from around the globe who are engaged in academic studies or cultural exchange projects at SMU. ISSS coordinates pre-arrival information, ensures compliance with current federal guidelines and provides cultural and educational programming opportunities to SMU's international community. ISSS is located in the Laura Lee Blanton Student Services Building in the International Center, which supports students and faculty who are not U.S. citizens or permanent residents, as well as their families.

## SMU-in-Plano

www.smu.edu/plano
SMU's campus in Plano's Legacy Business Park extends SMU's resources to meet the educational needs of residents in Collin County and beyond, and makes enrollment in graduate-level programs more convenient for working professionals in North Texas. The campus collaborates with area businesses by offering programs to serve the training needs of their employees and by providing corporate meeting space.

Conveniently located about 1 mile south of the intersection of state Highway 121 and the Dallas North Toll Road, SMU-in-Plano features 16 landscaped acres and four buildings with nearly 200,000 square feet of classroom space.

SMU-in-Plano serves more than 800 adult students each year through several full-time, evening and weekend programs leading to master's degrees and/or professional certificates in counseling, dispute resolution and video game technology (SMU Guildhall). In addition, numerous noncredit certificates and professional development programs are offered in Plano, including paralegal studies, certified financial planner, social media and digital communications, best practices in super-vision, and project management.

During the summer, more than 2,000 children participate in a variety of pro-grams designed to enhance their academic skills. The campus also provides important outreach services to the surrounding Collin County communities; these services include the Mediation and Arbitration Center and the Center for Family Counseling.

More information is available online or through the SMU-in-Plano office: 5236 Tennyson Parkway, Building 4, Plano, TX 75024, 972-473-3400.

## SMU-in-Taos

www.smu.edu/taos

## General Information

The University maintains an academic campus at Fort Burgwin, located 10 miles southeast of Taos, New Mexico. Academic terms are regularly offered at the SMU-in-Taos campus in January and during the summer.

The campus is home to historic Fort Burgwin, originally established in 1852. The fort served many purposes, chief among them to protect area settlers, prior to its abandonment in 1860 just before the Civil War. Reconstructed, the fort now serves as office and classroom space for campus academic programs. Pot Creek Pueblo, one of the largest prehistoric sites in the northern Rio Grande Valley, is also located on the property. This site is one of the ancestral homes of modern-day Taos and Picuris pueblos, and was occupied from A.D. 1250 to 1320.

SMU-in-Taos offers academic courses in January, May, June, and August. Courses are offered in the humanities, natural and social sciences, business, engineering, performing and studio arts, and archaeological research. At just eight class days, January Term is the most intensive term. Students can enroll in up to four credit hours and ski or snowboard on the weekends for PRW II credit. May and August are 12 class day terms in which students may take up to five credit hours. A longer, more traditional summer term in June allows students to take up to eight hours of coursework. Course offerings vary each year, and are designed to emphasize the Southwest, experiential learning and sustainability. Courses are heavily field trip oriented to take advantage of the campus' proximity to important northern New Mexico cultural sites.

Program participants are housed in small residences called casitas. Each casita has shared dorm rooms, bathrooms and a large study area with fireplace. Laundry facilities are located on campus, as well as a campus center, chapel, dining hall, library, computer lab and auditorium. Campus recreational facilities include a sand volleyball court, tennis and basketball courts, workout room and hiking trails.

Additional information on the campus and its programs is available online or by contacting the SMU-in-Taos Office, Southern Methodist University, PO Box 750145, Dallas TX 75275; phone 214-768-3657. Course descriptions and additional information can also be found online (smu.edu/taos) or obtained via email (smutaos@smu.edu).

## Student Appeals and Complaints

Student Appeals and Complaint procedures can be found in the Right to Know section of the catalog.

## Reserve Officers' Training Corps

ROTC courses are not offered on the SMU campus; however, students who wish to participate in the ROTC may earn SMU-approved elective credit through area pro-grams off-campus. Additional information about the Air Force ROTC program is available in the Dedman College section of this catalog, and the Army ROTC pro-gram is found in the Lyle School of Engineering section.

## Continuing and Professional Education

The Office of Continuing and Professional Education provides noncredit courses that address different cultural, scholarly, personal and professional topics for the community, a practice that has been part of the SMU tradition since 1957. CAPE offers a selection of courses for open enrollment each fall, spring and summer term. Additional information is available at www.smu.edu/cape.

Personal Enrichment. CAPE classes are generally short sessions on topics for enjoyment and reflection. Courses offered for personal enrichment include several major areas of exploration: personal finance and life planning, communication and workplace skills, history, literature and film, culture and travel, and the fine arts (e.g., studio art, music, architecture, photography and art history). CAPE also offers noncredit language conversation courses, including Spanish, French, Italian, Mandarin Chinese and American Sign Language.

Test Preparation. Study courses for the SAT, ACT, GRE, GMAT and LSAT are offered throughout the year. Information is available at www.smu.edu/testprep.

Professional Development. For those who are seeking professional achievement or a new career direction but who are not interested in a traditional undergraduate or graduate degree-granting program, CAPE offers noncredit courses to enhance workplace skills and noncredit certificate programs, including special certificates offered in partnership with Meadows School of the Arts, the National Criminal Justice Training Center and the Center for Nonprofit Management.

Students complete certificates by taking a series of classes over weeks or months, depending on the specialization and the student's schedule. Cohort and independent options are available, with some classes being offered online. Upon completion of the series, students receive a noncredit transcript documenting completion from Continuing and Professional Education at SMU.

Additional information and a full listing of current opportunities are available at www.smu.edu/cape/professionaldevelopment.

SMU's Summer Youth Program offers one-week, special-interest enrichment workshops throughout the summer for those entering grades K-12. More information is available at www.smu.edu/CAPE/SummerYouth

Online Learning. CAPE partners with national leaders in online teaching and learning to offer self-paced, practical, career-enhancing courses. Additional information is available at www.smu.edu/capeonline.

## Right to Know

Southern Methodist University is pleased to provide information regarding academic programs, enrollment, financial aid, public safety, athletics and services for persons with disabilities. Students also may obtain paper copies of this information by contacting the appropriate office listed below. Disclosure of this information is pursuant to requirements of the Higher Education Act and the Campus Security Act. More information is available at www.smu.edu/srk.

## 1. Academic Programs

Provost Office, Perkins Administration Building, Room 219
214-768-3219
a. Current degree programs and other educational and training programs.
b. Instructional, laboratory and other physical facilities relating to the academic program.
c. Faculty and other instructional personnel.
d. Names of associations, agencies or governmental bodies that accredit, approve or license the institution and its programs and the procedures by which documents describing that activity may be reviewed.

## 2. Enrollment

Registrar, Blanton Student Services Building, Room 101
214-768-3417
a. Graduation Rates. The completion or graduation rate of the institution's certificate-seeking or degree-seeking, full-time undergraduate students and students who receive athletically related financial aid. http://www.smu.edu/Academics/StudentAchievement
b. Privacy of Student Education Records. The Family Educational Rights and Privacy Act governs SMU's maintenance and disclosure of a student's education records. FERPA provides students the right to inspect and review their education records and to seek amendment of those records that they believe to be inaccurate, misleading or otherwise in violation of their privacy rights. Further, FERPA prevents SMU from disclosing personally identifiable information about a student to outside third parties, except under specific circumstances outlined in SMU's Policy Manual.
c. Withdrawal. Requirements and procedures for officially withdrawing from the institution. Wisconsin Refund Policy. The following information applies only to students enrolled in distance/online courses who reside in the state of Wisconsin. The Wisconsin Administrative Code contains provisions related to online/distance education for students residing in that state. Sections from Chapter 8 of the Educational Approval Board are reprinted below. The complete code is available online at http://docs.legis.wisconsin.gov/code/admin_code. EAB 8.05 Partial Refunds. A student who withdraws or is dismissed after the period of time identified under s. EAB 8.03 (1) has passed, but before completing 60 percent of the potential units of instruction in the current enrollment period, shall be entitled to a pro rata refund, as calculated below, less any amounts owed by the student for the current enrollment period, less a one-time application fee of $\$ 100$.
(1) Pro rata refund shall be determined as the number of units remaining after the last unit completed by the student, divided by the total number of units in the enrollment period, rounded downward to the nearest 10 percent. Pro rata refund is the resulting percent applied to the total tuition and other required costs paid by the student for the current enrollment period.
(2) All efforts will be made to refund prepaid amounts for books, supplies and other charges unless the student has consumed or used those items and they can no longer be used or sold to new students, or returned by the school to the supplier.
(3) Refunds shall be paid within 40 days after the effective date of termination.
(4) After the student's first period of enrollment, if a student withdraws or is dismissed in a subsequent enrollment period, the school may also retain an administrative fee of 15 percent of the total cost of a resident program, or $\$ 400$, whichever is less.
(5) No refund is required for any student who withdraws or is dismissed after completing 60 percent of the potential units of instruction in the current enrollment period unless a student
withdraws due to mitigating circumstances, which are those that directly prohibit pursuit of a program and which are beyond the student's control.
SMU Refund for Wisconsin Students. SMU online/distance education students residing in Wisconsin who cancel their enrollment will receive a full refund of all tuition and fees if they officially withdraw from the University before the withdrawal deadline listed on the Official University Calendar. The University will issue refunds within 10 business days of withdrawal.

## 3. Financial Aid

Director of Financial Aid, Blanton Student Services Building, Room 212
214-768-3417
a. Financial assistance available to students enrolled in the institution.
b. Cost of attending the institution, including tuition and fees charged to full- and part-time students; estimates of costs for necessary books and supplies; estimates of typical charges for room and board; estimates of transportation costs for students; and any additional cost of a program in which a student is enrolled or expresses a specific interest.
c. Terms and conditions under which students receiving Federal Direct Loan or Federal Direct Perkins Loan assistance may obtain deferral of the repayment of the principal and interest of the loan for

1. Service under the Peace Corps Act;
2. Service under the Domestic Volunteer Service Act of 1973; or
3. Comparable service as a volunteer for a tax-exempt organization of demonstrated effectiveness in the field of community service.
4. The requirements for return of Title IV grant or loan assistance.
5. Enrollment status of students participating in SMU study abroad programs, for the purpose of applying for federal financial aid.

## 4. Student Financials/Bursar

University Bursar, Blanton Student Services Building, Room 212
214-768-3417
a. Tuition and fees.
b. Living on campus.
c. Optional and course fees.
d. Financial policies.
e. Administrative fees and deposits.
f. Payment options.
g. Any refund policy with which the institution is required to comply for the return of unearned tuition and fees or other refundable portions of costs paid to the institution.

## 5. DASS

Disability Accommodations and Success Strategies
Altshuler Learning Enhancement Center
214-768-1470
a. Description of the process for establishing eligibility for services and documentation guidelines.
b. Listings of the various on- and off-campus resources.
c. Discussions of transitioning to postsecondary education.
d. Tips for faculty on teaching and making accommodations.
6. Athletics

Associate Athletic Director for Student-Athlete Services, 316 Loyd Center
214-768-1650
a. Athletic program participation rates and financial aid support.
b. Graduation or completion rates of student athletes.
c. Athletic program operating expenses and revenues.
d. Coaching staffs.
7. Campus Police

SMU Police Department, Patterson Hall
214-768-1582
Southern Methodist University's Annual Security Report includes statistics for the previous three years
concerning reported crimes that occurred on campus, in certain off-campus buildings or property owned or controlled by SMU, and on public property within or immediately adjacent to/accessible from the campus. The report also includes institutional policies concerning campus security, such as policies concerning alcohol and drug use, crime prevention, the reporting of crimes, sexual assault, and other related matters.

## 8. Student Appeals and Complaints

Southern Methodist University operates with integrity in all issues and is dedicated to preserving the rights of all members of the University community. Categories for which students may wish to reach out for advice and assistance and/or to submit an appeal or register a complaint are as follows: academics, code of conduct, discrimination, financial issues, honor code and privacy issues. An overview of the roles, responsibilities and procedures for complainants and the University is outlined in each of the areas below.
a. Academic Appeals and Petitions
www.smu.edu/Provost/Pages/Default/PoliciesResources/FacultyResources/Committees
b. Student Code of Conduct
www.smu.edu/StudentAffairs/StudentLife/StudentHandbook/ConductCode
c. Office of Institutional Access and Equity
www.smu.edu/IAE
d. Financial Responsibility and Confidentiality
www.smu.edu/EnrollmentServices/FinancialAndConfidentiality
e. Honor Code
www.smu.edu/StudentAffairs/StudentLife/StudentHandbook/HonorCode
f. Appeal of Grade
www.smu.edu/catalogs
g. Academic Grievance and Appeals Procedures for Students with Disabilities
www.smu.edu/Provost/ALEC/DASS/DisabilityAccommodations/AppealsandGrievances
h. Appeal from financial aid decisions, including financial aid decisions based on lack of satisfactory academic progress
www.smu.edu/catalogs
i. Policy for Non-Renewal of Athletic Aid
www.smumustangs.com/compliance
In addition to the right to use internal University complaint procedures, every student has the right under federal law to use complaint processes provided by the state in which his or her campus is located.
9. State-Specific Information for Appeals and Complaints

Texas. For complaints regarding programs in Texas, students should contact the Texas Higher Education Coordinating Board, Office of General Counsel, PO Box 12788, Austin TX 78711-2788; email: studentcomplaints@thecb.state.tx.us. Additional information about the Texas student complaints process may be found at www.thecb.state.tx.us ("College Readiness and Success" link).
New Mexico. For complaints regarding programs in New Mexico, students should contact the New Mexico Higher Education Department, 2048 Galisteo Street, Santa Fe NM 85705-2300; telephone 505-476-8400. Additional information about the New Mexico student complaints process may be found online at www.hed.state.nm.us/students/complaints.aspx.

# Dedman College of Humanities and Sciences 

## General Information

Dedman College is the heart of SMU. It is home to the humanities, social and behavioral sciences, mathematics, and natural sciences - disciplines central to the traditions of higher education.

In 1915 when SMU opened the doors of Dallas Hall to welcome the first class of students, those students matriculated into the College of Arts and Sciences, the academic unit that would eventually become Dedman College. In 1963, with the formulation of the Master Plan, the college became the School of Humanities and Sciences in recognition of its role in the specialized education of students in the liberal arts. From 1963 until 1980, the basic liberal arts education for all SMU students was provided by University College, an independent, nondegree-granting academic unit.

The School of Humanities and Sciences was merged in 1980 with University College to create a new entity central to the enterprise of undergraduate education. This college would provide the basic foundations in liberal arts education to all SMU students and also serve as a center for the integration of specialized education in the humanities, social sciences and natural sciences. As an indication of its centrality to the educational process, the name was changed from school to college, emphasizing that it is a community of students and teachers, whose life together, no matter how diversified and specialized, is unified by the implicit and explicit values derived from a liberal arts education. In 1981, the newly formed college was endowed by the late Robert H. Dedman, Sr., and his wife, Nancy McMillan Dedman, and was renamed Dedman College.

In addition to being the oldest academic unit at SMU, Dedman College is also the largest. Annually, approximately 2,350 undergraduate students major in Dedman College programs, and the school enrolls approximately 450 graduate students. More than 315 faculty members are based in the college's 16 academic departments. Undergraduate students in Dedman College may major and minor in more than 50 programs. Dedman College offers 18 graduate programs leading to a master's degree and 14 programs leading to a Ph.D. degree.

## Academic Programs of Study

Majors in Dedman College include the following:

| Anthropology | Environmental Studies | Religious Studies |
| :--- | :--- | :--- |
| -Health and Society | Ethnic Studies | Sociology |
| Biochemistry | -African/African- | -Markets and Culture |
| Biological Sciences | -Merican Studies | Statistical Science |
| Chemistry | Studies | World Languages and Literatures |
| Earth Sciences | History | -World Languages: Chinese |
| -Geology | Human Rights | -World Languages: French |
| -Geophysics | Individualized Studies in the | -World Languages: German |
| -Resource Geology | Liberal Arts | -World Languages: Italian |


| Economics | International Studies and Area | -World Languages: Spanish |
| :--- | :--- | :--- |
| -w/ Finance | Madies | -French |
| Applications | Medieval Studies | -French Studies |
| -w/ Management | Philosophy | -German |
| Information | Physics | -Spanish |
| English | Political Science |  |
| -English with Creative | Psychology |  |
| Writing | Public Policy |  |

Minors available include the following:

| Anthropology | Ethnic Studies | Political Science (continued) |
| :---: | :---: | :---: |
| -Archaeological | -African/AfricanAmerican Studies | -General |
| -Biomedical | -Mexican-American | -Political Thought |
| -Cultural | Studies | Psychology |
| -General | History | Public Policy and International |
| Biological Sciences | Human Rights | Affairs |
| Chemistry | International Studies | Religious Studies |
| Classical Studies | -Asian Studies | -Jewish Studies |
| Earth Sciences | -European Studies | Sociology |
| -Geology | -Latin American/Iberian | Statistical Science |
| -Environmental Earth | Studies | Women's and Gender Studies |
| Sciences | -African/Middle East Studies | World Languages and Literatures |
| Economics | Law and Legal Reasoning | -Arabic |
| -Econometrics | Mathematics | -Chinese |
| Development | Medieval Studies | -French |
| Making | Natural Sciences | -German |
|  | Philosophy | -Italian |
| -Economics | -Ethics | -Italian Area Studies |
| -Economics of Industrial Organization | Physics | -Japanese |


| -International Economics | Political Science | -Latin |
| :--- | :--- | :--- |
| -Labor Economics | -American Politics, Law <br> and Administration | -Russian Area Studies |
| -Monetary Economics | -Comparative and | -Spanish |
| -Public Economics | International Studies |  |
| English |  |  |

Specific degree requirements and additional information for these programs are found in the departmental sections of this catalog.

Dedman College students may also complete second majors and minors in other schools on campus, including the Cox School of Business, the Lyle School of Engineering, the Meadows School of the Arts, and the Simmons School of Education and Human Development.

## Honors Programs

During their first and second years at SMU, students may participate in the University Honors Program, described in the Academic Programs section of this catalog, and subsequently graduate with "Honors in the Liberal Arts." Students participating in the University Honors Program are encouraged to join a departmental distinction program (described in the Academic Programs section and under General Information in the Dedman College section) to earn the designation "honors in the liberal arts, departmental distinction" on their transcripts.

## Programs for Pre-professional Students

Preprofessional students should become familiar with the entrance requirements of the particular professional school they intend to enter. Requirements differ to some extent even within the same profession, and some schools require that specific courses be included in the preprofessional curriculum.

## Prelaw

SMU does not require prelaw students to declare a particular major or academic program. Prelaw seniors who go on to law school may have majors in any undergraduate schools. Success in law school requires skills in critical analysis, logical reasoning, and written and oral expression. The spoken and written word are the principal tools of the legal profession; thus, students who intend to study law must develop an excellent knowledge and grasp of the English language and a clear, concise style of expression.

A sound liberal arts education is valuable for prelaw students. Courses in political science, history, economics, statistics and anthropology help students understand the structure of society and the problems of social ordering with which the law is concerned.

The study of philosophy, literature, fine arts, world languages and other cultures imparts familiarity with traditions of universal thought and trends that have influenced legal developments nationally and internationally. The examination of human behavior in sociology and psychology will aid the prospective law student in understanding the types and effects of human behavior with which law is involved.

The systematic ordering of abstractions and ideas acquired by studying logic and the sciences contributes much to a prelaw student's capacity to analyze, understand and rationally organize his or her thoughts. In some fields of legal practice, a knowledge of technology, engineering, computers and accounting is useful.

Admission to Law Schools. Candidates for admission to an American Bar Association-approved school of law must take the Law School Admission Test administered by the national Law School Admission Council. Candidates are urged to take the test on the June, October or December testing dates of the fall term in which they apply to law school. Except in very rare circumstances, law schools require applicants for admission to hold a bachelor's degree from an accredited college or university. For additional prelaw information, and assistance in the application process, undergraduate students may consult the prelaw services in the University Advising Center.

Admission to Dedman School of Law. Admission to Dedman School of Law is based upon the applicant's academic record, Law School Admission Test score and other available data. More information is available from the Admissions Office, Dedman School of Law, PO Box 750110, Dallas TX 75275-0110; www.law.smu.edu/ProspectiveStudents.

## Premedical/Predental

Medical and dental schools seek students who have demonstrated strength in the major of the student's choosing and in the sciences in general. There is no preferred major but there are numerous prerequisite courses. Honors work is appropriate.

Most medical and dental schools require the following courses for entry. These courses should be completed by the end of the junior year: English, 6 hours; mathematics (including calculus and statistics), 6 hours; biology, 8-14 hours ( 14 for Texas medical schools); chemistry, 16 hours; and physics, 8 hours. In addition, some schools require biochemistry. This coursework may be done as part of a major or minor in the sciences or as electives in a nonscience major or minor. Some courses will apply toward the University-wide requirements.

Candidates for admission to medical school must take the Medical College Admission Test. The test should be taken in the spring of the junior year. Candidates for dental school must take the Dental Admission Test, also suggested in the spring of the junior year. All students intending to apply to medical or dental schools should contact the Office of Pre-Health Advising prior to the junior year.

## Undergraduate Internship Program

The Dedman College Undergraduate Internship Program helps students begin to prepare for employment. Internship credit is designed to demonstrate and reinforce the valuable and highly marketable skills that our students develop. The following guidelines apply:

- Credit-bearing internships are supervised by faculty, department or program.

Note: Noncredit-bearing internships are those without faculty, department or program supervision. Internship orientation is strongly suggested for noncredit-bearing internships. Students may be asked to sign a Release of Liability for some internships.

- Dedman Internship Program Orientation and Standardized University Release of Liability for Education Internship are required for credit-bearing internships.
- Internship credit and grades are based on a written learning contract signed by the student and faculty supervisor and approved by the department chair or director of undergraduate studies. In addition, students and site supervisors will complete evaluations of the experience. These evaluations are not considered in determination of the grade.
- Internship that is used to qualify for Dedman College course credit may not also be used to qualify for course credit in another SMU school.
- Internship credit requires a written component based on and reflective of the experiential dimension.
- Internship credit is available only through approved internship courses.
- Internship credit may range from one to three hours.
- Maximum total internship credit that may be applied toward a degree is three hours.


## Teacher Education

The University offers teacher education through the Simmons School of Education and Human Development and recommends candidates for certification by the State Board of Educator Certification. The recommendation is based on a candidate's successful completion of 24 hours in education (EDU) courses and six hours of student teaching. In addition, candidates must pass the Texas Examinations of Educator Standards. Prospective secondary teachers must have majors in appropriate teaching fields; students who wish to teach in a science or humanities discipline at the secondary level should combine a Dedman major in that area with the appropriate education (EDU) coursework through the Simmons School. More information is available from the Department of Teaching and Learning at 214-768-2780. For a general description of the program in teacher education, students should see the Simmons School of Education and Human Development section of this catalog.

## Multiple Majors and Minors

Students are encouraged to broaden their education by taking full advantage of the University's diverse undergraduate programs. Although only one major is required for graduation, with careful planning students may complete two or more majors and/or multiple minors within the prescribed total hours.

Students may also qualify for baccalaureate degrees from two schools in the University. Some characteristic pairings are English or political science in Dedman College and journalism in Meadows School of the Arts; physics or mathematics in Dedman College and electrical engineering in the Lyle School of Engineering; and world language in Dedman College and a major or minor in the Cox School of Business. Since all requirements for both degrees must be met, students should confer with advisers in both schools at an early date to prepare a plan of study.

Students are individually responsible for knowing and complying with all regulations and requirements that may apply to their respective programs.

## Courses Taken in SMU Abroad Programs

Up to 30 credit hours taken in approved SMU Abroad programs may be counted toward the degree requirements in Dedman College. Additional credit hours may be allowed through petition. Students should check individual departments within Dedman College for additional limitations.

## Transfer Courses From Other Institutions

Once matriculated at SMU, students wishing to enroll for and transfer courses offered at other institutions in subject areas within the Dedman College curriculum must receive prior approval from their adviser, the chair of the SMU department that normally offers the course, and the Dedman College Office of Records and Academic Services. A maximum of 30 credit hours of post-matriculation transfer work may be approved. Approval may be denied for educational reasons. Post-matriculation transfer work must be completed at accredited, four-year institutions. Postmatriculation transfer work from non-accredited or two-year institutions will not be approved. It may be possible, however to satisfy certain university curriculum requirements via transferable coursework.

## Admission

All incoming first-year students to the University are admitted as SMU Pre-Majors. Students should see the Admission to the University section of this catalog for admission requirements. Students wishing to pursue majors in the humanities, in the social or natural sciences, or in various multidisciplinary programs will declare a major in Dedman College for their undergraduate education. Specific degree requirements and additional information for any of these programs can be found in the departmental sections of this catalog. Admission into academic departments in

Dedman College requires the completion of 24 hours of coursework with a cumulative GPA of 2.000 or higher. Additional entry/admission requirements may exist within specific departments.

## Admission From Other Schools Within SMU

An individual enrolled in another school of the University may apply to their current school for permission to transfer into a degree-granting program in Dedman College. A student who has achieved a cumulative GPA of 2.000 on all SMU work attempted will normally be admitted to candidacy for a degree in Dedman College. Some academic programs may have additional requirements. Students should consult the catalog section and/or the department for more information.

## Readmission of Former Students

If three or more years have elapsed since the last enrollment at SMU, the student must meet any new requirements and is subject to any new regulations that have been instituted in the interval.

## Degree Requirements

Dedman College offers B.A. and B.S. degrees. Students should consult the individual programs of study outlined in the following sections of this catalog for the degree available in a specific area of study.

## The Major

A candidate for a degree must complete the requirements for a major in one of the departments or interdisciplinary programs of the college as well as the University-wide requirements. The major requirements of each department and program are stated at the beginning of the section describing the courses offered in that department or area. The applicable requirements of the major are those in effect during the academic year of matriculation. Coursework counting toward a major must include at least 18 advanced hours in approved SMU credit courses completed at SMU. All advanced courses required for the major must be passed with a grade of $C$ - or better and may not be taken pass/fail. In addition, Dedman College requires a cumulative GPA of 2.000 for all courses attempted for completion of a major or minor. Specific programs may require a higher GPA. All courses attempted that could count toward the major/minor are included in determining the major/minor GPA. Majors must be officially declared (or changed) through the Dedman College Office of Records and Academic Services.

## The Minor

A candidate for a degree may also complete the requirements of a minor, either in Dedman College or in one of the other undergraduate schools of the University. Advisers in the minor programs assist students in selecting a minimum of 15 hours, including at least nine at the advanced level, suitable for meeting requirements for a minor. Coursework counting toward a minor may not be taken pass/fail. All advanced courses required for the minor must be passed with a grade of $C$ - or better. At least half of the advanced hours required by Dedman minors must be completed in approved SMU credit courses and may not be transferred or taken pass/fail. In addition, Dedman College requires a cumulative GPA of 2.000 for all courses attempted for completion of a major or minor. All courses attempted that could count toward the major/minor are included in determining the major/minor GPA. Minors must be officially declared (or changed) through the Dedman College Office of Records and Academic Services.

## General Requirements

## Student Responsibility for Completion of Degree Plan

Students are individually responsible for knowing and complying with all regulations and requirements that may apply to their respective programs.

## Application for a Degree

Students must submit to the Dedman College Office of Records and Academic Services a formal application for graduation by the deadlines listed in the University Calendar within this catalog.

## Credits

A candidate for a degree in Dedman College must have

- Minimum total of 122 credit hours, including the University-wide requirements and the requirements for a major. Within this 122 hours are the following:
- A minimum total of 42 advanced hours (3000 level or above).
- Two hours of Personal Responsibility and Wellness.
- A maximum total of three hours of internship credit.


## Grades

A candidate for a degree in Dedman College must attain

- Minimum cumulative GPA of 2.000 on all work attempted through enrollment at SMU.
- Minimum cumulative GPA of 2.000 including all equivalent transfer work attempted elsewhere, if any.
- Minimum grade of C- on any advanced course offered in fulfillment of major or minor requirements.
- Minimum cumulative GPA of 2.000 (or higher for certain programs) for all work attempted for completion of major or minor requirements.
- No more than 12 hours with a grade of $P$ (Pass). This is in addition to any courses taken that are offered only as pass/fail.


## Credit Requirement

As minimum requirements, a candidate for a degree in Dedman College must take the following numbers of credit hours through SMU courses or SMU-approved international programs:

- Total of 60 hours.
- Total of 18 hours of advanced work in the major.
- Total that is equivalent to at least 50 percent of the advanced work required in any minor program selected. Departmental requirements may exceed this minimum.


## Requirements for Obtaining Two Degrees Simultaneously

A student who selects two majors in Dedman College may receive both degrees simultaneously by completing all requirements in each major, along with general requirements for a degree in Dedman College and University-wide requirements. However, a student may not pursue multiple programs affiliated with the same department or programs without permission from that department and the Dedman College Office of Records and Academic Services.

A student may pursue a program of study leading to a degree from Dedman College along with a degree from the Cox School of Business, Lyle School of Engineering, Meadows School of the Arts, or Simmons School of Education and Human Development. The student must obtain approval for the proposed program of study from the records offices of the schools involved.

## Graduation Honors

There are three classes of graduation honors: summa cum laude, magna cum laude and cum laude. Eligibility for graduation honors will be based upon a student's total academic program. All academic work attempted at other colleges or universities that is equivalent to SMU work will be included in the calculation of the GPA. For students who have transferred to SMU, two grade point averages will be calculated: for all work attempted and for work completed through enrollment at SMU. Honors will be based on the lower of the two averages.

## Departmental Distinction

During their junior and senior years, students may participate in the honors courses and seminars offered within their major departments. A variety of internships and research programs are also offered in some departments to provide practical exposure and experience within the disciplines. By successfully completing a special program of study in the major department, a student may be awarded departmental distinction regardless of eligibility for graduation honors. This award is conferred by the major department on the basis of criteria prescribed by the department, but all programs include the minimum requirements of independent reading and research beyond the regular departmental requirements for a degree and the completion of a senior paper or research report. Further information can be obtained from the individual departments in the Courses of Study in Dedman College section of this catalog or from www.smu.edu/dedman.

## Research Facilities

The teaching laboratories of the departments of Biological Sciences, Chemistry, Earth Sciences and Physics are housed in the Fondren Science Building and in the Dedman Life Sciences Building. Students have access to a wide array of specialized instrumentation and laboratory equipment fundamental to studies in the natural sciences, including spectrophotometers, high-performance liquid chromatographs, scintillation counter, fluorescence-activated cell sorter, scanning laser confocal microscope, electron resonance spectrometer, X-ray diffractometers, mass spectrometers and an atomic absorption spectrometer. Advanced undergraduate research is also supported by tissue culture and animal care facilities, as well as through several departmental computer laboratories.

The N.L. Heroy Science Hall houses the departments of Anthropology, Earth Sciences and Statistical Sciences, as well as the Institute for the Study of Earth and Man. The Institute for the Study of Earth and Man was created in 1966 by a gift from W.B. Heroy, Sr. Its purpose is to support research at the interface of humans, Earth and the environment.

## The Department of Anthropology operates the following research laboratories:

The Geoarchaeology Laboratory processes and analyzes soil and sediment samples as part of interdisciplinary archaeological research projects. Work in the lab follows two major threads: 1) paleofire and paleoenvironmental research using terrestrial sedimentary archives associated with archaeological landscapes and 2) behavioral geoarchaeology projects that use anthrosol chemistry and soil micromorphology to reconstruct activity areas or the life histories of domestic and public spaces. Specialized equipment includes a large-volume drying oven, largevolume muffle furnace, benchtop centrifuge, orbital shaker, portable phosphate colorimeter and benchtop magnetic susceptibility meter. Projects also benefit from partnerships with the SMU Roy M. Huffington Department of Earth Sciences and their facilities.

The Material Sciences Laboratory processes artifact collections and conducts data entry for artifacts collected from archaeological sites in the American South-west and Texas. It conducts experimental research with clays, temper and ceramics and contains 3D scanning equipment, a ceramic kiln, muffle furnace, drying oven, and digital and petrographic microscopes.

The Laboratory of Traditional Technology is used for carrying out systematic technological and performance analysis of materials from archaeological sites, as well as experimental archaeological research, to better understand variability in regional assemblages. On-site special equipment includes binocular microscopes and muffle furnaces.

The Medical Anthropology Laboratory, funded by the National Institutes of Mental Health and the Hogg Foundation for Mental Health research, includes data storage, telephone and voicemail, office space for one research assistant, audio recording equipment, and a laptop installed with NVivo 10 and Atlas.ti software.

The Migration Laboratory, originally funded by the National Science Foundation and the Russell Sage Foundation, includes data storage, telephone and voicemail, one desktop computer, a library of books on immigration, and office space for 2-3 graduate students.

The Molecular Anthropology Laboratories specialize in the analysis of DNA from both modern and archaeological samples to address classic problems in anthropology.

The Zooarchaeology Laboratory houses a large collection of comparative mammalian and avian skeletal remains. The collections also include several unique experimental and one of the largest ethnoarchaeological faunal assemblages in the country.

Geospatial Laboratory computers have software used in GIS analysis.
The QUEST Archaeological Program maintains laboratories to analyze archaeological materials (artifacts, faunal remains and sediments) collected in the course of fieldwork (primarily excavations). Equipment for analyzing sediments includes special ovens and related laboratory tools. In addition, the lab houses extensive comparative collections used for research and teaching. Archaeological collections, including the Tony Baker Paleoindian Collection, are available for study by qualified researchers.

The Department of Earth Sciences operates several unique laboratories, including the following:
The Dallas Seismological Observatory, established by the Dallas Geophysical Society and maintained and operated by the University, monitors remote seismic and infrasound stations in the western United States. The Lajitas array in Southwest Texas is used to test technology designed to detect small earthquakes from great distances. SMU operates seismic and infrasound arrays in Nevada and overseas locations. Data collected by the observatory are available to the faculty and advanced students who wish to undertake basic research in seismology, tectonics or infrasound.

The Ellis W. Shuler Museum of Paleontology houses research and teaching collections of fossil vertebrates, invertebrates and plants. The museum supports opportunities for advanced study of fossil faunas and floras and their evolutionary, climatic and paleoecologic significance. The collection, which specializes in vertebrate paleontology and paleobotany, includes more than 150,000 fossils. The research perspective is global, with particular strengths in advanced imaging techniques and interdisciplinary
studies. Students participate in research on the collections, and many are employed in the museum's fully equipped preparation laboratories.

The Pollen Analysis Laboratory serves SMU research projects focused on the reconstruction of past vegetation, past climate and paleoecology at localities around the world. The facility includes two fume hoods, glassware, centrifuges, scales, a convection oven, and storage space necessary for the dry and wet processing of sediment samples for their pollen content. The laboratory is also used for the processing of fossil plant cuticle. Microscopic analysis of the resulting pollen-sample residues and cuticle slides takes place in a separate laboratory housing transmitted light and epifluorescence microscopes, a comparative collection of modern pollen, and a small paleobotany and palynology research library. Work in this laboratory is often supplemented by facilities in the Scanning Electron Microscope laboratory (described below).

The Geothermal Laboratory is the focus of an extensive, worldwide program of research in the thermal field of the Earth. Special topics of concentration include characterization and location of geothermal energy resources in sedimentary basins related to oil and gas wells, resource evaluation of enhanced geothermal systems, climate change determination in well profiles, and research on methane hydrates. Mapping of the crustal heat flow of North America was completed in 2004 and updated in 2011. As part of the Google.org heat flow project, the U.S. temperatures-at-depth were mapped in detail to 10 kilometers. Specialized equipment for the measurement of the thermal conductivity of rocks and for the measurement of accurate, precise temperature logs in deep wells is available for research purposes. Services are provided to other institutions and research centers on a contractual basis.

The Hydrothermal Laboratory contains equipment to reproduce the pressures and temperatures existing to midcrustal depths. It contains two extraction-quench sampling bombs that permit withdrawal of solution during the progress of a run to pressures of 3 kbar and temperatures of 750 degrees Celsius. There are also 10 cold-seal reaction vessels. In addition, $1-\mathrm{atm}$ furnaces are available that can be used to temperatures of 1400 degrees Celsius.

The Stable Isotope Laboratory is a general research facility available to support both academic and student research at the University and in other research centers. The laboratory contains three automated gas-source, magnetic-sector isotope ratio mass spectrometers as well as vacuum extraction lines for converting natural materials (solids, liquids) into gases suitable for measuring the isotope ratios of hydrogen, carbon, nitrogen and oxygen at natural abundance.

The Variable Pressure Scanning Electron Microscope Laboratory contains a Zeiss SMT 1450 VPSE SEM used for generating electron photomicrographs with 5-nm resolution. The SEM is open to researchers and students from the departments of Earth Sciences, Environmental Sciences, Anthropology, Engineering and Chemistry. The facility is also equipped with an Edax energy dispersive X-ray system for quantitative determination of elemental compositions of the imaged materials.

The X-ray Diffraction Laboratory houses a Rigaku Ultima III diffractometer for the X-ray identification of materials with a crystalline structure and is open to researchers and students from the departments of Anthropology, Chemistry, Earth Sciences, Environmental Sciences and Engineering.

The X-ray Fluorescence Laboratory houses a Thermo Scientific ARL PERFORM'X X-ray fluorescence spectrometer. XRF analysis is a widely used analytical technique to determine the elemental composition from 10 ppm to 100 percent of a wide range of samples, both solids and liquids, with easy sample preparation and nondestructive analysis. The lab and its sample preparation tools are available to researchers and students working in Earth sciences, environmental sciences, anthropology, engineering and chemistry.

The Transmission Electron Microscope Microscopy Laboratory, located in the Department of Chemistry, houses a Leo 906 transmission electron microscope, which was donated to SMU by the Texas Scottish Rite Hospital for Children in Dallas. The TEM is also equipped with an Olympus KeenView digital camera.

The Nuclear Magnetic Resonance Spectrometer Laboratory, located in the Department of Chemistry, houses a 500 MHz JEOL NMR spectrometer and a 400 MHz Bruker NMR spectrometer, which are available to students and researchers. These instruments are the research progenitors of medical MRI scanners, capable of scanning $1 \mathrm{H}, 13 \mathrm{C}, 31 \mathrm{P}$ and many other nuclei.

## AeroSpace Studies: Air Force ROTC

## General Information

Air Force Reserve Officers' Training Corps courses are not offered on the SMU campus; however, SMU students who wish to earn appointments as commissioned officers in the U.S. Air Force may participate in the Air Force general military course and professional officer course through the University of North Texas in Denton. The Air Force ROTC program develops skills and provides education vital to the career officer. Active-duty Air Force personnel provide all instruction and program administration. Students who participate in the UNT Air Force ROTC program are responsible for their own travel and other physical arrangements.

The program is open to all students. First-year students may enroll in the four-year program, and students with at least three undergraduate or graduate academic years remaining may apply for the two- or three-year program. Current emphasis in the Air Force ROTC college scholarship program is to award scholarships to candidates pursuing undergraduate engineering or other scientific and technical disciplines. Nearly 90 percent of Air Force ROTC scholarships are awarded in these disciplines. However, students in every degree program enjoy scholarship opportunities as the Air Force seeks to engage students who excel both academically and militarily. Scholarships are awarded at various amounts in increments of four, three and two years and entitlements may be extended to cover a 5 th year of school if the student is taking an approved technical major. Uniforms and textbooks for Air Force ROTC courses are issued at no cost to cadets.

Students register for the aerospace studies courses at the same time and in the same manner as they register for other SMU courses. The Air Force ROTC courses may be taken as electives in most academic majors. Successful completion of degree requirements and the Air Force ROTC program can lead to a commission as a second lieutenant in the United States Air Force. Students with at least six months of active military service may be granted waivers on a portion of the general military course.

For more information, students should contact Air Force ROTC, University of North Texas, 1155 Union Circle, \#305400, Denton, TX, 76203; 940-565-2074; det835@unt.edu; www.afrotc.unt.edu.

For information about Army ROTC, see the Army Reserve Officers' Training Corps section in the Lyle School of Engineering portion of the catalog.

## Courses:

## AERO 1103 - Foundations of the United States Air Force

Credits: 1
Introduces the USAF and the AFROTC. Topics include mission and organization of the USAF, officership and professionalism, military customs and courtesies, USAF officer opportunities, and communication skills.

## AERO 1104-Foundations of the United States Air Force

Credits: 1
Introduces the USAF and the AFROTC. Topics include mission and organization of the USAF, officership and professionalism, military customs and courtesies, USAF officer opportunities, and communication skills.

## AERO 2100 - Cooperative Education in Aerospace Studies

Credits: 1
Supervised work in a job directly related to the student's major, professional field of study, or career objective, 13 hours each week. Prerequisites: Permission of division chair; student must meet employer's requirements. May be repeated for credit.

## AERO 2103 - The Evolution of USAF Air and Space Power

Credits: 1
Examines general aspects of air and space power from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Extrapolates the development of Air Force capabilities (competencies) and missions (functions), and demonstrates the evolution of USAF air and space power. Students develop their communication skills and discuss the importance of the Air Force core values using operational examples and historical Air Force leaders.

## AERO 2104 - The Evolution of USAF Air and Space Power

## Credits: 1

Examines general aspects of air and space power from the first balloons and dirigibles to the space-age global positioning systems of the Persian Gulf War. Extrapolates the development of Air Force capabilities (competencies) and missions (functions), and demonstrates the evolution of USAF air and space power. Students develop their communication skills and discuss the importance of the Air Force core values using operational examples and historical Air Force leaders.

## AERO 2200 - Cooperative Education in Aerospace Studies

Credits: 2
Supervised work in a job directly related to the student's major, professional field of study, or career objective, 13 hours each week. Prerequisites: Permission of division chair; student must meet employer's requirements. May be repeated for credit.

## AERO 2300 - Cooperative Education in Aerospace Studies

Credits: 3
Supervised work in a job directly related to the student's major, professional field of study, or career objective, 13 hours each week. Prerequisites: Permission of division chair; student must meet employer's requirements. May be repeated for credit.

## AERO 2400 - Cooperative Education in Aerospace Studies

Credits: 4
Supervised work in a job directly related to the student's major, professional field of study, or career objective, 13 hours each week. Prerequisites: Permission of division chair; student must meet employer's requirements. May be repeated for credit.

## AERO 3431 - Air Force Leadership

## Credits: 4

A study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force junior officer. Uses case studies to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied.

## AERO 3432-Air Force Leadership

Credits: 4
A study of leadership, management fundamentals, professional knowledge, Air Force personnel and evaluation systems, leadership ethics, and communication skills required of an Air Force junior officer. Uses case studies to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied.

## AERO 4100-Cooperative Education in Aerospace Studies

## Credits: 1

Supervised work in a job directly related to the student's major, professional field of study, or career objective, 13 hours each week. Prerequisites: 12 hours of credit in aerospace studies; permission of division chair. Student must meet employer's requirements. May be repeated for credit.

## AERO 4200 - Cooperative Education in Aerospace Studies

Credits: 2
Supervised work in a job directly related to the student's major, professional field of study, or career objective, 13 hours each week. Prerequisites: 12 hours of credit in aerospace studies; permission of division chair. Student must meet employer's requirements. May be repeated for credit.

## AERO 4300 - Cooperative Education in Aerospace Studies

Credits: 3
Supervised work in a job directly related to the student's major, professional field of study, or career objective, 13 hours each week. Prerequisites: 12 hours of credit in aerospace studies; permission of division chair. Student must meet employer's requirements. May be repeated for credit.

## AERO 4400 - Cooperative Education in Aerospace Studies

Credits: 4
Supervised work in a job directly related to the student's major, professional field of study, or career objective, 13 hours each week. Prerequisites: 12 hours of credit in aerospace studies; permission of division chair. Student must meet employer's requirements. May be repeated for credit.

## AERO 4431 - National Security Forces in Contemporary American Society and Preparation for Active Duty

Credits: 4
Examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Focuses on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, current issues affecting military professionalism, and communication skills.

## AERO 4432 - National Security Forces in Contemporary American Society and Preparation for Active Duty

Credits: 4
Examines the national security process, regional studies, advanced leadership ethics, and Air Force doctrine. Focuses on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, current issues affecting military professionalism, and communication skills.

## Anthropology

www.smu.edu/anthro

## Professor Karen Lupo, Department Chair

Professors: Eric G. Bing, Caroline Brettell, Karen Lupo, David Meltzer
Associate Professors: Michael Adler, Sunday Eiselt, Mark McCoy, Nia Parson, Christopher Roos, Carolyn Smith-Morris
Assistant Professors: Maryann Cairns, Kacy Hollenback, Neely Myers, Nicolas Sternsdorff-Cisterna
Lecturer: Matthew Boulanger

## General Information

Anthropology is the study of humanity in its broadest context. Anthropology encompasses four subdisciplines within its approach: archaeology, biological anthropology, linguistic anthropology and sociocultural anthropology. In addition to providing the basis for careers in these subdisciplines, anthropology provides a background for professional careers in teaching, research, international affairs, medicine, business or law. The department offers B.A. and B.S. degrees with a major in anthropology and B.A. and B.S. degrees with a major in health and society. A grade of $C$ - or better must be earned in all courses taken in fulfillment of the requirements for the major. Students must maintain a minimum 2.000 GPA in their major and should consult their departmental adviser periodically to review their progress.

## Departmental Distinction

This program is open to junior and senior anthropology majors and health and society majors with outstanding academic records. Graduation with departmental distinction is designated on the diploma of those who successfully complete the program. To earn departmental distinction, a student must

1. Complete the usual coursework for a B.A. or B.S. degree with at least a 3.500 GPA in their major and with at least a 3.000 GPA overall.
2. With a grade of B or higher: For anthropology majors, pass ANTH 5334 and ANTH 5335 or complete a substantial independent reading program (for three credit hours that replaces one of these) on the history, conceptual foundations or methodological problems of the discipline. For health and society majors, pass ANTH 4343 or ANTH 5336.
3. With a grade of A or A-, conduct a research project (for three credit hours in ANTH 4391 or ANTH 4392) and complete a significant research paper that is a minimum of 20 pages of text, includes a bibliography, and is written in appropriate sub-disciplinary professional style and format. For health and society majors, with a grade of A or A-, enroll in an Independent Study (e.g., ANTH 4391) to conduct an independent research project (may be associated with a faculty member's over-arching research) that meets several requirements. See Health and Society Director or website for details.
4. Pass an oral examination of one hour in length (with at least three full-time departmental faculty members), covering the results of the research project and general issues and concepts in anthropology according to the subfield specialty. For health and society majors, make an oral presentation of approximately 30 minutes in length in a format approved by the supervising faculty member. See Health and Society Director or website for further details on the format options for this presentation.

## Anthropology, B.A.

The B.A. program is designed to provide students with a strong foundation in the diversity of human biology and culture over time. Students are able to shape their particular specialty within anthropology while developing research skills for life after graduation. The B.A. degree works well as a stand-alone major or when paired with another major for students pursuing diverse careers. Of the required 38 credit hours of anthropology, at least three credit hours must be at the 4000 level or higher.

Note: ANTH 1321 is a preferred elective.

## Requirements for the Major

## Core Courses (14 Credit Hours)

- ANTH 2301 - Introductory Cultural Anthropology
- ANTH 2415 - Human Evolution: Biological and Social Beginnings of Humankind
- ANTH 2463 - The Science of Our Past: An Introduction to Archaeology
- ANTH 4399 - Integrated Themes in Anthropology


## Regional Courses (6 Credit Hours)

Two from the following:

- ANTH 3304 - North American Archaeology
- ANTH 3311 - Mexico: From Conquest to Cancun
- ANTH 3312 - Mesoamerican Archaeology
- ANTH 3313 - South American Indians of the Past and Present
- ANTH 3314 - Peoples of Africa
- ANTH 3315 - Origins of Civilization
- ANTH 3316 - Cultures of the Pacific Islands
- ANTH 3317 - Peoples of Southeast Asia
- ANTH 3318 - Life in the Ancient Southwest
- ANTH 3321 - Ancient Hawaii
- ANTH 3323 - East Asia in Motion
- ANTH 3346 - Culture and Diversity in American Life
- ANTH 3353 - Indians of North America
- ANTH 3354 - Latin America: Peoples, Places, and Power
- ANTH 3355 - Society and Culture in Contemporary Europe
- ANTH 3358 - Indians of the Southwest From the 16th Century to the Present
- ANTH 3359 - Peoples and Cultures of the Middle East
- ANTH 3374 - Cultures and Environments of the Southwest
- ANTH 3399 - In Search of Ice Age Americans


## Methods and Analysis Courses (6 Credit Hours)

- ANTH 5681 - Field Methods in Archaeology
or
- One course from Group 1 and one course from Group 2


## Group 1:

- ANTH 3345 - Introduction to Ethnographic Methods
- SOCI 3311-Social Science Research Methods


## Group 2:

- ANTH 3351 - Forensic Anthropology: Lessons Taught by Bones
- ANTH 4325 - Introduction to Osteology I: Human-Animal Interactions
- ANTH 4333 - Laboratory Methods in Archaeology
- ANTH 4391 - Independent Study and Research (data analysis topic)
- ANTH 5310 - Human Osteology: Biology of the Human Skeleton
- SOCI 3312 - Database Methods and Analysis


## Anthropology Electives (12 Credit Hours)

At least 3 credit hours at the 4000 level or higher.

## Total: 38 Credit Hours

## Anthropology, B.S.

The B.S. program is designed for students who are particularly interested in careers in medicine, public health or research in anthropological or archaeological sciences. Of the 50 credit hours of anthropology and other related courses required, at least three credit hours must at the 4000 level or higher.

## Requirements for the Major

## Core Courses (20 Credit Hours)

- ANTH 2301 - Introductory Cultural Anthropology
- ANTH 2415 - Human Evolution: Biological and Social Beginnings of Humankind
- ANTH 2463 - The Science of Our Past: An Introduction to Archaeology
- ANTH 4399 - Integrated Themes in Anthropology
- ANTH 5334 - History of Anthropology, Part One or
- ANTH 5335 - History of Anthropology, Part Two
- STAT 2331 - Introduction to Statistical Methods


## Regional Courses (6 Credit Hours)

Two from the following:

- ANTH 3304 - North American Archaeology
- ANTH 3311 - Mexico: From Conquest to Cancun
- ANTH 3312 - Mesoamerican Archaeology
- ANTH 3313 - South American Indians of the Past and Present
- ANTH 3314 - Peoples of Africa
- ANTH 3315 - Origins of Civilization
- ANTH 3316-Cultures of the Pacific Islands
- ANTH 3317 - Peoples of Southeast Asia
- ANTH 3318 - Life in the Ancient Southwest
- ANTH 3321 - Ancient Hawaii
- ANTH 3323 - East Asia in Motion
- ANTH 3346 - Culture and Diversity in American Life
- ANTH 3353 - Indians of North America
- ANTH 3354 - Latin America: Peoples, Places, and Power
- ANTH 3355 - Society and Culture in Contemporary Europe
- ANTH 3358 - Indians of the Southwest From the 16th Century to the Present
- ANTH 3359 - Peoples and Cultures of the Middle East
- ANTH 3374-Cultures and Environments of the Southwest
- ANTH 3399 - In Search of Ice Age Americans


## Methods and Analysis Courses (6 Credit Hours)

- ANTH 5681 - Field Methods in Archaeology
or
- One course from Group 1 and one course from Group 2


## Group 1:

- ANTH 3345 - Introduction to Ethnographic Methods
- ANTH 5344 - Research Methods in Ethnology
- SOCI 3311 - Social Science Research Methods


## Group 2:

- ANTH 3351 - Forensic Anthropology: Lessons Taught by Bones
- ANTH 4325 - Introduction to Osteology I: Human-Animal Interactions
- ANTH 4333 - Laboratory Methods in Archaeology
- ANTH 4391 - Independent Study and Research (data analysis topic)
- ANTH 5310 - Human Osteology: Biology of the Human Skeleton
- SOCI 3312 - Database Methods and Analysis


## Advanced Statistics or Data Analysis Course (3 Credit Hours)

Select one:

- STAT 3312 - Categorical Data Analysis
- STAT 3380 - Environmental Statistics
- STAT 4385 - Introduction to Nonparametric Statistics
- SOCI 3312 - Database Methods and Analysis


## Advanced Social or Natural Science Courses (6 Credit Hours)

(must be at the 3000 level or above)

- 6 credit hours from BIOL, CHEM, GEOL, or PHYS courses
or
- 6 credit hours from ECON, PLSC, PSYC, or SOCI courses


## Anthropology Electives (9 Credit Hours)

At least 3 credit hours at the 4000 level or higher.

## Total: 50 Credit Hours

## Health and Society, B.A.

The health and society major is intended to promote a broad understanding of health and its determinants for students planning careers in the health professions. The program offers B.A. and B.S. scholars with knowledge spanning the sciences, social sciences, humanities and behavioral sciences through intensive collaboration and cross-disciplinary communication among students and faculty involved in the major.

Two concentrations are offered. Track 1, with physiological emphasis (B.S.), is a bench science track oriented to students pursuing graduate study in medicine, nursing, pharmacy, dentistry and other clinical fields. Track 2, with social and cultural emphasis (B.A. or B.S.), is a behavioral and social science track oriented to students pursuing allied health-related careers, research and graduate study in the allied health professions, including public health, health care administration, psychology, and medical anthropology or sociology.

Admission to this program is by competitive application to the department. Applications are accepted twice annually in September and February. Applicants must have completed at least 24 credit hours and the laboratory science courses required for their specific program track. Additional information is available on the department's Web page.

Note: This program of study does not satisfy requirements for the Medical College Admission Test or medical school applications. Students preparing for admission to health-related graduate schools must consult with the prehealth professions adviser for further information and course requirements.

## Requirements for the Major

## Foundation and Capstone Courses (15-16 Credit Hours)

- ANTH 2301 - Introductory Cultural Anthropology or
- PSYC 1300 - Introduction to Psychology
or
- SOCI 1300 - Introduction to Sociology
- ANTH 3301/SOCI 3301 - Health, Healing, and Ethics: Cross-Cultural Perspectives on Sickness and Society or
- PHIL 3376 - Bioethics
or
- RELI 3309 - Bioethics From a Christian Perspective
- ANTH 3306 - Introduction to Medical Anthropology
- ANTH 4343 - Biomedicine, Culture, and Power (or another capstone course approved by the professor and health and society director)
or
- ANTH 5336 - Health in Cross-Cultural Perspective (or another capstone course approved by the professor and health and society director)


## Track 1:

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab or
- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory

Track 2:

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab or
- BIOL 1303 - Essentials of Biology
or
- CHEM 1301-Chemistry for Liberal Arts
- CHEM 1113 - General Chemistry Laboratory or
- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory


## Concentration Courses (20-29 Credit Hours)

## Track 1: Physiological Emphasis (28 Credit Hours)

- MATH 1337 - Calculus I
or
- STAT 2331 - Introduction to Statistical Methods
- PSYC 2332 - Developmental Psychology


## Elective Courses

22 hours chosen from the following (no more than 12 hours from any single department; at least 15 hours at the 3000 level or higher):

- ANTH 2415 - Human Evolution: Biological and Social Beginnings of Humankind
- ANTH 3303 - Self, Culture, and Mind: Introduction to Psychological Anthropology
- ANTH 3350 - Good Eats and Forbidden Flesh: Culture, Food, and the Global Grocery Market
- ANTH 3351 - Forensic Anthropology: Lessons Taught by Bones
- ANTH 4307- Global and Public Health
- ANTH 4343 - Biomedicine, Culture, and Power
- ANTH 4345 - Creating Global and Public Health Impact
- ANTH 5310 - Human Osteology: Biology of the Human Skeleton
- ANTH 5336 - Health in Cross-Cultural Perspective
- APSM 2441 - Human Anatomy and Physiology I with Laboratory
- APSM 2442 - Human Anatomy and Physiology II with Lab
- APSM 4349 - Health Care: From Policy to Practice
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304-Genetics
- BIOL 3350 - Cell Biology
- CHEM 1304 - General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3371-Organic Chemistry
- CHEM 3117 - Organic Chemistry Laboratory
- KNW 2303 - Under the Influence: Discourses of Inebriation, Addiction, and Recovery
- PSYC 2351 - Abnormal Psychology
- PSYC 3360 - Health Psychology
- PSYC 4320 - Biological Psychology
- PSYC 4321 - Behavioral Action of Drugs
- WGST 3380 - Human Sexuality


## Track 2: Social and Cultural Emphasis (20 Credit Hours)

- ANTH 3345 - Introduction to Ethnographic Methods or
- PSYC 3301 - Research Methods in Psychology or
- SOCI 3311 - Social Science Research Methods
- APSM 2441 - Human Anatomy and Physiology I with Laboratory


## Elective Courses

13 hours chosen from the following (no more than 12 hours from any single department; at least 9 hours at the 3000 level or higher):

- ANTH 3303 - Self, Culture, and Mind: Introduction to Psychological Anthropology
- ANTH 3328 - Gender Violence: Anthropological Perspectives
- ANTH 3345 - Introduction to Ethnographic Methods
- ANTH 3348 - Health as a Human Right
- ANTH 3350-Good Eats and Forbidden Flesh: Culture, Food, and the Global Grocery Market
- ANTH 4303 - Political Economy of Health
- ANTH 4307 - Global and Public Health
- ANTH 4343 - Biomedicine, Culture, and Power
- ANTH 5336 - Health in Cross-Cultural Perspective
- APSM 2442 - Human Anatomy and Physiology II with Lab
- APSM 4349 - Health Care: From Policy to Practice
- ENGL 3379 - Literary and Cultural Contexts of Disability: Gender, Care, and Justice
- ENGL 3384 - Literature and Medicine
- KNW 2303 - Under the Influence: Discourses of Inebriation, Addiction, and Recovery
- PHIL 3364 - Philosophy of Biology
- PHIL 3376 - Bioethics
- PSYC 3341 - Social Psychology
- PSYC 3360 - Health Psychology
- PSYC 4320 - Biological Psychology
- PSYC 4321 - Behavioral Action of Drugs
- SOCI 3301/ANTH 3301 - Health, Healing, and Ethics: Cross-Cultural Perspectives on Sickness and Society
- STAT 2331 - Introduction to Statistical Methods
- WGST 3310 - Gender and Human Rights
- WGST 3380 - Human Sexuality
- ANTH 4345 - Creating Global and Public Health Impact


## Total: 35-44 Credit Hours

## Health and Society, B.S.

The health and society major is intended to promote a broad understanding of health and its determinants for students planning careers in the health professions. The program offers B.A. and B.S. scholars with knowledge
spanning the sciences, social sciences, humanities and behavioral sciences through intensive collaboration and cross-disciplinary communication among students and faculty involved in the major.

Two concentrations are offered. Track 1, with physiological emphasis (B.S.), is a bench science track oriented to students pursuing graduate study in medicine, nursing, pharmacy, dentistry and other clinical fields. Track 2, with social and cultural emphasis (B.A. or B.S.), is a behavioral and social science track oriented to students pursuing allied health-related careers, research and graduate study in the allied health professions, including public health, health care administration, psychology, and medical anthropology or sociology.

Admission to this program is by competitive application to the department. Applications are accepted twice annually in September and February. Applicants must have completed at least 24 credit hours and the laboratory science courses required for their specific program track. Additional information is available on the department's Web page.

Note: This program of study does not satisfy requirements for the Medical College Admission Test or medical school applications. Students preparing for admission to health-related graduate schools must consult with the prehealth professions adviser for further information and course requirements.

## Requirements for the Major

## Foundation and Capstone Courses (15-16 Credit Hours)

- ANTH 2301 - Introductory Cultural Anthropology
or
- PSYC 1300 - Introduction to Psychology
or
- SOCI 1300 - Introduction to Sociology
- ANTH 3301/SOCI 3301 - Health, Healing, and Ethics: Cross-Cultural Perspectives on Sickness and Society or
- PHIL 3376 - Bioethics
or
- RELI 3309 - Bioethics From a Christian Perspective
- ANTH 3306 - Introduction to Medical Anthropology
- ANTH 4343 - Biomedicine, Culture, and Power (or another capstone course approved by the professor and health and society director)
or
- ANTH 5336 - Health in Cross-Cultural Perspective (or another capstone course approved by the professor and health and society director)


## Track 1:

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
or
- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory


## Track 2:

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab or
- BIOL 1303 - Essentials of Biology
- BIOL 1101 - Introductory Biology Lab or
- CHEM 1301-Chemistry for Liberal Arts
- CHEM 1113 - General Chemistry Laboratory or
- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory


## Concentration Courses (20-29 Credit Hours)

## Track 1: Physiological Emphasis (28 Credit Hours)

- MATH 1337 - Calculus I
or
- STAT 2331 - Introduction to Statistical Methods
- PSYC 2332 - Developmental Psychology


## Elective Courses

22 hours chosen from the following (no more than 12 hours from any single department; at least 15 hours at the 3000 level or higher):

- ANTH 2415 - Human Evolution: Biological and Social Beginnings of Humankind
- ANTH 3303 - Self, Culture, and Mind: Introduction to Psychological Anthropology
- ANTH 3350 - Good Eats and Forbidden Flesh: Culture, Food, and the Global Grocery Market
- ANTH 3351 - Forensic Anthropology: Lessons Taught by Bones
- ANTH 4307-Global and Public Health
- ANTH 4343 - Biomedicine, Culture, and Power
- ANTH 4345 - Creating Global and Public Health Impact
- ANTH 5310 - Human Osteology: Biology of the Human Skeleton
- ANTH 5336 - Health in Cross-Cultural Perspective
- APSM 2441 - Human Anatomy and Physiology I with Laboratory
- APSM 2442 - Human Anatomy and Physiology II with Lab
- APSM 4349 - Health Care: From Policy to Practice
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304 - Genetics
- BIOL 3350 - Cell Biology
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3371-Organic Chemistry
- CHEM 3117 - Organic Chemistry Laboratory
- KNW 2303 - Under the Influence: Discourses of Inebriation, Addiction, and Recovery
- PSYC 2351-Abnormal Psychology
- PSYC 3360 - Health Psychology
- PSYC 4320 - Biological Psychology
- PSYC 4321 - Behavioral Action of Drugs
- WGST 3380 - Human Sexuality


## Track 2: Social and Cultural Emphasis (29 Credit Hours)

- ANTH 3345 - Introduction to Ethnographic Methods
or
- PSYC 3301 - Research Methods in Psychology or
- SOCI 3311 - Social Science Research Methods
- APSM 2441 - Human Anatomy and Physiology I with Laboratory


## Elective Courses

21 hours chosen from the following (no more than 12 hours from any single department; at least 9 hours at the 3000 level or higher):

- ANTH 3303 - Self, Culture, and Mind: Introduction to Psychological Anthropology
- ANTH 3328 - Gender Violence: Anthropological Perspectives
- ANTH 3345 - Introduction to Ethnographic Methods
- ANTH 3348 - Health as a Human Right
- ANTH 3350 - Good Eats and Forbidden Flesh: Culture, Food, and the Global Grocery Market
- ANTH 4303 - Political Economy of Health
- ANTH 4307-Global and Public Health
- ANTH 4343 - Biomedicine, Culture, and Power
- ANTH 4345 - Creating Global and Public Health Impact
- ANTH 5336 - Health in Cross-Cultural Perspective
- APSM 2442 - Human Anatomy and Physiology II with Lab
- APSM 4349 - Health Care: From Policy to Practice
- ENGL 3379 - Literary and Cultural Contexts of Disability: Gender, Care, and Justice
- ENGL 3384 - Literature and Medicine
- KNW 2303 - Under the Influence: Discourses of Inebriation, Addiction, and Recovery
- PHIL 3364 - Philosophy of Biology
- PHIL 3376 - Bioethics
- PSYC 3341 - Social Psychology
- PSYC 3360 - Health Psychology
- PSYC 4320 - Biological Psychology
- PSYC 4321 - Behavioral Action of Drugs
- SOCI 3301/ANTH 3301 - Health, Healing, and Ethics: Cross-Cultural Perspectives on Sickness and Society
- STAT 2331 - Introduction to Statistical Methods
- WGST 3310 - Gender and Human Rights
- WGST 3380 - Human Sexuality


## Total: 35-44 Credit Hours

## Anthropology Minor

A 15-hour minor is offered in three tracks: archaeology, cultural anthropology or general anthropology; an 18hour track may be taken in biomedical anthropology. A grade of C - or better must be earned in all advanced courses taken in fulfillment of the requirements for an anthropology minor. Students must take nine credit hours of advanced coursework. Students may choose to take a topics course (ANTH 3330, ANTH 3331, ANTH 4191, ANTH 4192, ANTH 4291, ANTH 4292, ANTH 4350, ANTH 4351, ANTH 4352, ANTH 4381, ANTH 4390, ANTH 4391, ANTH 4392) in one of the subfields to count toward the minor. Students pursuing a major in anthropology may not also pursue the minor.

## Requirements for the Minor

## Core Course (3 Credit Hours)

- ANTH 2301 - Introductory Cultural Anthropology


## Anthropology Tracks (12-15 Credit Hours)

## Archaeology (12 Credit Hours)

One from the following:

- ANTH 2302 - People of the Earth: The First Five Million Years
- ANTH 2380 - Cultures at Risk: Human Rights and Heritage Today
- ANTH 2463 - The Science of Our Past: An Introduction to Archaeology

Three from the following:

- ANTH 3304 - North American Archaeology
- ANTH 3312 - Mesoamerican Archaeology
- ANTH 3313 - South American Indians of the Past and Present
- ANTH 3314 - Peoples of Africa
- ANTH 3315 - Origins of Civilization
- ANTH 3316 - Cultures of the Pacific Islands
- ANTH 3317 - Peoples of Southeast Asia
- ANTH 3318 - Life in the Ancient Southwest
- ANTH 3319 - Human Ecology
- ANTH 3321 - Ancient Hawaii
- ANTH 3323 - East Asia in Motion
- ANTH 3334 - Fantastic Archaeology and Pseudoscience: Lost Tribes, Sunken Continents, and Ancient Astronauts
- ANTH 3351 - Forensic Anthropology: Lessons Taught by Bones
- ANTH 3353 - Indians of North America
- ANTH 3358 - Indians of the Southwest From the 16th Century to the Present
- ANTH 3365 - The Rise and Fall of Superpowers: The Dynamics and Ethics of Empire
- ANTH 3374 - Cultures and Environments of the Southwest
- ANTH 3384 - Paradise Lost? The Archaeology and Paleoecology of Human-Environmental Impacts
- ANTH 3388 - Warfare and Violence: The Anthropology and Ethics of Human Conflict
- ANTH 3390 - The Plundered Past: Archaeology's Challenges in the Modern World
- ANTH 3399 - In Search of Ice Age Americans
- ANTH 4300 - World Archaeology
- ANTH 4325 - Introduction to Osteology I: Human-Animal Interactions
- ANTH 4333 - Laboratory Methods in Archaeology
- ANTH 4346 - Environmental Anthropology and Development
- ANTH 4385 - Pacific Island Archaeology
- ANTH 4386 - The Archaeology of Gender and Sexuality
- ANTH 5310 - Human Osteology: Biology of the Human Skeleton
- ANTH 5381 - Field Methods in Archaeology
- ANTH 5382 - Field Methods in Archaeology
- ANTH 5681 - Field Methods in Archaeology


## Biomedical Anthropology (15 Credit Hours)

- ANTH 3306 - Introduction to Medical Anthropology or
- ANTH 5336 - Health in Cross-Cultural Perspective

Four from the following:

- ANTH 3301 - Health, Healing, and Ethics: Cross-Cultural Perspectives on Sickness and Society
- ANTH 3303 - Self, Culture, and Mind: Introduction to Psychological Anthropology
- ANTH 3306 - Introduction to Medical Anthropology
- ANTH 3307 - Introduction to Biological Anthropology
- ANTH 3328 - Gender Violence: Anthropological Perspectives
- ANTH 3348 - Health as a Human Right
- ANTH 3350 - Good Eats and Forbidden Flesh: Culture, Food, and the Global Grocery Market
- ANTH 3351 - Forensic Anthropology: Lessons Taught by Bones
- ANTH 4303 - Political Economy of Health
- ANTH 4307 - Global and Public Health
- ANTH 4343 - Biomedicine, Culture, and Power
- ANTH 4344 - Global Population Processes: Anthropological Perspectives
- ANTH 4345 - Creating Global and Public Health Impact
- ANTH 5310 - Human Osteology: Biology of the Human Skeleton
- ANTH 5336 - Health in Cross-Cultural Perspective

OR three ANTH courses listed above and one from the following:

- PHIL 3376 - Bioethics
- PSYC 3360 - Health Psychology
- RELI 3366 - Magic, Myth and Religion Across Cultures
- WGST 3380 - Human Sexuality


## Cultural Anthropology (12 Credit Hours)

Two from the following:

- ANTH 3301 - Health, Healing, and Ethics: Cross-Cultural Perspectives on Sickness and Society
- ANTH 3303 - Self, Culture, and Mind: Introduction to Psychological Anthropology
- ANTH 3306 - Introduction to Medical Anthropology
- ANTH 3310-Gender and Sex Roles: A Cross-Cultural Perspective
- ANTH 3319 - Human Ecology
- ANTH 3328 - Gender Violence: Anthropological Perspectives
- ANTH 3329 - Contesting Development: Global and Local Impacts and Human Rights
- ANTH 3333 - The Immigrant Experience
- ANTH 3336-Gender and Globalization: Cultural and Ethical Issues
- ANTH 3344-Cultural Aspects of Business
- ANTH 3345 - Introduction to Ethnographic Methods
- ANTH 3348 - Health as a Human Right
- ANTH 3350 - Good Eats and Forbidden Flesh: Culture, Food, and the Global Grocery Market
- ANTH 3361 - Language in Culture and Society
- ANTH 3366 - Magic, Myth, and Religion Across Cultures
- ANTH 3368 - Global Urbanism: Implosions/Explosions
- ANTH 3385 - Sustainable Living
- ANTH 3388 - Warfare and Violence: The Anthropology and Ethics of Human Conflict
- ANTH 4303 - Political Economy of Health
- ANTH 4304 - Migration, Ethnicity, and Nationalism
- ANTH 4305 - Applied Anthropology
- ANTH 4307-Global and Public Health
- ANTH 4309 - Human Rights, Indigenous Peoples, and Nation States
- ANTH 4343 - Biomedicine, Culture, and Power
- ANTH 4344 - Global Population Processes: Anthropological Perspectives
- ANTH 4345 - Creating Global and Public Health Impact
- ANTH 4346 - Environmental Anthropology and Development
- ANTH 4384 - Global Issues and Development: An Overview
- ANTH 5336 - Health in Cross-Cultural Perspective
- ANTH 5344 - Research Methods in Ethnology

Two from the following:

- ANTH 3304 - North American Archaeology
- ANTH 3311 - Mexico: From Conquest to Cancun
- ANTH 3312 - Mesoamerican Archaeology
- ANTH 3313 - South American Indians of the Past and Present
- ANTH 3314 - Peoples of Africa
- ANTH 3315 - Origins of Civilization
- ANTH 3316 - Cultures of the Pacific Islands
- ANTH 3317 - Peoples of Southeast Asia
- ANTH 3318 - Life in the Ancient Southwest
- ANTH 3321 - Ancient Hawaii
- ANTH 3323 - East Asia in Motion
- ANTH 3334 - Fantastic Archaeology and Pseudoscience: Lost Tribes, Sunken Continents, and Ancient Astronauts
- ANTH 3346 - Culture and Diversity in American Life
- ANTH 3353 - Indians of North America
- ANTH 3354 - Latin America: Peoples, Places, and Power
- ANTH 3355 - Society and Culture in Contemporary Europe
- ANTH 3358 - Indians of the Southwest From the 16th Century to the Present
- ANTH 3359 - Peoples and Cultures of the Middle East
- ANTH 3374-Cultures and Environments of the Southwest
- ANTH 3399 - In Search of Ice Age Americans


## General Anthropology (12 Credit Hours)

One course each from the Archaeology and Cultural Anthropology courses listed on the Anthropology Department homepage.

One Course from Methods and Analysis:

- ANTH 3345 - Introduction to Ethnographic Methods
- ANTH 3351 - Forensic Anthropology: Lessons Taught by Bones
- ANTH 4325 - Introduction to Osteology I: Human-Animal Interactions
- ANTH 4333 - Laboratory Methods in Archaeology
- ANTH 4391 - Independent Study and Research (Data Analysis Topic)
- ANTH 5310 - Human Osteology: Biology of the Human Skeleton
- ANTH 5344 - Research Methods in Ethnology
- ANTH 5381 - Field Methods in Archaeology
- ANTH 5681 - Field Methods in Archaeology
- SOCI 3311-Social Science Research Methods
- SOCI 3312 - Database Methods and Analysis

One course from the following:

- ANTH 2415 - Human Evolution: Biological and Social Beginnings of Humankind
- ANTH 3302 - Monkeys and Apes: The Nonhuman Primates
- ANTH 3307 - Introduction to Biological Anthropology
- ANTH 3350 - Good Eats and Forbidden Flesh: Culture, Food, and the Global Grocery Market
- ANTH 3351 - Forensic Anthropology: Lessons Taught by Bones
- ANTH 4336 - Concepts of Evolution: A History
- ANTH 4377 - The Human Fossil Record
- ANTH 5310 - Human Osteology: Biology of the Human Skeleton


## Total: 15-18 Credit Hours

## Courses:

Note: All 2000-level and 3000-level anthropology courses are open to first-year students. Undergraduate and graduate students may take 4000-level and 5000-level courses; however, undergraduate students must have introductory coursework in the appropriate subfield or permission of the department. Anthropology courses are grouped into subfields as follows.

| General | ANTH 1321, 4399, 5334, 5335 |
| :---: | :---: |
| Archaeology | ANTH 2302, 2463, 2380, 3304, 3312-19, 3321, 3323, 3334, 3351, 3353, 3358, 3365, 3374, 3384, 3388, 3390, 3399, 4300, $4325,4333,4346,4385,4386,5310,5381,5382,5681$ |
| Cultural/Social Anthropology | ANTH 2301, 3301, 3303, 3304, 3306, 3310-19, 3321, 3323, 3328, 3329, 3333, 3334, 3336, 3344, 3345, 3346, 3348, 3350, 3353, 3354, 3355, 3358, 3359, 3361, 3366, 3368, 3374, 3385, 3388, 3399, 4303, 4304, 4305, 4307, 4309, 4343, 4344, 4345, 4346, 4384, 5336, 5344 |
| Anthropological Linguistics | ANTH 3361 |
| Biological Anthropology | ANTH 2415, 3302, 3307, 3350, 3351, 4336, 4377, 5310 |

## ANTH 1321 - Introduction to Anthropology

Credits: 3
Introduces the four subdisciplines of anthropology: sociocultural anthropology, linguistics, archaeology, and biological anthropology. Includes a series of hands-on learning assignments, in-class activities and discussions, and writing assignments.

## ANTH 2301 - Introductory Cultural Anthropology

## Credits: 3

Basic theories and methods of cultural anthropology. Explores variations in cultural values, social practices, religion, rules of law, etc., in different cultures around the world. Focuses on understanding the forces that shape cultures and societies, and how they adapt to a rapidly changing world.

## ANTH 2302 - People of the Earth: The First Five Million Years

Credits: 3
Human biological and cultural evolution, from the appearance of ancestral humans in Africa, to agricultural origins and the rise of the world's great civilizations.

## ANTH 2370 - Global Processes and Problems: An Introduction

## Credits: 3

Introduction to the study of globalization. Covers historical, political, environmental, and social issues. Rooted in anthropology but interdisciplinary in outlook.

## ANTH 2380 - Cultures at Risk: Human Rights and Heritage Today

## Credits: 3

Introduces the social and political contexts of archaeological research in heritage and human rights arenas, with emphasis on ethics and the law.

## ANTH 2415 - Human Evolution: Biological and Social Beginnings of Humankind

## Credits: 4

Topics include mutation, natural selection, primate origins, and the human fossil record. Also, ethical and moral issues of cloning, eugenics, and creationism.

## ANTH 2463 - The Science of Our Past: An Introduction to Archaeology

## Credits: 4

Covers how and why archaeologists study evidence of past human behavior. Required labs emphasize hands-on analyses of artifacts and other archaeological materials.

## ANTH 3301 - Health, Healing, and Ethics: Cross-Cultural Perspectives on Sickness and Society

## Credits: 3

A cross-cultural exploration of cultures and organization of medical systems, economic development and the global exportation of biomedicine, and ethical dilemmas associated with medical technologies and global disparities in health.

## ANTH 3302 - Monkeys and Apes: The Nonhuman Primates

Credits: 3
Introduces the study of nonhuman primates, from prosimians to the great apes. Explores questions of taxonomy, aspects of social behavior, and patterns of communication.

## ANTH 3303 - Self, Culture, and Mind: Introduction to Psychological Anthropology

## Credits: 3

Examines the interplay of culture, mind, and self in various Western and non-Western societies. Cognition, emotion, altered states, "brain sciences," and mental health and illness are analyzed in a cross-cultural perspective.

## ANTH 3304 - North American Archaeology

Credits: 3
North America's human past, from the earliest colonization by ice age peoples and their descendants who colonized the continent, to the clash of cultures that followed the arrival of Europeans in 1492.

## ANTH 3306 - Introduction to Medical Anthropology

## Credits: 3

Provides an overview of methods and topics in medical anthropology, an interdisciplinary field that explores health, illness, and systems of healing through holistic and cross-cultural study. Case studies from a diversity of human societies and cultures around the globe are used to challenge assumptions of student understanding. Offers several University Curriculum components, gives students a robust introduction to this specialized sub-field within Anthropology, and addresses many of the foundational concepts on the MCAT.

## ANTH 3307 - Introduction to Biological Anthropology

## Credits: 3

Introduction to the origin, evolution, and diversity of the species Homo sapiens. Students examine interactions among biology, culture and behavior, human variation and adaptation, and evidence for human evolution.

## ANTH 3310 - Gender and Sex Roles: A Cross-Cultural Perspective

## Credits: 3

Cross-cultural and historical comparison of the life experiences of women and men in the areas of family, marriage and kinship, economic and political participation, sexuality, reproduction, ritual, and religion.

## ANTH 3311 - Mexico: From Conquest to Cancun

## Credits: 3

Introduces the unity and diversity of Mexican society as it has developed through encounters with other cultures, from 16thcentury conquistadores to 21 st-century tourists and emigrants.

## ANTH 3312 - Mesoamerican Archaeology

## Credits: 3

Examines development of civilizations from village life to the great empires of Mexico. How civilizations begin, grow, change, and collapse.

## ANTH 3313 - South American Indians of the Past and Present

## Credits: 3

A survey of the archaeology and ethnology of indigenous South Americans, from c. 13,000 years ago to recent times, focusing on environments, subsistence, and related levels of sociopolitical integration from Tierra del Fuego to the Amazon basin and the Andes.

## ANTH 3314 - Peoples of Africa

## Credits: 3

A contemporary study of the cultures and social structures of sub-Saharan African peoples and an examination of the dynamics of contemporary African societies.

## ANTH 3315-Origins of Civilization

## Credits: 3

Considers those cultural and historic factors that led to the development of agriculture and the first urban states in Egypt and Mesopotamia.

## ANTH 3316 - Cultures of the Pacific Islands

Credits: 3
Survey of the Pacific Islands' social systems, focusing on Melanesia, Micronesia, and Polynesia. Explores the nature of precontact societies and the ways colonial and missionary influences transformed island cultures. Examines how contemporary Pacific Islanders are responding to forces of globalization.

## ANTH 3317-Peoples of Southeast Asia

## Credits: 3

A comparative study of insular and mainland cultures of Southeast Asia, their history and development, and their social and economic structures.

## ANTH 3318 - Life in the Ancient Southwest

## Credits: 3

Explores the evidence of thousands of years of human cultural change that archaeologists have uncovered across the American Southwest. Ranges in time from the first appearance of humans to the time of Pueblo civilization.

## ANTH 3319-Human Ecology

## Credits: 3

Examines interactions between human populations and their environments. Explores relationships among population size, technology, climate, and behavior in various living societies.

## ANTH 3321 - Ancient Hawaii

## Credits: 3

Covers the origins of traditional Hawaiian society as known through archaeology, historical documents, and oral history, as well the history of Hawaii from European contact to statehood.

## ANTH 3323-East Asia in Motion

Credits: 3
Anthropological examination of East Asia, focusing on China, Korea, and Japan. Topics include the family, economics, popular culture, and the body. Focus on processes of cultural transformation and the ways globalization, economic transformations, and political events affected change. Prerequisite: ANTH 2301 or instructor permission.

## ANTH 3328 - Gender Violence: Anthropological Perspectives

Credits: 3
Examines how gender-based violence shapes individual subjective and collective experiences, material realities, and psychological states, as well as the impacts of interventions on intimate, interpersonal, local, and global scales.

## ANTH 3329-Contesting Development: Global and Local Impacts and Human Rights

## Credits: 3

Examines the highly variable impacts of economic development on lives and communities around the world, with a focus on human rights issues.

## ANTH 3330 - Special Topics in Anthropology

## Credits: 3

An in-depth look at particular problems and issues in contemporary anthropology. Topics vary. This course is repeatable under different topics.

## ANTH 3331 - Special Topics in Anthropology

## Credits: 3

An in-depth look at particular problems and issues in contemporary anthropology. Topics vary. This course is repeatable under different topics.

## ANTH 3333 - The Immigrant Experience

## Credits: 3

Explores the historical, social, cultural, and political dimensions of the U.S. immigrant experience and Americans' attitudes toward immigrants. Examines issues such as bilingual education and illegal immigration.

## ANTH 3334 - Fantastic Archaeology and Pseudoscience: Lost Tribes, Sunken Continents, and Ancient Astronauts

Credits: 3
Investigates various claims (e.g., ancient astronauts have visited Earth, archaeologists are not revealing secrets about the Maya calendar, and creation theory is a scientific alternative to the theory of human evolution) and how archaeologists respond to them.

## ANTH 3336 - Gender and Globalization: Cultural and Ethical Issues

## Credits: 3

An analysis of the impact of globalizing forces on women's lives and identities, as well as on patterns of gender relations and ideology in various cultures around the world.

## ANTH 3344 - Cultural Aspects of Business

## Credits: 3

Explores the cultural aspects of business and entrepreneurship at home and abroad. Also, addresses the relationship between anthropology and business, examining business in a holistic context.

## ANTH 3345 - Introduction to Ethnographic Methods

## Credits: 3

Introduces the methodological tools and approaches of ethnography. Relevant for students from a variety of disciplines. Topics include the conceptual work behind research, field site setup, research methods, data archiving and management, and ethnographic sampling. Course format includes lecture, projects, and exams.

## ANTH 3346-Culture and Diversity in American Life

## Credits: 3

An overview of contemporary U.S. culture, with an emphasis on how diversity (e.g., ethnicity, class, religion, and gender) is expressed in communities, in regions, and in the nation.

## ANTH 3348 - Health as a Human Right

## Credits: 3

Examines the concept of human rights critically, with an eye for cross-cultural variation and a particular focus on healthrelated rights.

## ANTH 3350 - Good Eats and Forbidden Flesh: Culture, Food, and the Global Grocery Market

## Credits: 3

Offers bio-cultural perspective on food that blends biological and medical information about human nutrition and development with an exploration of the global markets and cultures of eating. Prerequisites: Advanced standing and ANTH 2301, or permission of instructor for non-anthropology majors.

## ANTH 3351 - Forensic Anthropology: Lessons Taught by Bones

## Credits: 3

Introduction to the identification of human remains, including conditions of preservation and decay. Estimating sex, stature, age, and ethnicity. Identifying pathology, trauma, and other causes of death.

## ANTH 3353 - Indians of North America

## Credits: 3

A survey of American-Indian and Eskimo life, past and present, with emphasis on the interaction of Indians and whites since 1492 and on contemporary American-Indian problems and enterprises: reservation and urban life, gambling, health care, and legal rights.

## ANTH 3354 - Latin America: Peoples, Places, and Power

Credits: 3
Examines the development of Latin America in the context of global transformations since the 16th century. Special attention is given to the interaction of local communities with regional, national, and international systems of power.

## ANTH 3355 - Society and Culture in Contemporary Europe

Credits: 3
Anthropological survey of social and cultural dimensions of contemporary European society. Explores unity and diversity within the region, and the role of gender, religion, class, ethnicity, and nationalism in structuring the lives of Europeans.

## ANTH 3358 - Indians of the Southwest From the 16th Century to the Present

## Credits: 3

An introduction to the non-Pueblo and Pueblo peoples of the Greater Southwest, with a focus on Indian-Indian and IndianEuroamerican relations and the resultant transformations. Topics include the clash of cultures, tourism, gambling, legal rights, and urbanism.

## ANTH 3359 - Peoples and Cultures of the Middle East

## Credits: 3

This course employs the lens of cultural anthropology to explore the social, cultural, familial, religious, and political lives of Middle Easterners from a wide variety of countries and backgrounds.

## ANTH 3361 - Language in Culture and Society

## Credits: 3

An investigation of social and cultural factors affecting the use of language. Topics include linguistic variation, black English, women's language, and body language.

## ANTH 3365-The Rise and Fall of Superpowers: The Dynamics and Ethics of Empire

## Credits: 3

Comparative introduction to the institutions and organizational dynamics of three ancient empires (Roman, Chinese, Incan), with discussions of the lessons that these civilizations can teach Americans about their society.

## ANTH 3366 - Magic, Myth, and Religion Across Cultures

## Credits: 3

A cross-cultural and comparative exploration of religion, ritual, magic, and supernatural belief systems. Examines how religion permeates other aspects of society and culture.

## ANTH 3368-Global Urbanism: Implosions/Explosions

Credits: 3
An introduction to urban life and culture around the world, including how to study cities, who inhabits cities, and the special features of city places and spaces.

## ANTH 3374-Cultures and Environments of the Southwest

## Credits: 3

Patterns of land and resource use in prehistoric and early historic times in the Southwest. The focus is on the mutual influence of cultures and resources in the northern Rio Grande region.

## ANTH 3384 - Paradise Lost? The Archaeology and Paleoecology of Human-Environmental Impacts

## Credits: 3

Interdisciplinary archaeological, anthropological, and historical examination of human impacts on the environment around the world during the last 50,000 years.

## ANTH 3385-Sustainable Living

## Credits: 3

Focuses on environmental challenges facing society and strategies for achieving a more sustainable existence.

## ANTH 3388 - Warfare and Violence: The Anthropology and Ethics of Human Conflict

## Credits: 3

An examination of the origins and development of human aggression, violence, and warfare using interdisciplinary data and theories from prehistory, ethnology, history, and political science.

## ANTH 3390 - The Plundered Past: Archaeology's Challenges in the Modern World

## Credits: 3

Provides an interdisciplinary understanding of the importance societies place on knowing, preserving, and altering evidence of the past. Special emphasis is placed on archaeology's role in understanding and preserving the past.

## ANTH 3399 - In Search of Ice Age Americans

## Credits: 3

The peopling of America during the Ice Age, reconstructed by various disciplines (e.g., archaeology, linguistics, and molecular biology), and what that reconstruction reveals about how people adapted to a truly new world.

## ANTH 4091 - Undergraduate Research

## Credits: 0

## ANTH 4191 - Independent Study and Research

Credits: 1
For advanced undergraduates. Prerequisite: Approval of the director of undergraduate studies and a faculty sponsor.

## ANTH 4192 - Independent Study and Research

Credits: 1
For advanced undergraduates. Prerequisite: Approval of the director of undergraduate studies and a faculty sponsor.

## ANTH 4291 - Independent Study and Research

## Credits: 2

For advanced undergraduates. Prerequisite: Approval of the director of undergraduate studies and a faculty sponsor.

## ANTH 4292 - Independent Study and Research

## Credits: 2

For advanced undergraduates. Prerequisite: Approval of the director of undergraduate studies and a faculty sponsor.

## ANTH 4300 - World Archaeology

## Credits: 3

An archaeological overview of the human trajectory and sociocultural development over time, beginning with the origins of modern humans and then looking at human interactions with specific environments.

## ANTH 4303 - Political Economy of Health

## Credits: 3

Explores topics in health and healing from a political economy perspective. Addresses social and economic factors influencing culture change, health, and healing practices within a society. Examines health inequities around the globe. Prerequisites: ANTH 3301, ANTH 3306 or approval of instructor.

## ANTH 4304-Migration, Ethnicity, and Nationalism

## Credits: 3

Examines three interrelated topics: migration, ethnicity, and nationalism. Focuses on major theoretical positions and on specific ethnographic cases. Prerequisite: 18 hours of anthropology or permission of the instructor for nonanthropology majors.

## ANTH 4305-Applied Anthropology

## Credits: 3

The application of anthropological theories and methods to problems in contemporary societies, including global business, community development, health care issues, agricultural and environmental programs, urban planning, tourism projects, and education policy. Prerequisites: Advanced standing and ANTH 2301 (or permission of instructor for nonanthropology majors).

## ANTH 4307-Global and Public Health

## Credits: 3

Provides an overview of issues in international health, with a focus on contributions of anthropology and anthropologists to international public health issues. Prerequisites: ANTH 3301, ANTH 3306 or approval of instructor.

## ANTH 4309-Human Rights, Indigenous Peoples, and Nation States

## Credits: 3

An examination of human rights issues among contemporary indigenous peoples, especially the impact on their cultures and societies from governmental and nongovernmental organizations, large-scale development programs, and global tourism.

## ANTH 4325 - Introduction to Osteology I: Human-Animal Interactions

## Credits: 3

Explores the evolution of human and animal interactions through a comparative study and analysis of their skeletons. Examines variations in nature's grand design, including the origins of different skeletal features, the evolution of these features over time, and the ways humans influenced the development of many of these features through processes such as targeted hunting and selective breeding. Introduces the science of taphonomy in hands-on learning labs. Students learn how isotopic and biomolecular analyses of animal skeletal remains help in understanding human-animal interactions.

## ANTH 4333-Laboratory Methods in Archaeology

## Credits: 3

Classification and analysis of archaeological materials (various topics). Prerequisites: Advanced standing and ANTH 5381, ANTH 5382, ANTH 5681, or ANTH 5981, or approval of instructor.

## ANTH 4336 - Concepts of Evolution: A History

## Credits: 3

Using original writings, interpretive texts, and biographies, this course examines the rise of evolutionary ideas from ancient times through the 20th century.

## ANTH 4343 - Biomedicine, Culture, and Power

## Credits: 3

Examines the epistemology and history of biomedicine, medical bureaucracy, professionalism, medical education, alternative and popular medicine, economics, and health care. Prerequisites: ANTH 3301, ANTH 3306 or approval of instructor.

## ANTH 4344 - Global Population Processes: Anthropological Perspectives

## Credits: 3

Focuses on an anthropological understanding of population processes (nuptiality, fertility, mortality, migration) and examines them within historical and cross-cultural frameworks. Prerequisite: 18 hours of anthropology (or permission of instructor for nonanthropology majors).

## ANTH 4345-Creating Global and Public Health Impact

## Credits: 3

Interdisciplinary approach to creating sustainable impact in global, public, and population health. Taught by engaging discussions, case studies, and helping local health organizations solve difficult institutional and community challenges.

## ANTH 4346-Environmental Anthropology and Development

## Credits: 3

Analyzes the processes of globalization from the perspective of environmental anthropology and development. Prerequisite: ANTH 2301.

## ANTH 4350-Special Topics in Anthropology

## Credits: 3

An in-depth look at particular problems and issues in contemporary anthropology. Topics will vary.

## ANTH 4351 - Special Topics in Anthropology

Credits: 3
An in-depth look at particular problems and issues in contemporary anthropology. Topics will vary.

## ANTH 4352-Special Topics in Anthropology

Credits: 3
An in-depth look at particular problems and issues in contemporary anthropology. Topics will vary.

## ANTH 4377-The Human Fossil Record

Credits: 3
An examination of morphology, classification, and evolutionary relationships in the human fossil record. Covers the Pliocene through the emergence of modern Homo sapiens. Comparisons using the departmental fossil collection. Prerequisite: ANTH 2415 or permission of instructor.

## ANTH 4381 - Internship in Anthropology

## Credits: 3

Offers experience in varied organizations and agencies where anthropological applications are relevant (e.g., contract archaeology firms, natural history museums, zoos, health clinics, marketing or public relations firms, and corporations involved in international business). Prerequisite: Approval of the director of undergraduate studies and a faculty sponsor.

## ANTH 4383-Geoarchaeology

## Credits: 3

Advanced survey of earth science methods and techniques applied to archaeological research problems.

## ANTH 4384-Global Issues and Development: An Overview

## Credits: 3

An introduction to the major forces driving globalization and economic development today, analyzing how these forces impact the lives, cultures, and identities of peoples around the world (with an emphasis on the developing world). Prerequisites: Advanced standing and ANTH 2301 (or permission of instructor for nonanthropology majors).

## ANTH 4385 - Pacific Island Archaeology

## Credits: 3

Seminar on the use of coastlines, oceans, rivers, marshes, lakes, and islands throughout human history. Prerequisite: ANTH 2302 or ANTH 2463, or permission of instructor.

## ANTH 4386-The Archaeology of Gender and Sexuality

## Credits: 3

Explores how and why archaeologists study gender and sexual identities of the past and how they detect the diversity in these institutions across culture through time.

## ANTH 4387 - Advances in the Practice of Archaeology

Credits: 3
Introduces students to applied and cultural resource management archaeology, including the laws, ethics, procedures, and expectations for the public and private spheres of archaeological practice.

## ANTH 4388-Geospatial Archaeology

Credits: 3
Methods-focused course that covers how archaeologists apply spatial technology in research.

## ANTH 4390 - Current Issues in Anthropology

Credits: 3
Seminar on selected anthropological topics.

## ANTH 4391 - Independent Study and Research

## Credits: 3

For advanced undergraduates. The department also offers 1- and 2-hour alternatives. Prerequisite: Approval of the director of undergraduate studies and a faculty sponsor.

## ANTH 4392 - Independent Study and Research

## Credits: 3

For advanced undergraduates. The department also offers 1- and 2-hour alternatives. Prerequisite: Approval of the director of undergraduate studies and a faculty sponsor.

## ANTH 4399 - Integrated Themes in Anthropology

## Credits: 3

Integrates the different domains in anthropology for an in-depth examination of central problems or theoretical perspectives in anthropology. This is the capstone course in anthropology and is recommended for juniors and seniors in the major.

## ANTH 5310 - Human Osteology: Biology of the Human Skeleton

## Credits: 3

Analysis of the human musculoskeletal system in both forensic and ancient contexts. In this laboratory course, students will learn the measurement and assessment of sex, age, race and stature.

## ANTH 5334 - History of Anthropology, Part One

Credits: 3
Analytical history of anthropology from the Classical period to the 20th century. Explains the content and development of theory, method, and interpretation.

## ANTH 5335-History of Anthropology, Part Two

Credits: 3
Traces the theoretical developments in ethnology and archaeology from 1960 to the present, with intense readings and a focus on the potential utility of theoretical coherence in the discipline.

## ANTH 5336-Health in Cross-Cultural Perspective

## Credits: 3

Cross-cultural study of the cultural construction and social organization of medical systems in preindustrial and industrialized societies, including the political economy of health, ethnomedicine, international health, ethnopharmacology, and bioethics. Prerequisites: ANTH 3301, ANTH 3306 or approval of instructor.

## ANTH 5344 - Research Methods in Ethnology

Credits: 3
Examination of methodologies and techniques appropriate for different types of ethnological research.

## ANTH 5381 - Field Methods in Archaeology

Credits: 3
Methods of excavation, recording, and interpretation used in archaeological research. Students may petition to have this course fulfill the lab science requirement. (Fort Burgwin Research Center)

## ANTH 5382 - Field Methods in Archaeology

## Credits: 3

Methods of excavation, recording, and interpretation used in archaeological research. Students may petition to have this course fulfill the lab science requirement. (Fort Burgwin Research Center)

## ANTH 5681 - Field Methods in Archaeology

## Credits: 6

Participants are engaged in all aspects of archaeological field and laboratory research, including excavation, recording of finds, survey mapping of sites, laboratory analyses of archaeological materials, and interpretation of intact archaeological contexts. (Fort Burgwin Research Center)

## ANTH 5981 - Field Methods in Archaeology

Credits: 9
Participants are engaged in all aspects of archaeological field and laboratory research, including excavation, recording of finds, survey mapping of sites, laboratory analyses of archaeological materials, and interpretation of intact archaeological contexts. (Fort Burgwin Research Center)

## Biological Sciences

www.smu.edu/biology
Professor William Orr, Department Chair
Professors: Santosh R. D'Mello, Richard Jones, Paul Ludden, William Orr, Steven Vik, Pia Vogel
Associate Professors: Robert Harrod, John Wise
Assistant Professor: Adam Norris
Professor of Practice: Bianca Batista
Senior Lecturers: Eva Oberdörster, Teresa Strecker
Research Associate Professor: Svetlana Radyuk

## Departmental Distinction

A biological sciences major with sufficiently high academic standing may graduate with departmental distinction by successfully completing a special program of study that includes advanced coursework, research and a senior thesis under the direction of a member of the departmental faculty. To graduate with departmental distinction, a student must be working toward a B.S. degree and must submit an application to the Undergraduate Studies Committee of the department. At the time of the application, the student must have begun a research project with a departmental faculty member, and must have completed at least 14 hours of biological sciences, including at least six advanced hours, with a GPA in these courses of at least 3.500 and an overall GPA of at least 3.500 . For students who have transferred to SMU, two grade point averages will be calculated: one for all work attempted and one for work completed through enrollment at SMU. Admission to the program will be based on the lower of the two averages. With departmental approval, the student will enroll for BIOL 4398, and continue to work on the distinction research project. Upon completion of this course with a grade of B+ or better, the student has the option to enroll in BIOL 4399 (pass/fail). On the basis of this research project, an oral presentation will be made to the faculty, and a senior thesis or review article will be written. In addition, three 4000- or 5000-level courses must be completed: one from BIOL 4319, BIOL 4325, BIOL 4331, BIOL 4370, BIOL 4460 and at least two from BIOL 5304, BIOL 5305, BIOL 5310, BIOL 5311, BIOL 5312, BIOL 5325, BIOL 5340 . Completion of these requirements and maintenance of a 3.500 GPA for all biological sciences courses attempted will determine if the B.S. degree will be awarded with departmental distinction.

## Biological Sciences, B.A.

This degree program is designed for students who wish to couple training in the biological sciences with a broad liberal arts program. Students who are preparing for medical or dental school should consult with the prehealth adviser about additional science requirements.
B.A. Degree With Teacher Certification. Students interested in the B.A. degree program with teacher certification in secondary education should confer with the teacher certification representative in the department to plan a specific program of study.

## Requirements for the Major

## Biological Sciences (26 Credit Hours)

Minimum of eight courses.

- BIOL 1301 - Introductory Biology and
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
and
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304 - Genetics
- BIOL 3350 - Cell Biology
- At least 12 hours of advanced BIOL courses, with at least two courses with labs and at least one course at the 4000 or 5000 level


## Chemistry (12 Credit Hours)

- General Chemistry 1 and 2 with labs
- Organic Chemistry 1 with lab


## Total: 38 Credit Hours

## Biological Sciences, B.S.

This degree program is designed for students who plan careers in the biological sciences or further study in graduate or professional schools. Although statistics is used extensively in biological research, preprofessional students should be aware that certain medical schools also require a full year of calculus.

## Requirements for the Major

## Biological Sciences (34 Credit Hours)

Minimum of 10 courses.

- BIOL 1301 - Introductory Biology
and
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
and
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304 - Genetics
- BIOL 3350 - Cell Biology
- At least 20 hours of advanced BIOL courses, with at least two courses with labs and at least one course at the 4000 or 5000 level


## Chemistry (16 Credit Hours)

- General Chemistry 1 and 2 with labs
- Organic Chemistry 1 and 2 with labs


## Mathematics (6 Credit Hours)

- MATH 1337-Calculus I
- MATH 1338 - Calculus II
or
- STAT 2331 - Introduction to Statistical Methods


## Physics (8 Credit Hours)

- General Physics 1 and 2 with labs


## Total: 64 Credit Hours

## Biological Sciences, Molecular and Cell Biology, B.S/M.S.

The primary goal of the combined B.S.-M.S. degree is to encourage and better prepare undergraduates for careers in biological research. The accelerated program permits students to complete the requirements for the B.S. degree in biological sciences and the requirements for the M.S. degree in molecular and cell biology in a total of five years. Students need to complete most corequisites and University Curriculum requirements in a timely fashion, preferably by the end of their junior year. The calculus and/or statistics corequirement should be completed by the end of the sophomore year. All chemistry and physics corequirements should be completed by the end of the junior year. Most advanced biology electives, including the biological chemistry course BIOL 5310, also should be completed by the end of the junior year because the senior year will be largely filled with 6000level biology classes. In addition, students are expected to be engaged in full-time research in the lab of a faculty member during summers following their sophomore, junior and senior years, and to continue their research throughout the academic year. During the academic year, students may receive course credit for their research (BIOL 2101 - Introductory Research I, BIOL 2102 - Introductory Research II and/or BIOL 3398 - Undergraduate Research I, BIOL 3399 - Undergraduate Research II. Requirements for the M.S. portion of the B.S.-M.S. degree will be the same as for the standard M.S. degree in molecular and cellular biology.

During the fifth year, students will continue taking graduate courses and complete the research portion of the M.S. degree. By the end of the fifth year, students will write a monograph describing their research and give an oral presentation to the department.

Admission. In coordination with a faculty member, students should apply to the Biology Graduate Committee for admission into the B.S.-M.S. program in the spring of their sophomore year. Later admission to the program may be considered, but students must be on track to complete course requirements, as described above. A research mentor must be identified, and a minimum 3.200 GPA in science courses is required. To remain in the program, students will need to maintain a minimum 3.000 GPA in science courses and exhibit satisfactory progress in their lab work.

## Biological Sciences Minor

Students majoring in other departments may obtain a minor in biological sciences. All advanced courses must be completed through enrollment at SMU. A student may not earn minors in both biology and the natural sciences, or a minor or a major in both biology and environmental science.

## Requirements for the Minor

## Biological Sciences (17 Credit Hours)

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304 - Genetics
- BIOL 3350 - Cell Biology
- At least 3 hours of advanced BIOL courses, including an advanced lab course


## Chemistry (8 Credit Hours)

- General Chemistry 1 and 2 with labs


## Total: 25 Credit Hours

## Courses:

Courses for Nonscience Majors. BIOL 1303, BIOL 1305, BIOL 1308 and BIOL 1310 are designed to satisfy the University-wide requirements of nonscience students. BIOL 1303 is not open to students who have earned prior credit in BIOL 1301, and BIOL 1305, BIOL 1308, BIOL 1310 are not open to students who have earned prior credit in BIOL 1302. Non-science majors should note that BIOL 1301, BIOL 1302 may also be taken to satisfy University-wide requirements.

Courses for Biology Majors. Students who wish to earn the B.A. or B.S. degree in biology are encouraged to complete BIOL 1301/BIOL 1101, BIOL 1302/BIOL 1102 and CHEM 1303, CHEM 1304 (with labs) in their freshman year. However, with the approval of an academic adviser, a student may postpone BIOL 1301, BIOL 1302, for one or two terms. The introductory biology courses are the minimum prerequisite for all advanced biology courses. The general chemistry courses are a prerequisite for most advanced biology courses.

Special Courses. BIOL 2101, BIOL 2102, BIOL 3395, BIOL 3398, BIOL 3399, BIOL 4398 BIOL 4399 are research courses. BIOL 1305, BIOL 1308, BIOL 1310, BIOL 3343, BIOL 3347, BIOL 3354, BIOL 5358 and BIOL 5359 are SMU-in-Taos courses.

## BIOL 1101 - Introductory Biology Lab

Credits: 1
Standard laboratory techniques are utilized to study living organisms, with an emphasis on cells as the components of life. One 3-hour laboratory each week. Corequisite: BIOL 1301.

## BIOL 1102 - Introductory Biology Lab

Credits: 1
A practical study of the diversity of living organisms with respect to anatomy, ecology, and evolution. One 3-hour laboratory each week. Corequisite: BIOL 1302.

## BIOL 1301 - Introductory Biology

## Credits: 3

Introduction to the study of living organisms: ecology, evolution, diversity, and physiology. BIOL 1301/1101 and BIOL 1302/1102 are prerequisites to all advanced courses in biological sciences. Prerequisite or Corequisite: BIOL 1101.

## BIOL 1302 - Introductory Biology

## Credits: 3

Introduction to the study of living organisms: ecology, evolution, diversity, and physiology. BIOL 1301/1101 and BIOL 1302/1102 are prerequisites to all advanced courses in biological sciences. Prerequisite or Corequisite: BIOL 1102.

## BIOL 1303 - Essentials of Biology

## Credits: 3

An introduction to the major concepts of biological thought for the nonscience major. Includes one laboratory session each week. BIOL 1303 is not open to students who have earned prior credit in BIOL 1401.

## BIOL 1305 - The Natural Environment

## Credits: 3

An introduction to major environments and their resident populations for the nonscience major. Includes the equivalent of one laboratory session each week. BIOL 1305 is not open to students with prior credit in BIOL 1402. (SMU-in-Taos)

## BIOL 1308 - Plant Biology

## Credits: 3

An introduction to the economic, social, and industrial aspects of plant substances and material for the nonscience major. Includes the equivalent of one laboratory session each week. BIOL 1308 is not open to students who have prior credit in BIOL 1402. (SMU-in-Taos)

## BIOL 1310 - Aquatic Biology

Credits: 3
For the nonscience major. Introduces the biology of the lakes and streams of the Southern Rocky Mountains. Lectures and labs are conducted at Fort Burgwin, New Mexico. BIOL 1310 is not open to students who have prior credit in BIOL 1402. (SMU-in-Taos)

## BIOL 1401 - Introductory Biology

Credits: 4 I
ntroduction to the study of living organisms: ecology, evolution, diversity, and physiology. Includes 3 hours of lecture and one 3-hour laboratory each week. BIOL 1401, BIOL 1402 are prerequisites for all advanced courses in biological sciences.

## BIOL 1402 - Introductory Biology

Credits: 4
Introduction to the study of living organisms: ecology, evolution, diversity, and physiology. Includes 3 hours of lecture and one 3-hour laboratory each week. BIOL 1401, BIOL 1402 are prerequisites for all advanced courses in biological sciences.

## BIOL 2099 - Internship

## Credits: 0

Laboratory or fieldwork in biology at an on- or off-campus location. Pass/fail only. No tuition. Prerequisite: Departmental approval required.

## BIOL 2101 - Introductory Research I

## Credits: 1

A minimum of 5 hours per week doing supervised laboratory research. Offered on a pass/fail basis only. Prerequisites: At least sophomore standing, BIOL 1401 and BIOL 1402, and consent of instructor.

## BIOL 2102 - Introductory Research II

## Credits: 1

A minimum of 5 hours per week doing supervised laboratory research. Offered on a pass/fail basis only. Prerequisites: BIOL 2101 and consent of instructor.

## BIOL 3100 - Special Topics Abroad

## Credits: 1

Courses offered in SMU-approved international programs. May be repeated for credit under a different subtitle. A maximum of 6 hours of special topics abroad may be applied toward the B.A. or B.S. degree in biology. May not be applied toward the minor in biology. Prerequisite: Departmental approval.

## BIOL 3200 - Special Topics Abroad

## Credits: 2

Courses offered in SMU-approved international programs. May be repeated for credit under a different subtitle. A maximum of 6 hours of special topics abroad may be applied toward the B.A. or B.S. degree in biology. May not be applied toward the minor in biology. Prerequisite: Departmental approval.

## BIOL 3222 - Molecular Genetics Laboratory

## Credits: 2

Students gain experience in investigative methods used in modern medical research, molecular biology, genetics, bioinformatics, forensic science, and the pharmaceutical and biotechnology industries. Prerequisite: C- or better in BIOL 3304.

## BIOL 3300 - Special Topics Abroad

## Credits: 3

Courses offered in SMU-approved international programs. May be repeated for credit under a different subtitle. A maximum of 6 hours of special topics abroad may be applied toward the B.A. or B.S. degree in biology. May not be applied toward the minor in biology. Prerequisite: Departmental approval.

## BIOL 3303 - Evolution

Credits: 3
A study of the principles of biological evolution. Includes natural selection, adaptation, molecular evolution, the formation of new species, the fossil record, biogeography, and principles of classification. Includes 3 hours of lecture each week. Prerequisites: BIOL 1401 and C- or better in BIOL 3304.

BIOL 3304 - Genetics

Credits: 3
An introduction to the structure, function, and transmission of the hereditary material. Includes 3 hours of lecture each week. Prerequisites: BIOL 1401 and CHEM 1304.

## BIOL 3305 - Limnology: Aquatic Biology

## Credits: 3

The study of inland waters, integrating chemistry, physics, and biology. Emphasis is on identifying organisms and studying their interactions with the environment. Includes 2 hours of lecture and one 3-hour laboratory each week. Prerequisites: BIOL 1401, BIOL 1402; CHEM 1303.

## BIOL 3306 - Physiology

## Credits: 3

Homeostatic control mechanisms in vertebrates. Includes 3 hours of lecture each week. Prerequisites: C- or better in BIOL 3304, BIOL 3350.

## BIOL 3307 - Ecology

Credits: 3
Basic principles and concepts of ecology, with emphasis on population and community interactions. Includes 3 hours of lecture each week. Prerequisites: BIOL 1401, BIOL 1402

## BIOL 3308-Biology of Marine Mammals

Credits: 3
A comparative study of marine mammal anatomy, morphology, physiology, life history and behavior, and adaptation to marine existence. Includes study of the effect of human activities on marine mammals, with special reference to northern European waters. Prerequisites: BIOL 1401, BIOL 1402; CHEM 1303, CHEM 1113. (SMU-in-Copenhagen only)

## BIOL 3311 - Tropical Ecology and Sustainable Development

## Credits: 3

Examines the ecological impact of human activity, especially agriculture, in a tropical country. Topics include water pollution, waste management, and climate change. Prerequisites: BIOL 3307 and at least one college-level course in Spanish. (SMU-in-Costa Rica only)

BIOL 3312 - Wildlife Ecology

## Credits: 3

Ecological principles of the East Africa savanna ecosystem. Examines factors underlying distributions, population biology, and behavioral ecology, along with competition and predation, using African examples. Prerequisite: BIOL 3307. (SMU-inKenya only)

## BIOL 3323 - Biology of the Brain

Credits: 3
Reviews the basic functioning of the brain and provides a deeper understanding of how people interact with their surrounding environment. Prerequisites: BIOL 1401, BIOL 1402. Recommended: BIOL 3222.

## BIOL 3342 - Plant Kingdom

Credits: 3
A survey of the plant kingdom, emphasizing life histories and developmental morphology. Includes 2 hours of lecture and one 3-hour laboratory each week. Prerequisites: BIOL 1401, BIOL 1402.

## BIOL 3343 - Field Botany

Credits: 3
Identification of vascular plants, with emphasis on ecological indicators. Lectures and laboratories conducted at Fort Burgwin, New Mexico, site of SMU-in-Taos. Prerequisites: BIOL 1401, BIOL 1402.

## BIOL 3347 - Systematic Botany

## Credits: 3

An introduction to the history, nomenclature, family characteristics, identification, and biosystematics of the flowering plants. Lecture and laboratory work conducted at Fort Burgwin, New Mexico. Prerequisites: BIOL 1401, BIOL 1402.

## BIOL 3350 - Cell Biology

Credits: 3
The structure and function of cells. Includes 3 hours of lecture each week. Prerequisites: BIOL 1401, BIOL 1402.
Prerequisite or corequisite: CHEM 1304.

## BIOL 3354 - Parasitology

Credits: 3
Comparative study of protozoa and helminthic parasitic organisms, and their role in diseases. Includes 2 hours of lecture and one 3-hour laboratory each week. Prerequisites: BIOL 1401, BIOL 1402.

## BIOL 3365 - Cancer Biology

Credits: 3
Emphasis on the molecular features of oncogenesis and human cancers, including carcinogenesis, metastasis, and roles of genetic mutations and chromosomal aberrations during neoplasia. Prerequisite: C- or better in BIOL 3350.

## BIOL 3369 - Paleobiology

Credits: 3
A survey of biological diversity, phylogenetic analysis, rates of evolution, extinction, biogeography, taphonomy, and paleoecology. Prerequisites: BIOL 1401, BIOL 1402 or one 1300-level course in Earth sciences.

BIOL 3379 - Survey of Plant and Microbial Biochemistry

## Credits: 3

Provides an introduction to the diversity in plants and microbes. Considers their roles in global carbon nitrogen and energy cycles. Prerequisites: BIOL 1401, BIOL 1402 and CHEM 1303, CHEM 1304.

## BIOL 3395 - Internship in Biology

## Credits: 3

Biological research at an institution other than SMU. Credit does not apply toward the degree requirement for two laboratory classes. A student may not take both BIOL 3395 and BIOL 3398 for a letter grade. Prior departmental approval required. Prerequisites: BIOL 3304, BIOL 3350.

## BIOL 3398 - Undergraduate Research I

## Credits: 3

A minimum of 9 hours per week doing research in the laboratory of a faculty member. Credit for this course does not apply toward the degree requirement for two laboratory courses. A student may not earn credit in both BIOL 3395 and 3398.
Prerequisites: Junior standing, and approval of faculty sponsor and the Undergraduate Studies Committee of the department.

## BIOL 3399 - Undergraduate Research II

## Credits: 3

Pass/fail only. Cannot be applied toward the requirements for the major in biological sciences. Prerequisites: BIOL 3398 and approval by the faculty sponsor and the Undergraduate Studies Committee of the department.

## BIOL 3403 - Microbiology

## Credits: 4

The biology of microorganisms, with an emphasis on diversity, disease, and the environment. Includes 3 hours of lecture and one 3-hour laboratory each week. Recommended: CHEM 3371, CHEM 3117. Prerequisites: BIOL 1401, BIOL 1402 and C- or better in BIOL 3304.

## BIOL 4119 - Immunobiology Laboratory

## Credits: 1

Provides experience in experimental techniques and strategies used in immunobiology labs, including cell culture, quantitative plate-based assays, and fluorescence-activated cell sorting. Two 3-hour labs each week for half a term. Prerequisites: BIOL 3304, BIOL 3350.

## BIOL 4132 - Senior Seminar

## Credits: 1

Discussion of current problems of biological interest, 1 hour each week. Prerequisites: Senior standing; major in biology.

BIOL 4160 - Toxicology Laboratory

Credits: 1
Modern biochemical and molecular techniques are used to assess the impact of environmental contaminants on liver biomarkers in fish. One 3-hour laboratory each week. Prerequisite: C- or better in BIOL 3350. Prerequisite or corequisite: BIOL 4360.

BIOL 4306 - Human Physiology

Credits: 3
Explores human physiology, with an emphasis on cellular mechanisms that influence organ system functions. Also covers abnormal physiology (pathology), where appropriate, as part of clinical case study presentations. Prerequisites: C- or better in BIOL 3304, BIOL 3350; CHEM 1113, CHEM 1114, CHEM 1303, CHEM 1304.

## BIOL 4319 - Immunobiology

## Credits: 3

Introduction to fundamental concepts of the immune system. Prerequisites: BIOL 3304, BIOL 3350.

## BIOL 4322 - Molecular Biology of Eukaryotes

## Credits: 3

Structure and function of eukaryotic chromosomes as mediators of gene expression during growth, differentiation, and oncogenesis. A student cannot have previously completed BIOL 5304. Prerequisites: BIOL 3304, CHEM 3372, and junior standing.

## BIOL 4325 - The Biology of Aging

## Credits: 3

Explores the current understanding of the mechanisms of aging and the ways these insights are used in efforts to extend life and combat diseases associated with old age. Prerequisites: BIOL 3304, BIOL 3350 and consent of instructor.

## BIOL 4331 - Developmental Biology

## Credits: 3

Developmental processes in animals. Includes 3 hours of lecture each week. Prerequisites: BIOL 1401, BIOL 1402 and Cor better in BIOL 3304 .

## BIOL 4360 - Environmental and Human Toxicology

Credits: 3
Introduction to environmental toxicology, focusing on the fate and transport, biotransformation, and biochemical and physiological impacts of pollutants on humans and wildlife. Includes 3 hours of lecture per week. Prerequisites: C- or better in BIOL 3304, BIOL 3350; CHEM 3371, CHEM 3372.

## BIOL 4370 - Biotechnology and Nanotechnology

Credits: 3
Introduction to current techniques and emerging applications of biotechnology and nanobiotechnology in medicine, agriculture, forensic and aquatic sciences, and bioremediation. Prerequisites: CHEM 3371 and C- or better in BIOL 3304.

BIOL 4390 - Current Topics in Biology

Credits: 3
Explores the current understanding of the mechanisms of aging and the ways these insights are used in efforts to extend life span and to combat diseases associated with old age. Includes lectures and presentations on the biology of aging that are based on the primary and secondary literature. Prerequisites: Junior standing, strong background in genetics and cell biology, and permission of instructor.

## BIOL 4398 - Honors Research I

Credits: 3
For students in the departmental distinction program. Prerequisites: BIOL 1401, BIOL 1402; admission to departmental distinction program.

BIOL 4399 - Honors Research II

Credits: 3
For students in the departmental distinction program. Prerequisite: B+ or better in BIOL 4398.

BIOL 4460 - Environmental and Human Toxicology with Lab

## Credits: 4

Introduction to environmental toxicology, with a focus on fate, biotransformation, and the biochemical and physiological impacts of pollutants on humans and wildlife. Includes 3 hours of lecture and one 3-hour laboratory per week. Prerequisites: C- or better in BIOL 3304, BIOL 3350; CHEM 3371, CHEM 3372.

BIOL 5102 - Structural Biology Seminar

Credits: 1
Readings and discussions of the period 1933-1963 when structural molecular biology emerged. Readings include original research articles and historical reviews. Prerequisite: BIOL 5310/CHEM 5310 or consent of instructor.

## BIOL 5110 - Biological Chemistry Laboratory

## Credits: 1

Two 3-hour labs each week for half a term. Prerequisites: BIOL 1401, BIOL 1402. Prerequisite or corequisite: BIOL 5310/CHEM 5310. If CHEM 5110 is counted toward a chemistry major or minor, it cannot be counted toward a biological sciences major or minor.

## BIOL 5166 - Vertebrate Anatomy Laboratory

Credits: 1
A laboratory course to accompany BIOL 5366/GEOL 5366. Exercises include basic anatomy, dissections, and examinations of fossil skeletons. Corequisite: BIOL 5366/GEOL 5366.

BIOL 5304 - Molecular Biology: Control and Expression of Genetic Information

Credits: 3
DNA structure and replication, control of transcription and translation, and techniques in molecular genetics and recombinant DNA technology. Prerequisites: CHEM 3372 and C- or better in BIOL 3304.

BIOL 5305 - Genomics and Bioinformatics

Credits: 3
Impact of completely sequenced genomes on current experimental and computational approaches to biomedical research. Introduction to the technology, biology, and software exploited by molecular biology, genealogy, and medical diagnostic labs. Prerequisites: C- or better in BIOL 3304 and junior standing.

BIOL 5310 - Biological Chemistry: Macromolecular Structure and Function

Credits: 3
Introduces the structure and function of macromolecules of biological importance, with a focus on nucleic acid and protein structure, enzyme kinetics, and carbohydrate and lipid chemistry. Includes 3 hours of lecture each week. The accompanying laboratory (BIOL 5110) is strongly recommended for biology majors. If CHEM 5310 is counted towards a chemistry major or minor, it cannot be counted towards a biological sciences major or minor. Prerequisites: C- or better in CHEM 3371, CHEM 3372 and junior standing.

## BIOL 5311 - Biological Chemistry: Metabolism

Credits: 3
Introduction to the pathways and regulatory events in the metabolism of carbohydrates, lipids, amino acids, and nucleotides. Includes 3 hours of lecture each week. Prerequisites: CHEM 3371, CHEM 3372. If CHEM 5311 is counted toward a chemistry major or minor, it cannot be counted toward a biological sciences major or minor.

## BIOL 5312 - Physical Biochemistry

Credits: 3
Physical chemistry of macromolecules and biological membranes, with an emphasis on the thermodynamics of solutions. Prerequisites: BIOL 1401 BIOL 1402; MATH 1338 or the equivalent; CHEM 3372; CHEM 5310/BIOL 5310
Recommended: CHEM 5381 or CHEM 5383. If CHEM 5312 is counted toward a chemistry major or minor, it cannot be counted toward a biological sciences major or minor.

## BIOL 5325 - General and Molecular Virology

Credits: 3
Emphasis on the molecular aspects of viral replication and pathogenesis, including the roles of viruses in emerging human infectious diseases, cancer, and bioterrorism. Prerequisites: C- or better in BIOL 3304 and junior standing.

## BIOL 5340 - Molecular Basis of Brain Development and Degeneration

Credits: 3
Covers the molecular biology of brain development and degeneration. Interactive course that includes lectures and student presentations of publications describing important research findings related to neurodevelopment and neurodegeneration. Recommended: BIOL 3323. Prerequisites: BIOL 1402, BIOL 3304, BIOL 3350.

BIOL 5344 - Physical Chemistry of Proteins

Credits: 3
Graduate-level course on the fundamental aspects of techniques used to interrogate the thermodynamics and kinetics of protein conformational changes, with emphasis on atomic resolution structural techniques. Prerequisites: BIOL 5310/CHEM 5310, CHEM 5383 and CHEM 5384, and instructor approval.

## BIOL 5358 - Ecology of Parasitism

Credits: 3
The biotic and abiotic factors influencing parasite communities. Emphasis on the free-living stages of parasites. Includes 2 hours of lecture and one 3-hour laboratory each week. Prerequisite: BIOL 3354.

BIOL 5359 - Host-Parasite Relationships

## Credits: 3

Analysis of host-parasite relations from an evolutionary and ecological viewpoint. Lectures and laboratories conducted at Fort Burgwin in New Mexico. Prerequisite: BIOL 3354. (SMU-in-Taos)

## BIOL 5364 - Endocrine Physiology

## Credits: 3

Explores the role of hormones in maintaining physiological balance. Describes cellular actions of hormones in relation to subsequent effects in the whole organism. Prerequisites: C- or better in BIOL 3304 and BIOL 3350.

## BIOL 5366 - Vertebrate Anatomy and Origins

## Credits: 3

An introduction to vertebrate anatomy with emphasis on structure and function. Additionally, the course examines processes that have affected the diversity of vertebrate organisms, including origination, biogeography, and adaptation. The accompanying laboratory is a corequisite for biology majors and strongly recommended for all other students. Prerequisites: BIOL 1401, BIOL 1402 or GEOL 1308. Corequisite: GEOL 5166.

## Chemistry

www.smu.edu/chemistry

## Professor Elfi Kraka, Department Chair

Professors: John Buynak, Werner Horsthemke, Elfi Kraka, Michael Lattman, Mark Schell, David Son, Patty Wisian-Neilson
Associate Professors: Nicolay Tsarevsky, Brian Zoltowski
Assistant Professors: Isaac Garcia-Bosch, Alexander Lippert, Peng Tao
Professor of Practice: Jennifer O'Brien
Senior Lecturers: Andrea Adams, Helen Babbili

## General Information

Chemistry plays a key role in solving economic, environmental and societal problems that are intimately connected with the basic question of how to guarantee the sustainability of the earth. The Department of Chemistry prepares students to meet the increasing demand for a scientifically trained workforce. Students planning careers in industry, medicine or academia benefit from the comprehensive curriculum of the B.S. and B.A. programs in chemistry. Undergraduate majors are heavily involved in research, working in teams with faculty, postdoctoral fellows and graduate students. Graduates have been accepted into the leading graduate and professional schools in the nation. On average, two-thirds of chemistry graduates seek advanced degrees; other graduates choose employment in industry and research.

## Departmental Distinction

A chemistry major pursuing a B.S. degree may elect to graduate with departmental distinction. The student must apply to the department for this designation during the junior year, after at least 22 hours of chemistry have been completed with a minimum GPA of 3.500 in those courses. The student will enroll in CHEM 4397 and undertake an independent research project under the supervision of a departmental faculty member. During the senior year, a senior thesis will be written and presented to the department. Upon completion of all degree requirements, approval of the departmental faculty at the completion of these requirements, and provided the student maintains a minimum 3.500 GPA in all chemistry courses, the student will graduate with departmental distinction in chemistry.

## Chemistry, B.A.

The B.A. degree requires the completion of a minimum of 26 hours in the department. This degree is not certified by the American Chemical Society.

Note: Organic chemistry courses taken elsewhere do not count as advanced resident hours toward the degree. CHEM 4397 does not count towards the B.A. degree.

## Requirements for the Major

## Core Courses (19 Credit Hours)

- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3371-Organic Chemistry
- CHEM 3117- Organic Chemistry Laboratory
- CHEM 3372-Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory
- CHEM 5383 - Physical Chemistry I


## Mathematics and Physics (14 Credit Hours)

- MATH 1337-Calculus I
- MATH 1338 - Calculus II
or
- STAT 2331 - Introduction to Statistical Methods
- PHYS 1105 - Mechanics Laboratory
- PHYS 1106 - Electricity and Magnetism Laboratory
- PHYS 1303 - Introductory Mechanics or
- PHYS 1307-General Physics I
- PHYS 1304 - Introductory Electricity and Magnetism or
- PHYS 1308-General Physics II


## Advanced Chemistry Electives (7 Credit Hours)

Chosen with adviser's approval.

- CHEM 3351- Quantitative Analysis
- CHEM 53XX
- CHEM 53YY
- CHEM 51ZZ

Total: 40 Credit Hours

## Chemistry, B.S.

The B.S. degree requires the completion of a minimum of 44 hours in the department. This degree is certified by the American Chemical Society for professional training in chemistry.

## Requirements for the Major

## Core Courses (41 Credit Hours)

- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3351-Quantitative Analysis
- CHEM 3371- Organic Chemistry
- CHEM 3117 - Organic Chemistry Laboratory
- CHEM 3372-Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory
- CHEM 4397 - Undergraduate Research
- CHEM 5185 - Laboratory Methods in Physical Chemistry
- CHEM 5188 - Advanced Physical Chemistry Laboratory
- CHEM 5310 - Biological Chemistry: Macromolecular Structure and Function
- CHEM 5383 - Physical Chemistry I
- CHEM 5384 - Physical Chemistry II
- CHEM 5392 - Advanced Inorganic Chemistry
- CHEM 5192 - Inorganic Synthesis Laboratory
- CHEM 5486 - Instrumental Analysis


## Mathematics and Physics (17 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- PHYS 1105-Mechanics Laboratory
- PHYS 1106 - Electricity and Magnetism Laboratory
- PHYS 1303 - Introductory Mechanics
or
- PHYS 1307-General Physics I
- PHYS 1304 - Introductory Electricity and Magnetism or
- PHYS 1308-General Physics II


## Advanced Chemistry Elective (3 Credit Hours)

Chosen with adviser's approval.

- CHEM 53XX


## Total: 61 Credit Hours

## Chemistry Minor

Students majoring in other departments may obtain a minor in chemistry. At least two of the advanced courses must be taken at SMU. CHEM 4397 does not count towards the minor.

## Requirements for the Minor

Core Courses (8 Credit Hours)

Courses with a lab must be taken together.

- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory

Advanced Chemistry Electives (9-12 Credit Hours)

Chosen with adviser's approval.

- Three advanced 3- or 4-hour CHEM courses

Total: 17-20 Credit Hours
Courses:

CHEM 1113-General Chemistry Laboratory

Credits: 1
One 3-hour laboratory period each week. Prerequisite or corequisite: CHEM 1303.

## CHEM 1114-General Chemistry Laboratory

Credits: I
One 3-hour laboratory period each week. Prerequisites or corequisites: CHEM 1304 and CHEM 1113.

## CHEM 1301 - Chemistry for Liberal Arts

## Credits: 3

Designed for students with weak backgrounds in chemistry and for liberal arts students.

## CHEM 1302 - Preparatory Chemistry

## Credits: 3

For students desiring to strengthen their background in chemistry prior to enrolling in the general chemistry course CHEM 1303.

## CHEM 1303-General Chemistry

## Credits: 3

Primarily for science majors, premed students, and engineering students. Introduces the fundamental principles and theories of chemistry, including stoichiometry, the structure of matter, energy relationships involved in the transformation of matter, the dynamics of such transformations, and some descriptive chemistry of the important elements. Prerequisite to all advanced courses in the department. Withdrawal from CHEM 1303 requires withdrawal from CHEM 1113.

## CHEM 1304-General Chemistry

## Credits: 3

Primarily for science majors, premed students, and engineering students. Introduces the fundamental principles and theories of chemistry, including stoichiometry, the structure of matter, energy relationships involved in the transformation of matter, the dynamics of such transformations, and some descriptive chemistry of the important elements. Prerequisite to all advanced courses in the department. Withdrawal from CHEM 1304 requires withdrawal from CHEM 1114. Prerequisite: CHEM 1303.

## CHEM 3117-Organic Chemistry Laboratory

## Credits: 1

One 3-hour laboratory period each week. Prerequisite or corequisite: CHEM 3371.

## CHEM 3118-Organic Chemistry Laboratory

Credits: 1
One 3-hour laboratory period each week. Prerequisite or corequisite: CHEM 3372. Prerequisite: CHEM 3117.

## CHEM 3351-Quantitative Analysis

Credits: 3
Involves the theory and practice of quantitative analytical chemistry techniques, including gravimetric, volumetric, electrochemical, and spectroscopic analyses. Includes 3 hours of lecture and two 4 hour laboratory periods per week for onehalf term. Prerequisites: CHEM 1303, CHEM 1304, CHEM 1113, CHEM 1114.

## CHEM 3371-Organic Chemistry

## Credits: 3

Designed to satisfy the requirements of the chemistry major and health-related professions student. The first term deals primarily with aliphatic chemistry, with special emphasis on stereochemistry. The second term emphasizes aromatic substances and the chemistry of biologically relevant molecules. Prerequisites: CHEM 1303, CHEM 1304, CHEM 1113, CHEM 1114.

## CHEM 3372-Organic Chemistry

Credits: 3
For chemistry majors and students interested in health-related professions. Emphasizes spectroscopy and the chemistry of functional groups. Prerequisites: C- or higher in CHEM 3371, CHEM 3117. Corequisite: CHEM 3118.

## CHEM 4000 - Research

Credits: 0
For students who hold research fellowships but are not enrolled in any credit hour courses. No tuition.

## CHEM 4397 - Undergraduate Research

## Credits: 3

Prerequisites: Junior or senior classification and permission of the instructor.

## CHEM 5110 - Biological Chemistry Laboratory

Credits: 1
One 3-hour laboratory period each week. Corequisite: CHEM 5310. If CHEM 5110 is counted toward a chemistry major or minor, it cannot be counted toward a biological sciences major or minor.

## CHEM 5185-Laboratory Methods in Physical Chemistry

Credits: 1
Laboratory experiments with emphasis on thermodynamics, chemical kinetics, and physical biochemistry. Includes a halfhour of lecture and 5 hour laboratory period each week for 5 weeks. Prerequisite: CHEM 5381 or CHEM 5383.

## CHEM 5188 - Advanced Physical Chemistry Laboratory

Credits: 1
Laboratory experiments with emphasis on chemical kinetics and molecular spectroscopy. Includes a half-hour of lecture and 5 hour laboratory period each week for 5 weeks. Prerequisite: CHEM 5185. Corequisite: CHEM 5384 or permission of instructor.

## CHEM 5192 - Inorganic Synthesis Laboratory

Credits: 1
Introduces advanced techniques and methods used in the synthesis of inorganic compounds. Prerequisite or corequisite: CHEM 5392.

## CHEM 5306 - Introduction to Computational Chemistry

## Credits: 3

Besides the normal lab experiments, modern chemists and biochemists perform "experiments" on the computer by calculating the outcome of chemical and/or biochemical reactions. Introduces this new field in a hands-on fashion, and uses major quantum chemical packages. Prerequisites: CHEM 1303, CHEM 1304 or permission of instructor. Note: Class assignments and projects are completed in the computer lab outside of the regularly scheduled class times.

## CHEM 5308 - Special Topics in Chemistry

## Credits: 3

Presentation of advanced special topics in chemistry that are at the forefront of current chemical interest. Content varies from term to term.

## CHEM 5310 - Biological Chemistry: Macromolecular Structure and Function

## Credits: 3

Introduces the structure and function of macromolecules of biological importance, with a focus on nucleic acid and protein structure, enzyme kinetics, and carbohydrate and lipid chemistry. Includes 3 hours of lecture each week. The accompanying laboratory (CHEM 5110) is strongly recommended for chemistry majors. If CHEM 5310 is counted toward a chemistry major or minor, it cannot be counted toward a biological sciences major or minor. Prerequisites: C- or better in CHEM 3371, CHEM 3372 and junior standing.

## CHEM 5311 - Biological Chemistry: Metabolism

## Credits: 3

Introduction to the pathways and regulatory events in the metabolism of carbohydrates, lipids, amino acids, and nucleotides. Includes 3 hours of lecture per week. Prerequisites: CHEM 3371, CHEM 3372.

## CHEM 5312-Physical Biochemistry

## Credits: 3

Physical chemistry of macromolecules and biological membranes, with an emphasis on the thermodynamics of solutions. Prerequisites: MATH 1338; CHEM 3372, CHEM 5310. (CHEM 5381 or CHEM 5383 is recommended.)

## CHEM 5317 - Introduction to Molecular Modeling and Computer-Assisted Drug Design

## Credits: 3

Presents a thorough and in-depth overview of methods and techniques in computer-assisted drug design. Topics include drug discovery and drug design, molecular recognition and docking, ligand-receptor interactions, pharmacophore searching, virtual screening, de novo design, molecular graphics, and chemometrics. Prerequisites: CHEM 1303, CHEM 1304 or permission of instructor. Note: Class assignments and projects are completed in the computer lab outside of the regularly scheduled class times.

## CHEM 5321 - Understanding Chemistry

## Credits: 3

Focuses on a general understanding of chemistry in terms of models and concepts that describe structure, stability, reactivity, and other properties of molecules in a simple, yet very effective way. Prerequisites: CHEM 1303, CHEM 1304 or permission of instructor.

## CHEM 5322 - Introduction to Nanotechnology

Credits: 3
Introduces nanotechnology, which is expected to change lives and society more than computer technology and electricity have done together. Discusses nanomaterials and their applications. Prerequisites: CHEM 1303, CHEM 1304 or permission of instructor.

CHEM 5333 - Introduction to Polymer Chemistry

Credits: 3
This course provides basic information on the synthesis, physical properties, and solution properties of high molecular weight molecules. Plastics, manufacturing, and fabrication of polymers are discussed. Prerequisites: CHEM 3371 and CHEM 3372.

## CHEM 5344 - Physical Chemistry of Proteins

## Credits: 3

Graduate-level course on the fundamental aspects of techniques used to interrogate the thermodynamics and kinetics of protein conformational changes, with emphasis on atomic resolution structural techniques. Prerequisites: CHEM 5383 and CHEM 5384, knowledge of basic biochemistry, and instructor approval.

## CHEM 5383 - Physical Chemistry I

## Credits: 3

Gas laws; kinetic molecular theory; introduction to thermodynamics, with applications to phase transitions and chemical equilibrium; chemical kinetics. Prerequisites: CHEM 1114 and CHEM 1304, PHYS 1105 and PHYS 1304 or PHYS 1308, and MATH 1337, or permission of instructor.

## CHEM 5384 - Physical Chemistry II

## Credits: 3

Elements of quantum mechanics and its description of many-electron atoms, bonding, and spectroscopy; intermolecular forces; structure of solids; and transport properties of fluids. Prerequisite: CHEM 5383.

## CHEM 5392 - Advanced Inorganic Chemistry

## Credits: 3

Survey of the bonding, structure, and reactivity of inorganic compounds. Also, coordination, organometallic, and main group element chemistry. Includes 3 hours of lecture each week. Recommended: CHEM 5384.

## CHEM 5393 - Advanced Organic Chemistry

## Credits: 3

Includes 3 hours of lecture each week. Prerequisite: CHEM 3372.

## CHEM 5396 - Advanced Physical Chemistry

Credits: 3
Includes 3 hours of lecture each week. Prerequisite: Permission of instructor.

## CHEM 5398 - Medicinal Chemistry

Credits: 3
Highlights the close relationships of organic chemistry and biochemistry with the field of medicine. Relies on the departmental computational laboratory to permit three-dimensional visualization of molecular interactions. Includes 3 hours of lecture each week. Prerequisites: CHEM 3371, CHEM 3372.

CHEM 5486 - Instrumental Analysis

Credits: 4
The theory, operation, and application of instrumentation used in the modern chemical laboratory. Includes 2 hours of lecture and two 3-hour laboratory periods each week. Prerequisite: CHEM 3351 or permission of instructor.

## Earth Sciences

www.smu.edu/earthsciences

## Professor Robert T. Gregory, Department Chair

Professors: Robert T. Gregory, Matthew Hornbach, Bonnie Jacobs, Louis Jacobs, Zhong Lu, Jim Quick, Brian Stump, Neil Tabor, Crayton Yapp
Associate Professors: Heather DeShon, Maria Beatrice Magnani
Assistant Professor: Rita Economos
Research Professors: Steve Bergman, Steven May, Mihan McKenna, John Wagner, Dale A. Winkler
Research Associate Professor: H. Troy Stuckey
Research Assistant Professors: Anthony Fiorillo, Peter Malin, Matthew Siegler, Alisa J. Winkler, Pierre Zippi

## General Information

The Roy M. Huffington Department of Earth Sciences provides ways of understanding and appreciating dynamic Earth processes, the physical environment, and the place of humanity in the long and complex history of the planet and solar system. The programs also provide the background for rewarding careers in industry, government and academia. The faculty offers exceptional learning and research opportunities in geology, geochemistry, geophysics, resource geology, planetary geology, paleontology, and natural resource and energy management.

Earth science is an interdisciplinary, applied science that integrates well with other fields. It attracts students with broad interests in geology, chemistry, biology, environmental science, archaeology, astronomy, oceanography, engineering, applied mathematics or physics. The department strongly encourages combined majors. In addition to combinations with the above fields, many undergraduate Earth science majors have double majors or minors in business (especially finance, real estate or marketing), economics, prelaw, computer science, archaeology, world languages, English, history, journalism and premed.

Academic programs are tailored to the educational and career objectives of each student. Because of the heavily funded active research programs within the department and close ties with the Dallas geological community, students often receive excellent pre- and post-graduation employment opportunities. The department also has some financial aid available for undergraduate majors, including department scholarships and support for offcampus field programs.

The department offers four different majors in Earth sciences: geology B.A. and B.S., geophysics B.S., and resource geology B.S. Two minors, one in geology and the other in environmental earth sciences, are available for those not pursuing a major in the earth sciences. The department is also the home of the environmental science and environmental studies programs which can be found in the section on Dedman Interdisciplinary programs.

## Geology, B.A.

The B.A. or B.S. degree in geology consists of a core sequence that provides a basic background in plate tectonics, earth materials (mineralogy and igneous, metamorphic and sedimentary rocks) and field methods. Beyond the core sequence, all students are encouraged to include sedimentology and structural geology (required for the B.S.) in their programs. Students, in consultation with a faculty adviser, are encouraged to pursue concentrations in paleontology, geochemistry or resource geology that integrate classroom learning with field and laboratory experience. Participation in a recognized geology summer field camp is strongly recommended for all majors (B.A. and B.S.). Most Earth science graduate programs in the United States require that a field course be completed.

## Requirements for the Major

A minimum of 28 hours in Earth sciences and a minimum of nine hours of support courses, selected from the following:
One from the following: (3 Credit Hours)

- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- GEOL 1315 - Introduction to Environmental Science


## GEOL Courses (11 Credit Hours)

- GEOL 3340 - Face of the Earth
- GEOL 3451 - Earth Materials I: Mineralogy
- GEOL 3452 - Earth Materials II: Petrology


## Earth Science Electives (12 Credit Hours)

At the 3000 level or above.

## Geology Field Studies (2-3 Credit Hours)

- GEOL 3243 - Geology Field Studies
or
- GEOL 3343-Geology Field Studies


## Required Support Courses (9-12 Credit Hours)

- CHEM 1301-Chemistry for Liberal Arts
or
- CHEM 1303-General Chemistry
- PHYS 1301 - The Ideas of Modern Physics and PHYS 1303 - Introductory Mechanics (recommended sequence) or
PHYS 1307 - General Physics I
- MATH 1337-Calculus I

Total: 37-41 Credit Hours

## Notes

- Experience with a modern scientific computing language is essential and can be gained in a course such as GEOL 3359 - Computer Methods in Earth Sciences.
- The requirements for the geology major are considered minimal. Students planning careers in the Earth sciences should take additional coursework according to the geoscience emphasis that best fits their goals. Students should consult a faculty adviser for suggestions.


## Geology, B.S.

The B.A. or B.S. degree in geology consists of a core sequence that provides a basic background in plate tectonics, earth materials (mineralogy and igneous, metamorphic and sedimentary rocks) and field methods. Beyond the core sequence, all students are encouraged to include sedimentology and structural geology (required for the B.S.) in their programs. Students, in consultation with a faculty adviser, are encouraged to pursue concentrations in paleontology, geochemistry or resource geology that integrate classroom learning with field and laboratory experience. Participation in a recognized geology summer field camp is strongly recommended for all majors (B.A. and B.S.). Most Earth science graduate programs in the United States require that a field course be completed.

## Requirements for the Major

A minimum of 36 hours in Earth sciences and a minimum of 17 hours of support courses, selected from the following:

## One from the following: (3 Credit Hours)

- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- GEOL 1315 - Introduction to Environmental Science


## GEOL Courses (15 Credit Hours)

- GEOL 3340 - Face of the Earth
- GEOL 3451 - Earth Materials I: Mineralogy
- GEOL 3452 - Earth Materials II: Petrology
- GEOL 3454 - Structural Geology


## Earth Science Electives (12 Credit Hours)

At the 3000 level or above.

## Geology Field Studies and Research (6-9 Credit Hours)

- GEOL 3243 - Geology Field Studies or
- GEOL 3343-Geology Field Studies
- GEOL 4296 - Senior Thesis Research Project
and
- GEOL 4298 - Senior Thesis Research Project or
- GEOL 4657 - Field Geology


## Required Support Courses (17 Credit Hours)

- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- PHYS 1303 - Introductory Mechanics
- MATH 1337 - Calculus I
- MATH 1338 - Calculus II


## Total: 53-56 Credit Hours

Notes

- Experience with a modern scientific computing language is essential and can be gained in a course such as GEOL 3359 - Computer Methods in Earth Sciences.
- The requirements for the geology major are considered minimal. Students planning careers in the Earth sciences should take additional coursework according to the geoscience emphasis that best fits their goals. Students should consult a faculty adviser for suggestions.


## Geophysics, B.S.

Geophysical techniques are used to understand the physical behavior of Earth, including plate-tectonic processes, earthquake mechanisms and nuclear test-ban verification. The B.S. degree in geophysics provides a strong quantitative background in seismology, geothermics and digital signal processing.

## Requirements for the Major

A minimum of 33 hours in Earth sciences and a minimum of 30 hours of support courses, selected from the following:

## One from the following (3 credit hours):

- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1313 - Earthquakes and Volcanoes
- GEOL 1315 - Introduction to Environmental Science


## GEOL Courses (21 Credit Hours)

- GEOL 3340 - Face of the Earth
- GEOL 3451 - Earth Materials I: Mineralogy
- GEOL 3452 - Earth Materials II: Petrology
- GEOL 3380 - Introduction to Geophysics
- GEOL 3454 - Structural Geology
- GEOL 5320 - Dynamic Earth I


## Earth Science Electives (9 Credit Hours)

At the 3000 level or above; with at least 3 credit hours in geophysics.

## Required Support Courses (30 Credit Hours)

- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory
- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations
- MATH 4337 - Boundary Value Problems and Partial Differential Equations


## Total: 63 Credit Hours

## Notes

- Participation in a recognized geology or geophysics summer field camp is strongly recommended for all geophysics majors.
- Experience with a modern scientific computing language is essential and can be gained in a course such as GEOL 3359 - Computer Methods in Earth Sciences.
- The requirements for the geophysics major are considered minimal. Students should consult a faculty adviser for recommendations on additional coursework that best fits their goals.


## Resource Geology, B.S.

Resource and environmental issues are central to the important challenges facing the world today. As a result, resource and environmental problems are being addressed by a growing number of disciplines, including the sciences, engineering, the legal profession, economics, journalism and ethics. Yet, most of these problems are rooted in geological processes. The B.S. degree in resource geology is intended to provide students with a quantitative understanding of the chemical and physical processes involved in the formation and production of a particular resource and the environmental consequences. The degree is preparation for the practice of geology in the public sector. Because of the multidisciplinary scope of most resource problems, students are strongly encouraged to take appropriate courses in other departments.

## Requirements for the Major

A minimum of 33 hours in Earth science and a minimum of 23 hours of support courses, selected from the following:
One from the following: (3 Credit Hours)

- GEOL 1301 - Earth Systems (recommended)
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- GEOL 1315 - Introduction to Environmental Science


## GEOL Courses (24-26 Credit Hours)

- GEOL 3340 - Face of the Earth
- GEOL 3451 - Earth Materials I: Mineralogy
- GEOL 3452 - Earth Materials II: Petrology
- GEOL 3330 - Resources and the Environment
- GEOL 5384 - Hydrogeology
- GEOL 5386 - Geochemistry
- GEOL 4296 - Senior Thesis Research Project and
- GEOL 4298 - Senior Thesis Research Project or
- GEOL 4657 - Field Geology


## Two from the following: (6-8 Credit Hours)

- GEOL 3343 - Geology Field Studies
- GEOL 3353 - Modern and Ancient Climates
- GEOL 3374 - Introduction to Petroleum Geology
- GEOL 3454 - Structural Geology
- GEOL 3472 - Principles of Sedimentation
- GEOL 4390 - Introduction to Geophysical Prospecting
- GEOL 5459 - Soils and Paleosols


## Required Support Courses ( 23 Credit Hours)

- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- PHYS 1303 - Introductory Mechanics
- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3313 - Ordinary Differential Equations


## Total: 56-60 Credit Hours

## Notes

- Experience with a modern scientific computing language is essential and can be gained in a course such as GEOL 3359 - Computer Methods in Earth Sciences.
- The requirements for the resource geology major are considered minimal. Students should consult a faculty adviser for recommendations on additional course-work that best fits their goals.


## Environmental Earth Sciences Minor

The minor in environmental Earth sciences is designed with a two-course geology core as background to an interdisciplinary course of study. The minor is freestanding and is not intended to lead to a major. The minor is not available to students majoring in environmental Earth sciences. Instead, it should provide an excellent and substantive background for students heading into the environmental field from other disciplines. The minor is not suitable for a student majoring or minoring in the Earth sciences. The Roy M. Huffington Department of Earth Sciences is responsible for administration of this minor.

## Requirements for the Minor

A minimum of 17 hours, to be selected from the following, with at least nine hours at the 3000 level or above:
One from the following: (3 Credit Hours)

- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- GEOL 1315 - Introduction to Environmental Science

One from the following: (3 Credit Hours)

- GEOL 3330 - Resources and the Environment
- GEOL 3340 - Face of the Earth
- GEOL 3353 - Modern and Ancient Climates
- GEOL 3363 - Environmental Geology Seminar


## Any four from the following: (11-12 Credit Hours)

(if not taken for the requirements above)

- GEOL 1315 - Introduction to Environmental Science
- GEOL 3243 - Geology Field Studies
- GEOL 3307 - Ecology
- GEOL 3330 - Resources and the Environment
- GEOL 3340 - Face of the Earth
- GEOL 3343-Geology Field Studies
- GEOL 3353 - Modern and Ancient Climates
- GEOL 3363 - Environmental Geology Seminar
- GEOL 5384 - Hydrogeology
- GEOL 5386-Geochemistry
- BIOL 1305 - The Natural Environment
- BIOL 3307 - Ecology
- BIOL 3342 - Plant Kingdom
- CEE 5311 - Environmental and Hazardous Waste Laws


## Total: 17-18 Credit Hours

## Geology Minor

## Requirements for the Minor

A minimum of 17 hours in Earth sciences, selected from the following:

## GEOL Courses (3 Credit Hours)

One from the following:

- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- GEOL 1315 - Introduction to Environmental Science


## Earth Science Electives (12 Credit Hours)

At the 3000 level or above.

## Geology Field Studies (2-3 Credit Hours)

- GEOL 3243 - Geology Field Studies or
- GEOL 3343 - Geology Field Studies


## Total: 17-18 Credit Hours

## Courses:

## GEOL 1100 - Earth Sciences Abroad

Credits: 1
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

GEOL 1200 - Earth Sciences Abroad

Credits: 2
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

## GEOL 1300 - Earth Sciences Abroad

## Credits: 3

Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

## GEOL 1301 - Earth Systems

## Credits: 3

Examines geologic change within the earth as governed by physical, chemical, and biological processes, as well as interactions among the solid earth, oceans, atmosphere, and biosphere. Includes 3 hours of lecture and one 2-hour laboratory each week. Recommended for all geology tracks.

## GEOL 1305-Oceanography

Credits: 3
A study of the physical (geological), biological, and chemical processes responsible for the ocean, as it exists today.
Examines the impact of man on the oceans and oceanography's role in resource development, climatic and environmental modification, and other human concerns. Includes 3 hours of lecture and one 2-hour laboratory each week.

## GEOL 1307 - The Solar System

## Credits: 3

A study of the formation and evolution of the solar system. Discussion of solar system materials, nebular processes, meteorites, the formation and evolution of the planets and their satellites, the origin of stars, and the evidence for the standard model of cosmology. Includes 3 hours of lecture and one 2-hour laboratory each week.

## GEOL 1308 - Earth and Life

## Credits: 3

Covers the evolution of Earth from the origin of the universe, the evolution of life since its origin, and the relationships between the two, including issues of societal relevance such as energy resources and climate change. Unifying concepts are time and change on astronomical to human scales. Meets once per week at the Perot Museum, supplemented by a field trip to several locations of interest in the Dallas area. Students are responsible for their own transportation to and from the Perot Museum for each class.

## GEOL 1313 - Earthquakes and Volcanoes

Credits: 3
Seismic and volcanic activity are two important manifestations of plate tectonics on the earth. They are also two major natural hazards affecting humankind. This course emphasizes the geologic insights provided by earthquakes and volcanoes, and their impact on society.

## GEOL 1315 - Introduction to Environmental Science

## Credits: 3

Uses the fundamental principles of ecology, hydrology, geology, population dynamics, land-use management, and related fields as the basis for understanding many of the major environmental issues that face the planet: greenhouse climate changes, soil and water pollution, acid rain and related atmospheric pollution problems, habitat destruction and species extinctions, waste disposal, land-use management, energy resource development, geologic hazards, and others. Includes 3 hours of lecture and one 2-hour laboratory each week. Field trips take the place of some laboratory classes.

## GEOL 2321 - Southwestern Environments: A Geological Approach

Credits: 3
An investigation of the processes affecting geologic and environmental change in the southwestern United States. Can fulfill a 1300-level GEOL course requirement for a major or minor in geology. (SMU-in-Taos)

## GEOL 3100 - Earth Sciences Abroad

Credits: 1
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

## GEOL 3107 - Departmental Seminars

## Credits: 1

Students attend and critically evaluate departmental seminars given by visiting scientists, visiting engineers, faculty, and graduate students. Prerequisite: Major in geology, geophysics, or environmental geology.

## GEOL 3200 - Earth Sciences Abroad

## Credits: 2

Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

## GEOL 3243 - Geology Field Studies

## Credits: 2

Project- and mapping-oriented, 2 week field trips to classical geological localities inside or outside of the U.S. Trips are normally conducted during the May interterm or between terms. Examples of planned trips include the Caribbean, Hawaii, the Grand Canyon, Lake Superior in Canada, New Mexico, or Colorado. Prerequisites: One 1300-level course in Earth sciences and permission of instructor.

## GEOL 3300 - Earth Sciences Abroad

## Credits: 3

Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

## GEOL 3307 - Ecology

## Credits: 3

Basic principles and concepts of ecology, with emphasis on population and community interactions. Includes 3 hours of lecture each week. Prerequisites: BIOL 1401, BIOL 1402 or permission of instructor.

## GEOL 3330 - Resources and the Environment

## Credits: 3

A study of Earth's materials and processes and the effects they have on resource conservation planning and the pollution problems that arise from humankind's intense use of the Earth's resources. Prerequisites: Permission of instructor or high school algebra, CHEM 1301 or CHEM 1303, and one 1300-level course in Earth sciences.

## GEOL 3340 - Face of the Earth

## Credits: 3

Students study the theory of plate tectonics in order to understand earthquake, volcano, and mountain-belt formations. Specific application of the theory helps to illustrate North American regional geology features such as coastal areas and the San Andreas Fault. Prerequisite: One 1300-level course in Earth sciences or permission of instructor.

## GEOL 3343 - Geology Field Studies

## Credits: 3

Project- and mapping-oriented, 2 week field trips to classical geological localities inside or outside of the U.S. Trips are normally conducted during the May interterm or between terms. Examples of planned trips include the Caribbean, Hawaii, the Grand Canyon, Lake Superior in Canada, New Mexico, or Colorado. Prerequisites: One 1300-level course in Earth sciences and permission of instructor.

## GEOL 3353 - Modern and Ancient Climates

## Credits: 3

Science of the modern atmosphere, modern climate, and evidence of historical climatic change. Geological evidence for atmospheric and climatic changes throughout Earth's history. Prerequisite: One 1300-level course in Earth sciences or permission of instructor.

## GEOL 3359 - Computer Methods in Earth Sciences

## Credits: 3

Solutions to geological, geochemical, and geophysical problems unique to Earth sciences using computer methods. Focuses on computer application to geologic mapping, modeling, and data analysis. Prerequisite: Permission of instructor.

## GEOL 3361 - Environmental Geology Seminar

## Credits: 3

Focuses on timely geoscience-based environmental problems and addresses scientific, environmental, political, economic, legal, and social aspects of potential solutions through selected readings, seminars, guest speakers, and research projects. Prerequisite: One 1300-level Earth sciences course or permission of instructor.

## GEOL 3363 - Environmental Geology Seminar

## Credits: 3

Focuses on timely geoscience-based environmental problems and addresses scientific, environmental, political, economic, legal, and social aspects of potential solutions through selected readings, seminars, guest speakers, and research projects. Prerequisite: One 1300-level Earth sciences course or permission of instructor.

## GEOL 3369 - Paleobiology

## Credits: 3

A survey of biological diversity, phylogenetic analysis, rates of evolution, extinction, biogeography, taphonomy, and paleoecology. Prerequisites: BIOL 1401, BIOL 1402, or one 1300-level course in Earth Sciences, or permission of instructor.

## GEOL 3374 - Introduction to Petroleum Geology

## Credits: 3

An introduction to stratigraphy, sedimentation, and petroleum geology. Prerequisite: One 1300-level course in Earth sciences or permission of instructor.

## GEOL 3380 - Introduction to Geophysics

## Credits: 3

Survey of geophysical techniques used to understand the structure and dynamics of the solid earth, including seismology, geodesy, gravity, heat flow, and magnetism. Prerequisites: One 1300-level course in Earth sciences and GEOL 3340.

## GEOL 3451 - Earth Materials I: Mineralogy

## Credits: 4

The study of minerals and rocks: elementary crystallography; crystal chemistry; mineral structures and physical properties; rock classification and identification of rocks and minerals in hand specimen; principles of mineral optics; identification of
minerals in thin section; and introduction to relationships among rock textures, origins, and rock-forming processes. Prerequisite: One 1300-level course in Earth sciences. Prerequisite or corequisite: CHEM 1301 or CHEM 1303.

## GEOL 3452 - Earth Materials II: Petrology

## Credits: 4

The study of minerals and rocks: elementary crystallography; crystal chemistry; mineral structures and physical properties; rock classification and identification of rocks and minerals in hand specimen; principles of mineral optics; identification of minerals in thin section; and introduction to relationships among rock textures, origins, and rock-forming processes. Prerequisite: One 1300-level course in Earth sciences. Prerequisite or corequisite: GEOL 3340.

## GEOL 3454 - Structural Geology

## Credits: 4

Introduction to the stress-strain relations of rocks, the origin of faults, the brittle-to-ductile transition, and the mechanics of thrusting and folding. Also, laboratory problems in structure contouring, fault solutions, stereonet manipulation, and analysis of folded terrains. Prerequisite or corequisite: GEOL 3452 or permission of instructor.

## GEOL 3472 - Principles of Sedimentation

## Credits: 4

A study of the origin and postdepositional modification of sediments, sedimentary structures, and sedimentary rocks.
Application to the recognition and interpretation of ancient marine and nonmarine sedimentary depositional sequences. Required weekend field trips. Prerequisite or corequisite: GEOL 3451 or permission of instructor.

## GEOL 4199 - Integrative Research

## Credits: 1

Faculty-supervised independent geoscience research project designed to acquaint the student with current scientific techniques in data gathering (in field and/or laboratory and/or library), data processing, and presentation of results. Prerequisite: Permission of faculty adviser.

## GEOL 4296 - Senior Thesis Research Project

## Credits: 2

This is a significant scientific project. GEOL 4296, GEOL 4298 are taken during the student's senior year as a 1-year sequence.

## GEOL 4298 - Senior Thesis Research Project

## Credits: 2

This is a significant scientific project. GEOL 4296, GEOL 4298 are taken during the student's senior year as a 1-year sequence.

## GEOL 4299 - Integrative Research

## Credits: 2

Faculty-supervised independent geoscience research project designed to acquaint the student with current scientific techniques in data gathering (in field and/or laboratory and/or library), data processing, and presentation of results. Prerequisite: Permission of faculty adviser.

## GEOL 4321 - Internship in Geoscience

## Credits: 3

Direct experience using applied geoscience techniques in a work environment, including resource recovery companies; environmental companies; law firms; nonprofit organizations; educational institutions; and municipal, state, or federal agencies. Prerequisites: Junior or senior standing in a geoscience major; overall GPA of at least 3.000; GEOL 3452; and sponsorship of a professor and approved organization, agency, or company.

## GEOL 4390 - Introduction to Geophysical Prospecting

## Credits: 3

Introduction to geophysical exploration techniques. Lecture and laboratory. Prerequisite: MATH 1338 or permission of instructor.

## GEOL 4399 - Integrative Research

## Credits: 3

Faculty-supervised independent geoscience research project designed to acquaint the student with current scientific techniques in data gathering (in field and/or laboratory and/or library), data processing, and presentation of results. Prerequisite: Permission of faculty adviser.

## GEOL 4657 - Field Geology

Credits: 6
Geologic mapping and field trips in a summer field-camp setting. Prerequisites: GEOL 3454, GEOL 3472 or permission of instructor.

## GEOL 5110 - Independent Study in Geoscience

## Credits: 1

Independent study of a selected topic in geoscience. Individual study under direction of a faculty member allowed for GEOL 5110 or GEOL 5210; group projects allowed for GEOL 5310.

## GEOL 5166 - Vertebrate Anatomy Laboratory

Credits: 1
A laboratory course to accompany BIOL/GEOL 5366. Exercises include basic anatomy, dissections, and examinations of fossil skeletons. Corequisite: GEOL/BIOL 5366.

## GEOL 5199 - Special Topics in Earth Sciences

## Credits: 1

Topics of special interest not covered by the regular curriculum, taught by visiting scientists and those with temporary appointments at SMU. Can be cotaught together with faculty of the department. Prerequisite: GEOL 3340 or permission of instructor.

## GEOL 5210 - Independent Study in Geoscience

## Credits: 2

Independent study of a selected topic in geoscience. Individual study under direction of a faculty member allowed for GEOL 5110 or GEOL 5210; group projects allowed for GEOL 5310.

## GEOL 5299 - Special Topics in Earth Sciences

## Credits: 2

Topics of special interest not covered by the regular curriculum, taught by visiting scientists and those with temporary appointments at SMU. Can be cotaught together with faculty of the department. Prerequisite: GEOL 3340 or permission of instructor.

## GEOL 5310 - Independent Study in Geoscience

## Credits: 3

Independent study of a selected topic in geoscience. Individual study under direction of a faculty member allowed for GEOL 5110 or GEOL 5210; group projects allowed for GEOL 5310.

## GEOL 5320 - Dynamic Earth I

## Credits: 3

Covers the physical and chemical structure of the Earth and its evolution through geologic time; dynamic processes in the mantle and crust; the development of the theory of plate tectonics as a unifying mechanism for large-scale geologic processes; and the implications of plate tectonics and contemporary applications to geological and geophysical problems. Prerequisite: Permission of instructor.

## GEOL 5356 - Principles and Application of Remote Sensing

## Credits: 3

Covers the principals of remote sensing, remote sensing collection systems, basic remote sensing image analysis and processing techniques, and the applications of remote sensing to geologic studies. Prerequisites: PHYS 1304 and MATH 1338, or permission of instructor.

## GEOL 5360 - Electron Microprobe Analysis

## Credits: 3

Design and operation of the instrument. Correction procedures and computer automation. Analytical techniques and mineral chemistry.

## GEOL 5366 - Vertebrate Anatomy and Origins

## Credits: 3

Introduces vertebrate anatomy, with emphasis on structure and function. Examines processes that have affected the diversity of vertebrate organisms, including origination, biogeography, and adaptation. Prerequisites: BIOL 1401, BIOL 1402 and GEOL 1308, or permission of instructor. The accompanying laboratory, BIOL 5166, is strongly recommended.

## GEOL 5368 - Paleoecology

## Credits: 3

Interactions between the living world and the Earth's changing environments through geologic time. Prerequisite: GEOL 3369 or permission of instructor.

## GEOL 5369 - Introduction to Palynology

## Credits: 3

Provides an overview of palynology. Taphonomic processes and applications in paleoecology, paleoclimatology, archeology, plant taxonomy, and plant evolution are considered. No prerequisites. One field trip.

## GEOL 5372 - Principles of Sedimentation

## Credits: 3

Study of the origin and evolution of sedimentary rocks in terms of interpretation of marine and non-marine sedimentary record.

## GEOL 5374 - Petroleum Geology

## Credits: 3

Application of geologic principles to the location and recovery of hydrocarbon resources in the crust of the earth. Prerequisite: Permission of the instructor.

## GEOL 5380 - Principles of Stratigraphy

Credits: 3
Evolution and application of modern stratigraphic concepts, and the development of stratigraphic nomenclature. Emphasis on the integration of physical, biological and chemical parameters in interpretation of the rock record. Prerequisites: GEOL 3340 and CHEM 1304, or permission of instructor.

## GEOL 5384 - Hydrogeology

## Credits: 3

Introduces the chemical and physical behavior of natural waters and the role of fluids in geologic processes. Includes the application of thermodynamics, kinetics, and fluid mechanics to understand such geologic processes as ore formation, sediment diagenesis, isograd formation, acid rain, global warming, and groundwater contamination. Prerequisites: MATH 1338 and CHEM 1304, or permission of instructor.

## GEOL 5386 - Geochemistry

Credits: 3
A survey of geochemical processes within the Earth and at its surface, emphasizing mineral-water interactions and application of the principles of chemical equilibrium to the solution of geochemical problems. Prerequisite: GEOL 3452 or permission of instructor.

## GEOL 5389 - Theory of Digital Data Processing in Geophysics

## Credits: 3

Covers linear transform theory, convolution, correlation, linear systems, Shannon sampling theorem, discrete Fourier
transform, fast Fourier transform, Z-transform, inverse filtering, recursive filtering, optimum filtering, deconvolution, and power spectrum analysis. Prerequisite: MATH 3313 or permission of instructor.

## GEOL 5391 - Potential Field Methods in Geophysical Exploration

## Credits: 3

Introduction to potential theory in geophysics. The emphasis is on gravity and magnetic techniques with a brief introduction to heat flow and electrical methods. Basic concepts and their application to hard and soft rock exploration are covered.

## GEOL 5392 - Introduction to Seismology

## Credits: 3

Basic principles of seismology. Prerequisites: MATH 3313 and permission of instructor.

## GEOL 5394-Geophysical Problem-Solving

## Credits: 3

Covers approaches to problem-solving in geophysics, back-of-the-envelope approximations and dimensional analysis, analytical solutions and numerical techniques on the computer, inverse theory and error propagation, and use of models in the real world. Students complete a term project. Prerequisites: MATH 3313, 5353; knowledge of a programming language.

## GEOL 5399 - Special Topics in Earth Sciences

## Credits: 3

Topics of special interest not covered by the regular curriculum, taught by visiting scientists and those with temporary appointments at SMU. Can be cotaught together with faculty of the department. Prerequisite: GEOL 3340 or permission of instructor.

## GEOL 5459 - Soils and Paleosols

## Credits: 4

This is a lecture, lab, and field-based course about modern and ancient (paleosol) soil description, classification, and genesis. The course emphasizes environmental controls on soil formation and distribution across Earth's landscapes. Recommended: CHEM 1303, CHEM 1304, CHEM 1113, CHEM 1114, CHEM 3351; CEE 4385. Prerequisites: One from GEOL 1301, GEOL 1305, GEOL 1307, GEOL 1308, GEOL 1313, GEOL 1315; and GEOL 3343, GEOL 3451, GEOL 3452, GEOL 3472.

## Economics

www.smu.edu/economics

## Professor Santanu Roy, Department Chair

Professors: Nathan Balke, Raveendra Batra, Rajat Deb, Klaus Desmet, Tom Fomby, Kathy Hayes, Daniel Millimet, Santanu Roy, Tim Salmon
Associate Professors: Bo Chen, Thomas Osang, Saltuk Ozerturk
Assistant Professors: Elira Kuka, James Lake, Rocio Madera, Omer Ozak, Nathaniel Pattison, Danila Serra
Senior Lecturers: Helen Reynolds, Elizabeth Wheaton
Lecturer: Marcela Giraldo

## General Information

Students majoring in economics may choose among four degree plans. Under each degree plan, students are expected to take ECO 1311 and ECO 1312, MATH 1309 or MATH 1337, and STAT 2331 during the first or second year. Once the major is declared, due progress must be made in terms of course enrollment. Finally, under each degree plan, students must have a GPA of at least 2.000 in economics courses attempted and must receive at least a grade of $C$ - in all classes counting toward the major. If requirements change, the catalog in force at the time the major is declared prevails.

## Notes for All B.S. in Economics Majors

1. ECO 3301 and ECO 3302 require prior completion of MATH 1309 or MATH 1337.
2. All economics courses at the 4000 level or above require prior completion of STAT 2331 or STAT 4340.
3. Additional recommended or required preparation for courses is indicated within the course descriptions.
4. Questions concerning specific courses and the undergraduate program in general should be directed to the economics undergraduate adviser and the director of undergraduate studies.
5. Students majoring in economics are urged to consult a departmental adviser periodically to review their degree plans and progress.
6. Subfields: The B.S. degree plans require the student to satisfy at least one subfield in economics when choosing advanced economic courses. Approved subfields are
Econometrics (2 out of 7): ECO 5350, ECO 5375, ECO 6352, ECO 6380, ECO 6391
Economic Growth and Development (2 out of 4): ECO 5360, ECO 5362
Economics of Industrial Organization (2 out of 2):ECO 4371, ECO 4382
International Economics (2 out of 2): ECO 4357, ECO 4358
Labor Economics (2 out of 3): ECO 4351, ECO 4361, ECO 5357
Economics of Decision-Making (2 out of 4): ECO 5340, ECO 5341, ECO 5342, ECO 5353
Monetary Economics (2 out of 2): ECO 4385, ECO 4386
Public Economics (2 out of 7): ECO 4345, ECO 4355, ECO 4365, ECO 5320, ECO 5365, ECO 5366
Students are encouraged to discuss these fields with faculty, especially while completing ECO 3301 and ECO 3302.

## Admission of SMU Students to an Economics Major

Regular admission to any Economics major requires:

1. Completion of 30 hours
2. Minimum all-college cumulative GPA of 2.700 .
3. A minimum GPA of 2.700 in the Economics subset:

DISC 1312
ECO 1311
ECO 1312
MATH 1309 or MATH 1337
STAT 2331 or STAT 4340

## Notes

1. For declaration purposes, the subset GPA is recorded at the end of the term the student completes the Economics subset AND has at least 30 cumulative credit hours.
2. Once a student enters SMU, all remaining subset courses must be completed through enrollment at SMU.
3. With the exception of courses completed under the SMU first-year grade-repeat policy (under Grades for Repeated Courses in the Grade Policies section of the catalog), the subset GPA is calculated using the first graded attempt of these courses, even if the grade was later repeated.
4. All subset courses must be taken for a grade, with the exception of those courses in which the student has test credit.
5. Students must earn a $C$ - or better in all subset courses prior to declaring an Economics major. Current University grading policy, as summarized under Academic forgiveness in the General Policies section of this catalog, permits forgiveness of academic work taken 10 or more years prior to the term of declaration. Academic work forgiven under this policy will not be included in the subset or all-college cumulative GPA.
6. The subset GPA for students who have AP or IB credit is based on the remaining graded subset courses.
7. Examination by CLEP, AP or IB will be ignored, and the subset will be based on coursework for which a grade has been given. So for example, if the student received AP credit for MATH 1309/MATH 1337, their subset would use only STAT 2331, ECO 1311, ECO 1312 and DISC 1312.
8. For admission to the Economics B.S. with Management Information Applications concentration, students must complete the subset requirements of the EMIS department, which include EMIS 1360 (students are limited to a maximum of two enrollments in this course), MATH 1337 and MATH 1338, DISC 1312/DISC 2305 and DISC 1313/DISC 2306 or equivalent, and CSE 1341 and CSE 1342, with a 3.000 average subset GPA and a $C$ or better in each subset course. MATH 1309 will not be accepted.

## Departmental Distinction

The student majoring in economics with sufficiently high standing may graduate with departmental distinction by pursuing a rigorous independent research project under the direction of a faculty sponsor. The research will occur while enrolled in ECO 4398. The project will be presented to the faculty sponsor and director of undergraduate studies at the end of the term.

## Economics with Finance Applications, B.S.

This B.S. degree combines specialized training in economics with a concentration in areas significant to financial markets. It is particularly suited to those seeking a career in the financial sector. All advanced economics courses must have the ECO prefix with the exception of FINA 3320, FINA 3330, and FINA 4326, which substitutes for ECO 4368, ECO 3355, and ECO 4378, respectively.

Note: Any 5000- or 6000-level courses taken to complete an approved economic field may also be used to satisfy the requirement for the B.S. degree of at least six hours at the 5000 or above level.

## Requirements for the Major

## Economics (12 Credit Hours)

- ECO 1311 - Principles of Microeconomics: Consumers, Firms, and Markets
- ECO 1312 - Principles of Macroeconomics: Inflation, Recession, and Unemployment
- ECO 3301 - Price Theory (Intermediate Microeconomics)
- ECO 3302 - Intermediate Macroeconomics


## Financial Economics (9 Credit Hours)

- ECO 3355 - Money and Banking
- ECO 4368 - Foundations of Financial Economics
- ECO 4378 - Financial Economics and Investment Behavior or
- FINA 3320 - Financial Management
- FINA 3330 - Money and Capital Markets
- FINA 4326 - Investment Analysis and Portfolio Management (Cox majors only)


## Mathematics and Statistics (6 Credit Hours)

- MATH 1309 - Introduction to Calculus for Business and Social Science or
- MATH 1337 - Calculus I
- STAT 2331 - Introduction to Statistical Methods or
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists


## Computer Science and Engineering (3 Credit Hours)

- CSE 1340 - Introduction to Computing Concepts or
- CSE 1341 - Principles of Computer Science or
- ITOM 3306- Operations Management (for business majors/ minors only)


## Accounting (3 Credit Hours)

- ACCT 2301 - Introduction to Financial Accounting
- ACCT 2302 - Introduction to Managerial Accounting (recommended)


## Advanced Electives (18 Credit Hours)

Six courses from the list below, with at least 6 hours at the 5000 level or above.

At least one of the approved subfields listed above in "Notes for All B.S. in Economics Majors" must be satisfied by the advanced economics courses selected.

- ECO 4301 - Topics
- ECO 4345 - Ethics in Economics
- ECO 4351 - Labor Economics
- ECO 4355 - Environmental Economics
- ECO 4357 - International Trade
- ECO 4358 - International Macroeconomic Theory and Policy
- ECO 4361 - Economics of Education
- ECO 4365 - State and Local Government
- ECO 4371 - Theory of Industrial Structure
- ECO 4376 - Special Topics in Economic History and Development
- ECO 4382 - Economics of Regulated Industries
- ECO 4385 - Macroeconomics: Theory and Policy
- ECO 4386 - Topics in Monetary Economics
- ECO 4390 - Independent Study in Economics
- ECO 4398 - Departmental Distinction in Economics
- ECO 5301 - Topics
- ECO 5320 - Health Economics
- ECO 5340 - Decision-Making Under Uncertainty
- ECO 5341 - Strategic Behavior
- ECO 5342 - Experimental and Behavioral Economics
- ECO 5350 - Introductory Econometrics
- ECO 5353 - Law and Economics
- ECO 5357 - Economics of Human Resources
- ECO 5360 - Economic Development: Macroeconomic Perspectives
- ECO 5362 - Economic Growth
- ECO 5366 - Federal Government Taxation
- ECO 5365 - Federal Government Expenditures
- ECO 5375 - Economic and Business Forecasting
- ECO 6352 - Applied Econometrics
- ECO 6380 - Predictive Analytics


## Total: 51 Credit Hours

## Economics, B.A.

The B.A. degree in economics is designed primarily for students who want a liberal arts education with an emphasis on economics but with great breadth. All advanced economics courses must have the ECO prefix, with the exception of FINA 3320, FINA 3330 and FINA 4326.

## Requirements for the Major

## Economics (12 Credit Hours)

- ECO 1311 - Principles of Microeconomics: Consumers, Firms, and Markets
- ECO 1312 - Principles of Macroeconomics: Inflation, Recession, and Unemployment
- ECO 3301 - Price Theory (Intermediate Microeconomics)
- ECO 3302 - Intermediate Macroeconomics


## Mathematics and Statistics (6 Credit Hours)

- MATH 1309 - Introduction to Calculus for Business and Social Science or
- MATH 1337 - Calculus I
- STAT 2331 - Introduction to Statistical Methods or
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists


## Advanced Electives (18 Credit Hours)

Six courses from the list below:

- ECO 3355 - Money and Banking
- ECO 4301 - Topics
- ECO 4345 - Ethics in Economics
- ECO 4351 - Labor Economics
- ECO 4355 - Environmental Economics
- ECO 4357 - International Trade
- ECO 4358 - International Macroeconomic Theory and Policy
- ECO 4361 - Economics of Education
- ECO 4365 - State and Local Government
- ECO 4368 - Foundations of Financial Economics
- ECO 4371 - Theory of Industrial Structure
- ECO 4376 - Special Topics in Economic History and Development
- ECO 4378 - Financial Economics and Investment Behavior
- ECO 4382 - Economics of Regulated Industries
- ECO 4385 - Macroeconomics: Theory and Policy
- ECO 4386 - Topics in Monetary Economics
- ECO 4390 - Independent Study in Economics
- ECO 4398 - Departmental Distinction in Economics
- ECO 5301 - Topics
- ECO 5320 - Health Economics
- ECO 5340 - Decision-Making Under Uncertainty
- ECO 5341 - Strategic Behavior
- ECO 5342 - Experimental and Behavioral Economics
- ECO 5350 - Introductory Econometrics
- ECO 5353 - Law and Economics
- ECO 5357 - Economics of Human Resources
- ECO 5360 - Economic Development: Macroeconomic Perspectives
- ECO 5362 - Economic Growth
- ECO 5365 - Federal Government Expenditures
- ECO 5366 - Federal Government Taxation
- ECO 5375 - Economic and Business Forecasting
- ECO 6352 - Applied Econometrics
- ECO 6380 - Predictive Analytics
- FINA 3320 - Financial Management
- FINA 3330 - Money and Capital Markets
- FINA 4326 - Investment Analysis and Portfolio Management (Cox majors only)


## Total: 36 Credit Hours

## Economics, B.S.

The B.S. degree in economics offers more specialized training in economics and provides a firm basis for graduate study in business, economics or law. All advanced economics courses must have the ECO prefix with the exception of FINA 3320, FINA 3330, and FINA 4326.

Note: Any 5000- or 6000-level courses taken to complete an approved economic field may also be used to satisfy the requirement for the B.S. degree of at least six hours at the 5000 level or above.

## Requirements for the Major

## Economics (12 Credit Hours)

- ECO 1311 - Principles of Microeconomics: Consumers, Firms, and Markets
- ECO 1312 - Principles of Macroeconomics: Inflation, Recession, and Unemployment
- ECO 3301 - Price Theory (Intermediate Microeconomics)
- ECO 3302 - Intermediate Macroeconomics


## Mathematics and Statistics (9 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II

One from the following:

- STAT 2331 - Introduction to Statistical Methods
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists


## Econometrics (3 Credit Hours)

- ECO 5350 - Introductory Econometrics


## Advanced Electives (21 Credit Hours)

(seven courses from the list below, with at least 3 hours at the 5000 level or above)
At least one of the approved subfields listed in "Notes for All B.S. in Economics Majors" must be satisfied by the advanced economics courses selected.

- ECO 3355 - Money and Banking
- ECO 4301 - Topics
- ECO 4345 - Ethics in Economics
- ECO 4351 - Labor Economics
- ECO 4355 - Environmental Economics
- ECO 4357 - International Trade
- ECO 4358 - International Macroeconomic Theory and Policy
- ECO 4361 - Economics of Education
- ECO 4365 - State and Local Government
- ECO 4368 - Foundations of Financial Economics
- ECO 4371 - Theory of Industrial Structure
- ECO 4376 - Special Topics in Economic History and Development
- ECO 4378 - Financial Economics and Investment Behavior
- ECO 4382 - Economics of Regulated Industries
- ECO 4385 - Macroeconomics: Theory and Policy
- ECO 4386 - Topics in Monetary Economics
- ECO 4390 - Independent Study in Economics
- ECO 4398 - Departmental Distinction in Economics
- ECO 5301 - Topics
- ECO 5320 - Health Economics
- ECO 5340 - Decision-Making Under Uncertainty
- ECO 5341 - Strategic Behavior
- ECO 5342 - Experimental and Behavioral Economics
- ECO 5350 - Introductory Econometrics
- ECO 5353 - Law and Economics
- ECO 5357 - Economics of Human Resources
- ECO 5360 - Economic Development: Macroeconomic Perspectives
- ECO 5362 - Economic Growth
- ECO 5365 - Federal Government Expenditures
- ECO 5366 - Federal Government Taxation
- ECO 5375 - Economic and Business Forecasting
- ECO 6352 - Applied Econometrics
- ECO 6380 - Predictive Analytics
- FINA 3320 - Financial Management (Cox Majors only)
- FINA 3330 - Money and Capital Markets (Cox Majors only)
- FINA 4326 - Investment Analysis and Portfolio Management (Cox majors only)

Total: 45 Credit Hours

## Economics, B.S., Management Information Applications Concentration

This concentration within the B.S. degree combines specialized training in economics, econometrics and management information systems in areas important to the study of big data. In order to take any upper-level EMIS classes, students must complete the subset requirements of the EMIS department, which include EMIS 1360 (students are limited to a maximum of two enrollments in this course), MATH 1337 and MATH 1338, DISC 1312/DISC 2305 and DISC 1313/DISC 2306 or equivalent, and CSE 1341 and CSE 1342, with a 3.000 average subset GPA and a C or better in each subset course. All advanced economics courses must have the ECO prefix with the exception of FINA 3320, FINA 3330, and FINA 4326.

Note: Any 5000- or 6000-level courses taken to complete an approved economic field may also be used to satisfy the requirement for the B.S. degree of at least six hours at the 5000 level or above.

## Requirements for the Major

## Economics (12 Credit Hours)

- ECO 1311 - Principles of Microeconomics: Consumers, Firms, and Markets
- ECO 1312 - Principles of Macroeconomics: Inflation, Recession, and Unemployment
- ECO 3301 - Price Theory (Intermediate Microeconomics)
- ECO 3302 - Intermediate Macroeconomics


## Econometrics (6 Credit Hours)

- ECO 5350 - Introductory Econometrics

At least one from the following:

- ECO 5375 - Economic and Business Forecasting
- ECO 6352 - Applied Econometric Analysis
- ECO 6380 - Predictive Analytics for Economics


## Engineering (18 Credit Hours)

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- EMIS 1360 - Introduction to Management Science
- EMIS 2360 - Engineering Economy
- EMIS 3360-Operations Research
- EMIS 3340 - Statistical Methods for Engineering and Applied Scientists or
- CSE 4340/STAT 4340 - Statistical Methods for Engineers and Applied Scientists


## Mathematics and Statistics (9 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3304 - Introduction to Linear Algebra
- STAT 6307 (recommended)


## Advanced Electives (15 Credit Hours)

(five courses from the list below, with at least 6 hours at the 5000 level or above)
At least one of the approved subfields listed above in "Notes for All B.S. in Economics Majors" must be satisfied by the advanced economics courses selected.

- ECO 3355 - Money and Banking
- ECO 4301 - Topics
- ECO 4345 - Ethics in Economics
- ECO 4351 - Labor Economics
- ECO 4355 - Environmental Economics
- ECO 4357 - International Trade
- ECO 4358 - International Macroeconomic Theory and Policy
- ECO 4361 - Economics of Education
- ECO 4365 - State and Local Government
- ECO 4368 - Foundations of Financial Economics
- ECO 4371 - Theory of Industrial Structure
- ECO 4376 - Special Topics in Economic History and Development
- ECO 4378 - Financial Economics and Investment Behavior
- ECO 4382 - Economics of Regulated Industries
- ECO 4385 - Macroeconomics: Theory and Policy
- ECO 4386 - Topics in Monetary Economics
- ECO 4390 - Independent Study in Economics
- ECO 4398 - Departmental Distinction in Economics
- ECO 5301-Topics
- ECO 5320 - Health Economics
- ECO 5340 - Decision-Making Under Uncertainty
- ECO 5341 - Strategic Behavior
- ECO 5342 - Experimental and Behavioral Economics
- ECO 5353 - Law and Economics
- ECO 5357 - Economics of Human Resources
- ECO 5360 - Economic Development: Macroeconomic Perspectives
- ECO 5362 - Economic Growth
- ECO 5365 - Federal Government Expenditures
- ECO 5366 - Federal Government Taxation
- ECO 5375 - Economic and Business Forecasting
- FINA 3320 - Financial Management
- FINA 3330 - Money and Capital Markets
- FINA 4326 - Investment Analysis and Portfolio Management (Cox majors only)

Total: 60 Credit Hours

## Economics Minor

Students majoring in other departments may obtain a minor in economics. Students must have a GPA of at least 2.000 in economics courses attempted and must receive at least a grade of C - in all classes counting toward the minor. Nonlecture classes (including ECO 4390 and ECO 4398) cannot be used toward an economics minor. All advanced economics courses must have the ECO prefix; no substitutions are allowed. Students may obtain either a general minor in economics or a minor in a specialized field (international economics, public economics, labor economics, economic growth and development, econometrics, monetary economics, economics of industrial organization, or economics of decision-making). The specialization may be obtained if six hours of 4000- and 5000-level courses constitute one of the above eight fields currently approved by the Economics Department.

## Requirements for the Minor

## Economics (12 Credit Hours)

- ECO 1311 - Principles of Microeconomics: Consumers, Firms, and Markets
- ECO 1312 - Principles of Macroeconomics: Inflation, Recession, and Unemployment
- ECO 3301 - Price Theory (Intermediate Microeconomics)
- ECO 3302 - Intermediate Macroeconomics


## Mathematics and Statistics (6 Credit Hours)

- MATH 1309 - Introduction to Calculus for Business and Social Science or
- MATH 1337 - Calculus I
- STAT 2331 - Introduction to Statistical Methods or
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists


## Advanced Electives (6 Credit Hours)

Two courses from the list below:

- ECO 4301 - Topics
- ECO 4345 - Ethics in Economics
- ECO 4351 - Labor Economics
- ECO 4355 - Environmental Economics
- ECO 4357 - International Trade
- ECO 4358 - International Macroeconomic Theory and Policy
- ECO 4361 - Economics of Education
- ECO 4365 - State and Local Government
- ECO 4368 - Foundations of Financial Economics
- ECO 4371 - Theory of Industrial Structure
- ECO 4376 - Special Topics in Economic History and Development
- ECO 4378 - Financial Economics and Investment Behavior
- ECO 4382 - Economics of Regulated Industries
- ECO 4385 - Macroeconomics: Theory and Policy
- ECO 4386 - Topics in Monetary Economics
- ECO 4390 - Independent Study in Economics
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- ECO 5360 - Economic Development: Macroeconomic Perspectives
- ECO 5362 - Economic Growth
- ECO 5365 - Federal Government Expenditures
- ECO 5366 - Federal Government Taxation
- ECO 5375 - Economic and Business Forecasting
- ECO 6352 - Applied Econometrics
- ECO 6380 - Predictive Analytics


## Total: 24 Credit Hours

## Courses:

## ECO 1311 - Principles of Microeconomics: Consumers, Firms, and Markets

Credits: 3
Explains tools of economic analysis and focuses on the individual participants in the economy: producers, workers, employers, and consumers.

ECO 1312 - Principles of Macroeconomics: Inflation, Recession, and Unemployment

Credits: 3
Covers inflation, unemployment, and growth from both national and global perspectives. Tools of economic analysis include models of open economies. Prerequisite: C- or better in ECO 1311.

ECO 2301-Topics in Economics
Credits: 3
Topics vary. The course may not be used to satisfy requirements for either an economics major or minor. Prerequisite: ECO 1310, ECO 1311, or ECO 1312.

## ECO 3301 - Price Theory (Intermediate Microeconomics)

## Credits: 3

Building on topics covered in ECO 1311, this course considers problems of microeconomics that are more advanced, with a focus on understanding how consumers behave, firms make pricing and output decisions, and market structure impacts the behavior of firms and consumers. Prerequisites: C- or better in the following: ECO 1311, ECO 1312 and MATH 1309 or MATH 1337.

## ECO 3302 - Intermediate Macroeconomics

Credits: 3
Investigates the factors that influence the level of aggregate income in an economy and the decision-making that ultimately results in the determination of levels of consumption, investment, or employment. Students analyze the impact of various government fiscal policies (using general equilibrium models) and the behavior of business cycles and patterns across various countries. Prerequisites: ECO 1311, ECO 1312, ECO 3301 and MATH 1309 or MATH 1337.

## ECO 3311 - Topics in Economics

Credits: 3
Topics vary. Prerequisites: ECO 1311 and ECO 1312.

## ECO 3321 - International Economic Policy

Credits: 3
Examines the facts and theories of international trade and finance. Emphasis is placed on analyzing current issues such as the U.S. trade deficit, policies toward multinational firms, and harmonization of fiscal and monetary policies among countries. This course may not be used to satisfy requirements for either an economics major or minor. Prerequisites: C- or better in ECO 1311, ECO 1312. Note: ECO 3321 cannot be taken after or concurrent with ECO 4357.

## ECO 3355 - Money and Banking

Credits: 3
Analyzes central and commercial banking. A student may not receive credit for both ECO 3355 and FINA 3330.
Prerequisites: C- or better in ECO 1311, ECO 1312. Reserved for economics majors and markets and cultures majors only.

## ECO 4101 - Topics

Credits: 1
Topics vary. Prerequisites: C- or better in ECO 3301 and ECO 3302, or permission of instructor.

## ECO 4110 - Economics Practicum

## Credits: 1

This advanced economics internship credit course requires weekly journal entries reflecting student experience.
Prerequisites: ECO 3301, ECO 3302; two advanced economics classes ( 4000 level or above); a 3.000 GPA in economics classes; STAT 2301, STAT 2331, or STAT 4340; and approval of the director of undergraduate studies.

## ECO 4201-Topics

Credits: 2
Topics vary. Prerequisites: C- or better in ECO 3301 and ECO 3302, or permission of instructor.

## ECO 4301 - Topics

Credits: 3
Topics vary. Prerequisites: C- or better in ECO 3301, ECO 3302 or permission of instructor.

## ECO 4340-Cultural Economics

## Credits: 3

Introduces the field of cultural economics, with a focus on welfare valuations, valuation of nonmarket goods, and intellectual property. Prerequisites: C- or better in ECO 3301; STAT 2301, STAT 2331, or STAT 4340.

## ECO 4345 - Ethics in Economics

## Credits: 3

An explanation of historical and current perspectives of how societies and economies function. Prerequisites: C- or better in ECO 3301; STAT 2301, STAT 2331, or STAT 4340.

## ECO 4351 - Labor Economics

## Credits: 3

An overview of labor supply and labor demand models, with extensions to models of taxes and tax credits, welfare, and Social Security. Also, models of wage determination and extensions such as the effects of minimum wage, performancebased pay, unions, and discrimination. Prerequisites: C- or better in the following: ECO 3301 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 4355 - Environmental Economics

## Credits: 3

Provides insights into why environmental damages and degradation arise, and how such market failures may be addressed. Prerequisites: C- or better in ECO 1311, ECO 1312, ECO 3301, and ECO 3302.

## ECO 4357 - International Trade

## Credits: 3

Examines international trade in goods and services among countries and develops a framework for analyzing trade policy issues. The course covers only the real effects of trade and not international financial issues. Prerequisites: C - or better in the following: ECO 3301 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 4358 - International Macroeconomic Theory and Policy

## Credits: 3

Explores implications of contemporary banking and foreign exchange practices, with a focus on the macroeconomic interactions among national economies and international systematic adjustments expected from market disturbances and shifting government policies. Students evaluate the operation of the international monetary system from the gold-standard period to the present. Prerequisites: C- or better in the following: ECO 3301, ECO 3302 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 4361 - Economics of Education

## Credits: 3

An economic analysis of the state of the U.S. educational system. Topics include trends in academic achievement, educational production functions, teacher labor markets, and educational reforms. Prerequisites: C- or better in the following: ECO 3301 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 4365 - State and Local Government

## Credits: 3

Examines how state and local governments make decisions about what services to provide their constituents and how to finance those services. Prerequisites: C- or better in the following: ECO 3301 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 4368 - Foundations of Financial Economics

## Credits: 3

Applies the tools of economic analysis to financial decision-making. Emphasis is placed on developing a framework for understanding the problems and solutions associated with the economic nature of finance. Students may not receive credit for this course and FINA 3320. Prerequisites: C- or better in the following: ECO 3301, ECO 3355; ACCT 2301; and ITOM 2305 or STAT 2301, STAT 2331, or STAT 4340. Reserved for economics majors and minors only.

## ECO 4371- Theory of Industrial Structure

## Credits: 3

A focus on the structure and behavior of firms in the marketplace. The course considers both the exercise of market power in relatively simple markets with a single firm as well as the more complicated exercise of market power in markets with multiple firms. Prerequisites: C- or better in the following: ECO 3301 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 4376 - Special Topics in Economic History and Development

Credits: 3
Economic principles are used to explore important and controversial questions. Prerequisite: C- or better in the following: ECO 3301 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 4378 - Financial Economics and Investment Behavior

## Credits: 3

Gives a theoretical basis for financial analysis within the context of the total process of investment decision-making, and develops the theoretical foundations for analysis of equities, bonds, and portfolio performance. Prerequisites: Permission of instructor, or ECO 4368 or FINA 3320 and C- or better in ECO 3301 and in ITOM 2305 or STAT 2301, STAT 2331, or STAT 4340. Reserved for economics majors and minors. (ECO 4378 cannot be taken if the student has taken FINA 4320 or FINA 4326.)

## ECO 4382 - Economics of Regulated Industries

Credits: 3
Examines why government regulation of business exists and what impact it has on firms' behavior, market structure, and social welfare. Prerequisites: C- or better in the following: ECO 3301 and STAT 2301, STAT 2331, or STAT 4340.

ECO 4385 - Macroeconomics: Theory and Policy

## Credits: 3

Examines new developments in the analysis of business cycles, the causes and consequences of inflation, and the sources of economic growth. Prerequisites: C- or better in the following: ECO 3301, ECO 3302 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 4386 - Topics in Monetary Economics

Credits: 3
An in-depth look at selected topics of current interest in the field of monetary theory and policy. The topics covered vary from year to year. Prerequisites: C- or better in the following: ECO 3301, ECO 3302 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 4390 - Independent Study in Economics

## Credits: 3

By arrangement with departmental director of undergraduate studies. Eligible students undertake a research paper under the supervision of the faculty sponsor and give an oral presentation of the paper. Note: This course can only be taken once. Prerequisites: ECO 3301, ECO 3302, two advanced economics classes ( 4000 level or above), 2.500 GPA in economics classes, and one of the following: STAT 2301, STAT 2331, or STAT 4340.

## ECO 4398 - Departmental Distinction in Economics

## Credits: 3

By arrangement with departmental director of undergraduate studies. Eligible students undertake a research paper under the supervision of a faculty sponsor and give an oral presentation of the paper. Prerequisites: ECO 3301, ECO 3302, two advanced economics courses ( 4000 level or above), 3.700 GPA in economics classes, 3.500 GPA overall, senior standing, and one of the following: STAT 2301, STAT 2331, or STAT 4340.

## ECO 5101-Topics

Credits: 1
Topics vary. Prerequisites: C- or better in the following: ECO 3301, ECO 3302 and STAT 2301, STAT 2331, or STAT 4340.

ECO 5201-Topics

Credits: 2
Topics vary. Prerequisites: C- or better in the following: ECO 3301, ECO 3302 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 5301 - Topics

Credits: 3
Topics vary. Prerequisites: Graduate standing or C- or better in the following: ECO 3301, ECO 3302 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 5320 - Health Economics

## Credits: 3

An introduction to the economics of health and health care policies and how they have affected the structure, function, and cost-effectiveness of the health care industry, principally in the United States. Prerequisite: C- or better in ECO 3301.

## ECO 5340 - Decision-Making Under Uncertainty

## Credits: 3

Provides a basis for the modeling of decision-making under conditions of incomplete information. Prerequisites: C- or better in the following: ECO 3301, ECO 3302 and STAT 2301, STAT 2331, or 2340.

## ECO 5341 - Strategic Behavior

## Credits: 3

Introduces the basic concepts and tools of game theory, with applications to various areas of economics. The various topics are unified by the techniques employed for determining the outcome in particular situations. Prerequisites: Graduate standing or C- or better in the following: ECO 3301 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 5342 - Experimental and Behavioral Economics

## Credits: 3

Students study the field of behavioral economics in which the underlying assumptions of economics models are tested using experimental techniques. Guided by behavioral regularities, new models of behavior are introduced. Prerequisite: C- or better in ECO 3301. Recommended: ECO 5341, ECO 5350.

## ECO 5350 - Introductory Econometrics

## Credits: 3

The basic concepts of econometrics and, in particular, regression analysis, with topics geared to first-time regression users. Students may not receive credit for this course and STAT 5350. Prerequisites: Graduate standing or C- or better in the following: MATH 1309 or MATH 1337; ECO 3301; and ITOM 2305 or STAT 2301, STAT 2331, or STAT 4340.

## ECO 5353 - Law and Economics

Credits: 3
Examines economic theories that explain the development of common law and constitutional law and the economic
implications of contracts, antitrust laws, and liability rules. Prerequisites: Graduate standing or C- or better in the following: ECO 3301 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 5357 - Economics of Human Resources

## Credits: 3

Examines several topics of interest to modern labor economists. The course is equally devoted to theoretical modeling and the interpretation of empirical evidence, and to the analysis of policies such as education subsidies, unemployment insurance, the minimum wage, and immigration restrictions. Prerequisites: Graduate standing or C- or better in the following: ECO 3301 and STAT 2301, STAT 2331, or STAT 4340. ECO 4351 is recommended.

## ECO 5360 - Economic Development: Macroeconomic Perspectives

Credits: 3
A macroeconomic examination of the economic issues faced by developing countries. Topics include population growth, national savings, capital accumulation, human capital formation, government institutions, and international integration.
Prerequisites: Graduate standing or C- or better in the following: ECO 3302 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 5362 - Economic Growth

Credits: 3
Examines the facts and theories of economic growth, the economics of technological changes, and the role of governments and markets in promoting or impeding economic development. Prerequisites: Graduate standing or C - or better in the following: ECO 3301, ECO 3302 and STAT 2301, STAT 2331, or STAT 4340.

## ECO 5365 - Federal Government Expenditures

## Credits: 3

Focuses on theoretical principles useful for analyzing the role of government intervention. Topics may vary from year to year. Prerequisites: C- or better in ECO 3301, MATH 1309, or MATH 1337, and one of the following: STAT 2301, 2331, or 4340.

## ECO 5366 - Federal Government Taxation

## Credits: 3

Develops principles to be used when evaluating a specific tax and uses them to investigate specific federal revenue sources such as taxes on personal and corporate income. Prerequisites: C- or better in ECO 3301, MATH 1309, or MATH 1337, and one of the following: STAT 2301, 2331, or 4340. Recommended: ECO 3302.

ECO 5375 - Economic and Business Forecasting

## Credits: 3

Presentation of methods used by economists to forecast economic and business trends and ways of evaluating the usefulness of these methods. Students may not receive credit for this course and STAT 4375. Prerequisites: C- or better in the following: STAT 2301, STAT 2331; or STAT 4340; or ITOM 2305 and ECO 5350.

## English

www.smu.edu/english

## Professor Darryl Dickson-Carr, Department Chair

Professors: Darryl Dickson-Carr, Thomas DiPiero, Dennis Foster, Ezra Greenspan, David Haynes, Ross Murfin, Jasper Neel, Rajani Sudan, Steven Weisenburger
Associate Professors: Angela Ards, Richard Bozorth, Greg Brownderville, Michael Holahan, Daniel Moss, Beth Newman, Timothy Rosendale, Jayson Gonzales Sae-Saue, Nina Schwartz, Lisa Siraganian, Bonnie Wheeler
Assistant Professors: Timothy Cassedy, Jacob Rubin, Martha Satz
Professors of Practice: Carol Dickson-Carr, Angela Wood
Senior Lecturers: Diana Grumbles Blackman, Jo Goyne, Vanessa Hopper, Pamela Lange, Bruce Levy
Lecturers: Stephanie Amsel, Joan Arbery, Marta Harvell, Mary Catherine Mueller, Pauline Newton, Patricia
Pisano, Kristen Polster, Ona Seaney, Emily Sharma, Sam Ross Sloan, Lori Ann Stephens

## General Information

The B.A. in English offers a rich intellectual experience through the study of American, British and other literature written in English. The course of study engages with contemporary modes of literary inquiry in order to arrive at an understanding of how language, culture and society work. At the same time, it emphasizes the aesthetic, emotional and intellectual pleasures of imaginative writing. The degree is appropriate for students who wish to obtain a broad liberal education as a foundation for careers or further study, and is especially recommended as preprofessional training for fields such as law, administration, and business that require high proficiency in written and oral communication and in analytical thinking.

## Departmental Distinction

This program is open to seniors by invitation. To enter the program, a student ordinarily must earn an overall GPA of at least 3.000 by the middle of the junior year, and a 3.500 average or better in courses fulfilling requirements for the major. Candidates for distinction must take ENGL 5310 in the fall of the senior year. Candidates completing ENGL 5310 with a grade of $B+$ or better will then choose from the following options: ENGL 5381 (culminating in a senior thesis); or a graduate pro-seminar in English numbered 6320-6380 (requires permission of instructor); or (for creative writing specialists only) ENGL 4394. Candidates must earn a $B+$ or better in the option selected, and attain a 3.500 GPA in all courses counting toward the major and distinction. ENGL 4394, ENGL 5381 and ENGL 5310 may not be used to satisfy the 12 hours required in 4000level courses. A minimum of 36 hours is required to graduate with departmental distinction.

## English, B.A.

A grade of $C$ - or better must be earned in all courses fulfilling major requirements, and English majors must attain a minimum GPA of 2.000 among all courses attempted for the major.

The department strongly recommends 12 hours of world language for all English majors. Students expecting to undertake graduate study in English should be advised that graduate schools require knowledge of at least one world language.

Secondary-school certification candidates must fulfill the departmental requirements described above. They should consult the departmental advisers on teacher training about further nondepartmental requirements for certification. (Revisions of these requirements may be mandated by the State of Texas; candidates should be alert to the possibilities of changes.)

The major requires a minimum of 33 hours of English courses, including no more than 12 hours at the 2000 level and below (of these hours, no more than three hours at the 1000 level) and at least 12 hours of 4000 level courses, distributed as follows:

## Requirements for the Major

Core Courses (6 Credit Hours)

- ENGL 2311 - Poetry
or
- ENGL 2314 - Doing Things With Poems
- ENGL 2315 - Introduction to Literary Study


## Reading Historically (12 Credit Hours)

One course at the 3000 or 4000 level from each group:

- Medieval Literature
- Early Modern Literature
- Literature in the Age of Revolutions
- Modern to Contemporary Literature

Criticism and Theory (3 Credit Hours)

- ENGL 3310 - Contemporary Approaches to Literature, Language, and Culture or
- ENGL 4310 - Studies in Literary Theory and Criticism


## Major Electives (12 Credit Hours)

## Total: 33 Credit Hours

## Notes

- The following courses are not acceptable as major electives: ENGL 1300, ENGL 1400, and ENGL 2302.
- CLAS 3312 - Classical Rhetoric may be counted as an English major elective.
- Creative writing courses at the 4000 level do not fulfill the 4000 -level literature requirement.


## English, B.A., Creative Writing Specialization

Students pursuing an English major with a creative writing specialization must fulfill all requirements for the English major. All 12 elective hours within the regular major will be devoted to courses selected from the following list: ENGL 2390, ENGL 3390, ENGL 4390. Students requiring additional terms to complete culminating projects may register for ENGL 4394. No more than 12 of these hours will be credited toward the requirements for the major, though additional English courses of all kinds are encouraged.

## Requirements for the Specialization

Core Courses (6 Credit Hours)

- ENGL 2311 - Poetry
or
- ENGL 2314 - Doing Things With Poems
- ENGL 2315 - Introduction to Literary Study


## Reading Historically (12 Credit Hours)

One course at the 3000 or 4000 level from each group:

- Medieval Literature
- Early Modern Literature
- Literature in the Age of Revolutions
- Modern to Contemporary Literature

Criticism and Theory (3 Credit Hours)

- ENGL 3310 - Contemporary Approaches to Literature, Language, and Culture or
- ENGL 4310 - Studies in Literary Theory and Criticism


## Creative Writing (12 Credit Hours)

- ENGL 2390 - Introduction to Creative Writing
- ENGL 4390 - Advanced Studies in Creative Writing

Two courses from two categories of the following:

- ENGL 3390 (Studies: thematic)
- ENGL 3390 (Studies: experiential)
- ENGL 3390 (Studies: craft)

Total: 33 Credit Hours

## English Minor

The minor in English, which is available to students who are not pursing a major in English or major in English with creative writing, requires 15 hours of coursework with no more than six of them in courses numbered below 3000. A grade of $C$ - or better must be earned in each course taken to fulfill the requirement for the English minor.

## Requirements for the Minor

## Core Courses (3 Credit Hours)

- ENGL 2311 - Poetry
or
- ENGL 2314 - Doing Things With Poems
or
- ENGL 2315 - Introduction to Literary Study


## Minor Electives (12 Credit Hours)

No more than one below the 3000 level.

## Total: 15 Credit Hours

Note: ENGL 1300, ENGL 1400, and ENGL 2302 may not be used to fulfill minor requirements.

## Courses:

The courses are numbered by the final two digits as follows.

| Expository Writing (00-09) | DISC 1311, 1312, 1313, 2305, 2306 ENGL 1300, 1400, 2306, 2406, 3301, 3305, 3308, 5301, 5309 |
| :---: | :---: |
| Genre, Method, Criticism (10-19) | ENGL 2310-15, 3310, 4310, 5310 |
| Medieval, c. pre-1500 (20-29) | ENGL 1320, 3320, 3329, 4320, 4321, 4323 |
| Early Modern, c. 1500-1775 (30-39) | ENGL 1330, 3330-32, 3335, 4330-33, 4336, 4339 |
| Age of Revolutions, c. 1775-1900 (4049) | $\begin{aligned} & \text { ENGL 3340, 3341, 3344-48, 4340, 4341, 4343, 4345, 4346, } \\ & 4349 \end{aligned}$ |
| Modern to Contemporary, c. 1990present (50-69) | ENGL 1360, 1362, 1363, 1365, 2361, 3350, 3354, 3355, 3359, 3360, 3362-69, 4350, 4351, 4356, 4360, 4369 |
| Other Literature/Language Courses (7089) | $\begin{aligned} & \text { ENGL 1370, 1380, 1385, 2371, 3189, 3370, 3371, 3373-85, 3389, } \\ & 4370,5378,5381 \end{aligned}$ |
| Creative Writing (90-99) | ENGL 2390, 3390, 4390, 4394 |

## ENGL 1300 - Foundations for Rhetoric

Credits: 3
Writing paragraphs and short, analytic, thesis-directed essays in response to texts. Work on reading comprehension, principles of effective sentence construction, and punctuation.

## ENGL 1301 - Rhetoric I: Introduction to College Writing

## Credits: 3

The aims and processes of analytical-argumentative discourse. Understanding and evaluating sources. Use of MLA style. Students must earn C- or better.

## ENGL 1302 - Rhetoric II: First-Year Seminar in Rhetoric, Contemporary Issues

## Credits: 3

Introduction to public intellectual life through inquiry into texts and discursive art. Multidisciplinary and multicultural. Analytical-argumentative writing. Research and oral communication components. Students must earn C- or better. Prerequisite: ENGL 1301.

## ENGL 1305 - Perspectives of Thought

## Credits: 3

Focuses on analytical writing while exploring major modes of interpreting the world and defining what constitutes knowledge in the 21st century. Restricted: Sections available for Hilltop Scholars and New Century Scholars placing out of ENGL 1301. Departmental consent required.

ENGL 1320-Cultures of Medieval Chivalry

## Credits: 3

The development of the ideal of chivalry from its origins in the medieval legends of King Arthur to modern literature.

## ENGL 1330 - The World of Shakespeare

Credits: 3
Introductory study of eight or nine of Shakespeare's important plays, placed in historical, intellectual, and cultural contexts.

## ENGL 1360 - The American Heroine

Credits: 3
Images of the American heroine in popular and traditional literature, studied in terms of their reflection of the evolving roles of American women.

## ENGL 1362 - Crafty Worlds

Credits: 3
An introductory study of selected 20th-century novels emphasizing both ideas of modernity and the historical or cultural contexts that generate these ideas.

## ENGL 1363 - The Myth of the American West

Credits: 3
The myth and reality of the American West as seen through key works of history, folklore and fiction, including study of the serious Western novel and the subliterary Western.

ENGL 1365-Literature of Minorities

## Credits: 3

Representative works of African-American, Asian-American, gay, Hispanic-American, and Native American literature, in their immediate cultural context and against the background of the larger American culture

ENGL 1370 - Tragedy and the Family

Credits: 3
The study of individual tragedies and kindred texts in various genres and from various periods.

## ENGL 1372 - English Studies Abroad

Credits: 3
SMU credit for English courses taken in University-approved programs abroad. Departmental consent required.

## ENGL 1380 - Introduction to Literature

Credits: 3
An introduction to the study of literature including a range of literary genres and periods, varying by term.

## ENGL 1385 - Power, Passion, and Protest in British Literature

Credits: 3
A survey of the history of British literature, from its medieval beginnings to the 20th century, with emphasis on literature as an instrument of power and desire.

## ENGL 1400 - Developmental Reading and Writing

Credits: 4
Students will receive explicit, systematic instruction in reading comprehension and apply fundamental reading skills to narrative and expository texts as well as to coordinated writing assignments of varying lengths.

ENGL 2102 - Spreadsheet Literacy: Excel for Students in the Humanities and Natural and Social Sciences

## Credits: 1

An introduction to Excel as it is commonly used in the workplace. Students will learn to organize and analyze data, use and link worksheets, create tables and charts, and communicate results of their analyses in clear, readable prose.

ENGL 2302 - Business Writing

## Credits: 3

Introduction to business and professional communication, including a variety of writing and speaking tasks, and the observation and practice of rhetorical strategies, discourse conventions, and ethical standards associated with workplace culture. Prerequisite: DISC 1312 or DISC 2305.

## ENGL 2306 - Honors Humanities Seminar II

Credits: 3
A study of ethical questions derived from history, literature, psychology, and philosophy that focuses on what constitutes a meaningful life. The course also explores historical challenges to the bases of ethics. Prerequisite: DISC 2305.

## ENGL 2310 - Imagination and Interpretation

Credits: 3
An introduction to literary studies based on topics that vary from term to term.

## ENGL 2311 - Poetry

Credits: 3
Analysis, interpretation, and appreciation of poetry, with attention to terms and issues relevant to the genre.

## ENGL 2312 - Fiction

Credits: 3
Analysis, interpretation, and appreciation of fiction, with attention to terms and issues relevant to the genre. Prerequisite or corequisite: ADV 1300.

ENGL 2313 - Drama

Credits: 3
Analysis, interpretation, and appreciation of dramatic works, with attention to terms and issues relevant to the genre.

## ENGL 2314 - Doing Things With Poems

## Credits: 3

Introduction to the study of poems, poets, and how poetry works, focusing on a wide range of English and American writers. Some attention to matters of literary history. Open only to students in the University Honors Program.

ENGL 2315 - Introduction to Literary Study

## Credits: 3

An introduction to the discipline for beginning English majors, covering methods of literary analysis in selected texts spanning a range of genres and historical periods.

## ENGL 2322 - Guilty Pleasures

## Credits: 3

Examination of classic and not-so-classic detective fiction from Sophocles to the present, focusing primarily on 19th- and 20th-century British and American traditions.

## ENGL 2361 - Fortune, Fame, and Scandal: The American Dream

Credits: 3
A survey of the pursuit of fame and fortune in classic American novels of business, politics, sports, and show business, with attention to contemporary parallels.

ENGL 2372 - English Studies Abroad

Credits: 3
SMU credit for English courses taken in University-approved programs abroad. Departmental consent required.

## ENGL 2390 - Introduction to Creative Writing

Credits: 3
Workshop on the theory and techniques of writing fiction, poetry, and creative nonfiction.

## ENGL 2391 - Introductory Poetry Writing

Credits: 3
Workshop in which student poetry and directed exercises in basic techniques form the content of the course.

## ENGL 2392 - Introductory Fiction Writing

Credits: 3
Workshop in theory, technique, and writing of fiction.

## ENGL 3189 - Directed Studies

Credits: 1
Directed readings in a coherent area of a student's choice to be approved by the director of undergraduate study and the instructor.

ENGL 3301 - Advanced Expository Writing

## Credits: 3

Emphasis on styles and formats appropriate to academic writing, and on individual problems and needs.

## ENGL 3305 - Writing and the Public Intellectual

Credits: 3
Study and practice of writing for a broad, well-informed public, including the history and current status of the public intellectual. Includes advanced practice in revising and editing expository prose.

## ENGL 3308 - English Studies Internship

Credits: 3
Work experience related to English studies, with instruction in professional communication. Workshop format and one-onone consultation with instructor. Prerequisite: Open only to junior and senior English majors by permission of instructor.

## ENGL 3310 - Contemporary Approaches to Literature, Language, and Culture

Credits: 3
Introduction to contemporary methods of interpreting literature and to linguistic, cultural, and theoretical issues informing these methods. Readings of literary works to develop awareness of differences and limitations in approaches.

## ENGL 3320 - Topics in Medieval Literature

Credits: 3
Study of a theme, issue, or topic in English literature from its beginnings to 1500, varying by term. May be repeated for credit under a different subtitle.

## ENGL 3329 - Courtly Cultures and King Arthur

Credits: 3
Study of Britain's greatest native hero and one of the world's most compelling story stocks: the legends of King Arthur and the Knights of the Round Table.

## ENGL 3330 - Topics in Early Modern Literature

## Credits: 3

Study of a theme, issue, or topic in British literature c. 1500-1775, varying by term. May be repeated for credit under a different subtitle.

## ENGL 3331 - British Literary History I: Chaucer to Pope

## Credits: 3

Introduction to earlier periods of English literature through the study of major authors in their historical context and from varied critical and thematic perspectives.

## ENGL 3332 - Shakespeare

## Credits: 3

Studies of Shakespeare's major works in context with English history, society, and culture, including literary and theatrical conventions and practices. Topics vary by term; may be repeated for credit under a different subtitle.

## ENGL 3335-Transatlantic Encounters I

## Credits: 3

Comparative studies in British and American literature during the early modern period (c. 1500-1775), with attention to issues of first contact, colonization, and cultural interrelations. Topics vary by term; may be repeated for credit under a different subtitle.

## ENGL 3340 - Topics in British Literature in the Age of Revolutions

## Credits: 3

Study of a theme, issue, or topic in British literature c. 1775-1900, varying by term. May be repeated for credit under a different subtitle.

## ENGL 3341 - British Literary History II: Wordsworth Through Yeats

Credits: 3
Introduction to later periods of English literature through the study of major authors in their historical context and from varied critical and thematic perspectives.

## ENGL 3344 - Victorian Gender

## Credits: 3

Through an exploration of fiction, poetry, drama, and other writing from the Victorian period, this course considers why so much of the literature of Victorian England still speaks meaningfully and directly about what it means to be a man or woman. The course focuses on the way writing of the period reflects, questions, and protests the gender distinctions that Victorians understood as the foundation of the social world.

## ENGL 3345 - Transatlantic Encounters II

Credits: 3
Comparative studies in British and American literature during the Age of Revolutions (c. 1775-1900), with attention to cultural interrelations during a period of rapid social change. Topics vary by term; may be repeated for credit under a different subtitle.

## ENGL 3346 - American Literary History I

Credits: 3
Introduction to earlier periods of American literature through the study of major authors in their historical context and from varied critical and thematic perspectives.

ENGL 3347 - Topics in American Literature in the Age of Revolutions

## Credits: 3

Study of a theme, issue, or topic in American literature c. 1775-1900, varying by term. May be repeated for credit under a different subtitle.

## ENGL 3348 - History of Print and Digital Culture in America

## Credits: 3

An overview of the history of written communications in America from the introduction of the first printing press in the English colonies to the present era of digital and multimedia culture. Moves across four centuries of writing to introduce students from various disciplinary tracks to the sprawling multidiscipline of the history of the book in its basic theoretical, methodological, and practical dimensions. Examines 1) a literary history of the United States; 2) a narrative of the history of the cultural production, dissemination, and consumption of writing - broadly and inclusively defined - in North America; 3) communications issues crucial to American culture, such as literacy, intellectual property, and freedom of speech; and 4) the formation of the institutions (including schools, libraries, bookstores, print shops, publishing houses, and houses of worship), laws (especially copyright and freedom of speech laws), and technologies that have mediated America's communications history and given rise to American literature, culture, and society. Major topics include the history of American literature; local, regional, and national formation through print; print and race, ethnicity, and gender; the history of authorship, reading, and publishing; the history of journalism; censorship versus freedom of speech; the uses of literacy; the formations of lowbrow, middlebrow, and highbrow culture; and the history of libraries and archives, with and without walls.

## ENGL 3350 - Topics in Modern and Contemporary British Literature

## Credits: 3

Study of a theme, issue, or topic in British literature c. 1900 to the present, varying by term. May be repeated for credit under a different subtitle.

## ENGL 3354 - Non-Western Culture and Literature

Credits: 3
Major 20th-century, third-world literary and cultural texts, with emphasis on political and economic contexts of colonialism and post colonialism.

## ENGL 3355 - Transatlantic Encounters III

## Credits: 3

Comparative studies of British and American writing in the period of modern and contemporary literature (c. 1900 to the present), with attention to cultural interrelations during the period. Topics vary by term; may be repeated for credit under a different subtitle.

## ENGL 3359 - American Narratives of Discovery

## Credits: 3

Focuses on the generic process of culture, integrating methods from various disciplines. Considers aesthetic questions about the ways narratives engage in intercultural dialogue, and ethical questions about the implications of ongoing American discoveries of the Southwest.

## ENGL 3360 - Topics in Modern and Contemporary American Literature

## Credits: 3

Study of a theme, issue, or topic in American literature c. 1900 to the present, varying by term. May be repeated for credit under a different subtitle.

ENGL 3362 - African-American Literature

## Credits: 3

Major African-American writers and their works, and various social and historical influences.

## ENGL 3363 - Chicana/Chicano Literature

## Credits: 3

A broad examination of major 20th-century Mexican-American writers and their works in the context of various social, geographic, political, and historical influences. Some knowledge of Spanish is helpful to students but is not a prerequisite for the course.

## ENGL 3364 - Women and the Southwest

Credits: 3
A study and exploration of women writers, artists, and thinkers in the American Southwest and their vision of this region as singularly hospitable to women's culture.

## ENGL 3365 - Jewish-American Literature and Culture

## Credits: 3

An interdisciplinary introduction to Jewish culture through literature, especially in the American environment, as well as to the issues in studying any distinctive ethnic and cultural literature.

## ENGL 3366 - American Literary History II

## Credits: 3

Introduction to later periods of American literature through the study of major authors in their historical context and from varied critical and thematic perspectives.

## ENGL 3367 - Ethical Implications of Children's Literature

## Credits: 3

Examination of children's literature with emphasis on notions of morality and evil, including issues of colonialism, race, ethnicity, gender, and class.

ENGL 3368 - Literary and Artistic Taos: The Town Seen Through Multiple Lenses

Credits: 3
Survey of the literary and artistic heritage of early 20th-century Taos, centered on the Native Americans, the artistic and literary salon of Mabel Dodge, and D.H. Lawrence.

## ENGL 3369 - Study of Native American Authors

Credits: 3
A study of Native American authors and their works, and various social and historical influences.

## ENGL 3370 - Special Topics

Credits: 3
Examination of a subject that includes material from a range of historical periods. Topics vary by term; examples include pastoral literature; Shakespeare in England and India; and irony, satire, and politics. May be repeated for credit under a different subtitle.

ENGL 3371 - Joan of Arc: History, Literature, and Film

Credits: 3
The life and later reception of the extraordinary peasant girl Joan of Arc (c. 1412-1431), who in the 2 years before she was burned at the stake changed the course of European history.

## ENGL 3372 - English Studies Abroad

Credits: 3
SMU credit for English courses taken in University-approved programs abroad. Departmental consent required.

## ENGL 3373 - Masculinities: Images and Perspectives

Credits: 3
The representation of male sex roles in Western literature, from Achilles to James Bond. Open to juniors and seniors; sophomores by permission of instructors.

## ENGL 3374 - Literature of Religious Reflection

## Credits: 3

Issues of faith and doubt in British and American literature, drawn from texts reflecting Christian humanism, secular rationalism, individualistic romantic faith, and scientific modernism and other modern alternatives.

## ENGL 3375 - Expatriate Writers: The Invention of Modernism

## Credits: 3

Introduction to literary modernism in early 20th-century Europe through readings of, and films and excursions relating to, expatriate authors working in Paris.

ENGL 3376 - Literature of the Southwest

## Credits: 3

Includes 19th- and 20th-century Anglo, Hispanic, and Native American literature of the southwestern United States.

## ENGL 3377 - Literature and the Construction of Homosexuality

## Credits: 3

Examination of same-sex desire in modern literature, as considered in the context of philosophical, religious, and scientific texts since the ancient world.

ENGL 3378 - Studies in the English Language

Credits: 3
Linguistic introduction to history of English and to present day American English as spoken and written. Topics include theory and description, basic grammatical structures, and their application to writing and regional and stylistic variation.

## ENGL 3379 - Literary and Cultural Contexts of Disability: Gender, Care, and Justice

## Credits: 3

An examination of disability as a cultural construct, with attention to how literary, ethical, and political representations bear upon it, and in relation to gender, race, and class issues.

## ENGL 3381 - Semiotics of Culture

Credits: 3
Analysis of form, technique, and meaning in literary and textual representation, in comparison or in conjunction with other representational media such as painting, photography, and cinema. Topics vary by term; may be repeated for credit under a different subtitle.

## ENGL 3382 - Heroic Visions: The Epic Poetry of Homer and Vergil

Credits: 3
The literature of classical heroism in works by Homer and Vergil that influenced the epic traditions of English literature.

ENGL 3383 - Literary Executions: Imagination and Capital Punishment

Credits: 3
The literary treatment of capital punishment in drama, poetry, novel, and biography.

## ENGL 3384 - Literature and Medicine

Credits: 3
How literature reveals the experiences, ethics, and values of those who suffer and their healers.

## ENGL 3385 - Literature of the Holocaust

Credits: 3
Explores the literature of the Holocaust and issues of the possibility of aesthetic portrayal of this horrific event. It considers Holocaust literature and post-Holocaust literature.

## ENGL 3386 - The Gothic Novel

## Credits: 3

Students will write four analytic essays on principal works in the genre of the Gothic Novel. The course will continuously reflect on questions of emerging modernity in science, political change, industrialization, immigration, etc., and its uncanny relation to the past. It will also follow changes in the conception of the psyche from the revolutionary individual of the late 18th century through post-Freudian conceptions of contemporary culture.

## ENGL 3389 - Directed Studies

## Credits: 3

Directed readings in a coherent area of a student's choice, to be approved by the director of undergraduate studies and the instructor.

## ENGL 3390 - Studies in Creative Writing: Thematic, Experiential, Craft, or Workshop

## Credits: 3

Continues the development of fiction, nonfiction, and poetic craft while also engaging students in new media, communitybased writing, publishing, editing, and the deeper study of professional technique. Prerequisite: ENGL 2390.

## ENGL 3391 - Intermediate Poetry Writing

Credits: 3
Prerequisite: ENGL 2391 or permission of instructor.

## ENGL 3392 - Intermediate Fiction Writing

Credits: 3
Prerequisite: ENGL 2392 or permission of instructor.

## ENGL 4310 - Studies in Literary Theory and Criticism

## Credits: 3

An advanced study of a theoretical or critical problem in literary study and interpretation. Topics could include questions of history, major theoretical movements, and cultural studies. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4320 - Medieval Writers

Credits: 3
Intensive study of one or two medieval writers. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4321 - Studies in Medieval Literature

Credits: 3
Advanced study of medieval literature focused on a specified problem, topic, or theme. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4323 - Chaucer

Credits: 3
Advanced studies in the poetry of Geoffrey Chaucer in relation to historical contexts, medieval poetics, and Middle English language. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4330 - Renaissance Writers

## Credits: 3

Intensive study of one or two major writers from the period in context with English social and cultural history. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4331 - Restoration and Enlightenment Writers

## Credits: 3

Intensive study of one or two major writers from the period 1660-1775. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4332 - Studies in Early Modern British Literature

## Credits: 3

Advanced study of British literature c. 1500-1775, focused on a specific problem, topic, or theme. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4333 - Shakespeare

## Credits: 3

Advanced studies in Shakespeare's poetry and plays, in historical, cultural, and theatrical contexts. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4336 - Studies in Early Modern American Literature

Credits: 3
Advanced study of American literature c. 1500-1775, focused on a specified problem, topic, or theme. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4339 - Transatlantic Studies I

Credits: 3
Intensive study of a theme, genre, or topic in transatlantic literature in English from the early modern period (c. 1500-1775). May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4340 - Romantic Writers

## Credits: 3

Intensive study of one or two major British writers from the period. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4341 - Victorian Writers

## Credits: 3

Intensive study of one or two major British writers from the period. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4343 - Studies in British Literature in the Age of Revolutions

## Credits: 3

Intensive study of British literature c. 1775-1900, focused on a specified problem, topic, or theme. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4345 - American Writers in the Age of Revolutions

## Credits: 3

Intensive study of one or two major writers from the period. May be repeated for credit under a different subtitle.
Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4346 - Studies in American Literature in the Age of Revolutions

## Credits: 3

Advanced study of American literature c. 1775-1900, focused on a specified problem, topic, or theme. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4349 - Transatlantic Studies II

Credits: 3
Intensive study of a theme, genre, or topic in transatlantic literature in English during the Age of Revolutions (c. 17751900). May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

ENGL 4350 - Modern and Contemporary British Writers

## Credits: 3

Intensive study of one or two major writers from the period. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4351 - Studies in Modern and Contemporary British Literature

## Credits: 3

Advanced study of British literature c. 1900 to the present, focused on a specified problem, topic, or theme. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4356 - Modern and Contemporary American Writers

## Credits: 3

Intensive study of one or two major writers from the period. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4360 - Studies in Modern and Contemporary American Literature

## Credits: 3

Advanced study of American literature c. 1900 to the present, focused on a specified problem, topic, or theme. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4369 - Transatlantic Studies III

## Credits: 3

Intensive study of a theme, genre, or topic in transatlantic literature in English from the modern to contemporary period (c. 1900-present). May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4370 - Special Studies

## Credits: 3

Intensive study of a theme, genre, or topic that includes material from a wide range of eras. May be repeated for credit under a different subtitle. Prerequisites: ENGL 2311 or ENGL 2314, ENGL 2315, and two additional ENGL courses (excluding ENGL 1300, ENGL 1400, ENGL 2302) or instructor approval.

## ENGL 4390 - Advanced Studies in Creative Writing

Credits: 3
A course for creative writing specialists interested in pursuing a student-designed project. Students will work individually, with full group meetings scheduled to share and discuss progress on projects.

## ENGL 4391 - Advanced Poetry Writing

## Credits: 3

Advanced course for students seriously interested in the composition of poetry. Prerequisite: ENGL 3391 or permission of instructor. May be repeated for additional credit.

## ENGL 4392 - Advanced Fiction Writing

Credits: 3
Advanced course for students seriously interested in writing the short story or novel. Prerequisite: ENGL 3392 or permission of instructor. May be repeated for additional credit.

## ENGL 4393 - Directed Studies in Poetry Writing

## Credits: 3

Prerequisite: Open only to advanced students by permission of instructor.

## ENGL 4394 - Directed Studies in Fiction Writing

Credits: 3
Prerequisite: Open only to advanced students by permission of instructor.

## ENGL 4395 - Directed Studies in Poetry Writing

Credits: 3
Prerequisite: Open only to advanced students by permission of instructor.

ENGL 4396 - Directed Studies in Fiction Writing

Credits: 3
Prerequisite: Open only to advanced students by permission of instructor.

ENGL 4398 - Craft of Fiction

## Credits: 3

Examination of various readings for their usefulness from a fiction writer's point of view. Emphasis on observation of technique rather than on interpretation. Prerequisite: ENGL 2392.

## ENGL 5310 - Seminar in Literary Theory

## Credits: 3

A seminar for candidates for departmental distinction, designed to acquaint them with particular approaches to literature. Prerequisite: Permission of instructor.

## ENGL 5381 - Independent Studies

## Credits: 3

Directed readings in an area of the student's choice, to be approved by the director of undergraduate studies and the instructor. Requires a substantial amount of critical writing. Open only to candidates for departmental distinction and to graduate students.

## ENGL 5382 - Independent Studies

## Credits: 3

Directed readings in an area of the student's choice, to be approved by the director of undergraduate studies and the instructor. Requires a substantial amount of critical writing. Open only to candidates for departmental distinction and to graduate students.

## ENGL 5383 - Independent Studies

## Credits: 3

Directed readings in an area of the student's choice, to be approved by the director of undergraduate studies and the instructor. Requires a substantial amount of critical writing. Open only to candidates for departmental distinction and to graduate students.

## ENGL 5384 - Independent Studies

Credits: 3
Directed readings in an area of the student's choice, to be approved by the director of undergraduate studies and the instructor. Requires a substantial amount of critical writing. Open only to candidates for departmental distinction and to graduate students.

## History

www.smu.edu/history

## Professor Andrew Graybill, Department Chair

Professors: Kenneth Andrien, John Chávez, Edward Countryman, Neil Foley, Andrew Graybill, Thomas Knock, Alexis McCrossen, Daniel Orlovsky, Kathleen Wellman
Associate Professors: Sabri Ates, Crista DeLuzio, Melissa Dowling, Jeffrey Engel, Kate Carté Engel, Kenneth Hamilton, Erin R. Hochman
Assistant Professors: Jo Guldi, Jill E. Kelly, Bianca Lopez, Ariel Ron
Adjunct Assistant Professors: David Doyle, Brandon Miller
Senior Lecturer: Laurence H. Winnie

## General Information

The William P. Clements Department of History offers three types of courses: introductory, survey and more advanced courses that explore large areas of human history; intermediate thematic courses that mix lectures and small group discussions to explore more closely defined topics; and seminars that probe deeply into given areas. Each student should devise a program of study that meets individual interests and needs and also achieves a balance between diversification and specialization. Except where specified, there are no prerequisites, and interested students are invited into all courses.

## Departmental Distinction

A history major with sufficiently high standing may graduate with honors in history by applying for the degree with departmental distinction. Eligible students (those who have completed 21 hours of history credit, including the junior seminar, with a 3.700 history GPA and overall 3.500 GPA ) will be invited by the department chair to apply. During their senior year, candidates for distinction will pursue an individual research project under the direction of a particular professor (while enrolled in HIST 4375). This major research project will develop from the $5000-l e v e l$ seminar or HIST 4300, the junior seminar. The research project will be presented as a thesis before the end of the term. The successful honors graduate must also pass an oral examination on the thesis before a committee of three history faculty members and receive at least an $A$ - on the work.

## History, B.A.

A total of 33 hours in history are required for the major, with at least 18 hours in courses at the 3000 and higher levels. All advanced courses taken for the major must be passed with a grade of $C$ - or better. History majors must earn 2.000 minimum GPAs in their history coursework and may not take history courses pass/fail. Six hours of advanced-placement credit can be applied toward the history major.

## Requirements for the Major

## Areas (18 Credit Hours)

- United States History (two 3-hour courses)
- European History (two 3-hour courses)
- African, Asian, Latin American and Middle Eastern History (two 3-hour courses)


## Junior Seminar (3 Credit Hours)

- HIST 4300 - Junior Seminar in Research and Writing


## Senior Seminar

At least one 5000-level HIST course required. (counts toward the areas requirement or the electives)

## Electives (12 Credit Hours)

## Total: 33 Credit Hours

## History Minor

Students with a general interest in history may pursue a minor by successfully completing 15 hours of departmental course credit. Nine credit hours must be successfully completed at the 3000-5000 level. Students may transfer in no more than two of the five courses required for the minor. Only one of the three required advanced courses may be transferred in. Courses for the minor may not be taken pass/fail. All advanced courses taken for the minor must be passed with a grade of $C$ - or better. Courses are listed on the History Department homepage. Students intending to take a minor in the department should design a program of study in consultation with the director of undergraduate studies.

## Courses:

$\left.\begin{array}{|l|l|}\hline \begin{array}{l}\text { Foundation and Special } \\ \text { Courses }\end{array} & \text { HIST 1311, 1312, 1321, 1322, 1323, 4300, 4375, 4376, 4397, 4398, 4399 }\end{array}\right]$

## HIST 1303 - Millennialism Through the Ages

Credits: 3
A historical look at the ancient and current notion that an apocalyptic End Time will produce a New Heaven and New Earth turning conventional order upside down, and how to behave if so.

## HIST 1311 - Western Civilization to 1527

## Credits: 3

A survey of the cultural phenomenon often called Western civilization from its prehistoric roots in western Asia and Europe; through ancient Mesopotamian and Egyptian civilization; to the Greeks, Romans, and the medieval experience; and up to the Renaissance. Lecture course, with much reference to literature and visual arts.

## HIST 1312 - Western Civilization Since 1527

## Credits: 3

An introductory survey of Western civilization from about the time of the Reformation to the present.

## HIST 1321 - Introductory Topics in American History

## Credits: 3

Offers the first- or second-year student the opportunity for intensive exploration of particular topics in American history in a small-class setting.

## HIST 1322 - Introductory Topics in European History

## Credits: 3

Offers the first- or second-year student the opportunity for intensive exploration of particular topics in European history in a small-class setting.

## HIST 1323 - Introductory Topics in Non-Western History

## Credits: 3

Offers the first- or second-year student the opportunity for intensive exploration of particular topics in non-Western history in a small-class setting.

## HIST 1325 - Doing Digital History

Credits: 3
Builds historical knowledge and digital research skills, such as using historical databases, GIS analysis, data visualizations, data mining, and textual analysis, through investigation of selected topics in history.

## HIST 2100 - History Studies Abroad

Credits: 1
SMU credit for history courses taken in University-approved programs abroad.

## HIST 2200 - History Studies Abroad

Credits: 2
SMU credit for history courses taken in University-approved programs abroad.

## HIST 2301 - The Struggle for Human Rights in South Africa

## Credits: 3

Considers the denial and pursuit of rights around four key areas integral to human rights: labor, spatial segregation, gender and sexuality, and education. Examines each of these to better understand how colonial and apartheid states denied the black majority political rights and how the new South Africa struggles to rectify centuries of inequality.

## HIST 2302 - Presenting the American Revolution: History, Painting, Fiction, and Film

## Credits: 3

Historians, painters, writers, and filmmakers all recover and interpret the past. This course explores the relationship between how historians and such artists have made sense of the American Revolution.

## HIST 2311 - Out of Many: U.S. History to 1877

## Credits: 3

Growth of American civilization. General survey, with particular attention to social and political aspects. Open to first-year students.

## HIST 2312 - Unfinished Nation: U.S. History Since 1877

## Credits: 3

Growth of American civilization. General survey, with particular attention to social and political aspects. Open to first-year students.

## HIST 2313 - History of African-American Popular Culture, 1890-1980

## Credits: 3

Investigates the forces that shaped post-emancipation African-American popular entertainment, fashion, and mannerisms, with a focus on 1890-1980.

## HIST 2318 - Schools and Society: The Evolution of America's Public School System

Credits: 3
An interdisciplinary exploration of America's public school system from the Colonial period to the present. Emphasis on relationships among schools, families, and changing social and political ideals.

## HIST 2320 - Society and Life in Texas

Credits: 3

## HIST 2321 - Philosophical and Religious Thought in the Medieval West

## Credits: 3

Study of the key issues in Western thought, and of their temporary resolutions, in the medieval millennium - and of the shifting balance between Greek and Hebrew elements in that evolving tradition.

## HIST 2323 - Russian Culture

Credits: 3
Significant aspects of Russian thought and culture at various stages of development, illustrated by examples from poetry, prose, drama, journalism, architecture, the fine arts, and music.

HIST 2325 - Human Rights in Modern South Asia

## Credits: 3

Examines some of the most pressing human rights issues in 20th and 21st century South Asia, including questions of gender, environmental justice, and caste.

## HIST 2337 - History of Sports in the United States

## Credits: 3

The social, cultural, and business history of sport in the U.S. Focus on the cultural meaning and ethical components of sports in the 19th and 20th centuries.

HIST 2343 - The History of Capitalism I: Wealth, Inequality, and Ecology in Britain and the World, 1350-1870

## Credits: 3

Surveys the institutions, ideas, and societies that experienced the rise of capitalism from 1350 to 1870 . Topics include the rise of individual ownership, the expansion of states and bureaucracies, the era of land speculation, and the growth of social movements that questioned whether capitalism had fulfilled its promises to work for the betterment of all.

## HIST 2346 - Modern England, 1714 to the Present

Credits: 3
A survey of modern English history from the accession of the Hanoverians to the present, with emphasis on social and political themes dealing with the transition from a landed to an industrial society. (SMU-in-Oxford)

## HIST 2350 - Life in the Medieval World, A.D. 306 to 1095

Credits: 3
A survey of the political, religious, and cultural history of Western Europe from Constantine the Great to the First Crusade.

HIST 2351 - Life in the Medieval World, 1095 to 1350

Credits: 3
A survey of the political, social, and intellectual structures that characterized the civilization of Western Europe between the First Crusade and the Black Death.

## HIST 2352 - Greek Mythology and History

Credits: 3
Introduction to Greek mythology in its original ancient context, through primary sources (Greek plays, poems, and works of art).

## HIST 2353 - Currents in Classical Civilization

Credits: 3
The interdisciplinary study of the art, literatures, and history of the ancient Greek and Roman worlds, focusing on the development of democracy, individualism, immortality, heroism, justice, sexuality, nature, etc.

HIST 2354 - Ancient Foundations of Modern Civilization

Credits: 3
An introduction to the study of the ancient world embracing both the ancient Near East and classical Greek and Roman civilization.

## HIST 2355 - History of the Ancient Near East and Egypt

## Credits: 3

An introduction to the ancient civilizations of Mesopotamia, Israel, Anatolia, and Egypt. Examines changing ancient cultures as they contact (or conquer) each other as seen through their literature, histories, and archaeological remains.

## HIST 2365 - Europe in the Modern World, Renaissance to 1760

## Credits: 3

An introductory survey of the growth of European civilization.

## HIST 2366 - Europe in the Modern World, 1760 to the Present

Credits: 3
A continuation of HIST 2365.

## HIST 2379-A History of Islamic Empires

Credits: 3
Introduces the history of various Islamic empires and covers the period from 600 to 1750.

## HIST 2380 - Ethnic Regions in the Western World

Credits: 3
An interdisciplinary course that examines the ways regional ethnic minorities such as the Basques, Quebecois, and Chicanos have functioned within larger societies in Western Europe and North America.

## HIST 2384 - Latin America: The Colonial Period

## Credits: 3

An introductory survey covering the development of Latin American society from prediscovery to the early 19th century.

## HIST 2385 - Latin America in the Modern Era

## Credits: 3

An introductory survey beginning with the 19th-century wars of independence from Spain and Portugal and emphasizing the 20th century as the new nations struggle for political stability and economic independence.

## HIST 2390 - Civilization of India

Credits: 3
Introduction to the history, society, and cultural features of South Asia from the third millennium B.C.E. to the modern day.

## HIST 2391 - Africa to the 19th Century

## Credits: 3

History of Africa south of the Sahara, focusing on culture and social organization, the Bantu migrations, African kingdoms, contacts with the world, Islam, and the slave trade.

## HIST 2392 - Modern Africa

## Credits: 3

An introduction to the history of Africa since 1800. Focuses on a number of themes to enable a better understanding of the recent past of this vast continent. Major topics include 19th-century social, political, and economic revolutions in Southern and West Africa, the incorporation of the continent into the capitalist world economy, class formation under colonial rule, the rise of nationalism, and the politics of liberation.

## HIST 2393 - Japan Before 1850

## Credits: 3

Japan from its origins through the Tokugawa period. Themes include the military and the emperor in the polity; religions in society and culture; and the continuous, contested creation of identity.

## HIST 2394 - China Before 1850

Credits: 3
Examines changes and continuities from Neolithic times to 1850 in Chinese state, society, and religion, and the relations among the three spheres, through scholarly writings and primary sources.

## HIST 2395 - Modern East Asia

## Credits: 3

A survey of modern East Asia emphasizing an outline of the traditional societies, the Western impact, Japanese industrialization and imperialism, Pearl Harbor, and the rise of Chinese communism.

## HIST 2398 - American Politics and Culture, FDR to Obama

Credits: 3
Examines life and culture in modern America.

## HIST 3100 - History Studies Abroad

Credits: 1
SMU credit for history courses taken in University-approved programs abroad.

## HIST 3200 - History Studies Abroad

Credits: 2
SMU credit for history courses taken in University-approved programs abroad.

## HIST 3300 - History Studies Abroad

Credits: 3
SMU credit for history courses taken in University-approved programs abroad.

## HIST 3301 - Human Rights: America's Dilemma

## Credits: 3

This course examines violations of human rights within their historical contexts and explores the foundations of current human rights issues such as torture, terrorism, slavery, and genocide. Attention is given to the evolution of civil and human rights as entities within global political thought and practice.

## HIST 3302 - Georgian and Victorian England, 1714-1867

## Credits: 3

The political, social, and economic institutions of Britain and their development in the 18th and 19th centuries.

## HIST 3303 - Modern England, 1867 to the Present

Credits: 3
Britain in the 20th century, with social and cultural emphasis; traces the changes in outlook and Empire to the present day.

HIST 3304 - African Americans and the Civil Rights Movement

Credits: 3
African Americans and the civil rights movement, with a focus on post-World War II migration, changing conceptions of race, increasing African-American prosperity, integration and black nationalism, and the lives of significant AfricanAmerican leaders of the civil rights movement.

## HIST 3305 - The Hispanos of New Mexico, 1848-Present

Credits: 3
History of the Mexican-American subculture of New Mexico. Field trips to historical sites. (SMU-in-Taos)

## HIST 3306 - Colony to Empire: U.S. Diplomacy 1789-1941

## Credits: 3

Examines major events in American foreign policy from the early national period to Pearl Harbor, emphasizing 19th-century continental expansion, early 20th-century imperialism, and American involvement in the world wars.

## HIST 3307 - The U.S. and the Cold War, 1945-1989

## Credits: 3

An examination of major events in American foreign policy since World War II, emphasizing policy toward Western Europe, the Soviet Union, Asia, and Latin America.

## HIST 3308 - History of Hispanics in the U.S. Through Film

Credits: 3
An examination of selected events and developments in the histories of Mexican Americans, Puerto Ricans, Cuban Americans, and other Latinos as depicted on TV and in film, video, and movies.

## HIST 3309 - North American Environmental History

## Credits: 3

Surveys North American environmental history since pre-Columbian times. It expands the customary framework of historical inquiry by focusing on the interaction of human beings and the natural world.

## HIST 3310 - Problems in American History

## Credits: 3

Explores historical issues or trends in U.S. history will be explored using a case study or comparative format.

## HIST 3311 - 19th-Century American West

## Credits: 3

History of the trans-Mississippi West in the 19th century, with an emphasis on major political, social, economic, and environmental themes of the region's history.

## HIST 3312 - Women in American History to 1900

## Credits: 3

Surveys the history of American women from the Colonial era to 1900 and introduces the major themes organizing these three centuries of U.S. women's history.

## HIST 3313 - African Americans in the United States, 1607-1877

## Credits: 3

Examines the people of the African continent, uprooted and enslaved, who continually grappled with the problem of how to preserve their dignity and identity in a hostile environment. The African Americans' adjustment to American society, their exterior struggle against political oppression, the interior nature of their group life, and the development of black institutions are critical to the course's concerns.

## HIST 3314 - African Americans in the United States, 1877 to the Present

## Credits: 3

Particular attention will be given to populism, disfranchisement, segregation and lynching, black leadership ideologies, the influence of mass migrations, the impact of the Great Depression and two world wars on black life, the quest for equality in the 1950s and the civil rights movement in the 1960s, and the flowering of black culture and nationalism.

## HIST 3315 - Modern South Asia: Colonialism and Nationalism

## Credits: 3

Political history of South Asia from the 18th century onward, focusing on the period of British colonial rule, nationalist movements, and independence.

## HIST 3316 - History of Sex in America

Credits: 3
This course will test the hypothesis that gender and sexuality are constructed categories. Readings in anthropology, history, literary criticism, and psychiatry will be utilized.

## HIST 3317 - Persecution to Affirmation: Sexual Minorities and Human Rights

## Credits: 3

Examines same-sex sexuality comparatively, using interdisciplinary readings, beginning with the Americas before European contact and then focusing on Europe, Asia, and Africa through time up until the present day.

## HIST 3319 - Texas History

## Credits: 3

Texas as a crossroad of cultures from the 16th century to the present.

## HIST 3320 - The Spanish Frontier in North America, 1513-1821

## Credits: 3

The exploration, colonization, and development of the South and Southwest under Spanish rule, 1513 to 1821, including interaction with Indian peoples.

## HIST 3321 - Religion in the United States to 1865

Credits: 3
Investigates the foundations of American religious culture, including native, African, and European traditions; colonization; early evangelicalism; the Revolutionary War; and the religious culture of the new United States.

## HIST 3322 - Native American History

Credits: 3
Examines the roles Native Americans played in the history of North America (excluding Mexico) from 1500 to the present.

## HIST 3323 - History of Islam in South Asia

Credits: 3
A cultural history of Islam in South Asia focusing on the sacred practices, literature, and institutions of Muslim communities in the Indian subcontinent from 1000 C.E. to modern times.

## HIST 3324 - The Mexican Americans, 1848 to the Present

## Credits: 3

Traces the historical evolution of the Mexican-American people in the Southwest from pre-Columbian to modern times with emphasis on the era since the Mexican War.

## HIST 3325 - Islam and Politics

Credits: 3
This course aims to familiarize students with the basics of Islam and explore the relationship between Islam as a religion and Islam as ideology.

## HIST 3326 - US Religious History Since 1865

## Credits: 3

Examines how religion functions in American life, as well as the diverse ways that various religious traditions have adapted to and altered the American religious landscape. Discusses the interplay between religion and politics, gender, science, culture, race, and immigration.

## HIST 3327 - Women in American History From 1865

## Credits: 3

Surveys the history of American women from 1865 to the present and introduces the major themes organizing this period of U.S. women's history.

## HIST 3328 - History of Modern Germany

## Credits: 3

Surveys developments in German society from unification under Bismarck to division in the wake of World War II, with particular attention given to Hitler's rise to power.

## HIST 3329 - Women in Early Modern Europe

Credits: 3
A study of the influence of women in European society and intellectual movements from the Renaissance through the Enlightenment.

## HIST 3330 - Women in Modern European History

Credits: 3
An exploration of the role of women in European society, from the cultures of Crete and Sumer to the present.

## HIST 3332 - Ancient and Medieval France

Credits: 3
An exploration of selected themes that dominate the current history, archaeology, and historiography of ancient and medieval France, from the Paleolithic cave painters to Joan of Arc.

HIST 3333 - Early Modern France to 1789

Credits: 3
An examination of the social, political and cultural transformation of 16th-, 17th-, and 18th-century France through the rise of the Bourbon monarchy, its consolidation under Louis XIV, and its evolution under his successors.

## HIST 3334 - France Since 1789

Credits: 3
A history of France from 1789 to the present, with special emphasis on social and cultural history, including the French Revolution and its legacy, the development of 19th-century French society, and France during the two world wars.

## HIST 3335 - One King, One Law: France 1500-1789

## Credits: 3

The culture of France through its history and literature, emphasizing the historical developments, ideas, and literary texts that define the period and illuminate both French classicism and absolutism.

## HIST 3336 - Cultural History of the United States

## Credits: 3

Analysis of the literature, art, architecture, music, drama, popular amusements, and social customs of America since 1877.

## HIST 3337 - Ethical Dilemmas in a Global Age

## Credits: 3

A cross-cultural exploration of major ethical problems emanating out of the radically changing context of human existence in recent decades.

## HIST 3338 - History of Spain to 1492

## Credits: 3

The main social, political, and cultural topics of the history of the Iberian Peninsula before Ferdinand and Isabella, focusing on the Roman and medieval periods. (For history majors, fulfills only the European requirement.)

## HIST 3339 - History of Spain, 1469 to the Present

Credits: 3
The main social, political, and cultural topics of the history of the Iberian Peninsula from Columbus to the present. (For history majors, fulfills only the European requirement.)

## HIST 3340 - The Revolutionary Experience in Russia: 1900-1930

Credits: 3
The effects of the breakdown of the old regime and the establishment of Soviet power on Russian society and culture. Examines the evolution of political and social institutions, ideologies, literature and the arts against the backdrop of the era's turbulent political history.

## HIST 3341 - Soviet and Post-Soviet Society and Politics, 1917 to the Present

Credits: 3
Soviet, Russian, and Eurasian experience from historical, ethnographic, economic, social, and cultural perspectives, beginning with the present and going back to the roots of the Soviet state and society in the revolutionary experience, 19171921.

## HIST 3342 - Utopian Perspective on the American Southwest

Credits: 3
Focuses on the American Southwest when the region became a homeland of the imagination for those fleeing the modern, industrial culture of the West.

## HIST 3343 - 20th-Century Europe

Credits: 3
History of 20th-century Europe. Offered through international programs only.

## HIST 3344 - The Oxford Landscape: From the Stone Age to the Tudors

## Credits: 3

An exploration of several approaches to the development of the distinctive human landscape of the Upper Thames Valley and the city that gradually became its metropolis, from the Paleolithic era to the end of the Middle Ages. (SMU-in-Oxford)

## HIST 3345 - England in Medieval and Early Modern Times

## Credits: 3

Treats selected themes in the history of England to 1688, with special attention to formative periods and developments in the evolution of the English state. (SMU-in-Oxford)

## HIST 3346 - The 20th-Century American West

## Credits: 3

Examines the American West in the 20th century, emphasizing major social, economic and political themes of the region's last 100 years. Explores the characteristics that distinguish the West from other American regions and investigates its continued significance to American history.

## HIST 3347-Civil War and Reconstruction

## Credits: 3

Examines the institution of slavery, the events leading to the Civil War, the war itself, and the subsequent efforts at reconstruction.

## HIST 3348 - American Families: Changing Experiences and Expectations

## Credits: 3

Explores changes in American family life from the Colonial period to the present. Seeks to understand how family ideals, structures, and roles have shaped and have been shaped by social and historical change.

## HIST 3349 - Images of Power

Credits: 3
Using art, literature, history, and philosophy, this course explores the social, political, and intellectual life of the Parisian aristocracy and elite of the 17th century in its architectural setting. The Bourbon monarchs were well aware that the arts were instrumental to the construction of the absolutist state. As the course is set both intellectually and physically in Paris, the architectural monuments encourage students to make immediate connections between what they read and what they see. (SMU Abroad)

## HIST 3350 - A History of Ancient Egypt

## Credits: 3

A history of ancient Egyptian civilization from construction of the pyramids to conquest by the Romans, explored through Egyptian literature, archaeology, and artifacts.

## HIST 3351 - History of Ancient Near East

Credits: 3
Introduction to the civilizations, art, literature, and archaeology of the ancient Near East, from the origins of writing to conquest by Alexander the Great.

## HIST 3352 - The Age of the Crusades

## Credits: 3

Exploration of patterns of thought and behavior underlying and motivating the military, ideological, and general cultural confrontation between Christendom and Islam from the late 11th to the 14th centuries.

## HIST 3353 - The History of Ancient Greece

## Credits: 3

A study of the ways in which the various societies of ancient Greece approached the problem of defining, establishing, and maintaining an equitable social order.

## HIST 3354 - Warfare and Diplomacy in Antiquity

Credits: 3
A study of the methods both of waging and of averting war in antiquity.

## HIST 3355-Class and Gender in Ancient Society

Credits: 3
An examination of class and gender in the ancient world, with emphasis on changing definitions of masculinity and femininity in Greek and Roman culture, as well as the position, rights, and interactions of different groups (e.g., free and slave, citizen and foreigner, soldier and civilian).

## HIST 3356 - City of Light, City of Change: Paris in the Modern Era

Credits: 3
This course describes the experience of living in Paris beginning in the Old Regime to the modern era. It focuses on the social, cultural and physical aspects of life in the largest urban region of France as it underwent Revolution, class conflict, rebuilding, a flourishing of the arts, war and occupation, and political uncertainty to the present day. The course consists of lectures, readings, discussion and site visits. Evaluation will be by weekly writing assignments and a final exam. The course will use as text Colin Jones, Paris: Biography of a City (2004); Lewis Mumford, The City in History (1961); and Balzac's novel Old Goriot (1835). Lectures will cover a wide variety of topics on the development of Paris since 1789. City of Light, City of Change will include informative cultural trips to sites in Paris and nearby, as well as trips to Bayeux and Strasbourg. (SMU-in-Paris)

## HIST 3357 - Joan of Arc: History, Literature, and Film

Credits: 3
The life and later reception of the extraordinary peasant girl Joan of Arc (c. 1412-1431), who in 2 years changed the course of European history before she was burned at the stake.

## HIST 3358 - The Renaissance

Credits: 3
A history of culture in the Renaissance from the perspective of advances in scholarship and science, and above all, in appreciation of social and political contexts.

## HIST 3359 - Europe in the Age of the Reformation, 1520-1598

## Credits: 3

The political, economic, religious and cultural history of Europe, including the impact of the Protestant and Catholic reform movements.

## HIST 3360 - English Society in the Age of Elizabeth the Great

## Credits: 3

Focuses selectively upon key aspects of the social, cultural, religious, and intellectual life of Elizabethan England, set against the background of political, economic, and diplomatic developments in Europe in the 16th century.

## HIST 3361 - Roman History and the Roman Mind

## Credits: 3

The development of Roman civilization from its earliest beginnings to the dawn of the Middle Ages.

## HIST 3362 - The Vikings

Credits: 3
Traces the rise of small Scandinavian communities into powerful communities of raiders, conquerors, and colonizers during the Viking Age (c. 8th-12th centuries).

## HIST 3363 - The Holocaust

Credits: 3
Examines the destruction of the European Jews as they emerged from pre-World War I anti-Semitism and Nazi racism. Considers Jewish responses to genocide, the behavior of bystanders, and possibilities of rescue.

## HIST 3364 - Consumer Culture in the United States, 1700-1990

Credits: 3
The business, cultural, and political history of the rise of the consumer culture in the U.S., with a focus on the development of institutions, ideas, and practices centered on consumption.

## HIST 3365 - Problems in European History

## Credits: 3

Historical events or trends of particular significance in the development of modern Europe will be examined with consideration of the ways in which historians have assessed and reassessed their viewpoints. Students will be invited to join in the controversy with a modest research project of their own. Topics will be selected in accordance with the interests of students and instructors and hence will vary from term to term.

## HIST 3366 - Problems in European History

## Credits: 3

Historical events or trends of particular significance in the development of modern Europe will be examined with consideration of the ways in which historians have assessed and reassessed their viewpoints. Students will be invited to join in the controversy with a modest research project of their own. Topics will be selected in accordance with the interests of students and instructors and hence will vary from term to term.

## HIST 3367 - Revolutions in European History

## Credits: 3

Traces the impact of revolutionary explosions on European civilization from the peasant revolts of the late Middle Ages through the rebellions of the 1560 s and 1640 s and the great upheavals of the Age of Democratic Revolution to the events of 1917 in Russia. Recommended preparation: HIST 2365, HIST 2366.

## HIST 3368 - Warfare in the Modern World

## Credits: 3

The evolution of weapons, tactics, strategy, and military organization in the Western world, from the Renaissance to the present, with special attention to the fundamental nature and causes of armed conflict as well as the interrelationships between warfare and society as a whole.

## HIST 3369 - Colonial America

## Credits: 3

A study of the transfer of Europeans and Africans to the British mainland provinces and the development of a multicultural and multiregional colonial society.

## HIST 3370 - The American Revolution

## Credits: 3

A survey of political, social, and military history of the Revolutionary era. Major topics include the imperial crisis, mobilization and war, and state and federal constitutional development.

## HIST 3371 - Conflicts in the Modern Middle East

## Credits: 3

Examines the Arab-Israeli conflict, other regional conflicts, and the U.S.-Soviet Cold War in the Middle East.

## HIST 3372 - The South in American History

Credits: 3
Explores the origin, development, and present and future status of the South's position in America.

## HIST 3373 - Science, Religion, and Magic in Early Modern England

## Credits: 3

A study of the interaction of three ways of thinking about nature and the place of human beings within nature - science, magic and religion. Focuses on early modern England and religious divisions of the English Reformation and civil wars that brought political dissension and many competing views of nature and society.

## HIST 3374 - Diplomacy in Europe: Napoleon to the European Union

## Credits: 3

Treats the evolution of the European state system from the post-Napoleonic settlement through the end of the Cold War and creation of the European Union.

## HIST 3375 - Social History of Early Modern Europe

## Credits: 3

Studies European social and cultural development from the Renaissance to the French Revolution.

## HIST 3376 - Social and Intellectual History of Europe

## Credits: 3

Covers European social, cultural, and intellectual development from 1848 to the present.

## HIST 3377 - History of South Africa

Credits: 3
A survey of the history of South Africa from the 17th century to the present. Emphasis on the historical development of the patterns of economic, social, and political interaction among the peoples that led to the emergence of a majority-ruled, "new" South Africa.

## HIST 3378 - Problems in African History

Credits: 3
Examines a particular topic in the history of Africa. Potential topics include the trans-Saharan caravan system, the arrival and spread of Islam, the rise of African-European cultures, the slave trade, the abolition of slavery, imperialism and colonial transformations, nationalism, liberation movements, independence and underdevelopment, and democratization.

## HIST 3379-A Cultural History of New Mexico

Credits: 3
Explores the history of struggles among the state's dominant ethnic groups - Native Americans, Hispanos, and Anglos - over rituals, spaces, and objects. (SMU-in-Taos)

## HIST 3380 - Seminar in Digital History

Credits: 3
Explores topics regarding the use of digital history to further historical analysis, presentation, and research. Content varies.

## HIST 3381 - The First World War and Its Impact

## Credits: 3

This course explores the origins as well as the geopolitical, social, cultural, and economic impact of the Great War on Europe and the wider world.

## HIST 3382 - History of Mexico

Credits: 3
Covers pre-Columbian, colonial, and independent Mexico. Culture and social developments are stressed.

## HIST 3383 - Habsburg Monarchy: Making of East Central Europe

## Credits: 3

The Habsburg monarchy from its medieval origins through its disintegration at the end of World War I, with emphasis on its enduring legacy to contemporary Europe.

## HIST 3384 - History of the Consumer Economy in the United States

## Credits: 3

The history of the production, distribution, and marketing of consumer goods and services in the United States since 1750.

## HIST 3385 - The Balkan Peninsula in its European Context

Credits: 3
The impact of events in the Balkan peninsula on the development of European civilization from the conquests of the Ottoman Turks prior to 1566 through the contemporary era.

## HIST 3386 - Orient and Occident: Encounters Between the Middle East and the West in the Modern Era

## Credits: 3

Explores major themes in relations between the countries and cultures of the Middle East and Western Europe from the early modern era to the present, beginning with Napoleon's invasion of Egypt in 1798.

## HIST 3387-Asia and the West

## Credits: 3

Goods, ideas, religions, artistic styles, technologies, soldiers, and diseases have long traveled between East and West. Scholarship, primary sources, literature, and film illuminate the material and ideological effects of the exchanges.

## HIST 3388 - The African-American Urban Experience, 1865-1980

## Credits: 3

A history of African Americans in American cities during the post-Civil War era. Investigates the forces that inspired African Americans to relocate to urban areas and surveys the dynamic lifestyles created within evolving African-American urban communities, the long periods of major African-American rural-to-city migration, and institution building. Also, African-American politics, economics, race relations, and social life.

## HIST 3389 - Problems in Middle Eastern History

Credits: 3
A contemporary topic is treated in historical perspective. Sample topics include the Arab-Israeli conflict, oil and the politics of energy, and Islamic fundamentalism.

## HIST 3390 - Modern Middle East: 1914 to Present

Credits: 3
This survey course introduces students to history and politics of the contemporary Middle East.

## HIST 3391 - From Pew to Bleacher: American Culture and Institutions

## Credits: 3

An introduction to the formation of 19th- and 20th-century American culture and civilization through the study of the Church, print culture, museums, galleries, libraries, theater, Hollywood, television, and professional sports.

## HIST 3392 - The African Diaspora: Literature and History of Black Liberation

## Credits: 3

Examines the role of black literature in bringing on the collapse of European colonial order and as a major force in the struggle against neocolonialism today. Explores links between literature and politics, literature and history, and thought and action in 20th-century Africa and the Caribbean.

## HIST 3393 - China in Revolution

## Credits: 3

Examines the century of revolution in China, from the mid-19th century to the present, beginning with the unique political and social structure of Old China, and analyzing the impact of Western imperialism and the creative responses of intellectuals, warlords, and revolutionaries.

## HIST 3394 - The New Woman: The Emergence of Modern Womanhood in the U.S., 1890-1930

## Credits: 3

Explores the experiences of a variety of women during 1890 to 1930, including feminists, reformers, intellectuals, artists, working women, mothers, high school and college students, and juvenile delinquents.

## HIST 3395 - Problems in Asian History

Credits: 3
Explores historical issues, trends or special topics in Asian history will be explored using a thematic or comparative format.

## HIST 3396 - Coexistence and Conflict in the Middle East

## Credits: 3

Examines the consequences of being a member of a religious or ethnic minority in the pre-modern and modern Middle East. Analyzes how, in different periods and locations, Islamic powers coped with the question of ethno-religious diversity and kept alive an ethics of coexistence. Cases include early Islamic Empires, Muslim Spain, the Abbasid Caliphate, the Ottoman Empire and Iran. Also studies changes brought to the region by the dissolution of the Ottoman Empire and the First World War, including the emergence of ethno-nationalist states like Turkey, Syria, and Israel, and their policies towards their minorities.

## HIST 3397 - New Mexico: The History of Its Religion, Spirituality, and the Counterculture

## Credits: 3

Explores the history of New Mexico during the colonial period, the Mexican period (1821-1848), and the 19th and 20th centuries when New Mexico became part of the United States. Focuses on the religions, spiritual practices, and
counterculture movements that define its history. Discusses race, gender, and the complex relations among the variety of people, European, Native, Mexican and Anglo, in New Mexico.

## HIST 3398 - Women in Chinese History

## Credits: 3

Examines changes and continuities from Neolithic times to today in women's roles in politics and the state, religions and ideologies, the family and its alternatives, and production and consumption.

## HIST 3399 - U.S. Foreign Policy From the Spanish American War to Vietnam

## Credits: 3

A broad survey of American foreign relations in the 20th century. Traces the rise of the United States as a world power from Teddy Roosevelt's charge up Kettle Hill to the evacuation of Saigon in 1975.

## HIST 3401 - The Good Society

## Credits: 4

Examines the values and ideals that have been fundamental to the historical concept of the good society, with an emphasis on themes to aid students in understanding issues of race, gender, ethics, and power essential to any meaningful evaluation of society.

## HIST 4101 - Independent Study

## Credits: 1

Independent study of a selected topic in history under the direction of a faculty member.

## HIST 4300 - Junior Seminar in Research and Writing

## Credits: 3

Consists of a common body of readings on research methods and writing and a relatively small core of required readings that are different in each section and organized around a topic chosen by the instructor. Closely supervised writing assignments, based upon the required readings, grow into a major research project by the end of the term.

## HIST 4304 - At the Crossroads: Gender and Sexuality in the Southwest

Credits: 3
Approaches the study of New Mexico, and by extension the Southwest, through the lens of gender and sexuality. Examines the area's history and changes over time.

## HIST 4314 - Jews in Europe: Middle Ages to the Present

Credits: 3
History of the Jews in Europe from the Middle Ages to the present.

HIST 4315 - History of East Central Europe

Credits: 3

HIST 4319 - Medieval Formation of English Culture

Credits: 3
When, where, and how was English culture - that globally widespread and distinctive variation of Western culture - formed? In the eighth to 16th centuries, in a realm with Oxford at its center.

HIST 4320 - Medieval Europe I

Credits: 3
History of medieval Europe.

## HIST 4321 - Medieval Europe II

Credits: 3

HIST 4322 - Legal History of Medieval England

Credits: 3

HIST 4323 - History of Ireland

Credits: 3

HIST 4324 - Medieval Spirituality

Credits: 3

HIST 4325 - Islam to A.D. 1453

Credits: 3

HIST 4326 - Anglo-Saxon England to 1160

Credits: 3

HIST 4327 - India Before the Europeans

Credits: 3

## HIST 4354 - History of Ideas in America

Credits: 3
Studies the main themes of American public thought from the Colonial period to the Civil War and from the Civil War to the present.

## HIST 4363 - Inside Nazi Germany

Credits: 3
The reality beneath the spectacle of the Nuremberg rallies and the efficiency of the totalitarian state.

## HIST 4365 - Making of Australian Society

## Credits: 3

Examines the working of Australian society with special emphasis given to either the 19th or 20th century or to particular themes such as the impact of war, the response of the Australians to booms and depressions, and Australian national character.

## HIST 4372 - History of France I

Credits: 3
A study of the history of France.

## HIST 4373 - History of Modern France

Credits: 3
A study of the history of modern France.

## HIST 4375 - Departmental Distinction

Credits: 3
Honors program open to qualified seniors by invitation of the department.

## HIST 4376 - Departmental Distinction

Credits: 3
Honors program open to qualified seniors by invitation of the department.

## HIST 4384 - Early and Medieval England, From the Beginning to 1485

Credits: 3
The early historical heritage of the English peoples, from prehistoric times through the end of the Middle Ages.

## HIST 4385 - Tudor and Stuart England, 1485 to 1714

Credits: 3
The emergence of the modern British state and societies in the 16th and 17th centuries.

## HIST 4388-Georgian and Victorian England

Credits: 3
The history of Georgian and Victorian England 1714-1867.

## HIST 4397 - Internship in History

Credits: 3
An opportunity for students to apply historical skills in a public setting working with a supervisor of the student's work and a professor assessing the academic component of the project. Prerequisites: Junior or senior standing and at least 2.500 overall GPA.

## HIST 4398 - Independent Study

Credits: 3
History majors in their junior year may apply to the director of undergraduate studies to pursue a personally designed course of study under the guidance of an appropriate professor during the junior or senior year.

## HIST 4399 - Independent Study

## Credits: 3

History majors in their junior year may apply to the director of undergraduate studies to pursue a personally designed course of study under the guidance of an appropriate professor during the junior or senior year.

## HIST 5305 - Seminar in Hispanic-American Borderlands

## Credits: 3

Study of the historiography of the social interactions among varied peoples along the native, colonial, and national borders of Hispanic America, particularly those borders shaping the United States.

## HIST 5309 - Seminar in North American Borderlands

## Credits: 3

Study of the historiography of the social interactions among varied peoples along the native, imperial, and national borders of the North American continent, particularly those shaping the United States.

## HIST 5310 - Seminar on the American West

Credits: 3
Introduction to the historiography of the American West and its contested meanings.

## HIST 5312 - Seminar on Native American History

Credits: 3
Introduction to the historiography of Native Americans in United States history.

## HIST 5330 - Seminar in Mexican-American History

Credits: 3
An examination of the growing historiography on Mexican Americans that focuses on the relationship between their ethnic identity and the Southwest. (Also listed under Latin American history.)

## HIST 5331 - Seminar in Mexican-American History

## Credits: 3

An examination of the growing historiography on Mexican Americans that focuses on the relationship between their ethnic identity and the Southwest. (Also listed under Latin American history.)

## HIST 5338-20th-Century England

Credits: 3
A study of the decline and fall of 20th-century England.

## HIST 5340 - Seminar in American History

## Credits: 3

Intensive examination of major topics in American history.

## HIST 5341 - Seminar in American History

## Credits: 3

Intensive examination of major topics in American history.

## HIST 5344 - American Cultural History

## Credits: 3

Considers the histories of cultural institutions, objects, ideas, and practices. Explores an array of representative cultural conflicts and obsessions that have marked American history.

## HIST 5345- Industrialism and Reform in the U.S., 1877-1919

Credits: 3
An investigation of life in America in the Gilded Age and the Progressive Era, including industrialization, urbanization, and social conflict.

## HIST 5364 - The City of God in Its Milieu

Credits: 3
An examination of St. Augustine's masterpiece, along with several of its models and analogues from the Greco-Roman and Hebrew traditions.

## HIST 5367 - Russia From the Kievan Era to 1881

## Credits: 3

Surveys the development of state and society from the beginnings of history in East Slavic territory through the Era of the Great Reforms.

## HIST 5370 - Seminar in French History

## Credits: 3

An examination of key historians and of the several modes of historiographical writing that shape the vision of premodern France.

## HIST 5371 - The French Revolution and Napoleon, 1789-1815

Credits: 3
The nature and causes of revolution, the French Revolution, and the career of Napoleon Bonaparte.

## HIST 5374 - Recent European History: 1918 to the Present

Credits: 3
Considers two attempts to revive Europe from the effects of disastrous world wars, as well as the sources of new vigor it has found in the past 30 years.

## HIST 5375 - Europe in the Age of Louis XIV

Credits: 3
The scientific revolution, the culture of the Baroque era, and development of the European state system under the impact of the Thirty Years' War and the wars of Louis XIV.

## HIST 5376 - Europe Age of Enlightenment, 1715-1789

Credits: 3
A study of society and culture in 18th-century Europe, Enlightenment philosophies, rococo art, the classical age of music, enlightened despotism, and the coming of the French Revolution.

## HIST 5377 - The United States and the Cold War

Credits: 3
History of the U.S. and the Cold War.

## HIST 5380 - Augustus and the Roman Empire

Credits: 3
After 100 years of civil war, the first Roman emperor, Augustus, inaugurated the 250-year Roman Peace that transformed government, society, art, and culture across the Roman Empire.

## HIST 5382 - Seminar in Latin American History

Credits: 3
Intensive examination of major topics in Latin American history.

HIST 5387 - Seminar in African History

Credits: 3
Intensive examination of special topics in African history.

## HIST 5390 - Seminar in Russian History

Credits: 3
This advanced seminar covers selected topics in late Imperial Russian and Soviet history.

## HIST 5391 - Athenian Democracy

Credits: 3
This seminar will examine the development of democratic government in Athens and study the functioning of that government in peace and in war.

## HIST 5392 - Seminar in European History

Credits: 3
Intensive examination of major topics in European history.

## HIST 5395-A History of Iran

Credits: 3
This seminar aims to introduce students to the history, cultures, and peoples of Iran and familiarize them with this complex and increasingly important country.

## HIST 5397 - Seminar in Asian History

## Credits: 3

Intensive examination of major topics in Asian history.

## Interdisciplinary Programs and Courses

Biochemistry, B.S.

www.smu.edu/biochemistry

## Professor Steven Vik, Director

The B.S. degree in biochemistry reflects the interdisciplinary nature of modern biochemistry and includes courses in physics, mathematics, chemistry and biology. Undergraduate research is also highly recommended. These courses will prepare students for graduate study leading to a Ph.D. degree, for entrance to professional schools such as medicine, or for the chemical or biotechnology industry. The program includes a core of required courses but allows some flexibility in the choice of additional upper-division courses. Students planning to attend graduate school are advised to take at least three credits of undergraduate research (BIOL 3398, BIOL 4398 or CHEM 4397).

Note: There are two options for choosing the additional courses. Option 1 has been certified by the American Chemical Society for professional training in biochemistry. Option 2 provides a more traditional curriculum for biochemistry majors.

Students obtaining a B.S. degree in biochemistry may not also obtain a major or minor in chemistry or biology.

## Departmental Distinction


#### Abstract

A biochemistry major may graduate with departmental distinction by successfully completing a special program of study that includes independent reading and research and a senior thesis under the direction of a member of the faculty. The student must submit an application to the biochemistry adviser by the first term of the junior year and must have completed at least 22 hours toward the biochemistry degree with a GPA of at least 3.500 in courses required for the major. Upon approval from the respective departments, the student must enroll in the following courses: BIOL 4398, BIOL 4399 or CHEM 4397. Upon completion of these courses, the student will write a senior thesis and present it orally before a public audience including a faculty committee composed of the student's research adviser, the biochemistry adviser, and at least one additional faculty member. Upon successful completion of all degree requirements, the senior thesis and maintenance of a GPA of at least 3.500 in courses required for the major, the B.S. degree will be awarded with departmental distinction.


## Requirements for the Major

## Core Chemistry Courses ( 25 Credit Hours)

- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3351- Quantitative Analysis
- CHEM 3371- Organic Chemistry
- CHEM 3117 - Organic Chemistry Laboratory
- CHEM 3372- Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory
- CHEM 5383 - Physical Chemistry I
- CHEM 5384 - Physical Chemistry II


## Core Biological Sciences Courses (11 Credit Hours)

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304 - Genetics


## Core Biochemistry Courses (4 Credit Hours)

- BIOL 5310/CHEM 5310 - Biological Chemistry: Macromolecular Structure and Function
- BIOL 5110/CHEM 5110 - Biological Chemistry Laboratory


## Core Mathematics Courses (9 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus


## Core Physics Courses (8 Credit Hours)

- PHYS 1105-Mechanics Laboratory
- PHYS 1106 - Electricity and Magnetism Laboratory
- PHYS 1303 - Introductory Mechanics
or
- PHYS 1307-General Physics I and
- PHYS 1304 - Introductory Electricity and Magnetism or
- PHYS 1308 - General Physics II


## Additional Courses (9-11 Credit Hours)

Option 1 or Option 2

## Option 1 (11 credits)

Required (8 credits)

- CHEM 4397 - Undergraduate Research
- CHEM 5185 - Laboratory Methods in Physical Chemistry
- CHEM 5192 - Inorganic Synthesis Laboratory
- CHEM 5392 - Advanced Inorganic Chemistry

Electives (3 credits)

Choose 3 credits.

- BIOL 5311/CHEM 5311 - Biological Chemistry: Metabolism
or
- BIOL 5312/CHEM 5312 - Physical Biochemistry
or
- BIOL 5344 /CHEM 5344 - Physical Chemistry of Proteins

Option 2 (9 credits)
Required (6 credits)

- BIOL 3350 - Cell Biology
- BIOL 5311/CHEM 5311 - Biological Chemistry: Metabolism

Electives (3 credits)

Choose 3 credits.

- BIOL 5304 - Molecular Biology: Control and Expression of Genetic Information or
- BIOL 5312/CHEM 5312 - Physical Biochemistry
or
- BIOL 5344/CHEM 5344 - Physical Chemistry of Proteins


## Total: 66-68 Credit Hours

## Classical Studies Minor

## Associate Professor Melissa Dowling, Director

The minor in classical studies offers an integrated program studying the various aspects of the civilization of ancient Greece and Rome. The minor requires 18 hours, of which at least nine hours must be at the advanced level (3000 or above). Coursework for the minor must be distributed as follows:

## Requirements for the Minor

## Classical Languages (6 Credit Hours)

- LATN 2311 - Second-Year Latin or other advanced Latin courses
- LATN 2312 - Second-Year Latin: Second Term or other advanced Latin courses or
- Classical Greek at the 2000 level, when available


## Classical Studies (12 Credit Hours)

At least one course from each group.

## Group 1: Art History

- ARHS 1300 - From Mummies to Gladiators: Art and People of the Ancient World
- ARHS 3310 - War, Looting, and Collecting in the Ancient World
- ARHS 3311 - Mortals, Myths, and Monuments of Ancient Greece
- ARHS 3313-The Etruscans and Iron Age Italy
- ARHS 3315-Classical Sculpture
- ARHS 3316 - Art in Rome (SMU-in-Rome)
- ARHS 3317 - Land Between Two Rivers: Art of Ancient Iraq and Its Neighbors
- ARHS 4310 - Seminar on Ancient Art
- CLAS 3311 - Mortals, Myths, and Monuments of Ancient Greece


## Group 2: History

- HIST 2352 - Greek Mythology and History
- HIST 2353 - Currents in Classical Civilization
- HIST 2354 - Ancient Foundations of Modern Civilization
- HIST 2355 - History of the Ancient Near East and Egypt
- HIST 3350 - A History of Ancient Egypt
- HIST 3351 - History of Ancient Near East
- HIST 3353 - The History of Ancient Greece
- HIST 3354 - Warfare and Diplomacy in Antiquity
- HIST 3355 - Class and Gender in Ancient Society
- HIST 3361 - Roman History and the Roman Mind
- HIST 5380 - Augustus and the Roman Empire
- HIST 5391 - Athenian Democracy
- PHIL 3351 - History of Western Philosophy (Ancient)

Group 3: Other

- CLAS 2311 - Myth and Thought in the Ancient World
- CLAS 3312 - Classical Rhetoric
- ENGL 3382 - Heroic Visions: The Epic Poetry of Homer and Vergil
- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid
- LATN 3330 - Special Topics Abroad in Latin
- LATN 3331 - Special Topics Abroad in Latin
- RELI 3318 - The Hero in the Bible and the Ancient Near East
- RELI 3319 - Old Testament
- RELI 3320 - Classical Judaism
- RELI 3326 - New Testament
- RELI 3348 - Temples, Churches, and Synagogues in the Ancient Mediterranean
- RELI 3352 - Love and Death
- RELI 3371 - The World of the New Testament


## Total: 18 Credit Hours

## Courses:

## CLAS 2311 - Myth and Thought in the Ancient World

Credits: 3
Explores the conceptual and philosophical underpinnings of ancient understandings of reality in Western and non-Western cultures in both ancient and modern times. Materials for investigation will be primarily textual, including myths, epics, tragedies, and philosophical discourse in ancient Greece.

## CLAS 2332 - Society Expanding: Polis and Empire

Credits: 3
This course presents a case-study approach to the development of cities, civilizations, and empires from the appearance of urbanism in Mesopotamia to the end of the European Middle Ages, with special reference to political, economic, and religious institutions.

## CLAS 3311 - Mortals, Myths, and Monuments of Ancient Greece

Credits: 3
A visual analysis of the rich tapestry of ancient Greek culture, fountainhead of Western civilization, with emphasis on mythological, archaeological, and historical settings in which the art and architecture occur. Touches on various aspects of ancient Greek life, including religious practices, Olympic contests, theatrical performances, and artistic perfection.

## CLAS 3312 - Classical Rhetoric

Credits: 3
Readings in the ancient sophists, Plato, Aristotle, Isocrates, Cicero, Quintilian, Longinus, and St. Augustine; study of the intellectual foundations of the Western world.

## Environmental Sciences, B.S.

www.smu.edu/Dedman/Academics/Programs/EnvironmentalScience

## Professor Neil Tabor, Director

The natural systems that constitute Earth's environment are in continuous mutual interaction. These interactions occur on spatial scales that range from microscopic to global and on temporal scales that range from fractions of a second to millions of years. Scientific efforts to understand how the activities of humans affect the workings of such a complex arrangement must properly involve the identification and study of the fundamental processes operating at present in Earth's environment. Furthermore, to apply such knowledge with skill, insight and perspective, information must also be acquired on the extent to which ancient environmental conditions on Earth may have differed from those observed today and how such changes affected life on the planet. An intellectual and practical scientific problem of such vast scope must be approached in an interdisciplinary manner. This interdisciplinary requirement is important not only for students who will become professional environmental scientists, but also for those who want a solid scientific foundation for postgraduate training in environmental law, public policy, business and other fields.

The program includes a set of core courses that provide the student with the necessary background in chemistry, Earth science, physics, biology and mathematics to move into an Earth science, chemistry or biology emphasis in the upper-division courses. All environmental science majors come together their senior year in a multidisciplinary seminar in environmental science. Juniors and seniors may do an internship (e.g., with a nonprofit agency, an environmental lawyer, or an assessment and remediation company) for course credit and by special arrangement.

The environmental sciences major requires 68 total hours, consisting of 50 hours of core classes and $15-18$ hours of electives taken with an emphasis in chemistry, Earth science or biology.

## Requirements for the Major

## Core Biology Courses (7 Credit Hours)

- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 3307 - Ecology
or
- GEOL 3307 - Ecology


## Core Chemistry Courses (15-16 Credit Hours)

- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3371- Organic Chemistry
- CHEM 3117 - Organic Chemistry Laboratory
- CHEM 3372- Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory or
- CHEM 3351- Quantitative Analysis


## Core Earth Sciences Courses (11 Credit Hours)

- GEOL 1301 - Earth Systems or
- GEOL 1315 - Introduction to Environmental Science
- GEOL 3451 - Earth Materials I: Mineralogy
- GEOL 3452 - Earth Materials II: Petrology


## Core Environmental Science Course (3 Credit Hours)

- GEOL 3363 - Environmental Geology Seminar

Core Mathematics Courses (6 Credit Hours)

- MATH 1337-Calculus I
- MATH 1338 - Calculus II


## Core Physics Courses (8 Credit Hours)

- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory or
- PHYS 1307-General Physics I
- PHYS 1105 - Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory or
- PHYS 1308-General Physics II
- PHYS 1106 - Electricity and Magnetism Laboratory


## Emphasis Courses (15-18 Credit Hours)

Chosen from one area of emphasis.
Chemistry Emphasis (15-16 Credit Hours)

- CHEM 3372- Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory or
- CHEM 3351- Quantitative Analysis
- CHEM 5383 - Physical Chemistry I


## Electives

9 or more credits from the following:

- CHEM 4397 - Undergraduate Research
- GEOL 3353 - Modern and Ancient Climates
- GEOL 5384 - Hydrogeology
- GEOL 5386 - Geochemistry


## Earth Sciences Emphasis (18 Credit Hours)

18 credits from the following:

- CEE 3341 - Introduction to Solid and Hazardous Waste Management
- CHEM 3351-Quantitative Analysis
- CHEM 3372- Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory
- CHEM 5383 - Physical Chemistry I
- GEOL 3353 - Modern and Ancient Climates
- GEOL 3369 - Paleobiology
- GEOL 3454 - Structural Geology
- GEOL 3472 - Principles of Sedimentation
- GEOL 4296 - Senior Thesis Research Project
- GEOL 4298 - Senior Thesis Research Project or
- GEOL 4321 - Internship in Geoscience
- GEOL 4390 - Introduction to Geophysical Prospecting
- GEOL 5368 - Paleoecology
- GEOL 5384 - Hydrogeology
- GEOL 5386- Geochemistry
- ME 2342 - Fluid Mechanics
- STAT 2331 - Introduction to Statistical Methods
or
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists


## Biology Emphasis (18 Credit Hours)

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab


## Electives

14 or more credits from the following:

- BIOL 3303 - Evolution
- BIOL 3304 - Genetics
- BIOL 3305 - Limnology: Aquatic Biology
- BIOL 3306 - Physiology
- BIOL 3311 - Tropical Ecology and Sustainable Development (SMU-in-Costa Rica)
- BIOL 3312 - Wildlife Ecology (SMU-in-Kenya)
- BIOL 3342 - Plant Kingdom
- BIOL 3343 - Field Botany (SMU-in-Taos)
- BIOL 3347 - Systematic Botany (SMU-in-Taos)
- BIOL 3354 - Parasitology
- BIOL 3403 - Microbiology
- BIOL 4360 - Environmental and Human Toxicology
- BIOL 5366 - Vertebrate Anatomy and Origins
- BIOL 5166 - Vertebrate Anatomy Laboratory
- BIOL 5311 - Biological Chemistry: Metabolism
- BIOL 5110 - Biological Chemistry Laboratory
- BIOL 5311 - Biological Chemistry: Metabolism
- GEOL 3353 - Modern and Ancient Climates


## Total: 65-68 Credit Hours

## Courses:

## ENSC 3100 - Special Topics Abroad

Credits: 1
Courses offered in SMU-approved international programs. Prior departmental approval is required. May be repeated for credit under different subtitle. A maximum of 6 credit hours may be applied toward the B.S. degree in environmental science.

ENSC 3200 - Special Topics Abroad

Credits: 2
Courses offered in SMU-approved international programs. Prior departmental approval is required. May be repeated for credit under different subtitle. A maximum of 6 credit hours may be applied toward the B.S. degree in environmental science.

## ENSC 3300 - Special Topics Abroad

Credits: 3
Courses offered in SMU-approved international programs. Prior departmental approval is required. May be repeated for credit under different subtitle. A maximum of 6 credit hours may be applied toward the B.S. degree in environmental science.

## ENSC 3312 - Directed Research

Credits: 3
Scientific writing, oral, graphic, and tabular presentation of results derived from experimental design, field techniques, basic descriptive statistics, and parametric and nonparametric quantitative analysis. (SMU-in-Costa Rica only)

## ENSC 3313 - Techniques in Wildlife Management

## Credits: 3

Introduces laboratory techniques for monitoring ungulate populations and optimizing management practices, while studying behavioral, physiological, and social responses of animals to a changing environment. (SMU-in-Kenya only)

## ENSC 3316 - Directed Research

## Credits: 3

Scientific writing, oral, graphic, and tabular presentation of results derived from experimental design, field techniques, basic descriptive statistics, and parametric and nonparametric quantitative analysis. (SMU-in-Kenya only)

ENSC 3322 - Internship in Environmental Science

## Credits: 3

Students experience work in a business or organization concerned with environmental issues. Opportunities may be found in environmental law, assessment and remediation companies, or among nonprofit or government agencies.

## Environmental Studies, B.A.

www.smu.edu/Dedman/Academics/Programs/environmentalstudies

## Professor Neil Tabor, Director

The B.A. in environmental studies provides students with the tools necessary to address society's environmental problems through careers in government, non-governmental or educational organizations, public policy, business, and related fields. This interdisciplinary program incorporates courses from numerous departments and three schools in the University. The environmental studies major can be tailored to emphasize an area of interest (e.g., environmental biology, sustainability and globalization, environmental policy) and would be complemented by minors or other majors in environmental Earth science, economics, business, environmental science, biology, anthropology, journalism, corporate communications and public affairs, advertising, sociology and many of the disciplines in the humanities and social sciences.

The environmental studies core classes provide the student with the appropriate concepts and tools to understand the scope of global, regional and local environmental issues. Elective credit hours are chosen in consultation with an academic adviser, with at least one course from each of the three groups listed below. A senior thesis is required, with a field, research or other practical component taken in a department relevant to the student's interest (e.g., ANTH 4391 or ANTH 4392 - Independent Study and Research, JOUR 5308 - Honors Thesis, ECO 4398 - Departmental Distinction in Economics or GEOL 4399 - Integrative Research.

Majors are strongly encouraged to take advantage of opportunities for study abroad and to seek relevant internships. Internship courses are offered in many departments and can be counted toward the major by petition. Approved SMU Abroad courses can also count as elective courses.

## Requirements for the Major

Core Courses (21 Credit Hours)

- BIOL 3307/GEOL 3307 - Ecology
- GEOL 1301 - Earth Systems
- GEOL 3353 - Modern and Ancient Climates
- HIST 3309 - North American Environmental History
or
- ANTH 3384 - Paradise Lost? The Archaeology and Paleoecology of Human-Environmental Impacts or
- GEOL 3330 - Resources and the Environment
- PP 3310 - Environmental Policy
- STAT 2331 - Introduction to Statistical Methods
- One thesis-related course


## Elective Courses (15 Credit Hours)

## Natural Sciences and Statistics

Minimum of 3 hours:

- BIOL 3303 - Evolution
- BIOL 3308 - Biology of Marine Mammals
- BIOL 3342 - Plant Kingdom
- BIOL 3343 - Field Botany
- ENSC 3313-Techniques in Wildlife Management
- GEOL 3330 - Resources and the Environment
- GEOL 3340 - Face of the Earth
- GEOL 3359 - Computer Methods in Earth Sciences
- GEOL 3363 - Environmental Geology Seminar
- GEOL 3472 - Principles of Sedimentation
- GEOL 5368 - Paleoecology
- GEOL 5384 - Hydrogeology
- STAT 3380 - Environmental Statistics


## Social Sciences

Minimum of 3 credit hours:

- ANTH 3319 - Human Ecology
- ANTH 3374 - Cultures and Environments of the Southwest
- ANTH 3384 - Paradise Lost? The Archaeology and Paleoecology of Human-Environmental Impacts
- ANTH 3385 - Sustainable Living
- ANTH 4346 - Environmental Anthropology and Development
- ECO 4382 - Economics of Regulated Industries
- ECO 5301- Topics
- ECO 5360 - Economic Development: Macroeconomic Perspectives
- ENST 3301 - Natural Resource and Environmental Economics
- PHIL 3377 - Animal Rights
- PHIL 3379 - Environmental Ethics
- SOCI 4321 - The Politics of Immigration: A Global Perspective


## Business and Engineering

Minimum of 3 credit hours:

- CEE 1301 - Environment and Technology: Ecology and Ethics
- CEE 1302 - Introduction to Civil and Environmental Engineering
- CEE 2304 - Fundamentals of Environmental Engineering
- CEE 3341 - Introduction to Solid and Hazardous Waste Management
- CEE 3355 - Environmental Impact Evaluation, Policy, and Regulation
- CEE 5325 - Disaster Management
- MNO 3375 - Corporate Social Responsibility and Ethical Leadership
- MNO 4371 - Leadership and Culture


## Total: 36 Credit Hours

## Courses:

ENST 1100 - Environmental Studies Abroad

Credits: 1
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

## ENST 1200 - Environmental Studies Abroad

Credits: 2
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

## ENST 1300 - Environmental Studies Abroad

Credits: 3
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

## ENST 2100 - Environmental Studies Abroad

Credits: 1
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

ENST 2200 - Environmental Studies Abroad

Credits: 2
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

ENST 2300 - Environmental Studies Abroad

Credits: 3
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitles.

## ENST 3100 - Special Topics Abroad

Credits: 1
Courses offered in SMU-approved international programs. Prior departmental approval is required. May be repeated for credit under different subtitle. A maximum of 6 credit hours may be applied toward the B.A. degree in environmental studies.

## ENST 3200 - Special Topics Abroad

## Credits: 2

Courses offered in SMU-approved international programs. Prior departmental approval is required. May be repeated for credit under different subtitle. A maximum of 6 credit hours may be applied toward the B.A. degree in environmental studies.

## ENST 3300 - Special Topics Abroad

Credits: 3
Courses offered in SMU-approved international programs. Prior departmental approval is required. May be repeated for credit under different subtitle. A maximum of 6 credit hours may be applied toward the B.A. degree in environmental studies.

## ENST 3301 - Natural Resource and Environmental Economics

## Credits: 3

Development of the principles of natural resource and environmental economics from an Earth science perspective. Includes supply and demand for energy, mineral, and water resources. Also, sustainability and climate change. Prerequisite: ECO 1311. Recommended: GEOL 3330.

## ENST 3315 - Environmental Policy and Socioeconomic Values

Credits: 3
Introduces the major constituencies that affect African conservation (nongovernmental conservation groups, economic interests, etc.) and their underlying philosophies. Students learn to determine effective approaches to resource management. (SMU-in-Kenya only)

## Ethnic Studies

## African/African-American Studies, B.A.

## Associate Professor Kenneth Hamilton, Director

The ethnic studies program offers an interdisciplinary examination of African-American and Mexican-American experiences through the social sciences and humanities. Students receive instruction in important periods of African, Mexican and American history, probing the roots of traditions beginning in early African and preColumbian cultures, as well as examining minorities in contemporary U.S. society. This program provides good preparation for graduate work in the social sciences, the humanities and professional schools, as well as jobs and careers in many fields. Education, law, journalism, urban planning, business, social work and politics are a few of the fields for which ethnic studies provides a strong background.

The B.A. degree focuses on humanities and, consequently, requires less work in methodology and statistics than the B.S. degree. Courses to fulfill the requirements for this program should be selected in consultation with the program director. A total of 33 hours are required to complete the major in African and African-American studies.

## Requirements for the Major

## Foundation Courses (6 Credit Hours)

- ETST 2301/SOCI 3305 - Introduction to Race and Ethnicity in the United States
- SOCI 3370 - Minority-Dominant Relations


## Basic Courses (18 Credit Hours)

- HIST 2392 - Modern Africa
- HIST 3313 - African Americans in the United States, 1607-1877
- HIST 3314 - African Americans in the United States, 1877 to the Present

Three courses chosen from the following:

Three courses chosen from the following, with two outside of history and at least one at the 3000 level or above:

- ANTH 3314 - Peoples of Africa
- ENGL 3362 - African-American Literature
- HIST 2391 - Africa to the 19th Century
- HIST 3304 - African Americans and the Civil Rights Movement
- HIST 3378 - Problems in African History
- HIST 3388 - The African-American Urban Experience, 1865-1980
- HIST 5341 - Seminar in American History
- MUHI 3340 - Jazz: Tradition and Transformation


## Cross-Cultural Course (3 Credit Hours)

African/African-American studies students choose from Mexican-American studies courses

## Supporting Courses (6 Credit Hours)

6 hours chosen from the following:

- ANTH 3353 - Indians of North America
- ANTH 3361 - Language in Culture and Society
- ANTH 3368/SOCI 3368 - Global Urbanism: Implosions/Explosions
- ENGL 1365 - Literature of Minorities
- ENGL 3365 - Jewish-American Literature and Culture
- ETST 2305 - Internship in Ethnic Studies
- HIST 2380 - Ethnic Regions in the Western World
- PLSC 4337 - Civil Rights
- RELI 3324 - American Judaism
- ENGL 3354 - Non-Western Culture and Literature


## Total: 33 Credit Hours

## African/African-American Studies, B.S.

## Associate Professor Kenneth Hamilton, Director

The ethnic studies program offers an interdisciplinary examination of African-American and Mexican-American experiences through the social sciences and humanities. Students receive instruction in important periods of African, Mexican and American history, probing the roots of traditions beginning in early African and preColumbian cultures, as well as examining minorities in contemporary U.S. society. This program provides good preparation for graduate work in the social sciences, the humanities and professional schools, as well as jobs and careers in many fields. Education, law, journalism, urban planning, business, social work and politics are a few of the fields for which ethnic studies provides a strong background.

The B.S. includes both humanities and social science. A total of 36 hours are required to complete the major in African and African-American studies. The same pattern of courses is required as for the B.A. degree, with the addition of six hours of required methods courses, three of which may substitute for three hours of supporting courses:

## Additional Requirements for the Major

- SOCI 3311 - Social Science Research Methods
- STAT 2331 - Introduction to Statistical Methods


## Mexican-American Studies, B.A.

## Associate Professor Kenneth Hamilton, Director

The ethnic studies program offers an interdisciplinary examination of African-American and Mexican-American experiences through the social sciences and humanities. Students receive instruction in important periods of African, Mexican and American history, probing the roots of traditions beginning in early African and preColumbian cultures, as well as examining minorities in contemporary U.S. society. This program provides good preparation for graduate work in the social sciences, the humanities and professional schools, as well as jobs and careers in many fields. Education, law, journalism, urban planning, business, social work and politics are a few of the fields for which ethnic studies provides a strong background.

The B.A. degree focuses on humanities and, consequently, requires less work in methodology and statistics than the B.S. degree. Courses to fulfill the requirements for these programs should be selected in consultation with the program director. A total of 34 hours are required to complete the major in Mexican-American studies.

## Requirements for the Major

## Foundation Courses (6 Credit Hours)

- ETST 2301/SOCI 3305 - Introduction to Race and Ethnicity in the United States
- SOCI 3370 - Minority-Dominant Relations


## Basic Courses (19 Credit Hours)

- HIST 3308 - History of Hispanics in the U.S. Through Film or
- HIST 3324 - The Mexican Americans, 1848 to the Present
- SOCI 3372 - Contemporary Issues in the American Southwest
- SPAN 2401 - Intermediate Spanish I

Three courses chosen from the following:

- ANTH 3312 - Mesoamerican Archaeology
- ARHS 3383-The Ancient Maya: Art and History
- ARHS 3385-The Aztecs Before and After the Conquest: Mesoamerica, 1400-1600
- ENGL 3363 - Chicana/Chicano Literature
- HIST 3305 - The Hispanos of New Mexico, 1848-Present
- HIST 3308 - History of Hispanics in the U.S. Through Film
- HIST 3382 - History of Mexico
- HIST 5330 - Seminar in Mexican-American History
- HIST 5331 - Seminar in Mexican-American History
- WL 3306 - Chicano Cultural Heritage


## Cross-Cultural Course (3 Credit Hours)

## Supporting Courses (6 Credit Hours)

6 hours chosen from the following:

- ANTH 3353 - Indians of North America
- ANTH 3361 - Language in Culture and Society
- ANTH 3368/SOCI 3368 - Global Urbanism: Implosions/Explosions
- ENGL 1365 - Literature of Minorities
- ENGL 3354 - Non-Western Culture and Literature
- ENGL 3365 - Jewish-American Literature/Culture
- ETST 2305 - Internship in Ethnic Studies
- HIST 2380 - Ethnic Regions in the Western World
- HIST 3324 - The Mexican Americans, 1848 to the Present
- PLSC 4337 - Civil Rights
- RELI 3324 - American Judaism


## Total: 34 Credit Hours

## Mexican-American Studies, B.S.

## Associate Professor Kenneth Hamilton, Director

The ethnic studies program offers an interdisciplinary examination of African-American and Mexican-American experiences through the social sciences and humanities. Students receive instruction in important periods of African, Mexican and American history, probing the roots of traditions beginning in early African and preColumbian cultures, as well as examining minorities in contemporary U.S. society. This program provides good preparation for graduate work in the social sciences, the humanities and professional schools, as well as jobs and careers in many fields. Education, law, journalism, urban planning, business, social work and politics are a few of the fields for which ethnic studies provides a strong background.

The B.S. includes both humanities and social science. A total of 37 hours are required to complete the major in Mexican-American studies. The same pattern of courses is required as for the B.A. degree, with the addition of six hours of required methods courses, three of which may substitute for three hours of supporting courses:

## Additional Requirements for the Major (6 Credit Hours)

- SOCI 3311-Social Science Research Methods
- STAT 2331 - Introduction to Statistical Methods


## Total: 37 Credit Hours

## African/African-American Studies Minor

## Associate Professor Kenneth Hamilton, Director

The ethnic studies program offers an interdisciplinary examination of African-American and Mexican-American experiences through the social sciences and humanities. Students receive instruction in important periods of

African, Mexican and American history, probing the roots of traditions beginning in early African and preColumbian cultures, as well as examining minorities in contemporary U.S. society. This program provides good preparation for graduate work in the social sciences, the humanities and professional schools, as well as jobs and careers in many fields. Education, law, journalism, urban planning, business, social work and politics are a few of the fields for which ethnic studies provides a strong background.

The African and African-American studies minors are each 18 credit hours.

## Requirements for the Minor

- HIST 2392 - Modern Africa
- HIST 3313 - African Americans in the United States, 1607-1877
- HIST 3314 - African Americans in the United States, 1877 to the Present


## Three courses chosen from the following:

Three courses chosen from the following, with two outside of history and at least one at the 3000 level or above:

- ANTH 3314 - Peoples of Africa
- ENGL 3362 - African-American Literature
- HIST 2391 - Africa to the 19th Century
- HIST 3304 - African Americans and the Civil Rights Movement
- HIST 3378 - Problems in African History
- HIST 3388 - The African-American Urban Experience, 1865-1980
- HIST 5341 - Seminar in American History
- MUHI 3340 - Jazz: Tradition and Transformation


## Mexican-American Studies Minor

## Associate Professor Kenneth Hamilton, Director

The ethnic studies program offers an interdisciplinary examination of African-American and Mexican-American experiences through the social sciences and humanities. Students receive instruction in important periods of African, Mexican and American history, probing the roots of traditions beginning in early African and preColumbian cultures, as well as examining minorities in contemporary U.S. society. This program provides good preparation for graduate work in the social sciences, the humanities and professional schools, as well as jobs and careers in many fields. Education, law, journalism, urban planning, business, social work and politics are a few of the fields for which ethnic studies provides a strong background.

## Requirements for the Minor

## Basic Courses (10 Credit Hours)

- HIST 3308 - History of Hispanics in the U.S. Through Film or
- HIST 3324 - The Mexican Americans, 1848 to the Present
- SOCI 3372 - Contemporary Issues in the American Southwest
- SPAN 2401 - Intermediate Spanish I


# Three courses chosen from the following: (9 Credit Hours) 

- ANTH 3312 - Mesoamerican Archaeology
- ARHS 3383-The Ancient Maya: Art and History
- ARHS 3385- The Aztecs Before and After the Conquest: Mesoamerica, 1400-1600
- ENGL 3363 - Chicana/Chicano Literature
- HIST 3308 - History of Hispanics in the U.S. Through Film
- HIST 3324 - The Mexican Americans, 1848 to the Present
- HIST 3382 - History of Mexico
- HIST 5330 - Seminar in Mexican-American History
- HIST 5331 - Seminar in Mexican-American History
- WL 3306 - Chicano Cultural Heritage
- WL 3372 - Relocating Latinos and Their Cultures


## Total: 19 Credit Hours

## Courses:

## ETST 2301 - Introduction to Race and Ethnicity in the United States

Credits: 3
An interdisciplinary seminar designed to introduce students to the analysis of race and ethnicity in the United States.

## ETST 2305 - Internship in Ethnic Studies

Credits: 3
Offers experience in varied careers serving ethnic communities. Opportunities include advertising for public service, community organizing, nonprofit economic development, local historical preservation, and more. Departmental consent required.

## Human Rights, B.A.

The Embrey Human Rights Program offers an interdisciplinary program introducing students to the study of universally recognized civil, political, economic, social and cultural human rights. The program offers undergraduate majors and minors, lecture programs, and the opportunity for any SMU student to participate in educational travel programs to visit human rights sites worldwide.

The human rights major consists of 30 hours of coursework related to human rights and at least 11 hours in any one world language. Students may also demonstrate proficiency in a world language through testing or other approved means. Given the interdisciplinary nature of the study of human rights, students are required to take a second major or a minor in a related field. No more than 6 hours taken for the human rights major can be counted towards any other major or minor. Students must also select three elective courses from the approved elective list below (or they may substitute other courses as approved by the director).

## Requirements for the Major

## Core Courses (12 Credit Hours)

- HRTS 3301/HIST 3301 - Human Rights: America's Dilemma
- HRTS 3310/WGST 3310 - Gender and Human Rights
- PLSC 4334 - The Politics and Legacies of the Civil Rights Movement
- HRTS 4343 - Ethics and Human Rights


## Human Rights Tracks (9 Credit Hours)

Three courses from either track, from at least two departments and with at least 6 hours at the 3000 level or above.

## Gender and Human Rights Track

- ANTH 1321 - Introduction to Anthropology
- ANTH 2301 - Introductory Cultural Anthropology
- ANTH 3310 - Gender and Sex Roles: A Cross-Cultural Perspective
- ANTH 3328/WGST 3328 - Gender Violence: Anthropological Perspectives
- ANTH 3336 - Gender and Globalization: Cultural and Ethical Issues
- ANTH 3348/HRTS 3348 - Health as a Human Right
- ANTH 4386 - The Archaeology of Gender and Sexuality
- HIST 3317/HRTS 3317 - Persecution to Affirmation: Sexual Minorities and Human Rights
- HIST 3327 - Women in American History From 1865
- HIST 3398 - Women in Chinese History
- HIST 5340 - Seminar in American History
- PLSC 4339 - Criminal Procedure: 5th and 6th Amendment Rights
- PLSC 4344/HRTS 4344 - Gender in World Politics
- SOCI 3371 - Sociology of Gender
- SOCI 4373 - Class, Race, and Gender Inequalities
- WL 4345/HRTS 4345 - Women's Rights and Human Rights: Latin American Women Writers

Public Policy and Human Rights Track

- ANTH 3329/HRTS 3329 - Contesting Development: Global and Local Impacts and Human Rights
- ANTH 3333 - The Immigrant Experience
- ANTH 3348/HRTS 3348 - Health as a Human Right
- ANTH 3351 - Forensic Anthropology: Lessons Taught by Bones
- ANTH 3353 - Indians of North America
- ANTH 3354 - Latin America: Peoples, Places, and Power
- ANTH 3358 - Indians of the Southwest From the 16th Century to the Present
- ANTH 3388 - Warfare and Violence: The Anthropology and Ethics of Human Conflict
- ANTH 4303 - Political Economy of Health
- ANTH 4309/HRTS 4309 - Human Rights, Indigenous Peoples, and Nation States
- ENGL 3383 - Literary Executions: Imagination and Capital Punishment
- HIST 2391 - Africa to the 19th Century
- HIST 2392 - Modern Africa
- HIST 2395 - Modern East Asia
- HIST 3304 - African Americans and the Civil Rights Movement
- HIST 3306 - Colony to Empire: U.S. Diplomacy 1789-1941
- HIST 3307-The U.S. and the Cold War, 1945-1989
- HIST 3313 - African Americans in the United States, 1607-1877
- HIST 3314 - African Americans in the United States, 1877 to the Present
- HIST 3322 - Native American History
- HIST 3341 - Soviet and Post-Soviet Society and Politics, 1917 to the Present
- HIST 3371 - Conflicts in the Modern Middle East
- HIST 3392 - The African Diaspora: Literature and History of Black Liberation
- HIST 3393 - China in Revolution
- HIST 3401 - The Good Society
- HIST 4363 - Inside Nazi Germany
- MNO 3375 - Corporate Social Responsibility and Ethical Leadership
- PHIL 3371-Social and Political Philosophy
- PHIL 3374 - Philosophy of Law
- PHIL 3377 - Animal Rights
- PHIL 3380 - Ethics: Morality, Self-Interest, and Justice
- PLSC 1380 - Introduction to International Relations
- PLSC 3345-Governments and Politics of the Middle East
- PLSC 3346 - Japanese Politics and Society
- PLSC 3347 - Governments and Politics of Africa
- PLSC 3348 - Governments and Politics of Latin America
- PLSC 3352 - Chinese Politics
- PLSC 3358 - Government and Politics of Russia
- PLSC 3381 - Current Issues in International Politics
- PLSC 3383 - The American Foreign Policy Process
- PLSC 4321 - Basic Issues in American Democracy
- PLSC 4337 - Civil Rights
- PLSC 4339 - Criminal Procedure: 5th and 6th Amendment Rights
- SOCI 3305/ETST 2301 - Introduction to Race and Ethnicity in the United States
- SOCI 3360 - Law and Society
- SOCI 3363 - Crime and Delinquency
- SOCI 3370 - Minority-Dominant Relations
- SOCI 4335 - Social Movements and Collective Behavior
- SOCI 4364 - Correctional Systems


## Electives (9 Credit Hours)

Three courses from at least two departments, if not taken for track 1 or 2 above, with at least 3 hours at the 3000 level or above.

- Any ANTH (or colisted HTRS course), ETST, or WGST course from track 1 or 2 above.
- ANTH 3301/SOCI 3301 - Health, Healing, and Ethics: Cross-Cultural Perspectives on Sickness and Society
- ANTH 3311 - Mexico: From Conquest to Cancun
- ANTH 4305 - Applied Anthropology
- ANTH 4386 - The Archaeology of Gender and Sexuality
- ARHS 3310 - War, Looting, and Collecting in the Ancient World
- ARHS 3334-The Look of Freedom
- ENGL 1365 - Literature of Minorities
- ENGL 3367 - Ethical Implications of Children's Literature
- ENGL 3377 - Literature and the Construction of Homosexuality
- ENGL 3383 - Literary Executions: Imagination and Capital Punishment
- ENGL 3385/HRTS 3385 - Literature of the Holocaust
- FREN 4376 - Introduction to Francophone Cultures
- FREN 5325 - Literature on Human Rights: Thinking a Better World
- Any HIST course from track 1 or 2 above.
- HIST 3363-The Holocaust
- HIST 3377 - History of South Africa
- HIST 3398 - Women in Chinese History
- HRTS 3315/ASAG 3315 - Community Engaged Practice
- HRTS 3320/ARHS 3310 - War, Looting, and Collecting in the Ancient World
- HRTS 3341/WL 3341 - The Failure of Humanity in Rwanda
- HRTS 3348 - Health as a Human Right
- HRTS 3387/RELI 3387 - Religion and Human Rights
- HRTS 4309 - Human Rights, Indigenous Peoples, and Nation States
- HRTS 4344 - Gender in World Politics
- HRTS 4345/WL 4345 - Women's Rights and Human Rights: Latin American Women Writers
- HRTS 4390 - Special Topics in Human Rights Abroad (for group tour credit)
- HRTS 4391 - Special Topics in Human Rights Abroad (for group tour credit)
- HRTS 4392 - Special Topics in Human Rights
- JOUR 4350 - Human Rights and the Journalist
- KNW 2399 - Special Topics
- MNO 3375 - Corporate Social Responsibility and Ethical Leadership
- MNO 4371 - Leadership and Culture
- Any PHIL course from track 1 or 2 above.
- Any PLSC course from track 1 or 2 above.
- PSYC 3375 - Human Rights From a Psychological Perspective
- RELI 3321 - Religion and the Holocaust
- RELI 3390 - A Persistent Prejudice: Anti-Semitism in Western Civilization
- Any SOCI or colisted ETST course from track 1 or 2 above.
- SPAN 3313 - Cultural Dialogues: Latin America
- SPAN 3374 - Topics in Spanish-American Civilization
- SPAN 5364 - Human Rights Issues in Contemporary Spanish Literature
- WL 3302 /SOCI 3350 - Ethnoviolence: Interdisciplinary Perspectives
- WL 3330 - Migration, Occupation, and Independence in North African Cinema
- WL 3355 - Tradition, Community, and Identity in African Cinema
- WL 3362 - Postcolonial France
- WL 4310 - French Muslim Citizens and the Algerian War: The Harkis


## World Language (11 Credit Hours)

- A single language


## Total: 41 Credit Hours

## Human Rights Minor

A human rights minor consists of a minimum of 18 hours of coursework. HRTS 3301/ HIST 3301 is required. The remaining 15 hours must be taken from the approved elective list; nine hours of these must be at the advanced level (3000 or above). In addition to HRTS 3301/HIST 3301, no more than two courses from any one department may be taken as electives unless preapproval is given by the director. Students may not earn both the B.A. in human rights and the minor in human rights.

The minor also requires a commitment of students' effort, time and talent in defense of or in advocacy for human rights. Students will complete either a 20 -hour service-learning placement with a human rights communitybased agency (as a component of HRTS 3301/HIST 3301) or will receive independent credit (HRTS 4390, HRTS 4391) by participating in an Embrey Human Rights Program sponsored journey to a location where recent human rights violations have occurred or are occurring (e.g., Cambodia, Rwanda, Poland, Argentina, the U.S.Mexico border) and completing a research paper on a human rights topic related to the site.

## Courses:

## HRTS 1101 - Foundations of Community, Inclusion, and Diversity

Credits: 1
Explores many components of diversity and inclusion through self-identity development and construction, SMU's history regarding diversity, and ways students can build inclusive communities on campus and beyond. Prerequisite: Personal Responsibility \& Wellness I.

## HRTS 2301 - The Struggle for Human Rights in South Africa

Credits: 3
Studies the history of the struggle for human rights in South Africa from the colonial era to the present. Examines themes such as gender, education, segregation, and labor.

## HRTS 2325 - Human Rights in Modern South Asia

Credits: 3
Examines some of the most pressing human rights issues in 20th and 21st century South Asia, including questions of gender, environmental justice, and caste.

## HRTS 3301 - Human Rights: America's Dilemma

## Credits: 3

Examines certain violations of human rights within their historical context and explores America's commission and prevention of human rights violations.

## HRTS 3309 - Lesbian and Gay Literature and Film: Minority Discourse and Social Power

## Credits: 3

The exploration, through literature and film, of the struggles by gay men and lesbians to create social identities and achieve human rights. Study of key cultures and pivotal historical periods in the West from ancient Greece to contemporary America.

## HRTS 3310 - Gender and Human Rights

## Credits: 3

Introduction to global women's human rights and other intersections of human rights and gender, such as abuse of children's rights, gender-based violence, health and reproductive rights, and evolving concepts of sexual rights.

## HRTS 3315 - Art and Social Practice

## Credits: 3

Research in a variety of areas that support practices in art outside the studio, including contemporary developments in criticism and theory, approaches to media, social and community contexts, and specific geographic or cultural contexts. Focused seminar discussion, research, and group projects. Prerequisite: Permission of instructor.

## HRTS 3317 - Persecution to Affirmation: Sexual Minorities and Human Rights

## Credits: 3

Examines same-sex attractions and same-sex sexuality, which are present in every society, whether in the open or secret.

## HRTS 3320 - War, Looting, and Collecting Art in/of the Ancient World

## Credits: 3

Examines the ways war, looting, and collecting affect ancient art. Students analyze case studies of ancient and modern warfare, focusing on resultant destruction, relocation, and repurposing of artworks.

## HRTS 3329 - Contesting Development: Global and Local Impacts and Human Rights

## Credits: 3

Examines the highly variable impacts of economic development on lives and communities around the world, with a focus on human rights issues.

## HRTS 3341 - The Failure of Humanity in Rwanda

## Credits: 3

An introduction to the 1994 Rwanda genocide that seeks to understand not only its origins but also its sociological, ethical, and human rights implications.

## HRTS 3348 - Health as a Human Right

Credits: 3
This course examines the concept of human rights critically, with an eye for cross-cultural variation and a particular focus on rights that are health-related.

## HRTS 3362 - Postcolonial France

Credits: 3
A multidisciplinary course providing an introduction to, or better understanding of, some of the most passionate debates on assimilation, difference, and multiculturalism that have emerged in France in recent years.

## HRTS 3377 - Literature and the Construction of Homosexuality

## Credits: 3

Same-sex love and desire have been a focus for literary, philosophical, and religious writing from the ancient world to the present and today's concerns with LGBT civil rights and marriage. This course examines the cultural history of concern with the nature of same-sex love; its social value or dangers; and its moral and philosophical significance as the object of literary expression and representation, as a crucial thread in the history of gender politics, and as an ongoing locus of conflict over human rights.

## HRTS 3385 - Literature of the Holocaust

## Credits: 3

Explores the literature of the Holocaust and issues regarding the possibility of aesthetic portrayal of this horrific event. Considers Holocaust literature and post-Holocaust literature. Prerequisite: DISC 1313 or DISC 2306.

## HRTS 3387 - Religion and Human Rights

## Credits: 3

Major world religious traditions and modern ideas of human rights. Religious understandings of humanity and political order are considered in relation to contemporary human rights issues.

## HRTS 4309 - Human Rights, Indigenous Peoples, and Nation States

## Credits: 3

An examination of human rights issues among contemporary indigenous peoples, especially the impact on their cultures and societies from governmental and nongovernmental organizations, large-scale development programs, and global tourism.

## HRTS 4343 - Ethics and Human Rights

## Credits: 3

Explores how global ethical perspectives intersect with the theory and practice of human rights, emphasizing healthy and just relationships with self, community, other, place, and career.

## HRTS 4344 - Gender in World Politics

## Credits: 3

Surveys classic and contemporary scholarship about women and gender in world politics, focusing on theoretical and empirical explorations of political participation, representation, activism, democracy, war, and human rights.

## HRTS 4345 - Women's Rights and Human Rights in Latin American Women Writers

## Credits: 3

Explores constructions of sexuality, gender, and identity in key historical moments in literature by Latin American women, with a focus on the intersecting themes of gender rights and human rights. This course is the equivalent of SPAN 5375/HRTS 4345. Students may only take HRTS 4345/WL 4345 or SPAN 5375.

## HRTS 4374 - French Muslim Citizens and the Algerian War: The Harkis

## Credits: 3

Focuses on the Harkis, the Muslim Algerian loyalists who served as auxiliaries in the French Army during the Algerian War from 1954 to 1962. Examines the Harkis as neither fully French nor Algerian through historical readings, visual media (films and documentaries), and popular culture. Meet once a week for 3 hours.

## HRTS 4390 - Special Topics in Human Rights Abroad

## Credits: 3

Students travel abroad to designated countries to research and write about human rights situations and violations through interaction with educational, governmental, and nongovernmental representatives; human rights activists; and survivors of human rights violations.

## HRTS 4391 - Special Topics in Human Rights Abroad

## Credits: 3

Students travel abroad to designated countries to research and write about human rights situations and violations through interaction with educational, governmental, and nongovernmental representatives; human rights activists; and survivors of human rights violations.

## HRTS 4392 - Special Topics in Human Rights

## Credits: 3

Students research and write about a specific human rights issue under the supervision of the director and interact with human rights agencies in the greater Dallas area (or beyond).

## Individualized Studies in the Liberal Arts, B.A.

## Professor Renee McDonald, Director

General Information. The major in individualized studies in the liberal arts provides students the opportunity to design a thematically coherent interdisciplinary program of study that brings fields of inquiry together in unique combinations not currently offered as a program in the SMU curriculum. Interested and academically qualified students are invited to explore this possibility with the program's director (Dedman College Associate Dean of Academic Affairs). If the student's plan of study appears to have merit, the director will suggest faculty members in appropriate departments and divisions of the University who can provide further assistance in designing the program. Students must ask at least three faculty members to constitute a Faculty Supervisory Committee, with one serving as chair.

Students with at least a 3.500 GPA in the first 24 credit hours taken through enrollment at SMU are eligible to pursue the program, which consists of individually designed majors in the liberal arts of at least 36 credit hours, with a minimum of 24 credit hours of advanced courses ( 3000 level or above). The program must satisfy all University-wide requirements and all other University and Dedman College graduation requirements. Students are responsible for fulfilling all prerequisites for courses taken. The degree will be identified as a B.A. with a major in individualized studies in the liberal arts. A note on the transcript will denote the specialization. Students intending to seek admission to graduate schools are encouraged to include at least 30 hours of a coherent set of courses in an identifiable disciplinary field.

Administrative Procedures. The Dedman College Undergraduate Council shall have the final authority to approve all individualized studies programs. The Dedman College associate dean for academic affairs will act as the director of the individualized studies program. Prior to declaring the major, a number of steps must be completed:

1. The student should contact the Dedman College Office of Records and Academic Services to confirm that the student is eligible to declare an individualized studies program.
2. The student, with the assistance of the director, must form a Faculty Supervisory Committee with a minimum of three members. The committee will provide advice and guidance to the student. At least two members, including the chair of the committee, shall be resident members of the Dedman College faculty.
3. The student will submit a plan of study to the director and to each Faculty Supervisory Committee member. If the committee and the director approve the plan of study, the plan is then submitted for approval by the Dedman College Undergraduate Council.
4. The plan is transmitted to the Dedman College Office of the Associate Dean for Academic Affairs and to the Dedman College Office of Records and Academic Services.
The plan of study must be submitted to the Dedman College Undergraduate Council for approval before the completion of 60 total credit hours of coursework. The chair of the Faculty Supervisory Committee and the Dedman College Dean's Office will recommend candidates for graduation. The director of the Office of Records and Academic Services will be responsible for verifying and certifying graduation requirements.

Distinction. Students completing an individualized studies major can do so with distinction, which is a prearranged, two-term sequence of advanced coursework culminating in an advanced research project. The research is planned during the junior year and accomplished during the senior year. Many of these projects may qualify as a project through the Dedman College Interdisciplinary Institute and/or an Engaged Learning project, and it is the student's responsibility to consider all possibilities and deadlines.

To undertake distinction, a student must have completed 60 hours of coursework, have a GPA of 3.500 in the major courses, and must have completed a minimum of 15 advanced hours in the individualized studies major. The research project for distinction in individualized studies must be substantively different from a research project for possible distinction in a second major field. Graduation with distinction is designated on the diploma for a student who successfully completes the criteria outlined.

To earn distinction, a student must

1. Complete 36 hours of approved coursework for the individualized studies major with a 3.500 GPA or higher.
2. Submit a formal research proposal, based on the two options listed below, for approval of the student's Faculty Supervisory Committee and the individualized studies program director (Dedman College Dean's Office). The proposal must be unanimously approved. Any substantive changes must be reviewed and approved by the Faculty Supervisory Committee.

## Option One:

Create a distinction committee of three faculty members including at least two members of the Faculty Supervisory Committee. This project committee should include a mentor in each field that the project brings together.

Complete an advanced theory or methods course as recommended by the student's distinction committee and approved by the Faculty Supervisory Committee. This course may or may not be a part of the 36 -hour major and should directly relate to the development of the distinction project.

Complete a research project for three credit hours beyond the 36-hour major requirement. This can either be a DCAR course or an independent study taken in the field connected to the primary distinction committee member. As part of the course, the student must complete a significant research paper with a
minimum of 5,000 to 8,000 words of text, including a bibliography, in APA or other appropriate academic writing style. The course instructor is the primary member of the distinction committee.

## Option Two:

If the student has significant coursework in one Dedman College subject area, the student may submit a proposal to the Faculty Supervisory Committee to meet that department's requirements for distinction. This plan must have the approval of the Faculty Supervisory Committee and the department. The course instructor for distinction must be a faculty member of that department and a member of the student's Faculty Supervisory Committee.
3. Give an oral presentation and defense of the project to the distinction committee or instructor (whichever is applicable), the student's Faculty Supervisory Committee and the individualized studies program director (Dedman College Dean's Office). The presentation should include an overview of the project rationale, methodology, significant results and relevance to the larger academic community. This presentation must be scheduled to take place before the last day of instruction. The distinction paper must be submitted at least two weeks prior to presentation to the distinction committee or instructor, the Faculty Supervisory Committee, and the individualized studies program director (Dedman College Dean's Office). All parties must be able to attend. For option two, the instructor and the Faculty Supervisory Committee must be able to attend.
4. Complete the overall project with a grade of $A$ or $A$-, determined by the student's distinction project committee or instructor, and approved by the Faculty Supervisory Committee and the director of the individualized studies program.

When all the above qualifications have been met, the granting of distinction for individualized studies in the liberal arts is recommended by the Faculty Supervisory Committee to the director of the program, and ultimately granted or denied by the individualized studies program director (Dedman College Dean's Office).

## Courses:

DCAR 4001 - Dedman College Advanced Research

## Credits: 0

Independent research for students pursuing distinction in interdisciplinary or individualized majors or engaged in advanced independent research in relation to other Dedman College programs. Enrollment in this course requires preapproval of the senior associate dean of academic affairs.

## DCAR 4301 - Dedman College Advanced Research

## Credits: 3

Independent research for students pursuing distinction in interdisciplinary or individualized majors or engaged in advanced independent research in relation to other Dedman College programs. Enrollment in this course requires preapproval of the senior associate dean of academic affairs.

## DCAR 4302 - Dedman College Advanced Research

## Credits: 3

Independent research for students pursuing distinction in interdisciplinary or individualized majors or engaged in advanced independent research in relation to other Dedman College programs. Enrollment in this course requires preapproval of the senior associate dean of academic affairs.

# International Studies, B.A. 

www.smu.edu/internationalstudies
Professor Stephen K. Wegren, Director

## General Information

To succeed in an international career, students need expertise in the politics, economics, history, language and cultures of societies other than their own. The curricula for the International and Area Studies Program are designed to provide students with a foundation for this expertise, requiring coursework in the social sciences, business, language and humanities. A student majoring in international studies also chooses a region in which to specialize: Europe, Asia, Latin America, or the Middle East/Africa.

As an alternative to the international studies major, a student may choose an area of study to earn a minor. Minors include European studies, Asian studies, Latin American and Iberian studies, and Africa/Middle East studies.

## International Studies Major and Minor Rules for SMU Abroad Credit

To maximize the educational experience in these degree programs, all international studies majors and minors are strongly encouraged to spend at least one term or summer studying abroad. The University offers numerous study abroad opportunities around the world; most of these courses may be applied to the international and area studies major or minor. The following policies apply to the International and Area Studies Program:

## For the International Studies Major

- Up to 12 hours of world language study may be taken in an SMU-approved study abroad program and counted toward the language requirement for the major.
- Up to 15 hours in the student's regional specialization may be taken in an SMU-approved study abroad program and counted toward the major.
- Of the 15 hours required from the basic curriculum, 12 hours must be taken on an SMU campus (Dallas, Taos or Plano). Three hours of transfer credit (not an SMU-approved study abroad program) may be counted toward fulfillment of the basic curriculum requirement.
- If a student wishes to take a course abroad for credit in the global perspective, it is highly recommended that the course be preapproved by the director before enrolling. Petitions after the course has been taken may not be approved.
- The senior seminar (INTL 4388) must be taken on an SMU campus (Dallas, Taos or Plano).
- A total of 33 hours (exclusive of the 12 hours of language study required for the major) are required for the major in international studies.
- These policies do not change the required number of credit hours in advanced courses.


## Directed Readings, Internships and Distinction Courses

INTL 4302 - Directed Readings in International Studies
INTL 4306 - Internship in International Studies
INTL 4307 - Departmental Distinction Thesis

## Major Information

The international studies major provides exposure to global issues through the basic curriculum. Note: Courses taken in the basic curriculum do not double count in the regional specialization. The international studies major provides students with the opportunity to design an interdisciplinary program of study that facilitates an understanding of the human experience in a global perspective, while at the same time allowing them to develop in-depth knowledge and expertise in a specific geographical area. The major requires 33 hours of coursework (in addition to prerequisites for certain courses and the language requirement).

The senior seminar, INTL 4388, which must be taken on campus by all majors in their senior year, is designed as a capstone course where students integrate and apply what they have learned. The topic of the seminar will vary depending upon the professor.

A cocurricular requirement for the B.A. in international studies is two years of college-level study of a world language or equivalent. Note: Latin does not fulfill the language requirement in this major. Courses for the language requirement do not count toward the 33 -hour requirement. The language requirement may be met through examination, the transfer of language study credit from another university or by taking courses on campus or study abroad.

An updated list of available courses and additional information about independent readings, departmental distinction requirements, study abroad opportunities and internship requirements are available on the website for international studies.

## Requirements for the Major

## Basic Curriculum (15 Credit Hours)

At least two courses must be 3000 level or above.

## Introduction to World Cultures

(select one)

- ANTH 2301 - Introductory Cultural Anthropology
- SOCI 2377 - Introduction to Markets and Culture


## International Economics

(select one)

- ANTH 4384 - Global Issues and Development: An Overview
- ECO 4357 - International Trade
- ECO 4358 - International Macroeconomic Theory and Policy
- PLSC 3389 - International Political Economy (ECO 1311 or ECO 1312 is strongly recommended although neither is required as a prerequisite.)


## International Politics

(select one)

- PLSC 1340 - Introduction to Comparative Politics
- PLSC 1380 - Introduction to International Relations


## Global Perspective

(select two)
These courses do not have a regional focus:

- ANTH 3301/SOCI 3301 - Health, Healing, and Ethics: Cross-Cultural Perspectives on Sickness and Society
- ANTH 3310 - Gender and Sex Roles: A Cross-Cultural Perspective
- ANTH 3329 - Contesting Development: Global and Local Impacts and Human Rights
- ANTH 3333 - The Immigrant Experience
- ANTH 3336 - Gender and Globalization: Cultural and Ethical Issues
- ANTH 3348 - Health as a Human Right
- ANTH 3365 - The Rise and Fall of Superpowers: The Dynamics and Ethics of Empire
- ANTH 3366/RELI 3366 - Magic, Myth, and Religion Across Cultures
- ANTH 3368/SOCI 3368 - Global Urbanism: Implosions/Explosions
- ANTH 3384 - Paradise Lost? The Archaeology and Paleoecology of Human-Environmental Impacts
- ANTH 3388 - Warfare and Violence: The Anthropology and Ethics of Human Conflict
- ANTH 4303 - Political Economy of Health
- ANTH 4304 - Migration, Ethnicity, and Nationalism
- ANTH 4307 - Global and Public Health
- ANTH 4309 - Human Rights, Indigenous Peoples, and Nation States
- ANTH 4384 - Global Issues and Development: An Overview (seniors only)
- ARHS 3368 - Art and Context: 1940-1970
- ARHS 3369 - Contemporary Art: 1965-Present
- BA 3300 - Special Topics: International Business Administration (study abroad)
- CCPA 3321 - Communication in Global Contexts
- ECO 5360 - Economic Development: Macroeconomic Perspectives
- ECO 5362 - Economic Growth
- ENGL 3354 - Non-Western Culture and Literature
- FILM 4399 - Global Media Systems
- FINA 4329 - International Finance (available only to business majors with a minor or second major in international studies)
- HIST 2380 - Ethnic Regions in the Western World
- HIST 3301 - Human Rights: America's Dilemma
- HIST 3306 - Colony to Empire: U.S. Diplomacy 1789-1941
- HIST 3307-The U.S. and the Cold War, 1945-1989
- HIST 3337 - Ethical Dilemmas in a Global Age
- HIST 3399 - U.S. Foreign Policy From the Spanish American War to Vietnam
- MKTG 3300 - Topics in International Marketing (study abroad programs)
- MKTG 3348 - International Marketing (available only to business majors with a minor or second major in international studies)
- PLSC 3342 - Making Democracy Work
- PLSC 3365 - Communism and Post-Communism
- PLSC 3381 - Current Issues in International Politics
- PLSC 3382 - International Organizations: Global and Regional
- PLSC 3383 - The American Foreign Policy Process
- PLSC 3387 - Political Geography
- PLSC 4342 - Why Nations Revolt
- PLSC 4344 - Gender in World Politics
- PLSC 4354 - The Third World and North-South Relations
- PLSC 4380 - Special Studies in International Relations (also study abroad)
- PLSC 4381 - National Security Policy
- PLSC 4382 - The Politics of Military Force
- PLSC 4398 - Nuclear Weapons and World Politics
- RELI 1304 - Introduction to Western Religions
- SOCI 3340 - Global Society
- SOCI 4321 - The Politics of Immigration: A Global Perspective


## Regional Specialization (15 Credit Hours)

At least four courses must be 3000 level or above.

## Social Sciences

(three courses selected from the student's regional specialization)

## African/Middle Eastern Studies

- ANTH 3314 - Peoples of Africa
- ANTH 3359 - Peoples and Cultures of the Middle East
- HIST 2355 - History of the Ancient Near East and Egypt
- HIST 2379 - A History of Islamic Empires
- HIST 2391 - Africa to the 19th Century
- HIST 2392 - Modern Africa
- HIST 3323 - History of Islam in South Asia
- HIST 3326 - US Religious History Since 1865
- HIST 3371 - Conflicts in the Modern Middle East
- HIST 3378 - Problems in African History
- HIST 3389 - Problems in Middle Eastern History
- HIST 3390 - Modern Middle East: 1914 to Present
- HIST 5395 - A History of Iran
- PLSC 3345 - Governments and Politics of the Middle East
- PLSC 3347 - Governments and Politics of Africa


## Asian Studies

- ANTH 3316 - Cultures of the Pacific Islands
- ANTH 3317-Peoples of Southeast Asia
- ANTH 3323 - East Asia in Motion
- ANTH 4390 - Current Issues in Anthropology Asian Society (SMU-in-Australia)
- BA 3300 - Special Topics: International Business Administration Japanese Business (SMU-in-Japan)
- ECO 4357 - International Trade Japanese Economy (SMU-in-Japan)
- HIST 2390 - Civilization of India
- HIST 2393 - Japan Before 1850
- HIST 2394 - China Before 1850
- HIST 2395 - Modern East Asia
- HIST 3315 - Modern South Asia: Colonialism and Nationalism
- HIST 3387 - Asia and the West
- HIST 3393 - China in Revolution
- HIST 3395 - Problems in Asian History
- HIST 3398 - Women in Chinese History
- PLSC 3346 - Japanese Politics and Society
- PLSC 3352 - Chinese Politics
- PLSC 4340 - Special Studies in Comparative Governments and Politics
- PLSC 4353 - Political Economy of East Asia
- PLSC 4386 - International Relations of East Asia


## European Studies

- ANTH 3355 - Society and Culture in Contemporary Europe
- BA 3300-Special Topics: International Business Administration European Business Environment: The EU (SMU-in-Copenhagen)
- BA 4315 - European Common Market (SMU-in-Copenhagen)
- HIST 2323 - Russian Culture
- HIST 2366 - Europe in the Modern World, 1760 to the Present
- HIST 3303 - Modern England, 1867 to the Present
- HIST 3328 - History of Modern Germany
- HIST 3329 - Women in Early Modern Europe
- HIST 3330 - Women in Modern European History
- HIST 3334 - France Since 1789
- HIST 3335 - One King, One Law: France 1500-1789 (Paris)
- HIST 3340 - The Revolutionary Experience in Russia: 1900-1930
- HIST 3341 - Soviet and Post-Soviet Society and Politics, 1917 to the Present
- HIST 3343 - 20th-Century Europe (SMU-in-Copenhagen)
- HIST 3346 - The 20th-Century American West (SMU-in-Oxford)
- HIST 3352 - The Age of the Crusades
- HIST 3353 - The History of Ancient Greece
- HIST 3358 - The Renaissance
- HIST 3359 - Europe in the Age of the Reformation, 1520-1598
- HIST 3363 - The Holocaust
- HIST 3365/HIST 3366 - Problems in European History
- HIST 3367 - Revolutions in European History
- HIST 3374 - Diplomacy in Europe: Napoleon to the European Union (SMU-in-Oxford)
- HIST 3375 - Social History of Early Modern Europe
- HIST 3376 - Social and Intellectual History of Europe
- HIST 3381 - The First World War and Its Impact
- HIST 3383 - Habsburg Monarchy: Making of East Central Europe
- HIST 4314 - Jews in Europe: Middle Ages to the Present (SMU-in-Copenhagen)
- HIST 4363 - Inside Nazi Germany
- HIST 4373 - History of Modern France
- HIST 4388 - Georgian and Victorian England (SMU-in-Oxford)
- HIST 5367 - Russia From the Kievan Era to 1881
- HIST 5371 - The French Revolution and Napoleon, 1789-1815
- HIST 5374 - Recent European History: 1918 to the Present
- HIST 5376 - Europe Age of Enlightenment, 1715-1789
- HIST 5390 - Seminar in Russian History
- HIST 5392 - Seminar in European History
- MNO 3300 - Special Topics in International Management I
- PLSC 3340 - Western European Politics
- PLSC 3358 - Government and Politics of Russia
- PLSC 3359 - From Communism to Democracy
- PLSC 4340 - Special Studies in Comparative Governments and Politics
- PLSC 4380 - Special Studies in International Relations (SMU-in-Paris)
- PLSC 4384 - American-Russian Relationship
- PLSC 5341 - European Politics: The European Union

Latin American and Iberian Studies

- ANTH 3311 - Mexico: From Conquest to Cancun
- ANTH 3313 - South American Indians of the Past and Present
- ANTH 3354 - Latin America: Peoples, Places, and Power
- HIST 2384 - Latin America: The Colonial Period
- HIST 2385 - Latin America in the Modern Era
- HIST 3308 - History of Hispanics in the U.S. Through Film
- HIST 3317 - Persecution to Affirmation: Sexual Minorities and Human Rights
- HIST 3320 - The Spanish Frontier in North America, 1513-1821
- HIST 3321 - Religion in the United States to 1865
- HIST 3324 - The Mexican Americans, 1848 to the Present
- HIST 3382 - History of Mexico
- PLSC 3348 - Governments and Politics of Latin America
- PLSC 3349 - Politics of Major Latin American Countries
- PLSC 4340 - Special Studies in Comparative Governments and Politics (SMU-in-Spain)
- PLSC 4356 - Latin American Political Economy
- SOCI 3370 - Minority-Dominant Relations
- SOCI 3372 - Contemporary Issues in the American Southwest


## Humanities and Arts

(two courses selected from the student's regional specialization)

## African/Middle Eastern Studies

- ARHS 3328 - Latin American History Through Visual Culture
- ARHS 3392 - Islamic Art and Architecture: The Creation of a New Art
- RELI 3329 - Islam
- RELI 3362 - Islam and the West
- WL 3349 - The African Diaspora: Literature and History of Black Liberation


## Asian Studies

- ARHS 3394-Art and Architecture of Japan
- ARHS 3396 - Art and Architecture of China (SMU-in-Taipei)
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films
- RELI 1303 - Introduction to Asian Religions
- RELI 3306 - Hinduism
- RELI 3307 - Buddhism
- RELI 3365 - Understanding Self: East and West
- RELI 3367 - The Religious Life of China and Japan
- RELI 3377 - The Cultural History of Tibet
- RELI 3378 - Religions of China
- RELI 3382 - Mysticism
- RELI 3384 - Hinduism and Colonial Encounters
- WL 3310 - Transnational Chinese Cinema
- WL 3322 - Modern Japanese Novels in Translation (SMU-in-Japan)
- WL 3325 - Perspective on Modern China


## European Studies

- ARHS 1303 - Introduction to Western Art I
- ARHS 1304 - Introduction to Western Art II
- ARHS 3320 - Medieval Art
- ARHS 3324-Art and Cultures of Medieval Spain
- ARHS 3325-The Gothic Cathedral and Its World
- ARHS 3329 - Paris Art and Architecture I (SMU-in-Paris)
- ARHS 3330 - Renaissance and Baroque Architecture
- ARHS 3331-Art and Culture of the Italian Renaissance
- ARHS 3332-16th-Century Italian Art
- ARHS 3333-Special Topics in Italian Art and Architecture (SMU-in-Italy)
- ARHS 3339-El Greco to Goya: Spanish Painting of the Golden Age
- ARHS 3344 - Paintings at the Prado (SMU-in-Spain)
- ARHS 3346 - Paris Art and Architecture II (SMU-in-Paris)
- ARHS 3350 - Modern Art and Media Culture, 1789-1870
- ARHS 3352 - Impressionism, Symbolism, and the Deviant Body: Making a Difference
- ARHS 3362 - The Family in European Painting and Photography
- ARHS 3364 - History and Theory of Prints
- ARHS 3388 - Why We Go to Auschwitz: Art, Trauma, and Memory
- ARHS 3399 - The Medieval Jewish-Christian Dialogue in Art and Text
- ENGL 3341 - British Literary History II: Wordsworth Through Yeats
- ENGL 3344 - Victorian Gender
- ENGL 3360 - Topics in Modern and Contemporary American Literature (SMU-in-Paris)
- FREN 4373/FREN 4374 - French Civilization (SMU-in-Paris)
- FREN 4375 - Introduction to French History and Culture
- FREN 4376 - Introduction to Francophone Cultures
- PHIL 3333-Topics in Philosophy (SMU-in-Copenhagen)
- PHIL 3352 - History of Western Philosophy (Modern)
- PHIL 3370 - 19th-Century Philosophy (also SMU-in-Copenhagen)
- PHIL 3382 - 20th-Century European Philosophy
- WL 3303/SPAN 3373 - Topics in Spanish Civilization (SMU-in-Spain)
- WL 3323/HIST 2323 - Russian Culture
- WL 3331 - Survey: Russian Literature in Translation
- WL 3369 - Perspectives on Modern Germany
- WL 3390 - Italian Cinema
- WL 3391 - Italian Literature in Translation: The Italian Novel
- WL 3392 - Italian Literature in Translation: Early Humanism

Latin American and Iberian Studies

- ANTH 3312 - Mesoamerican Archaeology
- ARHS 1308 - Epic of Latin America
- ARHS 1350-Art in the Portuguese Empire
- ARHS 3324 - Art and Cultures of Medieval Spain
- ARHS 3338 - Sacred and Profane: Spanish Art and Architecture
- ARHS 3339 - El Greco to Goya: Spanish Painting of the Golden Age
- ARHS 3344 - Paintings at the Prado (SMU-in-Spain)
- ARHS 3360 - Modern Painters in Spain (SMU-in-Spain)
- ARHS 3363-Topics in Brazilian Art and Architecture
- ARHS 3376 - Latin American Art
- ARHS 3377-Art and Architecture of Hispanic New Mexico
- ARHS 3379 - Power and Spectacle: The Arts of Spain and New Spain
- ARHS 3382 - Art and Experience in Inka Peru
- ARHS 3383-The Ancient Maya: Art and History
- ARHS 3385-The Aztecs Before and After the Conquest: Mesoamerica, 1400-1600
- ARHS 3391 - Visual Culture in Colonial Mexico
- ENGL 3363 - Chicana/Chicano Literature
- RELI 3353 - Identity and the Sacred in the Southwest
- SPAN 3374 - Topics in Spanish-American Civilization (also SMU-in-Xalapa)
- SPAN 4391 - Commercial Spanish for International Trade
- SPAN 4395 - Introduction to Hispanic Literature
- SPAN 5310 - Spanish Literature Before 1700
- SPAN 5311 - Spanish Literature Since 1700
- SPAN 5315 - Spanish-American Literature to 1888
- SPAN 5316 - Spanish-American Literature Since 1888
- SPAN 5321 - The Renaissance and Golden Age: Prose Fiction
- SPAN 5323 - 19th-Century Prose Fiction
- SPAN 5325 - 20th-Century Peninsular Prose Fiction
- SPAN 5334 - The Novel, Post-Civil War
- SPAN 5335 - Genre Studies (Spain)
- SPAN 5336 - Spanish-American Novel (also SMU-in-Xalapa)
- SPAN 5337 - Spanish-American Essay
- SPAN 5338 - Spanish-American Short Story (also SMU-in-Xalapa)
- SPAN 5339 - Spanish-American Poetry
- SPAN 5361 - Don Quixote: the Idea, the Character, the Book
- SPAN 5365 - Contemporary Spanish Women Writers
- SPAN 5370 - Rewriting Discovery and Exploration in the Spanish Borderlands
- SPAN 5375 - Contemporary Fiction by Latin American Women Writers
- WL 3303/SPAN 3373 - Topics in Spanish Civilization
- WL 3306 - Chicano Cultural Heritage


## Capstone (3 Credit Hours)

- INTL 4388 - Seminar: International Government and Politics


## Total: 33 Credit Hours

## International Studies Minor

www.smu.edu/internationalstudies
Professor Stephen K. Wegren, Director

## General Information

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As an alternative to the international studies major, a student may choose an area of study to earn a minor. Minors include European studies, Asian studies, Latin American and Iberian studies, and Africa/Middle East studies.

## International Studies Major and Minor Rules for SMU Abroad Credit

To maximize the educational experience in these degree programs, all international studies majors and minors are strongly encouraged to spend at least one term or summer studying abroad. The University offers numerous study abroad opportunities around the world; most of these courses may be applied to the international and area studies major or minor. The following policies apply to the International and Area Studies Program:

## For the International Studies Minor

- Up to six hours of world language study may be taken in an SMU-approved study abroad program and counted toward the language requirement for the minor.
- Of the 15 hours required from the basic curriculum, 12 hours must be taken on an SMU campus (Dallas, Taos or Plano). Three hours of transfer credit (not an SMU-approved study abroad program) may be counted toward fulfillment of the basic curriculum requirement.


## Minor Information

The minor in international studies requires 15 hours of coursework from the basic curriculum, nine hours of which must be in courses at the 3000 level or above. A cocurricular requirement is one year of college-level study or equivalent of a world language. Note: Latin does not count as a second language. Courses taken in language study do not count toward the 15 hours of required coursework.

## Area Studies Minor

www.smu.edu/internationalstudies
Professor Stephen K. Wegren, Director

## General Information

To succeed in an international career, students need expertise in the politics, economics, history, language and cultures of societies other than their own. The curricula for the International and Area Studies Program are designed to provide students with a foundation for this expertise, requiring coursework in the social sciences, business, language and humanities. A student majoring in international studies also chooses a region in which to specialize: Europe, Asia, Latin America, or the Middle East/Africa.

As an alternative to the international studies major, a student may choose an area of study to earn a minor. Minors include European studies, Asian studies, Latin American and Iberian studies, and Africa/Middle East studies.

## International Studies Major and Minor Rules for SMU Abroad Credit

To maximize the educational experience in these degree programs, all international studies majors and minors are strongly encouraged to spend at least one term or summer studying abroad. The University offers numerous study abroad opportunities around the world; most of these courses may be applied to the international and area studies major or minor. The following policies apply to the International and Area Studies Program:

## For an Area Studies Minor

- Up to 12 hours of world language study may be taken in an SMU-approved study abroad program and counted toward the language requirement for any area studies minor.
- Three of nine hours in the student's regional specialization may be taken in an SMU-approved study abroad program and counted toward the minor.


## Minor Information

The area studies minor is separate from the major or minor in international studies. A student may earn a minor in a geographical area in order to increase expertise and in-depth knowledge of a region's history, politics, society and culture. A minor in an area study is offered in Africa/Middle East studies, Asian studies, European studies, and Latin American and Iberian studies.

## Requirements for the Minor

A minor in one of the four geographic areas of study requires 15 hours of coursework. The first six hours (two courses) must be chosen from the four categories of the basic curriculum; each of the two courses must be from a separate category: "World Cultures," "International Economics," "International Politics" or "The Global Perspective." The next nine hours (three courses) must be chosen from a regional specialization: 1) the African and Middle Eastern studies curriculum, 2) the Asian studies curriculum, 3) the European studies curriculum, or 4) the Latin American and Iberian studies curriculum. At least one course must be selected from the social sciences group and at least one course must be selected from the humanities and arts group for the selected curriculum. At least nine hours must be at the 3000 level or above. If a student is an international studies major, only one course from the area studies curriculum may be double counted toward the area studies minor. The language requirement for the minor may be met through examination, the transfer of language study credit from another university or by taking courses on campus.

- Africa/Middle East Studies Minor
- Asian Studies Minor
- European Studies Minor
- Latin American and Iberian Studies Minor


## Asian Studies Minor

## Area Studies Minor Requirements

A cocurricular requirement for the minor in Asian studies is two years of college-level study of an Asian language. To maximize the educational experience, students are strongly encouraged to spend at least one term or summer studying in Asia. Most of the courses taught in University study abroad programs in Asia may be applied to the Asian studies minor.

## European Studies Minor

## Area Studies Minor Requirements

A cocurricular requirement for the minor in European studies is two years of college-level study of a European language other than English. To maximize the educational experience, students are strongly encouraged to spend at least one term or summer studying in Europe. Most of the courses taught in University study abroad programs in Europe may be applied to the European studies minor.

## Latin American and Iberian Studies Minor

## Area Studies Minor Requirements

A cocurricular requirement for the minor in Latin American and Iberian studies is two years of college-level study of Spanish or Portuguese. To maximize the educational experience, students are strongly encouraged to spend at least one term or summer studying in Latin America or Iberia. Most of the courses taught in University study abroad programs in Latin America/Iberia may be applied to the Latin American and Iberian studies minor.

## Africa/Middle East Studies Minor

## Area Studies Minor Requirements

A cocurricular requirement for the minor is two years of college-level study of a language native to Africa or the Middle East. To maximize the educational experience, students are strongly encouraged to spend at least one term or summer studying in Africa or the Middle East. Most of the courses taught in University study abroad programs in Africa and the Middle East may be applied to the African and Middle Eastern studies minor.

## Courses:

## INTL 4302 - Directed Readings in International Studies

## Credits: 3

Students develop and execute independent reading or research projects under the guidance of an International Studies faculty member, culminating in a written report. Prerequisites: Written approval of the instructor and the program director or a designate, at least sophomore standing, and appropriate introductory and advanced course preparation.

## INTL 4306 - Internship in International Studies

## Credits: 3

Undergraduate students who arrange for part-time or full-time jobs in fields related to international studies connect these experiences to their academic curriculum through research and writing, under the guidance of an International Studies faculty member. Prerequisites: Written approval of the instructor and the program director or a designate, at least sophomore standing, and appropriate introductory and advanced preparation.

## INTL 4307 - Departmental Distinction Thesis

## Credits: 3

Candidates for departmental distinction write a thesis under the direction of an International Studies faculty member, culminating in an oral examination over the field of the thesis. Prerequisite: Admission to departmental honors candidacy.

## INTL 4388 - Seminar: International Government and Politics

## Credits: 3

Senior seminar required for all international studies majors that students with an opportunity to integrate their studies. The topic is thematic and varies depending upon the instructor.

## Jewish Studies Minor

## Professor of Practice Shira Lander, Director

The minor in Jewish studies offers students of all backgrounds a multidisciplinary examination of Jewish culture and religion, the Jewish people, and the State of Israel. Coursework for the minor must be distributed as follows:

## Requirements for the Minor

## Jewish Studies (3 Credit Hours)

- JWST 1300 - Introduction to Jewish Studies


## General Electives (0-3 Credit Hours)

(at most one from the following)

- HIST 3390 - Modern Middle East: 1914 to Present
- RELI 1304 - Introduction to Western Religions
- RELI 3341 - Religion in the United States Since 1865
- RELI 3342 - Religion in the United States to 1865
- RELI 3352 - Love and Death


## Focused Electives (9-12 Credit Hours)

(at least three from the following at the 3000 level or higher)

- ARHS 3324-Art and Cultures of Medieval Spain
- ARHS 3399 - The Medieval Jewish-Christian Dialogue in Art and Text
- ENGL 3365 - Jewish-American Literature and Culture
- ENGL 3385 - Literature of the Holocaust
- HIST 3363 - The Holocaust
- HIST 3389 - Problems in Middle Eastern History
- HIST 4314 - Jews in Europe: Middle Ages to the Present
- KNW 2312 - Religious and Social Meanings of the Holy Land (SMU-in-Israel)
- MUHI 1322 - Introduction to Jewish Music
- PLSC 3345 - Governments and Politics of the Middle East
- RELI 1311 - Judaism, Christianity, and the Bible
- RELI 3318 - The Hero in the Bible and the Ancient Near East
- RELI 3319 - Old Testament
- RELI 3320 - Classical Judaism
- RELI 3321 - Religion and the Holocaust
- RELI 3324 - American Judaism
- RELI 3326 - New Testament
- RELI 3348 - Temples, Churches, and Synagogues in the Ancient Mediterranean
- RELI 3360-The History of Judaism
- RELI 3371 - The World of the New Testament
- RELI 3383 - Reel Judaism: Cinematic Representations of Jewish Life
- RELI 3390 - A Persistent Prejudice: Anti-Semitism in Western Civilization
- RELI 4388 - Special Topics in Religious Studies


## Total: 15 Credit Hours

## Courses:

## JWST 1300 - Introduction to Jewish Studies

Credits: 3
Introduces the various subfields and research methods used within the interdisciplinary field of Jewish studies: Hebrew language; Israel studies; Judaism; and Jewish art, history, literature, and music. Provides academic foundations for advanced courses offered in each of these areas.

## Law and Legal Reasoning Minor

## Associate Professor Pamela Corley, Director

The minor in law and legal reasoning provides a coherent grouping of courses from different disciplines that examine the foundations and applications of the law. Specifically, the minor is designed to provide students with the knowledge of substantive law, along with skills in legal analysis and reasoning, oral advocacy, research and writing.

PLSC 1320 - Introduction to American Government and Politics is strongly suggested for the minor. Students must take a minimum of 18 hours selected from the following:

## Requirements for the Minor

## Required Courses (6 Credit Hours)

- PLSC 3325 - Introduction to Law
or
- PLSC 3330 - Law, Politics, and the Supreme Court
- CCPA 3327 - Argumentation and Advocacy
or
- CCPA 3345 - Persuasion Theory and Practice


## Electives (12 Credit Hours)

One or more courses from the following:
One or more courses from the following:

- CCPA 2300 - Public Speaking in Context
- CCPA 2310 - Rhetoric, Community, and Public Deliberation
- CCPA 3300 - Free Speech and the First Amendment
- CCPA 3327 - Argumentation and Advocacy
- CCPA 3345 - Persuasion Theory and Practice
- CCPA 4323 - Forensics Workshop
- CCPA 4324 - Competitive Mock Trial

One or more courses from the following:

- PLSC 3330 - Law, Politics, and the Supreme Court
- PLSC 3335 - Judicial Process
- PLSC 4335 - Constitutional Law
- PLSC 4336 - Civil Liberties: First Amendment and Privacy
- PLSC 4337 - Civil Rights
- PLSC 4338 - Criminal Procedure: 4th Amendment Rights
- PLSC 4339 - Criminal Procedure: 5th and 6th Amendment Rights
- PLSC 4341 - Comparative Rights and Representation
- PLSC 4371 - Jurisprudence

One or more courses from the following:

- PHIL 1301 - Elementary Logic
- PHIL 3373 - Philosophy of Criminal Law
- PHIL 3374 - Philosophy of Law
- SOCI 3360 - Law and Society
- SOCI 3363 - Crime and Delinquency


## Total: 18 Credit Hours

## Notes

- Students may receive credit toward the minor for either but not both CCPA 3300 and PLSC 4336.
- Students may receive credit toward the minor for either but not both CCPA 4323 and CCPA 4324 . CCPA 3327, CCPA 3345, PLSC 3330 and PLSC 3325 can be taken as an elective if not taken as one of the required courses.


## Medieval Studies, B.A.

www.smu.edu/medievalstudies

## Associate Professor Bonnie Wheeler, Director

The Medieval Studies Program affords the student an opportunity for a classically liberal education within a broad subset of Western (Celtic, Franconic, Italic, Germanic, Visigothic) and non-Western (Byzantine, Islamic, Persian) contexts. Studies reveal how the historical shapes, institutional structures, literary visions and artistic forms that emerged from the Middle Ages have colored our concepts of God, society, self, love, individualism and success. It is appropriate for preprofessional training in multiple fields such as business, religious studies, biology, music theory, and world languages and literatures. The major can also lead to graduate work in medieval studies or, more usually, in such disciplines as literature, history, and art and music history. The Dallas Medieval Consortium makes it possible for students at SMU, the University of Dallas and the University of Texas at Dallas
to enroll in selected medieval studies courses on the other campuses. Through the consortium, SMU students can elect no more than 15 hours in medieval subject courses at any other consortium university.

Medieval studies is an interdisciplinary major of 30 hours in medieval subjects, and advanced Latin language and literature, distributed over at least three broad subject areas in medieval studies: 1) history, 2) literature, and 3) music and visual arts (art/music history), with no fewer than six hours in each area. Latin language and literature courses after the second year may, with the approval of the director, count toward hours for the medieval studies major. Students are encouraged to take courses in medieval philosophy, religious studies and church history when they are available. Individual student programs are approved by the director and a committee of two other members of the Medieval Studies Program faculty.

Many departmental courses in the field of medieval studies are offered each year; courses listed as "MDVL" are interdisciplinary. Students should consult with the director about offerings and frequency.

## Requirements for the Major

## Medieval Studies (3-6 Credit Hours)

One or two interdisciplinary courses from the MDVL course list.

## Advanced Latin Language and Literature (6 Credit Hours)

- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition


## Art History and Music History (6-9 Credit Hours)

Two or three from the following:

- ARHS 3320-Medieval Art
- ARHS 3322 - Art and the Italian Commune
- ARHS 3324 - Art and Cultures of Medieval Spain
- ARHS 3325 - The Gothic Cathedral and Its World
- ARHS 3328 - Latin American History Through Visual Culture
- ARHS 3329 - Paris Art and Architecture I (SMU-in-Paris)
- ARHS 3392 - Islamic Art and Architecture: The Creation of a New Art
- ARHS 3399 - The Medieval Jewish-Christian Dialogue in Art and Text
- ARHS 4320 - Seminar on Medieval Art
- MUHI 3301 - Survey of Music History I
- MUHI 4301 - Research Project in Music History (when applicable)
- MUHI 4392 - Directed Study in Music History

History (6-9 Credit Hours)

Two or three from the following:

- HIST 2321 - Philosophical and Religious Thought in the Medieval West
- HIST 3332 - Ancient and Medieval France
- HIST 3344 - The Oxford Landscape: From the Stone Age to the Tudors (SMU-in-Oxford)
- HIST 3345 - England in Medieval and Early Modern Times
- HIST 3350 - A History of Ancient Egypt
- HIST 3351 - History of Ancient Near East
- HIST 3352 - The Age of the Crusades
- HIST 3357/ENGL 3371 - Joan of Arc: History, Literature, and Film
- ENGL 3371 - Joan of Arc: History, Literature, and Film
- HIST 3365 - Problems in European History (when applicable)
- HIST 3366 - Problems in European History (when applicable)
- HIST 4320 - Medieval Europe I
- HIST 4321 - Medieval Europe II
- HIST 4322 - Legal History of Medieval England
- HIST 4323 - History of Ireland
- HIST 4324 - Medieval Spirituality
- HIST 4325 - Islam to A.D. 1453
- HIST 4326 - Anglo-Saxon England to 1160
- HIST 4384 - Early and Medieval England, From the Beginning to 1485
- HIST 5364 - The City of God in Its Milieu
- HIST 5392 - Seminar in European History (when applicable)
- PHIL 3351 - History of Western Philosophy (Ancient)
- RELI 3362 - Islam and the West


## Literature (6-9 Credit Hours)

Two or three from the following:

- ENGL 1320 - Cultures of Medieval Chivalry
- ENGL 3320 - Topics in Medieval Literature
- ENGL 3371 - Joan of Arc: History, Literature, and Film
or
- HIST 3357-Joan of Arc: History, Literature, and Film
- ENGL 3389 - Directed Studies (when applicable)
- ENGL 4320 - Medieval Writers
- ENGL 4323 - Chaucer
- FREN 5334 - Genre Studies (when applicable)
- SPAN 5310 - Spanish Literature Before 1700
- WL 3365 - Special Topics French Literature in Translation (when applicable)
- WL 3391 - Italian Literature in Translation: The Italian Novel (when applicable)
- WL 3392 - Italian Literature in Translation: Early Humanism (when applicable)
- WL 3393 - Dante's Poetic Vision
- RELI 3326 - New Testament

Total: 30 Credit Hours

## Departmental Distinction

The major offers graduation with distinction to select student majors of high academic achievement. Interested students with a minimum 3.000 overall GPA and a 3.500 GPA in the major may consult with the director of the Medieval Studies Program for admission to the distinction track. If the director determines that the student has satisfied the requirements, the student may then request a faculty member to direct a senior-year distinction paper. The distinction paper must be a substantial piece of independent and original research that will be presented to and evaluated by a distinction committee. Upon positive recommendation from this committee, the student will be awarded graduation with distinction. Criteria for graduating with departmental distinction include the following:

1. A minimum 3.000 overall GPA at graduation.
2. A minimum 3.500 average in courses taken for the medieval studies major.
3. Preparation of a distinction thesis under the supervision of a faculty member while enrolled in MDVL 5399.

MDVL 5399 will be taken in addition to all other requirements for the major. The faculty adviser's grade for the thesis must be $A$ - or higher.
4. A passing grade on an oral examination conducted by a faculty distinction committee, which reviews the candidate's thesis. The distinction committee includes the faculty adviser, the director of the Medieval Studies Program and one additional faculty member selected by the faculty adviser in consultation with the student.

## Medieval Studies Minor

www.smu.edu/medievalstudies

## Associate Professor Bonnie Wheeler, Director

A student must complete 15 hours from the courses listed in Medieval Studies, B.A., including at least three interdisciplinary and nine advanced hours. No more than six hours at the introductory (1000 or 2000) level may be counted; some of the MDVL and CF (Cultural Formations) courses listed below are also interdisciplinary. Other courses may satisfy the interdisciplinary component. Individual student programs are approved by the director of the Medieval Studies Program.

## Courses:

## MDVL 3323 - Tales of Wales

## Credits: 3

Survey of native Welsh literature (in translation) from the sixth to the 20th century. Primary focus on medieval and Arthurian texts and their influence on the British and European literary imagination.

## MDVL 3327 - The Unicorn: Understanding Varieties of Truth in the Middle Ages

## Credits: 3

Investigates the question of how history and fiction were perceived in the Middle Ages.

## MDVL 3329 - The World of King Arthur

## Credits: 3

Study of Britain's greatest native hero and one of the world's most compelling story stocks: the legends of King Arthur and the Knights of the Round Table.

MDVL 3351 - The Pilgrimage: Medieval

Credits: 3
A look at the medieval world through one of its own literal and metaphorical images, investigating the music, art, monuments, and literature of pilgrimage during the Middle Ages.

## MDVL 3352 - Ideas and Ideal of Gender in the Middle Ages

## Credits: 3

## MDVL 3353 - Medieval Ideas

## Credits: 3

Presents some of the classic achievements of the medieval mind, focusing on developments of continuing interest; where advisable, comparisons and contrasts are drawn with methods of thinking and solving problems in use in later times. While the focus is on medieval Europe and the adjacent Muslim world, wherever possible, students' attention is drawn to developments in other culture areas.

## MDVL 3390 - Medieval Philosophy Topics

## Credits: 3

Research and writing in medieval fields on special philosophical topics at the forefront of current intellectual interest.

## MDVL 3398 - Directed Studies

Credits: 3

## MDVL 3399 - Directed Studies

Credits: 3

## MDVL 4308 - Towns, Trade, and Revolution in the Medieval West

## Credits: 3

Investigates the medieval city from its origins through 1500. Within a chronological framework, students explore urban populations and institutions, commerce, universities, guilds, and the Black Death.

MDVL 4318 - Byzantine History 285-1453

## Credits: 3

Traces the outlines of Byzantine history from 285 to 1453 . Topics include the changing structure of the family, gender roles, ruler and ruled, and town and country.

## MDVL 4371 - Special Topic

## Credits: 3

Research and writing in medieval fields on special topics at the forefront of current intellectual interest.

## MDVL 5301 - Independent Studies

Credits: 3
Research and writing in medieval fields on special topics at the forefront of current intellectual interest.

## MDVL 5302 - Independent Studies

## Credits: 3

Research and writing in medieval fields on special topics at the forefront of current intellectual interest.

## MDVL 5398 - Independent Studies

Credits: 3
Research and writing in medieval fields on special topics at the forefront of current intellectual interest.

## MDVL 5399 - Independent Studies

Credits: 3
Research and writing in medieval fields on special topics at the forefront of current intellectual interest.

## Natural Sciences Minor

## Professor William C. Orr, Director

A minor in the natural sciences offers students a systematic exposure to biology and chemistry. The minor is particularly suitable for engineering and business majors who are interested in medicine, dentistry or other biomedical careers. This interdisciplinary minor may not be selected by students majoring or minoring in the biological sciences, biochemistry or chemistry. Each advanced course must be taken in residence.

## Requirements for the Minor

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304 - Genetics
- BIOL 3350 - Cell Biology
- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3371- Organic Chemistry
- CHEM 3117 - Organic Chemistry Laboratory
- CHEM 3372- Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory


## Total: 30 Credit Hours

## Public Policy, B.A.

## Professor Dennis Ippolito, Director

The public policy major is an interdisciplinary program in economics and political science designed to provide students with the analytical skills and historical context to understand and address contemporary policy issues. The major in public policy is useful as preparation for work in government and business and as preparation for postgraduate study in law, public policy and the social sciences.

The B.A. degree in public policy requires at least 15 hours of advanced courses selected from the electives, with no fewer than six hours in economics and six hours in political science or public policy. Students must receive at least a $C$ - in all classes counting toward the major. A maximum of 12 hours of (preapproved) advanced-level courses in SMU-approved study abroad programs may be counted toward the major.

## Requirements for the Major

## Core Courses (24 Credit Hours)

- ECO 1311 - Principles of Microeconomics: Consumers, Firms, and Markets
- ECO 1312 - Principles of Macroeconomics: Inflation, Recession, and Unemployment
- ECO 3301 - Price Theory (Intermediate Microeconomics)
- MATH 1309 - Introduction to Calculus for Business and Social Science or
- MATH 1337 - Calculus I
- PLSC 1320 - Introduction to American Government and Politics
- PLSC 1340 - Introduction to Comparative Politics
or
- PLSC 1380 - Introduction to International Relations
- PLSC 3320 - Principles of Public Policy
- STAT 2331 - Introduction to Statistical Methods
or
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists


## Electives (15 Credit Hours)

## Quantitative Methods

(one from the following):

- ECO 5341 - Strategic Behavior
- ECO 5350 - Introductory Econometrics
- ECO 5375 - Economic and Business Forecasting


## Additional Courses

Two courses from any two of the following groups:

Political Economy

- ECO 4371- Theory of Industrial Structure
- ECO 4382 - Economics of Regulated Industries
- ECO 4385 - Macroeconomics: Theory and Policy
- ECO 5365 - Federal Government Expenditures
- ECO 5366 - Federal Government Taxation
- PLSC 3382 - International Organizations: Global and Regional
- PLSC 3389 - International Political Economy
- PLSC 4333 - Policy, Politics, and the Budget
- PLSC 4356 - Latin American Political Economy

Law and Social Policy

- ECO 4351 - Labor Economics
- ECO 4361 - Economics of Education
- ECO 5320 - Health Economics
- ECO 5353 - Law and Economics
- ECO 5357-Economics of Human Resources
- PLSC 3321 - Congress and the Legislative Process
- PLSC 3327-Texas Politics
- PLSC 3330 - Law, Politics, and the Supreme Court
- PLSC 3333 - Environmental Policy
- PLSC 3335 - Judicial Process
- PLSC 3370 - Women and Politics
- PLSC 4321 - Basic Issues in American Democracy
- PLSC 4334 - The Politics and Legacies of the Civil Rights Movement
- PLSC 4335 - Constitutional Law
- PLSC 4336 - Civil Liberties: First Amendment and Privacy
- PLSC 4337 - Civil Rights
- PLSC 4338 - Criminal Procedure: 4th Amendment Rights
- PLSC 4339 - Criminal Procedure: 5th and 6th Amendment Rights
- PLSC 4341-Comparative Rights and Representation
- PLSC 4371 - Jurisprudence
- PP 3310 - Environmental Policy

International Politics and Policy

* available only to business majors with a second major in public policy
- ECO 4357 - International Trade
- ECO 4358 - International Macroeconomic Theory and Policy
- ECO 5360 - Economic Development: Macroeconomic Perspectives
- FINA 4329 - International Finance *
- PLSC 3340 - Western European Politics
- PLSC 3345 - Governments and Politics of the Middle East
- PLSC 3346 - Japanese Politics and Society
- PLSC 3347 - Governments and Politics of Africa
- PLSC 3348 - Governments and Politics of Latin America
- PLSC 3352 - Chinese Politics
- PLSC 3358 - Government and Politics of Russia
- PLSC 3383 - The American Foreign Policy Process
- PLSC 3389 - International Political Economy
- PLSC 4342 - Why Nations Revolt
- PLSC 4356 - Latin American Political Economy
- PLSC 4381 - National Security Policy
- PLSC 4382 - The Politics of Military Force
- PLSC 4384 - American-Russian Relationship
- PLSC 4386 - International Relations of East Asia
- PLSC 4398 - Nuclear Weapons and World Politics
- STRA 5370 - Strategic Management in a Global Economy *


## Total: 39 Credit Hours

## Tower Scholars

Students currently enrolled at SMU may apply to become a Highland Capital Management (HCM) Tower Scholar via the competitive admissions requirements out-lined below. Interested students with a GPA of 3.300 or higher may apply in the spring of their first year of enrollment at SMU. Note: To be considered for admission, students must agree to complete the prerequisites/corequisites for the minor in public policy and international affairs.

The selection process for choosing HCM Tower Scholars will be based on merit and determined by the application and interview process. Applicants must submit the following four items:

1. Transcript(s) of all college/university coursework.
2. An online application with basic information, including areas of study, awards, interests and activities.
3. An 8oo-1,000 word essay.
4. Two letters of recommendation, at least one of which must be from an SMU faculty member. The applicant pool will be evaluated using a variety of relevant criteria, including, but not limited to, the following: the relevance of the minor in public policy and international affairs to a student's career goals; a strong academic record; a strong extracurricular record with demonstrated interest in community and/or public service; demonstrated leadership and a sense of social responsibility; and excellent written and oral communication
skills. The selection committee will recruit students from a variety of majors and schools and will consider diversity, broadly defined. Once the applicant pool has been evaluated, a select number will be invited to the final stage of the application process, which is an interview with the Minor in Public Policy and International Affairs Selection Committee. In addition to all of the criteria listed above, the selection committee will seek to evaluate the verbal communication skills of each candidate and will expect candidates to be able to express why becoming an HCM Tower Scholar and being accepted into the Public Policy and International Affairs Minor would be meaningful given their specific career goals.

## Public Policy and International Affairs Minor

The minor in public policy and international affairs is a selective program for HCM Tower Scholars that will enable admitted students from any academic major to receive practical training in public policy analysis. Policy practitioners and SMU faculty offer a curriculum that emphasizes critical thinking and analytical skills as well as professional training to ensure that HCM Tower Scholars graduate with skills for effective policy analysis and with the experience of making concrete policy recommendations in real-world applications.

The following prerequisites/corequisites for the minor must be completed before students begin their junior year:

- A grade of $C$ - or better in ECO 1311 or ECO 1312, a score of 4 or better in the Macroeconomics Advanced Placement Test, or a score of 4 or better in the Microeconomics Advanced Placement Test.
- A grade of $C$ - or better in one quantitative course (ITOM 2305, MATH 1309 or MATH 1337, SOCI 3311 or SOCI 3312, or STAT 2331 or STAT 4340) or a score of 4 or better in the Statistics Advanced Placement Test.


## Requirements for the Minor

- PPIA 2380 - Gateway to Global Policymaking
- PPIA 3301 - Junior-Year Policy Seminar: Theoretical Public Policy
- PPIA 3302 - Junior-Year Policy Seminar: Public Policy in Professional Practice
- PPIA 4306 - Tower Scholars Directed Research Project
- PLSC 3320 - Principles of Public Policy

Total: 15 Credit Hours

## Courses:

## PPIA 2380-Gateway to Global Policymaking

## Credits: 3

Examines foreign, economic, and domestic policy issues and analyzes the ways policy is made in the United States. Students look at the interaction of substantive policy problems, policy tools, and organizational structures at the local, national, and international levels, while considering the ethics of political choices. Reserved for Tower Scholars.

## PPIA 3301 - Junior-Year Policy Seminar: Theoretical Public Policy

## Credits: 3

First of a two-part sequence. Students review policy case studies and learn how to analyze and interpret data related to public policy issues. They apply what they learn during the following term, in PPIA 3302. Reserved for Tower Scholars.

## Credits: 3

Second of a two-part sequence. Students work on a specific policy-related project from a real-world setting. Culminates in written policy recommendations presented to a nonacademic client. Prerequisite: PPIA 3301. Reserved for Tower Scholars.

## PPIA 4306-Tower Scholars Directed Research Project

## Credits: 3

Offers Tower Scholars experience in varied organizations and agencies. Students conduct in-depth research, analysis, and structured reflection on an assigned policy issue. Includes interviews and discussions off-campus, research online and in the SMU libraries, and completion of a significant and useful research paper. During weekly class meetings, students relate their fieldwork experiences to readings, discussions, and the shared experiences of fellow Tower Scholars. Reserved for Tower Scholars.

## Women's and Gender Studies Minor

www.smu.edu/womgenstudies

## Senior Lecturer Josephine Caldwell-Ryan, Director

Students in the Women's and Gender Studies Program explore a wide variety of disciplines and life experiences through gender, which is the set of meanings that societies attach to being female or male. The program's dual name acknowledges two approaches. One emphasizes the intellectual, artistic, political and social contributions of women. The other extends into to a broader range of issues, including the social and cultural meanings of masculinity and the relationships between gender, sexuality and sexual identity. Through participation in the program, SMU students are exposed to contemporary challenges to traditional academic disciplines and to scholarship that addresses matters of personal identity. Because it is interdisciplinary, a women and gender studies minor complements a variety of majors and minors, especially those in the humanities, social sciences and fine arts.

Students satisfy requirements for the minor through a combination of core courses and a wide array of courses offered by many departments in Dedman College and the Meadows School of the Arts. (Courses subject to approval are topics and problems courses that earn credit toward the minor only when offered under specific preapproved titles.)

## Requirements for the Minor

- WGST 2322 - Gender: Images and Perspectives (or approved substitute)
- Four WGST or approved courses (Three of them at the 3000 level or above)

Total: 15 Credit Hours

## Individualized Studies in the Liberal Arts, B.A., With a Focus on Women's and Gender Studies

Students may complete a B.A. in individualized studies in the liberal arts with a focus on women's and gender studies. Students wishing to earn distinction must take a directed studies course that requires a research project and paper.

Students who qualify for individualized studies in the liberal arts and who have a strong interest in women's role in culture and society, or in the study of gender and sexuality more generally, may propose a program that focuses on women's and gender studies. The program should expose the student to the diversity of gender meanings within and across cultures. The program description and administrative procedures specified for the individualized major in the liberal arts apply, with the following additional stipulations:

1. The student must consult with the director, who shall serve as one of the members of the Faculty Supervisory Committee for the student's major.
2. Two additional faculty members who teach courses in the program serve on this committee, which oversees the student's progress and certifies completion of the major.
3. The student's program must include courses in at least four disciplines (not counting WGST courses). At least two at the 4000 level or above are strongly recommended.
Many program-approved departmental courses with a subject area in women's and gender studies courses are offered annually and, with a few exceptions, the remainder are available at least every other year. Students should consult with the director about offerings and frequency.

## Requirements for the Major

## Core Course (3 Credit Hours)

- WGST 2322 - Gender: Images and Perspectives


## Two from the following: (6 Credit Hours)

- ANTH 3310-Gender and Sex Roles: A Cross-Cultural Perspective
- HIST 3312 - Women in American History to 1900
or
- HIST 3327 - Women in American History From 1865
- HIST 3329 - Women in Early Modern Europe
- WGST 6300 - Advanced Feminist Theory


## Additional Courses (27 Credit Hours)

Nine relevant WGST or program-approved courses (below) at the 3000-level or above

- ANTH 3310 - Gender and Sex Roles: A Cross-Cultural Perspective
- ANTH 3328 /WGST 3328 - Gender Violence: Anthropological Perspectives
- ANTH 3336 - Gender and Globalization: Cultural and Ethical Issues
- ANTH 4386/6386 - The Archaeology of Gender and Sexuality
- ARHS 3358/6389 - Gender and Sexuality in the Visual Arts
- ARHS 3365/6365 - Race and Gender in Visual Culture
- CCPA 3341 - Ethnicity, Culture, and Gender: Introduction to Critical Studies in Communication
- CE 8338 - Emancipatory Educational Ministry with Adolescent Girls (Perkins graduate course; instructor approval)
- ENGL 1360 - The American Heroine
- ENGL 3344 - Victorian Gender
- ENGL 3364 - Women and the Southwest
- ENGL 3367 - Ethical Implications of Children's Literature
- ENGL 3371/HIST 3357 - Joan of Arc: History, Literature, and Film
- ENGL 3373 /WL 3359 - Masculinities: Images/Perspectives
- ENGL 3377 - Literature and the Construction of Homosexuality
- ENGL 3379 - Literary and Cultural Contexts of Disability: Gender, Care, and Justice
- ENGL 4330 - Renaissance Writers
- ENGL 4343 - Studies in British Literature in the Age of Revolutions
- ENGL 6391 - Topics/Seminars (topic must be approved by director)
- ENGL 6392 - Topics/Seminars (topic must be approved by director)
- ENGL 6393 - Topics/Seminars (topic must be approved by director)
- ENGL 6394 - Topics/Seminars (topic must be approved by director)
- ENGL 6395 - Topics/Seminars (topic must be approved by director)
- FILM 2332 - American Popular Film and Television (topic to be approved by director)
- FILM 2362 - Diversity and American Film: Race, Class, Gender, and Sexuality
- FILM 3310 - Screen Artists (topic to be approved by director)
- FILM 3395 - Topics in Film and Media Studies (topic to be approved by director)
- FREN 5334 - Genre Studies (topic to be approved by director)
- HIST 1321 - Introductory Topics in American History (topic to be approved by director)
- HIST 1322 - Introductory Topics in European History (topic to be approved by director)
- HIST 3301 /HRTS 3301 - Human Rights: America's Dilemma
- HIST 3310 - Problems in American History (topic to be approved by director)
- HIST 3312 - Women in American History to 1900
- HIST 3316 - History of Sex in America
- HIST 3317 /HRTS 3317 - Persecution to Affirmation: Sexual Minorities and Human Rights
- HIST 3317 - Persecution to Affirmation: Sexual Minorities and Human Rights
- HIST 3327 - Women in American History From 1865
- HIST 3329 - Women in Early Modern Europe
- HIST 3330 - Women in Modern European History
- HIST 3348 - American Families: Changing Experiences and Expectations
- HIST 3355 - Class and Gender in Ancient Society
- HIST 3394 - The New Woman: The Emergence of Modern Womanhood in the U.S., 1890-1930
- HIST 3398 - Women in Chinese History
- HIST 4304 - At the Crossroads: Gender and Sexuality in the Southwest
- JOUR 4360 - Women and Minorities in the Media
- MDVL 3352 - Ideas and Ideal of Gender in the Middle Ages
- PC 8333 - Pastoral Care and Counseling of Women (Perkins graduate course; instructor approval)
- PC 8335 - Sexual and Domestic Violence: Theological and Pastoral Concerns (Perkins graduate course; instructor approval)
- PHIL 3305 - Philosophy and Gender
- PLSC 3370 - Women and Politics
- PLSC 4344 - Gender in World Politics
- PLSC 4339 - Criminal Procedure: 5th and 6th Amendment Rights
- PSYC 3371 - Psychology of Women
- RELI 3374 - Female and Male in Religion and Culture
- RELI 3375 - The Feminine Divine
- RELI 3380 - Women and Religion in America
- RELI 3381 - Religion, Gender, and Economic Development
- SOCI 3330 - Social Construction of Identities
- SOCI 3345-Construction of Social Identities in the Media
- SOCI 3351 - Sociology of the Family
- SOCI 3371 - Sociology of Gender
- SOCI 4373 - Class, Race, and Gender Inequalities
- SPAN 5336 - Spanish-American Novel (director approves topic)
- ST 8375 - Feminist/Womanist Theologies (Perkins graduate course; instructor approval)
- THEA 4381 - Studies in Theatre, Drama, and Performance (director approves)
- THEA 4382 - Studies in Theatre, Drama, and Performance (director approves)
- THEA 4383 - Studies in Theatre, Drama, and Performance (director approves)
- THEA 4384 - Studies in Theatre, Drama, and Performance (director approves)
- WGST 3310 /HRTS 3310 - Gender and Human Rights
- WGST 3380 - Human Sexuality
- WGST 4303 - Women's and Gender Studies Internship
- WGST 4309 - Independent Studies
- WL 3363 - Figuring the Feminine
- WL 4345/HRTS 4345 - Women's Rights and Human Rights in Literature by Latin American Women
- WO 8308 - Women and Worship (Perkins' graduate course; instructor approval)
- XS 8345 - Faith, Feminism, and Public Policy (Perkins graduate course; instructor approval)


## Total: 36 Credit Hours

## Courses:

## WGST 1395 - Special Topics Abroad in Women's and Gender Studies

Credits: 3
Course offered in SMU-approved international programs. Prior approval by the director is required. A maximum of 3 credit hours may be applied toward the minor in women's and gender studies.

## WGST 2309 - Lesbian and Gay Literature and Film: Minority Discourse and Social Power

Credits: 3
The exploration, through literature and film, of the struggles by gay men and lesbians to create social identities and achieve human rights. Study of key cultures and pivotal historical periods in the West from ancient Greece to contemporary America.

## WGST 2322 - Gender: Images and Perspectives

Credits: 3
An interdisciplinary examination of the ways femininity and masculinity have been represented in the past and present, with attention to what is constant and what changes.

## WGST 2395 - Special Topics Abroad in Women's and Gender Studies

Credits: 3
Course offered in SMU-approved international programs. Prior approval by the director is required.

## WGST 3310 - Gender and Human Rights

## Credits: 3

Introduction to global women's human rights and other intersections of human rights and gender, such as abuse of children's rights, gender-based violence, health and reproductive rights, and evolving concepts of sexual rights.

## WGST 3328 - Gender Violence: Anthropological Perspectives

## Credits: 3

This course examines how gender-based violence shapes individual subjectivities and collective experiences, material realities, and psychological states, as well as the impacts of interventions on intimate, interpersonal, local, and global scales.

## WGST 3380 - Human Sexuality

## Credits: 3

This course explores the biosocial aspects of human sexuality and sex behaviors. A multidisciplinary and cross-cultural perspective will be used to address a wide range of theoretical and pragmatic sexual issues.

## WGST 3395 - Special Topics Abroad in Women's and Gender Studies

Credits: 3
Course offered in SMU-approved international programs. Prior approval by the director is required.

## WGST 4109 - Independent Studies

Credits: 1
Supervised practicum and/or directed readings on specific problems or themes formulated by the student under faculty guidance. Director approval required.

## WGST 4209 - Independent Studies

Credits: 2
Supervised practicum and/or directed readings on specific problems or themes formulated by the student under faculty guidance. Director approval required.

## WGST 4303 - Women's and Gender Studies Internship

Credits: 3
Offers experience with organizations serving women or addressing women's and gender issues, with volunteer opportunities in the community, or with varied potential careers.

## WGST 4309 - Independent Studies

Credits: 3
Supervised practicum and/or directed readings on specific problems or themes formulated by the student under faculty guidance. Director approval required.

## WGST 4395 - Special Topics Abroad in Women's and Gender Studies

Credits: 3
Course offered in SMU-approved international programs. Prior approval by the director is required.

## WGST 5310 - Special Topics in Women's and Gender Studies I

Credits: 3
Study of a theme, issue, or topic relevant to the study of women, gender, and/or sexuality. The syllabus and assignments must be approved by a committee consisting of the professor of record, the WGST director, and a faculty member who teaches courses in the WGST program. Prerequisite: Enrollment in the WGST Certificate Program.

## Mathematics

www.smu.edu/math
Professor Alejandro Aceves, Department Chair
Professors: Alejandro Aceves, Vladimir Ajaev, Wei Cai, Thomas Hagstrom, Amnon Meir, Peter Moore, Douglas Reinelt, Johannes Tausch
Associate Professors: Thomas Carr, Barry Lee, Scott Norris, Daniel Reynolds, Benno Rumpf, Brandilyn
Stigler, Sheng Xu, Yunkai Zhou
Assistant Professors: Andrea Barreiro, Weihua Geng, Kathryn Hedrick
Senior Lecturers: Adriana Aceves, Judy Newell
Lecturer: Carol Seets

## General Information

The department of mathematics offers B.S. and B.A. degrees in mathematics as well as a minor in mathematics. All mathematics majors, either B.S. or B.A., and minors must earn grades of at least C- in all courses taken in fulfillment of the requirements for the mathematics major or minor. MATH 6000-level courses may be taken for either the B.S. or B.A. major by students who have fulfilled the prerequisites and have departmental permission. Transfer credit for MATH 1307, MATH 1309 or MATH 1337 will not be approved after any student matriculates to SMU, regardless of major.

## Departmental Distinction - Computational Science Honors Option

A mathematics major achieving a B.S. degree may graduate with departmental distinction by completing the computational honors option. For this honors option all of the basic major requirements will remain the same except that the following three courses are required: MATH 3316, MATH 4370 and MATH 5315 . In addition, the student is required to complete an honors thesis/senior project and achieve a GPA of 3.3 or above in all mathematics courses. The student's initial proposal and final product will be submitted to a three-person faculty committee for approval.

## Mathematics, B.A.

The B.A. degree in mathematics is designed for students who need a traditional mathematics degree leading to careers in teaching, industry, business and government. It is particularly attractive when combined with liberal arts, social science or business administration as a double major. The requirements are the same as for the B.S. degree except that there is no natural science requirement.

## Mathematics, B.S.

The B.S. degree in mathematics reflects contemporary trends in mathematics by incorporating computer science, mathematical and computational modeling, natural science and statistics courses. This degree is particularly appropriate for students who wish to proceed toward careers in industry concentrating on analytical problem solving, or toward graduate schools in any mathematical science area. Computer science, economics, electrical engineering, mechanical engineering, management science, physics and chemistry provide attractive opportunities as areas for a double major with mathematics. With a minimum of 21 approved advanced hours in the major, the following courses are required:

## Requirements for the Major

## Fundamental Mathematics (15 Credit Hours)

- MATH 1309 - Introduction to Calculus for Business and Social Science or
- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
or
- MATH 1340 - Consolidated Calculus
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations


## Natural Science (6 Credit Hours)

At least 6 hours from the following:

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- CHEM 1303-General Chemistry
- CHEM 1304-General Chemistry
- PHYS 1303 - Introductory Mechanics
- PHYS 1304 - Introductory Electricity and Magnetism
- One GEOL 1300-level course


## Computer Science (3 Credit Hours)

- CSE 1341 - Principles of Computer Science or
- CSE 1342 - Programming Concepts


## Statistics (3 Credit Hours)

- STAT 4340/CSE 4340/EMIS 3340 - Statistical Methods for Engineering and Applied Scientists or
- STAT 4341 - Probability and Statistics for Scientists and Engineers or
- EE 3360 - Statistical Methods in Electrical Engineering


## Advanced Mathematics Elective (3 Credit Hours)

- One 3000+ MATH course


## Specialization (12 Credit Hours)

At least two courses at the 4000+ level from one specialization, including at least one MATH 4000+ course

## Pure Mathematics:

Four from the following:

- MATH 3311 - Introduction to Proof and Analysis
- MATH 4338 - Analysis
- MATH 4351 - Theory of Numbers
- MATH 4355 - Groups and Rings
- MATH 4381 - Introduction to General Topology
- MATH 5331 - Functions of a Complex Variable


## Applied and/or Numerical Mathematics:

- MATH 3315/CSE 3365 - Introduction to Scientific Computing or
- MATH 3316 - Introduction to High-Performance Scientific Computing

Three from the following:

- MATH 3334 - Mathematical Modeling and Applications
- MATH 4325 - Modeling with Dynamical Systems
- MATH 4335 - Mathematical Biology
- MATH 4337 - Boundary Value Problems and Partial Differential Equations
- MATH 4370 - Introduction to Parallel Scientific Computing
- MATH 5315 - Introduction to Numerical Analysis
- MATH 5316 - Introduction to Matrix Computation
- MATH 5331 - Functions of a Complex Variable
- MATH 5334 - Introduction to Partial Differential Equations
- EMIS 3360 - Operations Research


## Computer Science and Computer Engineering:

- MATH 3315/CSE 3365 - Introduction to Scientific Computing or
- MATH 3316 - Introduction to High-Performance Scientific Computing
- CSE 4381 - Digital Computer Design

Two from the following:

- MATH 4370 - Introduction to Parallel Scientific Computing
- MATH 5315 - Introduction to Numerical Analysis
- MATH 5316 - Introduction to Matrix Computation


## Engineering:

- Advanced Elective must be MATH 3304
- MATH 3315/CSE 3365 - Introduction to Scientific Computing or
- MATH 3316 - Introduction to High-Performance Scientific Computing
- MATH 4337 - Boundary Value Problems and Partial Differential Equations

One from the following:

- MATH 4325 - Modeling with Dynamical Systems
- MATH 4370 - Introduction to Parallel Scientific Computing
- MATH 5315 - Introduction to Numerical Analysis
- MATH 5316 - Introduction to Matrix Computation
- MATH 5331 - Functions of a Complex Variable
- MATH 5334 - Introduction to Partial Differential Equations

Civil Engineering:

Two from the following:

- CEE 5361 - Matrix Structural Analysis and Introduction to Finite Element Methods
- CEE 5364 - Introduction to Structural Dynamics
- ME 4322 - Vibrations

Environmental Engineering:

Two from the following:

- ME 5336- Intermediate Fluid Dynamics /MATH 6336 - Fluid Dynamics
- CEE 5331 - Air Pollution Management and Engineering
- CEE 5332 - Groundwater Hydrology and Contamination
- CEE 5334 - Fate and Transport of Contaminants


## Mechanical Engineering:

Two from the following:

- ME 4360 - Design and Control of Mechanical Systems
- ME 5302 - Linear System Analysis
- ME 5320 - Intermediate Dynamics
- ME 4322 - Vibrations
- ME 5336 - Intermediate Fluid Dynamics
- ME 5361 - Matrix Structure Analysis
- ME 5386-Convection Heat Transfer


## Electrical Engineering:

Two from the following: (with at least one course at the 4000+ level)

- EE 3322 - Electronic Circuits II
- EE 3330 - Electromagnetic Fields and Waves
- EE 3372 - Introduction to Signal Processing
- EE 5330 - Electromagnetics: Guided Waves
- EE 5332 - Electromagnetics: Radiation and Antennas
- EE 5336 - Introduction to Integrated Photonics
- EE 5360 - Analog and Digital Control Systems
- EE 5372 - Topics in Digital Signal Processing


## Operations Research:

- MATH 3315/CSE 3365 - Introduction to Scientific Computing or
- MATH 3316 - Introduction to High-Performance Scientific Computing
- EMIS 3360-Operations Research (required)

One from the following:

- MATH 4370 - Introduction to Parallel Scientific Computing
- MATH 5315 - Introduction to Numerical Analysis
- MATH 5316 - Introduction to Matrix Computation

One from the following:

- EMIS 5361 - Computer Simulation Techniques
- EMIS 5362 - Production Systems Engineering


## Total: 42 Credit Hours

## Mathematics Minor

## Requirements for the Minor

The mathematics minor, available to students who are not seeking the B.A. or B.S. in mathematics, consists of 18 hours of MATH courses:

- MATH 1309 - Introduction to Calculus for Business and Social Science
or
- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
or
- MATH 1340 - Consolidated Calculus
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- Nine additional hours selected from mathematics courses at the advanced (3000+) level

Note:

All courses in the minor must be passed with a grade of $C$ - or higher.

## Total: 18 Credit Hours

## Courses:

## MATH 1303 - Precalculus for Business

## Credits: 3

Inequalities, absolute value, graphs, functions, basic analytic geometry, polynomials, logarithms, exponentials, linear equations, and mathematics of finance. Completion of high school algebra is required. No credit is given if taken after any calculus course. Credit is not given for both MATH 1303 and MATH 1304. Intended for students planning to take MATH 1309. This is an online course with an on-campus proctoring requirement for exams.

## MATH 1304 - Precalculus Mathematics

## Credits: 3

Graphs, functions, basic analytic geometry, exponentials, logarithms, trigonometry, and inverse functions. Prerequisites: Three years of high school math at the level of Algebra I and above. No credit is given if taken after any calculus course. Credit is not given for both MATH 1303 and MATH 1304. Intended for students planning to take MATH 1337.

## MATH 1305 - Mathematics for Elementary and Middle School Teachers

## Credits: 3

Study of rational number arithmetic, with a focus on explanation through models and representations. Emphasizes algebra from the viewpoint of the elementary curriculum and problem-solving. Prerequisite or corequisite: EDU 2350 or PSYC 1300.

## MATH 1307 - Introduction to Mathematical Sciences

## Credits: 3

Permutations and combinations, probability, voting methods, elementary statistics, and mathematics of finance. Prerequisite: High school algebra.

## MATH 1309 - Introduction to Calculus for Business and Social Science

## Credits: 3

Derivatives and integrals of algebraic, logarithmic, and exponential functions with applications to the time value of money, curve sketching, maximum-minimum problems, and computation of areas. Applications to business and economics. (Natural science and engineering students must take MATH 1337. Credit not allowed for both MATH 1309 and MATH 1337.) Prerequisite: Placement out of MATH 1303 or a C- or higher in MATH 1303.

## MATH 1337-Calculus I

## Credits: 3

Differential and integral calculus for algebraic, trigonometric functions, and other transcendental functions, with applications to curve sketching, velocity, maximum-minimum problems, area and volume. (Credit not allowed for both MATH 1309 and MATH 1337.) Prerequisite: Placement out of MATH 1304 or a C- or higher in MATH 1304.

## MATH 1338-Calculus II

## Credits: 3

A continuation of MATH 1337 through differential and integral calculus, areas, techniques of integration, improper integrals, and infinite sequences and series, including Taylor series. Prerequisite: C- or higher in MATH 1337 (or MATH 1309 and departmental permission).

## MATH 1340-Consolidated Calculus

## Credits: 3

A combined course in Calculus I and II for students with a background in Calculus I. Students receive credit for both this course and MATH 1337 if they receive a C- or higher. Students may not receive credit for both MATH 1338 and MATH 1340. Prerequisite: A score of 3 or higher on the AB or BC Calculus AP exam, or permission of the Mathematics Department.

## MATH 3302 - Calculus III: Multi-Variable and Vector Calculus

## Credits: 3

Partial differentiation, multiple integrals, parametrization, line and surface integrals. Vector Calculus, including vector fields, divergence, curl, and the divergence and Stokes' theorems. Prerequisites: C- or higher in MATH 1338 or MATH 1340.

## MATH 3304 - Introduction to Linear Algebra

## Credits: 3

Matrices and linear equations, Gaussian elimination, determinants, rank, geometrical notions, eigenvalue problems, coordinate transformations, norms, inner products, orthogonal projections, and Gram-Schmidt and least squares. Includes computational exercises related to these topics. Prerequisites: C- or higher in MATH 1338 or MATH 1340.

## MATH 3308 - Introduction to Discrete Mathematics

## Credits: 3

Introduces logic, set theory, graph theory, recurrence relations, and combinatorics. Presents mathematical foundations and applications of these subjects. Credit is not allowed for both CSE 2353 and MATH 3308. Prerequisite: C- or higher in MATH 1338 or MATH 1340.

## MATH 3311 - Introduction to Proof and Analysis

## Credits: 3

An introduction to writing mathematical proofs, including mathematical notation, methods of proof, and strategies for formulating mathematical arguments. Applies proof strategies to basic concepts in elementary real analysis. Prerequisites: C- or higher in MATH 1338 or MATH 1340.

## MATH 3313-Ordinary Differential Equations

## Credits: 3

First- and second-order linear equations, including applications to physical and biological sciences. Solution methods including integrating factors, undetermined coefficients, variation of parameters, and Laplace transforms. Computational methods and exercises. Prerequisites: C- or higher in MATH 1338 or 1340.

## MATH 3315 - Introduction to Scientific Computing

## Credits: 3

An elementary survey course that includes techniques for root-finding, interpolation, functional approximation, linear equations, and numerical integration. Special attention is given to MATLAB programming, algorithm implementations, and library codes. Students registering for this course must also register for an associated computer laboratory. Prerequisites: Cor better in MATH 1338 or MATH 1340, and in CSE 1341 or CSE 1342. Corequisite: MATH 3304.

## MATH 3316 - Introduction to High-Performance Scientific Computing

## Credits: 3

An elementary survey course that includes techniques for root-finding, interpolation, functional approximation, linear equations, and numerical integration. Computational work focuses on the Python and $\mathrm{C}++$ programming languages using Linux. Prerequisites: C- or higher in MATH 1338 or MATH 1340, and in CSE 1342. Corequisite: MATH 3304.

## MATH 3334 - Mathematical Modeling and Applications

## Credits: 3

Discussion of modeling principles such as conservation laws, dimensional analysis and scale, model validation, and the continuum hypothesis. Applications may include vibrations, traffic flow, population dynamics, and optimization. Prerequisite: C- or higher in MATH 3313.

## MATH 4315-Advanced Scientific Computing

## Credits: 3

Advanced algorithms central to scientific and engineering computing. Topics include solution of linear systems of equations, functional approximation, initial-value problems, and boundary-value problems. Special attention is given to algorithm derivation and implementation. Prerequisites: C+ or higher in MATH 3315. Credit not allowed for both MATH 4315 and MATH 5315.

## MATH 4325 - Modeling with Dynamical Systems

## Credits: 3

Systems of ordinary differential equations, emphasizing models describing the physical, biological, and social sciences. Linear stability, phase plane, limit cycles, bifurcations, chaos. Includes computational methods. Prerequisites: C- or higher in MATH 3304 or MATH 3304; C- or higher in MATH 3313 or MATH 3313.

## MATH 4335-Mathematical Biology

## Credits: 3

Introduction of mathematical models of biological systems. Also, population dynamics, infectious diseases, population genetics, and molecular and cellular biology. Prerequisites: C- or higher in MATH 3313, MATH 3304.

## MATH 4337 - Boundary Value Problems and Partial Differential Equations

## Credits: 3

Boundary value problems including Sturm-Liouville theory, eigenfunction expansion/transform methods. Elementary partial differential equations, including the homogeneous and non-homogeneous heat and wave equations; solution by separation and transform methods. Prerequisites: C- or higher in MATH 3302, C- or higher in MATH 3304, and C- or higher in MATH 3313.

## MATH 4338-Analysis

## Credits: 3

Sequences and series of real numbers and functions, properties of continuous functions, differentiation and integration with some attention paid to higher dimensions. Prerequisite: C- or higher in MATH 3308 or permission of instructor.

## MATH 4351 - Theory of Numbers

## Credits: 3

Classical number theory, including divisibility, congruencies, quadratic reciprocity, Diophantine equations, and number theoretic functions. Prerequisite: C- or higher in MATH 3308 or permission of instructor.

## MATH 4355-Groups and Rings

Credits: 3
Basic properties of groups, rings and fields, homomorphisms, normal subgroups, integral domains, ideals, algebraic extension fields, geometric constructions. Prerequisite: C- or higher in MATH 3308 or permission of instructor.

## MATH 4370 - Introduction to Parallel Scientific Computing

Credits: 3
An introduction to parallel computing in the context of scientific computation. Prerequisites: MATH 3316 and MATH 3304, or permission of instructor.

## MATH 4381 - Introduction to General Topology

Credits: 3
Elementary topology of the line and plane, metric spaces, and general topological spaces. Also, continuity of mappings,
connectedness, compactness, completeness, and fixed-point theorems. Prerequisite: C- or higher in MATH 3308 or permission of instructor.

## MATH 5315 - Introduction to Numerical Analysis

## Credits: 3

Numerical solution of linear and nonlinear equations, interpolation and approximation of functions, numerical integration, floating-point arithmetic, and the numerical solution of initial value problems in ordinary differential equations. Student use of the computer is emphasized. Prerequisites: MATH 3313, and MATH 3315/CSE 3365 or MATH 3316; a programming course (e.g., C, FORTRAN, or MATLAB).

## MATH 5316 - Introduction to Matrix Computation

## Credits: 3

The efficient solution of dense and sparse linear systems, least squares problems, and eigenvalue problems. Elementary and orthogonal matrix transformations provide a unified treatment. Programming is in MATLAB, with a focus on algorithms. Prerequisites: MATH 3304; MATH 3315/CSE 3365 or MATH 3316.

## MATH 5331 - Functions of a Complex Variable

Credits: 3
Complex numbers, analytic functions, mapping by elementary functions, and complex integration. Cauchy-Goursat theorem and Cauchy integral formulas. Taylor and Laurent series, residues, and evaluation of improper integrals. Applications of conformal mapping and analytic functions. Prerequisite: C- or higher in MATH 3337.

## MATH 5334 - Introduction to Partial Differential Equations

## Credits: 3

Elementary partial differential equations of applied mathematics: heat, wave, and Laplace's equations. Topics include physical derivations, separation of variables, Fourier series, Sturm-Liouville eigenvalue problems, and Bessel functions. Prerequisite: C- or higher in MATH 3337.

## Philosophy

www.smu.edu/philosophy
Professor Robert Howell, Department Chair
Professors: Eric Barnes, Doug Ehring, Robert Howell
Associate Professors: Philippe Chuard, Justin Fisher, Matthew Lockard, Jennifer Matey, Luke Robinson, Brad Thompson
Senior Lecturer: Kenneth Daley.
Lecturers: Kirsten Egerstrom, Stephen Hiltz

## General Information

The Philosophy Department is well known for strength in ethics, moral psychology, metaphysics, epistemology, philosophy of mind and philosophy of science. Students focus on the development of skills in reasoning, their understanding of arguments and viewpoints, the critical evaluation of varied perspectives, and clear written and oral communication. The critical thinking skills developed in the major and minors are of benefit to students in many disciplines and are especially useful as preparation for law school. The department offers a B.A. in Philosophy and minors in Philosophy and in Ethics. Courses include core areas of philosophy and specialized topics such as animal rights, philosophy of law and philosophy of mind.

## Departmental Distinction

Departmental distinction is awarded to philosophy majors graduating with at least a 3.5 GPA in philosophy and who successfully complete a writing project under the guidance of a faculty member.

## Philosophy, B.A.

The B.A. degree requires 30 credit hours of coursework in philosophy, including at least 21 credit hours in advanced courses ( 3000 level or above). At least 12 hours in any one world language are strongly recommended.

## Requirements for the Major

## Core Courses (12 Credit Hours)

- PHIL 1301 - Elementary Logic
- PHIL 3351 - History of Western Philosophy (Ancient)
- PHIL 3352 - History of Western Philosophy (Modern)

One from the following:

- PHIL 3310 - Advanced Topics in Philosophy
- PHIL 3311 - 20th-Century Philosophical Analysis
- PHIL 3312 - Introduction to Philosophy of Language
- PHIL 3313-Knowledge and Skepticism
- PHIL 3314 - Metaphysics
- PHIL 3315 - Philosophy of Mind
- PHIL 3316 - Minds, Brains, and Robotics
- PHIL 3317 - Philosophy of Perception
- PHIL 3318 - Colors, Sounds, and Other Appearances
- PHIL 3319 - Identity, Persons, and Other Objects


## Electives (18 Credit Hours)

- Six additional PHIL courses, with at least four courses at the 3000 level or above


## Total: 30 Credit Hours

## Ethics Minor

The Minor in Ethics provides students with opportunities to explore not only questions of value, justice, responsibility and the moral life, but also philosophical treatments of ethics that are foundational for the critical discussion of ethical issues in other fields, such as law, economics and public policy. Students can choose from courses in ethical and political theory, courses in applied and practical ethics, and courses on specialized topics such as liberty, neuroethics and philosophy of law. The minor is designed to provide students with a strong foundation in ethics, along with skills in reasoning, analysis and the critical evaluation of ethical and philosophical issues, positions and arguments.

The Minor in Ethics may be easily combined with majors or minors in other disciplines (such as Economics, Environmental Studies, Human Rights, Political Science, Public Policy, and Women's and Gender Studies), as many courses may be counted toward multiple majors or minors.

## Requirements for the Minor

The Minor in Ethics requires at least 15 credit hours of coursework, including at least four courses (12 hours) in philosophical ethics. Three of the required courses in philosophical ethics ( 9 hours) must come from the department's advanced sequence in ethics (PHIL 3371, PHIL 3372, PHIL 3373, PHIL 3374, PHIL 3375, PHIL 3376, PHIL 3377, PHIL 3379, PHIL 3380, PHIL 3381), and the fourth (3 hours) must come from that same sequence or from the department's introductory sequence in ethics (PHIL 3316, PHIL 3317, PHIL 3318). Upon petition to the chair of the department, other philosophy courses, including PHIL 3310 and PHIL 4393 or PHIL 4394, may fulfill the foregoing requirements provided their topics and contents are suitable. The remaining course ( 3 hours) must come from the department's ethics courses, the department's non-ethics courses, or a list of approved courses offered by other departments.

It is recommended that each student minoring in ethics take one course from the department's introductory sequence in ethics (PHIL 1316, PHIL 1317, PHIL 1318), along with at least one course in ethical theory (PHIL 1316, PHIL 3371, PHIL 3372, PHIL 3380).

## Core Courses (12 Credit Hours)

Any four from the following, with at least 9 hours at the 3000 -level or above.

- PHIL 1316 - Introduction to Ethics
- PHIL 1317 - Business Ethics
- PHIL 1318 - Contemporary Moral Problems
- PHIL 3371 - Social and Political Philosophy
- PHIL 3372 - Liberty
- PHIL 3373 - Philosophy of Criminal Law
- PHIL 3374 - Philosophy of Law
- PHIL 3375-Topics in Moral Philosophy
- PHIL 3376 - Bioethics
- PHIL 3377 - Animal Rights
- PHIL 3379 - Environmental Ethics
- PHIL 3380 - Ethics: Morality, Self-Interest, and Justice
- PHIL 3381 - Neuroethics


## Electives (3 Credit Hours)

One additional core course from the list above, one additional PHIL course, or one course from the following list:

- ANTH 2380 - Cultures at Risk: Human Rights and Heritage Today
- CCPA 2328 - Communication Ethics
- HRTS 3301/HIST 3301 - Human Rights: America's Dilemma
- JOUR 2302 - Ethics of Convergent Media
- PLSC 4371 - Jurisprudence
- RELI 3309 - Bioethics From a Christian Perspective
- SOCI 4373 - Class, Race, and Gender Inequalities


## Total: 15 Credit Hours

## Notes

- Students majoring in philosophy may not minor in ethics.
- Students may not count both PHIL 1318 and PLSC 4371 toward the minor in ethics.


## Philosophy Minor

The minor is available to students who are not seeking the B.A. in philosophy. Philosophy requires 15 credit hours of coursework in philosophy, including at least 9 credit hours in advanced courses (3000-level or above).

## Requirements for the Minor

- PHIL 3351 - History of Western Philosophy (Ancient)
or
- PHIL 3352 - History of Western Philosophy (Modern)
- Four additional PHIL courses, with at least two courses at the 2000 level or above


## Total: 15 Credit Hours

## Courses:

## PHIL 1300-Introduction to Critical Thinking

## Credits: 3

Learning to analyze, evaluate, and present information in order to better assess one's own beliefs and to persuade others more effectively.

## PHIL 1301 - Elementary Logic

## Credits: 3

An introductory course in symbolic logic. Logic provides a means for determining whether the purported conclusion of an argument really does follow from the premises. In symbolic logic, mechanical procedures are developed for determining whether a given argument is valid. The techniques and skills acquired through logic have important applications not only within other academic areas such as the sciences and humanities, but may be of use within various professional areas, including law.

## PHIL 1305 - Introduction to Philosophy

## Credits: 3

A general introduction to the central questions of philosophy. We will discuss topics from such areas as the theory of knowledge, philosophy of religion, metaphysics, philosophy of mind, ethics, and political philosophy. Typical questions might include: Can we know the world outside our minds? Is it rational to believe in a God who allows evil to exist? Do the laws of physics allow for human freedom? Is morality more than a matter of opinion? Can there be unequal wealth in a just society? Readings will include classical authors such as Plato, Descartes, Locke, Hume, and Mill, as well as contemporary philosophers. The focus of the course will be on arguments for and against proposed solutions to key problems of philosophy.

## PHIL 1306 - Introduction to Philosophy: Minds, Machines, and Persons

Credits: 3
A focused introduction to the central questions of philosophy, with an emphasis on the mind and the self. Typical questions might include the following: Does the soul exist? Is the mind the same thing as the brain? Can animals feel pain? Can they think? Can a computer think? Might the mind be a computer? What is consciousness? Can people understand experiences radically different from their own? What is the self? Can one survive the death of the body? The focus of the course is on arguments for and against proposed solutions to philosophical problems concerning mind, machines, and persons.

## PHIL 1316 - Introduction to Ethics

## Credits: 3

Introduces philosophical ethics focusing on questions in ethical theory. Topics vary, but the following are representative. What makes our lives good or bad? What makes our actions morally right or morally wrong? Is there a real, objective difference between good and bad, right and wrong? Why be moral? Focuses on arguments for and against major positions on issues such as these.

## PHIL 1317 - Business Ethics

## Credits: 3

Examines the moral dimensions of actions and practices in the business world. Students explore ethical theories and standards of evaluation for actions and practices generally, and discuss how these theories and standards apply to a variety of issues in business. Topics vary, but the following are representative: advertising, capitalism vs. socialism, corporate
culture, product quality and safety, the responsibilities of corporations to the societies that sustain them, the use of animals in product testing, and working conditions and compensation.

## PHIL 1318 - Contemporary Moral Problems

## Credits: 3

An introduction to philosophical ethics focusing on questions in applied ethics. Students begin by exploring ethical theories and philosophical methods. The majority of the course is devoted to applying those theories and methods to some of the most controversial and pressing issues confronting contemporary society. Topics vary, but the following are representative: abortion, animal rights, affirmative action, capital punishment, economic justice, euthanasia, sexuality, war and terrorism, and world hunger. Class discussion is an important component of the course, as is reading and (in some sections) writing argumentative essays about these issues.

## PHIL 1319-Technology, Society, and Value

Credits: 3
Advances in technology are raising many ethical issues that require serious considerations. We will discuss issues surrounding such technologies and how they affect the views of warfare, privacy, human enhancement, and artificial intelligence.

## PHIL 3161 - Philosophy of Science

## Credits: 1

Covers fundamental issues in the philosophy of science, including the nature of scientific theories, the distinction between science and pseudoscience, the scientific method, the logic of theory confirmation, and the realist versus antirealist debate. Corequisite: CHEM 1304.

## PHIL 3301 - Intermediate Logic

## Credits: 3

Introduces the formal theory of the logical systems students have already learned to use: sentential logic and predicate logic. Students learn to prove the completeness and soundness of both of these systems. Also, simple nonstandard logical systems such as modal, epistemic, or deontic logic, if time permits. Prerequisite: PHIL 1301 or its equivalent.

## PHIL 3302 - Problems in the Philosophy of Religion

## Credits: 3

The philosophy of religion, considering such problems as religious experience, human freedom, good and evil, belief in God, and immortality.

## PHIL 3305-Philosophy and Gender

## Credits: 3

Considers whether or not there are differences between the sexes and whether or not Western science, philosophy, and ethics have been dominated by male thinking. Also, current issues such as pornography, censorship, rape, and reproductive technologies. Students examine writings by feminist philosophers and their critics.

## PHIL 3310 - Advanced Topics in Philosophy

## Credits: 3

May be repeated for credit.

## Credits: 3

An examination of the method of philosophical analysis as practiced by such 20th-century philosophers as Moore, Russell, Wittgenstein, Quine, and Austin.

## PHIL 3312 - Introduction to Philosophy of Language

## Credits: 3

A systematic treatment of such topics as the nature of linguistic reference, meaning, synonymity, truth, vagueness, and metaphor. Also, issues relating to the goals and methodology of linguistics, such as the status of semantic descriptions, and the nature versus nurture controversy in language acquisition theories.

## PHIL 3313 - Knowledge and Skepticism

## Credits: 3

A systematic treatment of such topics as skepticism, analyses of factual knowledge, theories of epistemic justification, foundational versus coherence theories of knowledge, and the relationship between psychology and a philosophical account of knowledge.

## PHIL 3314 - Metaphysics

## Credits: 3

Some of the most central and traditional questions in philosophy are metaphysical: Do objects really exist? What are they? And what are persons: do we persist over time, can we survive change? Are we really free, or are all our actions determined by the laws of nature? Are our minds simply reducible to our brains? Are there such things as souls? How about the properties of things - objects have sizes and shapes, we have nationalities and genders, but what are these properties exactly? Can we know anything about the ultimate structure of reality? Does it include God? Is science the only way to discover what really exists and how things really are? This course offers a systematic approach to these questions and others.

## PHIL 3315 - Philosophy of Mind

## Credits: 3

A systematic treatment of the nature of consciousness, self, and person.

## PHIL 3316 - Minds, Brains, and Robotics

## Credits: 3

Topics may include neural networks, artificial intelligence, perception and action, consciousness, robotics, dynamical systems, embodied cognition, game theory, and the evolution of cognition. Prerequisites: Two courses in fields related to cognitive science (philosophy, computer science, computer engineering, psychology, linguistics, biology, or anthropology).

## PHIL 3317 - Philosophy of Perception

## Credits: 3

We see penguins (and other things), we hear trumpets (and other things), we smell fresh bread (and other things), taste mustard, touch water, etc. Perceptual experiences like these raise many central philosophical questions. Do they represent reality in an accurate way? Can they provide knowledge about our environment? Is there a special kind of consciousness such experiences instantiate, and if so what is it? This course addresses a host of questions about the nature of our perceptual experiences and surveys some of the answers, including some of the more significant results obtain by the cognitive neurosciences.

## PHIL 3318 - Colors, Sounds, and Other Appearances

## Credits: 3

Objects look colored, they produce sounds, smells, and some have a taste. But what are these sensory appearances - colors, sounds, tastes, smells, etc. - exactly? Do they even exist or are they mere appearances produced by our brains? Could they be identified or reduced to objective physical features of the objects we perceive, or are they somehow mere projections of our minds? What can science and philosophy tell us about colors, sounds, and the like? This course offers a systematic analysis of some of these appearances, of their nature, their objectivity, and what can best explain them.

## PHIL 3319 - Identity, Persons, and Other Objects

## Credits: 3

Persons and individuals like you and me raise a host of central philosophical questions. You are, we assume, the very same person you were three minutes ago, distinct from all the other individuals on the surface of the planet. But how is that so, and how it is even possible? Persons, just like tables, chairs, and other particular objects, seem to retain their identity through time despite the changes they go through: they persist and survive change. Does this mean each particular person (and each particular table) has a very specific essence it keeps throughout its life? What exactly constitutes a person? And what do we mean by identity anyway, in this context? And what of the powerful arguments suggesting that persons (and other objects) cease to exist whenever they go through the most trivial change, or that the existence of persons and other objects is a mere illusion? This course will consist in a systematic survey of some of the central answers to some of these and other related questions.

## PHIL 3320-Causation

## Credits: 3

Intensive investigation of the metaphysics of causation. Examines regularity theory, counterfactual theory, probabilistic theory, and process theories. Prerequisite: Permission of instructor.

## PHIL 3321 - Time, Space, and Metaphysics

## Credits: 3

Does time pass? Do the past and the future exist? Is space a thing? What are the laws of nature? This course introduces some central issues in the metaphysics of science.

## PHIL 3322 - Pleasure and Pain

## Credits: 3

Explores the nature of pleasure and pain, their relationships to other mental states, and their significance and value. Do pleasures and pains have intentional content? If so, what do they represent? How are pleasure and pain related to motivation? What can we learn from neuroscience concerning pleasure and pain? Are pleasure and pain essential to what makes life worth living? A previous philosophy course is recommended, but not required.

## PHIL 3333-Topics in Philosophy

Credits: 3
May be repeated for credit.

## PHIL 3351 - History of Western Philosophy (Ancient)

Credits: 3
A study of the major philosophers from Thales to Plotinus, including Plato and Aristotle.

## PHIL 3352 - History of Western Philosophy (Modern)

## Credits: 3

Survey course in the history of modern philosophy covering the modern period, from Descartes to Hume, including Leibniz, Spinoza, Locke, and Berkeley. We will examine many seminal writings in philosophy on such key issues as rationalism and empiricism, the nature of external reality and one's knowledge of it, the existence and nature of God, the relation between mind and body, causation, induction, and the nature of morality and moral action. Satisfies one part of the history requirement for philosophy majors; may be used to satisfy the history requirement for philosophy minors.

## PHIL 3362 - Creativity, Discovery, and Science

## Credits: 3

Considers central issues in the history and philosophy of science, with a special emphasis on the nature of creativity and discovery in scientific thought. General questions include the following: What is science, and what is the nature of scientific method? What is the nature of evidence and explanation in science? Addresses in detail the question of how new ideas such as theories and problem solutions are produced and assessed in scientific thinking. Is creativity essentially a random or blind process or is it rule-governed in some way? What is the nature of scientific discovery? Combines literature in the history and philosophy of science together with psychological literature on the nature of creativity to answer these and other questions. No previous coursework in science is required, but some science background equips students to appreciate the relevant issues.

## PHIL 3363 - Aesthetic Experience and Judgment

## Credits: 3

Attention is devoted to the following questions: What is beauty? Are there any standards or rules concerning what is beautiful? What is art? Why is art an important part of human culture? Students also consider the role of emotion in art, the problem of correct interpretation, and the nature of tragedy.

## PHIL 3364 - Philosophy of Biology

## Credits: 3

A survey of topics in the philosophy of biology, including evolution versus creationism, fitness, units of selection, adaptationism, biological taxonomy, evolution in humans, cultural evolution, and niche construction.

## PHIL 3370 - 19th-Century Philosophy

Credits: 3
A detailed study of selected major thinkers from the 19th century, such as Kant, Hegel, Kierkegaard, Nietzsche, Schoepenhauer, Fichte, Feuerbach, and Marx.

## PHIL 3371-Social and Political Philosophy

## Credits: 3

Explores central questions in social and political philosophy. Topics vary, but the following are representative. What forms of government are most reasonable and morally defensible? What is justice, and how might it be embodied in a system of government? Are there such things as natural rights? What is the basis for saying that we have rights to freedom of speech and religion? What would constitute a just or fair distribution of the benefits and burdens of social cooperation? Do citizens in a modern, democratic state have a moral obligation to obey its laws? When, if ever, is it legitimate for a state to go to war?

## PHIL 3372 - Liberty

## Credits: 3

Investigates the topics of freedom and autonomy primarily from the standpoint of social and political philosophy. Students explore the nature of freedom and its role in a good society along with the nature of autonomy (self-governance) and its role in a good life. Also, the distinction between negative and positive liberty, the nature of coercion, the republican theory of freedom, the nature of personal autonomy, the value of freedom, and other topics.

## PHIL 3373 - Philosophy of Criminal Law

## Credits: 3

By what right does society punish some people? What is the correct amount of punishment for a given crime? Why should the law excuse some people who are convicted of criminal acts? We examine the classical philosophical theories of retributivism and utilitarianism, as well as some contemporary writers who try to combine them. Each year the course also focuses on one important issue in the contemporary criminal justice system of the U.S. Recent topics have included the legalization of marijuana, convictions of innocent persons, stop-and-frisk policing, and prosecutorial discretion.

## PHIL 3374 - Philosophy of Law

## Credits: 3

This course explores some central and interrelated issues in philosophy of law, or jurisprudence, with a particular emphasis on the role that morality plays in our understanding of law and in the interpretation and application of the law. Here are some of the questions we will consider: When and why does the content of law - what the law is - depend on the content of morality - on what is right and wrong, just and unjust, fair and unfair, etc.? When and how does interpreting and applying laws (statutes, precedents, etc.) involve making value judgments, including moral judgments? Does the United States Constitution enact the "original understanding" of freedom of speech, due process of law, equal protection of the laws, and so on? Or does it, instead, direct us to apply our own, perhaps quite different, understandings of these concepts? (The latter view is called "the moral reading" of the Constitution.) Is there a moral obligation to obey the law? When and why is punishing those who break the law morally justified? Satisfies elective requirements in the following majors and minors: philosophy, ethics, human rights, and law and legal reasoning.

## PHIL 3375-Topics in Moral Philosophy

## Credits: 3

A topics offering that seeks to take advantage of the wide variety of issues that can be fruitfully explored in a course in moral philosophy. May be repeated for credit. Recently offered topics include the meaning of life, neuroethics, Plato's ethical thought, practical rationality, and procreation \& parenthood.

## PHIL 3376 - Bioethics

## Credits: 3

An examination of ethical questions arising within medical practice, medical research, and the life sciences.

## PHIL 3377 - Animal Rights

## Credits: 3

Explores the nature of nonhuman animals, their moral status, and the way we treat them. First we will consider questions about the minds of animals. Are animals conscious? Can they think about the future? Are they self-aware? Exploring those questions will prepare us for our second set of topics about the moral status of animals. Do animals have rights like humans do? Do we have moral obligations to animals? Is there a difference between the moral status of animals that fall into different categories (pets, domesticated animals, and wild animals)? Third, we will examine the way animals are used for food, for entertainment, and in biomedical research. What laws already protect animals and what changes are needed?

## PHIL 3379 - Environmental Ethics

## Credits: 3

Explores society's ethical obligations concerning the natural world. Topical issues like climate change, endangered species, recycling, the population explosion, and wilderness preservation are covered from a variety of philosophical perspectives.

## PHIL 3380 - Ethics: Morality, Self-Interest, and Justice

## Credits: 3

Explores issues in normative ethical and political theory, with a particular emphasis on morality, self-interest, and justice. Topics vary, but the following are representative. Might enlightened self-interest be the basis of morality? Is a morally right action one that maximizes overall happiness or well-being, or are there moral rights or duties that prohibit the sacrifice of individuals or their interests for the sake of the greater good? Does individual well-being (or self-interest) consist of pleasure and freedom from pain? Do our subjective interests (our desires or preferences) determine what is ultimately best for us, or are there desire-independent goods, such as knowledge or moral virtue? To what extent, if any, does justice permit inequality of income or wealth? Do individuals have "natural" rights that prohibit the state from using certain means (e.g., taxes and transfers) to promote greater social welfare or less economic inequality?

## PHIL 3381 - Neuroethics

## Credits: 3

Neuroethics concerns the ethical questions raised by the brain sciences. Is neuroenhancement morally problematic? Should the use of brain scans be limited? What does neuroscience tell us about ethical judgment?

## PHIL 3382 - 20th-Century European Philosophy

## Credits: 3

An examination of some methods and principles of European philosophies in the 20th century. Students study the following philosophical schools: phenomenology, existentialism, neo-Kantianism, life-philosophy, hermeneutics, and neo-Marxist critical theory.

## PHIL 3383 - American Philosophy

## Credits: 3

Historical development and contemporary themes in American philosophy. Varying emphasis may be placed on trends (e.g., Native American thought, pragmatism), historical figures (e.g., Dewey, Quine), or influential contemporary figures (e.g., Brandom).

## PHIL 4194 - Independent Study and Research

## Credits: 1

## PHIL 4393 - Independent Study and Research

## Credits: 3

Special topics to be selected by the student in consultation with the department. Prerequisites: Senior standing and departmental approval.

## PHIL 4394 - Independent Study and Research

Credits: 3
Special topics to be selected by the student in consultation with the department. Prerequisites: Senior standing and departmental approval.

## Physics

www.smu.edu/physics

Associate Professor: Ryszard Stroynowski Department Chair<br>Professors: Thomas Coan, Robert Kehoe, Fred Olness, Ryszard Stroynowski, Jingbo Ye<br>Associate Professors: Jodi Cooley-Sekula, Pavel Nadolsky, Stephen Sekula, Roberto Vega<br>Senior Lecturers: Simon Dalley, Randall Scalise<br>Lecturer: Durdana Balakishiyeva<br>Research Professor: Datao Gong<br>Research Associate Professor: Tiankuan Liu<br>Research Assistant Professors: Sami Kama, Chonghan Liu

## General Information

The Physics Department offers a program consisting of courses in classical and modern physics, and research studies in both experimental and theoretical particle physics as well as in dark matter searches. The research activities of the faculty focus primarily in high energy, elementary particle physics and related fields. The advanced classes are small, so there are many opportunities for students to work closely with Physics Department faculty, particularly in the advanced laboratories where students become familiar with state-of-the-art equipment. Undergraduate physics majors are strongly encouraged to participate in research activities. A majority of majors go on to pursue advanced degrees upon graduation from SMU.

## Simultaneous Degree Program

It is possible to earn a B.S. degree with a major in physics from Dedman College and a B.S. degree in engineering from the Lyle School of Engineering. The undergraduate adviser of the Department of Physics should be consulted for detailed information on the simultaneous degree programs.

## Departmental Distinction

A physics major achieving a B.S. degree may graduate with departmental distinction by successfully completing a special program of study in addition to the requirements stated above, while maintaining a minimum GPA of 3.500. The special program consists of independent reading, research and senior thesis under the direction of a departmental faculty member. The student must apply to the department for this designation during his or her junior year. The student will enroll in PHYS 4375 or PHYS 4390 during the program, and a senior thesis is to be written and presented to the faculty.

## Physics, B.A.

This degree program is appropriate for students who wish to combine a physics curriculum with a broad liberal arts program with the intention of pursuing careers in medicine, teaching, business or government.

## Requirements for the Major

## Physics (30 Credit Hours)

- PHYS 1105 - Mechanics Laboratory
- PHYS 1106 - Electricity and Magnetism Laboratory
- PHYS 1303 - Introductory Mechanics
- PHYS 1304 - Introductory Electricity and Magnetism or
- PHYS 1307-General Physics I
- PHYS 1308-General Physics II
- PHYS 3305 - Introduction to Modern Physics
- PHYS 3344-Classical Mechanics
- PHYS 4211 - Laboratory Physics I
- PHYS 4392 - Introduction to Electromagnetic Theory
- PHYS 5382 - Introduction to Quantum Mechanics
- 8 hours of physics electives or in related fields with departmental permission


## Mathematics (15 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations


## Total: 45 Credit Hours

## Physics, B.S.

This degree program is designed for students who plan careers in physics in industry, research laboratories or academia. Students planning to pursue graduate studies are encouraged to complete more than the minimum 40 credit hours in physics and 15 credit hours in mathematics.

## Requirements for the Major

## Physics (40 Credit Hours)

- PHYS 1105 - Mechanics Laboratory
- PHYS 1106 - Electricity and Magnetism Laboratory
- PHYS 1303-Introductory Mechanics
- PHYS 1304 - Introductory Electricity and Magnetism or
- PHYS 1307-General Physics I
- PHYS 1308-General Physics II
- PHYS 3305 - Introduction to Modern Physics
- PHYS 3340 - Computational Physics
- PHYS 3344 - Classical Mechanics
- PHYS 3374-Thermodynamics and Statistical Mechanics
- PHYS 4211 - Laboratory Physics I
- PHYS 4321 - Methods of Theoretical Physics
- PHYS 4392 - Introduction to Electromagnetic Theory
- PHYS 5382 - Introduction to Quantum Mechanics
- PHYS 5383-Advanced Quantum Mechanics
- 6 hours of physics electives or in related fields with departmental permission

Computer Science and Engineering (3 Credit Hours)

- CSE 1341 - Principles of Computer Science or
- CSE 1342 - Programming Concepts


## Mathematics (15 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations


## Total: 58 Credit Hours

## Physics Minor

A minor in physics is particularly appropriate for majors in the natural sciences, excluding physics but including prehealth, prelaw, Earth science, biology, mathematics and engineering.

## Requirements for the Minor

- PHYS 1105-Mechanics Laboratory
- PHYS 1106 - Electricity and Magnetism Laboratory
- PHYS 1303 - Introductory Mechanics
- PHYS 1304 - Introductory Electricity and Magnetism or
- PHYS 1307-General Physics I
- PHYS 1308-General Physics II
- Additional 9 hours of advanced coursework

Total: 17 Credit Hours

## Courses:

## PHYS 1010 - Honors Introductory Physics

Credits: 0
Applications of concepts taught in PHYS 1303, PHYS 1304, PHYS 1307, and PHYS 1308 in modern science and technology. Zero-credit course leading to the Honors designation on transcript. Corequisite: PHYS 1303, PHYS 1304, PHYS 1307, and PHYS 1308.

PHYS 1100 - Special Topics Abroad

Credits: 1
Course offered in approved SMU Abroad program. May be repeated for credit under different subtitle.

PHYS 1105-Mechanics Laboratory

## Credits: 1

One 3-hour laboratory period per week. Taken with PHYS 1303, PHYS 1307 if 8 hours of credit, including laboratory, are needed.

## PHYS 1106-Electricity and Magnetism Laboratory

## Credits: 1

One 3-hour laboratory period per week. Taken with PHYS 1304, PHYS 1308 if 8 hours of credit, including laboratory, are needed. Prerequisite: PHYS 1105 or self-test.

## PHYS 1200 - Special Topics Abroad

## Credits: 2

Course offered in approved SMU Abroad program. May be repeated for credit under different subtitle.

## PHYS 1300 - Special Topics Abroad

Credits: 3
Course offered in approved SMU Abroad program. May be repeated for credit under different subtitle.

## PHYS 1301 - The Ideas of Modern Physics

Credits: 3
Presents cosmology, relativity, quantum mechanics, and particle physics in an essentially descriptive, nonmathematical framework accessible to all SMU students.

PHYS 1303 - Introductory Mechanics

Credits: 3
For science and engineering majors. Covers vector kinematics, Newtonian mechanics, gravitation, rotational motion, special relativity, and structure of matter. Prerequisite or corequisite: MATH 1337.

## PHYS 1304 - Introductory Electricity and Magnetism

Credits: 3
For science and engineering majors. Covers electricity, magnetism, electromagnetic radiation, and special relativity. Prerequisite or corequisite: MATH 1338.

## PHYS 1307-General Physics I

## Credits: 3

For life sciences majors. Covers vector kinematics, Newtonian mechanics, gravitation, rotational motion, vibrations, waves, and fluids. Prerequisite or corequisite: MATH 1337.

## PHYS 1308-General Physics II

## Credits: 3

For life sciences majors. Covers electricity, magnetism, electromagnetic radiation, and geometrical and physical optics. Prerequisite: PHYS 1303 or PHYS 1307.

## PHYS 1311 - Elements of Astronomy

## Credits: 3

Planetary and stellar astronomy, including laboratory and observations.

## PHYS 1320 - Musical Acoustics

## Credits: 3

Covers both the acoustics (physical sound properties) and the psycho-acoustics (psychological, perceptual properties) of music. Topics include sound in general, sound of musical instruments (including voice), sound characteristics of rooms, electronic production (synthesis), and reproduction of sound. No prior knowledge of physics is assumed. While this course requires no previous formal training in music theory, it is helpful if students have a basic understanding of musical scales and notation.

## PHYS 2100 - Special Topics Abroad

## Credits: 1

Course offered in approved SMU Abroad program. May be repeated for credit under different subtitle.

## PHYS 2200 - Special Topics Abroad

Credits: 2
Course offered in approved SMU Abroad program. May be repeated for credit under different subtitle.

## PHYS 2300 - Special Topics Abroad

Credits: 3
Course offered in approved SMU Abroad program. May be repeated for credit under different subtitle.

## PHYS 3100 - Special Topics Abroad

Credits: 1
Course offered in approved SMU Abroad program. May be repeated for credit under different subtitle.

## PHYS 3200 - Special Topics Abroad

## Credits: 2

Course offered in approved SMU Abroad program. May be repeated for credit under different subtitle.

## PHYS 3300 - Special Topics Abroad

Credits: 3
Course offered in approved SMU Abroad program. May be repeated for credit under different subtitle.

## PHYS 3305 - Introduction to Modern Physics

## Credits: 3

For science and engineering majors. Covers special relativity, elements of quantum physics, structure of atoms, molecules and solids, nuclear physics, and elementary particles. Prerequisite: PHYS 1304 or PHYS 1308.

## PHYS 3310 - Introduction to Relativity and the Physics of Waves

## Credits: 3

One-dimensional harmonic oscillator, coupled oscillators, longitudinal and transverse waves, sound and electromagnetic waves, interference and diffraction, Lorentz transforms and invariants, time dilation, length contraction, equivalence principle, and black holes. Prerequisite: MATH 3302. Prerequisites or corequisites: PHYS 3305, MATH 3313.

## PHYS 3320 - Physics of Music

Credits: 3
Covers the acoustics (physical sound properties) of music. Topics include sound in general, sound of musical instruments, acoustics, electronic synthesis, Fourier transforms, interference, diffraction, and resonance. While this course requires no previous formal training in music theory, it is helpful if students have a basic understanding of musical scales and notation. Prerequisites: PHYS 1303, PHYS 1304 or equivalent. Recommended: PHYS 3344.

## PHYS 3333 - The Scientific Method (Debunking Pseudoscience)

Credits: 3
Provides students with an understanding of the scientific method sufficient to detect pseudoscience in its many guises: paranormal phenomena, free-energy devices, alternative medicine, creationism, and many others.

## PHYS 3340-Computational Physics

Credits: 3
Introduction to the modeling of physical systems. Emphasis is on algorithm selection and implementation for simulating classical and quantum physics. Prerequisite or corequisite: MATH 3313. Prior programming experience recommended.

## PHYS 3344 - Classical Mechanics

## Credits: 3

The motion of a particle and of systems of particles, including oscillatory systems, accelerated coordinate systems, centralforce motion, rigid body dynamics, gravitation, and Lagrangian mechanics. Prerequisite: PHYS 1303 or PHYS 1307. Prerequisite or corequisite: MATH 3302.

## PHYS 3368 - Principles of Astrophysics and Cosmology

## Credits: 3

Cosmic distance scales, physics of stars, expansion of the universe, cosmic nucleosynthesis, and other selected topics as appropriate. Prerequisite: PHYS 3305.

## PHYS 3374-Thermodynamics and Statistical Mechanics

## Credits: 3

Basic concepts of thermodynamics and statistical mechanics, with emphasis on quantum statistics. Also, the laws of thermodynamics; entropy; and Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac statistics. Prerequisite: PHYS 3305. MATH 3313 recommended.

## PHYS 4049 - Undergraduate Research

## Credits: 0

For students who hold research fellowships but are not enrolled in any credit hour courses. No tuition. Prerequisite: PHYS 3305 or consent of instructor.

## PHYS 4112 - Laboratory Physics II

Credits: 1
Intermediate-level experimental physics. Approximately one experiment per week. One 3-hour laboratory period per week. Prerequisites: PHYS 1106, PHYS 3305.

## PHYS 4190 - Special Projects in Physics

Credits: 1
Directed study of special topics. For physics majors only. Prerequisites: Junior or senior classification and permission of department.

## PHYS 4211 - Laboratory Physics I

Credits: 2
Introduction to experimental physics. Approximately one experiment per week. One 2-hour laboratory period per week. Prerequisites: PHYS 1105, PHYS 1106, PHYS 3305.

## PHYS 4213 - Advanced Laboratory Physics

Credits: 2

PHYS 4290 - Special Projects in Physics

Credits: 2
Directed study of special topics. For physics majors only. Prerequisites: Junior or senior classification and permission of department.

## PHYS 4321 - Methods of Theoretical Physics

Credits: 3
Matrices, determinants, linear algebra, complex variables, inhomogeneous equations, Sturm-Liouville theory, partial differential equations, special functions, Fourier series and integral transformations, integral equations, calculus of variations, and applications. Prerequisites: MATH 3302, MATH 3313.

## PHYS 4375 - Research

## Credits: 3

For physics majors. Students participate in physics research with a member of the faculty of the Physics Department. Prerequisite: Instructor's permission.

## PHYS 4390 - Special Projects in Physics

## Credits: 3

Directed study of special topics. For physics majors only. Prerequisites: Junior or senior classification and permission of department.

## PHYS 4392 - Introduction to Electromagnetic Theory

## Credits: 3

Fundamental principles of electrodynamics, including electrostatics, magnetostatics, electric potential, electric and magnetic fields in matter, simple behavior of time-dependent electric and magnetic fields, and Maxwell's equations. Prerequisites: PHYS 1304; MATH 3302, MATH 3313. PHYS 4321 recommended.

PHYS 5161 - Selected Topics in Physics For High School Teachers

Credits: 1
Additional information is available from the department.

## PHYS 5337 - Introduction to Solid State Physics

## Credits: 3

Crystal lattices and the reciprocal lattice, the free-electron model of metals, crystal binding, lattice vibrations phonons, thermal properties of solids, and energy bands in solids.

## PHYS 5380 - Concepts of Experimental Particle Physics

## Credits: 3

Principles of elementary particle physics and the experiments by which one learns the laws obeyed by these particles, with reading of scientific papers. Prerequisite: PHYS 3305 or equivalent. PHYS 5382 is recommended.

## PHYS 5382 - Introduction to Quantum Mechanics

## Credits: 3

An introduction to the principles of quantum mechanics, the Schrodinger equation and solutions for one-dimensional problems, the Dirac formalism, angular momentum and quantum mechanics in three dimensions, the central potential, spin, and additions of spins. Prerequisites: PHYS 3305, and PHYS 4321 or MATH 3304.

## PHYS 5383 - Advanced Quantum Mechanics

Credits: 3
Applications and approximation methods in quantum mechanics. Also, applications to laser physics, solid-state physics, molecular physics, and scattering. Prerequisite: PHYS 5382.

## PHYS 5384 - Quantum Physics II

## Credits: 3

Quantum statistics; band theory of solids; superconductivity, magnetism, and critical phenomena; nuclear physics; and physics of elementary particles. Prerequisite: PHYS 5383 or permission of instructor

## PHYS 5393 - Electromagnetic Waves and Optics

## Credits: 3

Theory and applications of electromagnetic wave radiation, propagation, and scattering. Also, geometrical and physical optics, guided waves, lasers, coherent optics, and interferometry and holography. Prerequisite: PHYS 4392, equivalent, or consent of instructor.

## PHYS 5395 - Introduction to Elementary Particles

## Credits: 3

Modern theories of elementary particles, including relativistic kinematics, Feynman diagrams, quantum electrodynamics, quarks, weak interactions, and gauge theories. Prerequisite: PHYS 5383.

## PHYS 5398 - Applications of Quantum Mechanics

## Credits: 3

The principles of quantum theory are used in a study of radiative transition in atoms and molecules, quantum statistics, band theory of solids, semiconductor theory, and laser physics. Prerequisite: PHYS 5382 or equivalent.

## Political Science

www.smu.edu/politicalscience
Professor Dennis Ippolito, Department Chair
Professors: James Hollifield, Dennis Ippolito, Calvin Jillson, Michael Lusztig, Harold Stanley, Stephen Wegren Associate Professors: Karisa Cloward, Pamela Corley, Joseph Kobylka, Luigi Manzetti, Hiroki Takeuchi, Matthew Wilson
Assistant Professor: Justin Reeves
Lecturer: Victoria Farrar-Myers

## General Information

The Political Science Department offers a curriculum that addresses political ideas, institutions and processes in such regional settings as Asia, Europe, Latin America and the U.S., and in such problem settings such as international relations, economic and social policies, and constitutional and public law. Students study with nationally visible faculty, have the opportunity to become involved in significant research projects and are eligible for summer or term internships in Washington, D.C.

The department offers a B.A. and a minor in political science, with four available concentrations. Undergraduate courses include introductory courses (at the 1000 level) which survey each of the broad fields of study in the discipline. Advanced courses (at the 3000 and 4000 levels) explore more closely defined topics within each of those fields: 3000-level courses examine relatively broad subjects; 4000-level courses examine more specific topics but are not inherently more demanding than 3000-level courses. Introductory-level preparation or at least sophomore standing is recommended for students undertaking these advanced courses. Independent study courses (at the 4000 level) are offered to majors with sophomore or higher standing; prerequisites for these courses are stated in the course descriptions that follow.

Note: Offerings for independent study, research and study abroad (PLSC 4102, PLSC 4202, PLSC 4302, PLSC 4301, PLSC 4401, PLSC 4402, PLSC 4403, PLSC 4404, PLSC 4304, PLSC 4306, PLSC 4307) are available to majors in political science. Students must have departmental approval prior to registering for these courses. Such courses may not be counted toward departmental subfield requirements.

Students must receive at least a $C$ - in all classes counting toward the major or minor. No course may be counted more than once toward meeting departmental major or minor requirements. In unusual circumstances, a student may petition, through his or her adviser, to the department chair for exceptions to the above requirements. Only the department chair may grant such a written waiver.

## Departmental Distinction

The department offers graduation with distinction to select majors of high academic achievement. Interested students may consult with an appropriate faculty member and apply to the director of undergraduate studies for admission to the distinction track. Eligible students must have completed two introductory departmental courses and 24 hours of departmental credit before applying for candidacy. Criteria for graduating with departmental distinction include the following:

1. A minimum 3.000 overall GPA at graduation.
2. A minimum 3.500 average in courses taken for the political science major.
3. Preparation for a departmental distinction thesis under the supervision of a faculty thesis adviser. The faculty adviser's grade for the thesis must be $A$ - or higher. This work will be accomplished by taking PLSC 4307.
4. Passing with distinction an oral examination of at least one hour, conducted by a faculty distinction examination committee, which reviews the candidate's thesis and major curriculum.
5. A minimum 3.500 average in at least two advanced courses related to the topic of the thesis; one of these may, but need not, be a course taken outside the requirements of the political science major. Eligible students will be admitted to the distinction track upon recommendation of the director of undergraduate studies in consultation with the faculty member who has agreed to chair the distinction committee and oversee the student's research and writing. The department does not require candidates for distinction to take PLSC 4376, but strongly advises students interested in empirical research to do so.

Students advanced to the distinction track must write a substantial piece of independent and original research (PLSC 4307) and present it to a distinction committee composed of faculty selected by the distinction adviser in consultation with the student. Upon positive recommendation of this committee, the department will award the student graduation with distinction.

## Political Science, B.A.

At least 18 advanced hours must be completed in residence. No coursework counting toward the major may be taken pass/fail. The following additional requirements apply to the 27 advanced hours ( 3000 level and above):

- A minimum of 15 hours of in-class advanced-level courses must be taken on an SMU campus (Dallas, Plano or Taos). In-class hours do not include directed reading courses (PLSC 4102, PLSC 4202, PLSC 4302), internships (PLSC 4306) and departmental distinction thesis (PLSC 4307). SMU campus courses do not include transfer courses, Washington term courses (PLSC 4401, PLSC 4402, PLSC 4403, PLSC 4404) and courses taken in SMU-approved study abroad programs.
- A maximum of three hours of directed reading courses (PLSC 4102, PLSC 4202, and PLSC 4302) or internships (PLSC 4306) may count toward the major.
- A maximum of 15 hours of (preapproved) advanced-level courses in SMU-approved study abroad programs may be counted toward the major. (These hours will not count toward the required 15 hours of in-class, on-campus, advanced-level courses specified above.)


## Requirements for the Major

## Introductory Courses (6 Credit Hours)

- any two PLSC courses at the 1000 level


## Advanced Courses (27 Credit Hours)

## (3000 level or above)

At least two courses from two groups and an additional course from a third group:

- American Government and Politics
- Comparative Politics
- Political Theory
- International Relations

Total: 33 Credit Hours

## Political Science Minor

The department offers four minor concentrations, detailed below. Each requires 18 hours ( 6 classes), distributed in accordance with the focus of the minor. At least half of the advanced hours applied toward a political science minor must be completed through enrollment at SMU. No coursework counting toward the minor may be taken pass/fail. A maximum of six hours of (preapproved) advanced-level courses in SMU-approved study abroad programs may be counted toward the minor.

## Requirements for the Minor

## Concentration Introductory Courses (3-6 Credit Hours)

One concentration:

## General:

- PLSC 1320 - Introduction to American Government and Politics
- one other 1000 -level PLSC course


## American Politics:

- PLSC 1320 - Introduction to American Government and Politics

Comparative and International Studies:

- PLSC 1340 - Introduction to Comparative Politics
- PLSC 1380 - Introduction to International Relations


## Political Thought:

- PLSC 1360 - Introduction to Political Theory


## Concentration Advanced Courses (12-15 Credit Hours)

(3000 level or above)

- General (6 advanced hours in each of two subfields)
- American Government and Politics (15 advanced hours in American Government and Politics)
- Comparative and International Politics (6 advanced hours in Comparative Politics; 6 advanced hours in International Relations)
- Political Theory (15 advanced hours in Political Theory )

Total: 18 Credit Hours

## Courses:

For purposes of distribution and concentration, courses are grouped in their broad fields in the listings below, as indicated by the last two digits of their course numbers:

| American Government and Politics (2039) | $\begin{aligned} & \text { PLSC } 1320,3124,3224,3320-27,3329,3330,3331,3333-36 \text {, } \\ & 3424,4320-39 \end{aligned}$ |
| :---: | :---: |
| Comparative Politics (40-59) | $\begin{aligned} & \text { PLSC } 1340,3144,3244,3340-42,3344-52,3355,3358-59 \text {, } \\ & 3444,4340-44,4348,4353-58,5341 \end{aligned}$ |
| Political Theory (60-79) | $\begin{aligned} & \text { PLSC } 1360,3164,3264,3360-65,3370,3464,4360-65,4368 \text {, } \\ & 4369,4371 \end{aligned}$ |
| International Relations (80-99) | $\begin{aligned} & \text { PLSC } 1380,3184,3284,3381-84,3387,3389,3390,3484, \\ & 4380-82,4384-86,4388,4391,4392,4398,5383 \end{aligned}$ |

## PLSC 1320 - Introduction to American Government and Politics

## Credits: 3

The organization, functions, and processes of the national government, with particular attention to parties, pressure groups, and other forces that influence its course. Attention is also given to the Texas Constitution.

## PLSC 1340 - Introduction to Comparative Politics

## Credits: 3

Analyzes and contrasts different patterns of national political development in Western, Marxist-Leninist, and Third World countries. Political dilemmas confronting each type of system will be examined.

## PLSC 1360 - Introduction to Political Theory

## Credits: 3

Introduces political theory through an examination of classical and modern approaches to the study of politics. Addresses how to become knowledgeable about politics and what to do with that knowledge.

## PLSC 1380 - Introduction to International Relations

Credits: 3
A basic survey of the elements of international relations, including the nation-state system, international organizations, international law, diplomacy, foreign policy, and various nonstate actors such as multinational corporations.

## PLSC 3124 - Studies Abroad: American Politics and Government

## Credits: 1

SMU credit for political science courses in American politics and government taken in SMU-approved programs abroad.

## PLSC 3144 - Studies Abroad: Comparative Politics and Government

Credits: 1
SMU credit for political science courses in comparative politics and government taken in SMUapproved programs abroad.

## PLSC 3164 - Studies Abroad: Political Theory

## Credits: 1

SMU credit for political science courses in political theory taken in SMU-approved programs abroad.

## PLSC 3184 - Studies Abroad: International Relations

Credits: 1
SMU credit for political science courses in international relations taken in SMU-approved programs abroad.

PLSC 3224 - Studies Abroad: American Politics and Government

Credits: 2
SMU credit for political science courses in American politics and government taken in SMU-approved programs abroad.

PLSC 3244 - Studies Abroad: Comparative Politics and Government

Credits: 2
SMU credit for political science courses in comparative politics and government taken in SMU-approved programs abroad.

## PLSC 3264 - Studies Abroad: Political Theory

Credits: 2
SMU credit for political science courses in political theory taken in SMU-approved programs abroad.

PLSC 3284 - Studies Abroad: International Relations

## Credits: 2

SMU credit for political science courses in international relations taken in SMU-approved programs abroad.

## PLSC 3320 - Principles of Public Policy

Credits: 3
Public policy is the study of the outcome of the political process. Parties, pressure groups, bureaucracies, and legislative bodies are part of the mix that creates the decisions that govern U.S. domestic social policy, international economic policy, and defense policy. Prerequisites: ECO 1311, PLSC 1320. Recommended: ECO 1312 and PLSC 1340 or PLSC 1380.

## PLSC 3321 - Congress and the Legislative Process

## Credits: 3

The powers, organization, and rules and procedures of legislatures in the United States. Emphasizes the U.S. Congress: its constitutional responsibilities, committee and staff systems, and legislative procedures in the House and Senate.

## PLSC 3322 - The American Presidency

## Credits: 3

An evaluation of the office of president in the American political system, with emphasis on the functional and institutional development of the office and presidential leadership in policymaking.

## PLSC 3323 - Southern Politics

## Credits: 3

Focuses on the South, paying particular attention to partisan competition, the politics of race, redistricting, and voting rights in the 11 Southern states.

## PLSC 3324 - Studies Abroad: American Politics and Government

Credits: 3
SMU credit for political science courses in American politics and government taken in SMU-approved programs abroad.

## PLSC 3325 - Introduction to Law

Credits: (3)
Provides the student with an understanding of the American legal system, covering such substantive areas of law as torts, contracts, property, civil procedure, and criminal law.

## PLSC 3327 - Texas Politics

Credits: 3
This course focuses on government and politics in Texas both by exploring its processes, institutions, and policies and by placing them within the broader context of the U.S. federal system.

## PLSC 3330 - Law, Politics, and the Supreme Court

Credits: 3
An introduction to the uniquely political and legal role played by the Supreme Court in elaborating the scope of governmental power and defining individual rights and liberties.

## PLSC 3331 - Media and Politics

## Credits: 3

Examines how the media influence the American institutional governing process and citizen engagement in democratic practices such acquisition of political knowledge and political decision-making.

## PLSC 3333 - Environmental Policy

## Credits: 3

Overview of governmental environmental policies designed to provide a foundation for future application and study in the growing environmental field.

## PLSC 3334 - Public Opinion and American Politics

## Credits: 3

The influence of public opinion on American politics and policymaking. Topics include public opinion and democratic theory, the methods of survey research, the use of the polling industry, and the influence of polls on politicians and policy.

## PLSC 3335 - Judicial Process

## Credits: 3

Examines the role played by courts in the American system of government. Topics include the generation of disputes, the tools used by the judiciary to resolve disputes, the ways judges are selected and make decisions, and the impact of those decisions on society and government.

## PLSC 3336 - Congress, the President, and the Constitution

## Credits: 3

An examination of how constitutional interpretation, precedent, and politics affect presidential and congressional powers and the separation of powers with respect to war and foreign affairs, legislation and administration, and budgetary and fiscal policies.

## PLSC 3340 - Western European Politics

## Credits: 3

The political development of Britain, France, Germany, and Italy. Topics include the emergence of parliament and parties, democratic breakdown and the rise of fascism, modern parties and interest groups, state economic planning, corporatism, and extraparliamentary oppositions.

## PLSC 3341 - Introduction to Comparative Law

## Credits: 3

An introduction to the comparative study of different legal systems. Topics may include the following: civil law, European Union law, and comparative approaches to individual rights.

## PLSC 3342 - Making Democracy Work

Credits: 3
Aims to answer the fundamental question of why democracy thrives in some nations while in others it struggles, and in many more it has not yet taken root.

## PLSC 3344 - Studies Abroad: Comparative Politics and Government

Credits: 3
SMU credit for political science courses in comparative politics and government taken in SMU-approved programs abroad.

## PLSC 3345 - Governments and Politics of the Middle East

## Credits: 3

A survey of modern Middle East governments and politics, including historical, ideological, economic, and social influences on their domestic and foreign policies. Also, analysis of emerging political forms, with some emphasis on modernization problems.

## PLSC 3346 - Japanese Politics and Society

## Credits: 3

A survey of the major political and social trends in Japan, focusing on popular attitudes, political participation, and the government's response.

## PLSC 3347 - Governments and Politics of Africa

## Credits: 3

The politics of Africa in an international context, emphasizing the problems of race, nationalism, and economic development.

## PLSC 3348 - Governments and Politics of Latin America

## Credits: 3

The structure, functions, and operations of government in Latin American countries, with emphasis on political practices and institutions.

## PLSC 3349 - Politics of Major Latin American Countries

## Credits: 3

An introduction to the problems of political development in some of the major countries of Latin America: Argentina, Brazil, Chile, and Mexico.

## PLSC 3352 - Chinese Politics

Credits: 3
A survey of Chinese political history since the establishment of the People's Republic of China in 1949 and the major challenges confronting the PRC today, evaluating the positive and negative aspects of China's socialist experiment by using a working knowledge of Chinese politics.

## PLSC 3358 - Government and Politics of Russia

## Credits: 3

Examines attempts to reform the former Soviet Union since 1985, and analyzes the social and political processes behind the demise of the Soviet system. Emphasis is placed on sources for support of, as well as obstacles to, political, economic, and social reform in post-Communist Russia.

## PLSC 3359 - From Communism to Democracy

Credits: 3
The rise and fall of communist regimes and the transition to democracy in Eastern Europe and the former Soviet Union, emphasizing social, economic, and political influences affecting divergent paths to democracy.

## PLSC 3360 - Foundations of Political Thought

Credits: 3
Main currents of political thought in their historical settings from Plato to the 17th century, with a critical evaluation of those elements of continuing worth.

## PLSC 3361 - Modern Political Thought

Credits: 3
Main currents of political thought in their historical setting from the 17th century to the present.

## PLSC 3362 - 20th-Century Political Thought

Credits: 3
Analysis of the political implications of selected responses to the problems of modern mass society.

## PLSC 3363 - American Political Thought

Credits: 3
A historical and analytical survey of the thinkers, actors, and main currents of American political thought from the founding of the first European colonies to the present day.

## PLSC 3364 - Studies Abroad: Political Theory

Credits: 3
SMU credit for political science courses in political theory taken in SMU-approved programs abroad.

## PLSC 3365-Communism and Post-Communism

## Credits: 3

Theoretical foundations of communism and its variant forms in practice, explanations for the collapse of Eastern European communist systems, and possible futures of communism.

## PLSC 3370 - Women and Politics

## Credits: 3

An analysis and critique of women's role in politics; theories on women's status and power; and the political activities, ideologies, and programs of feminists, past and present.

## PLSC 3381 - Current Issues in International Politics

## Credits: 3

An interdisciplinary survey of contemporary issues and challenges in the international arena. The student researches and proposes solutions, taking into account the multidimensional aspects of these international challenges.

## PLSC 3382 - International Organizations: Global and Regional

Credits: 3
A study of the United Nations and other international agencies in their attempts to deal with the great international political problems of recent times.

## PLSC 3383 - The American Foreign Policy Process

Credits: 3
A survey of the contemporary content and the conduct of American foreign policy.

## PLSC 3384 - Studies Abroad: International Relations

## Credits: 3

SMU credit for political science courses in international relations taken in SMU-approved programs abroad.

## PLSC 3387 - Political Geography

## Credits: 3

An examination of topics in international political rivalries within the nation-state system. Major emphasis will be given to the adaptations within that system since 1850 for spatial distributions of physical terrain, populations, economic resources and activities, and political and social divisions.

## PLSC 3389 - International Political Economy

## Credits: 3

Introduces the study of international political economy, including the indicators of a new interdependence and globalization: the growth in trade, the expansion of foreign direct investment, and the increase in international migration. Also, the ways nation-states respond to globalization and manage international economic relations.

## PLSC 3424 - Studies Abroad: American Politics and Government

Credits: 4
SMU credit for political science courses in American politics and government taken in SMU-approved programs abroad.

## PLSC 3444 - Studies Abroad: Comparative Politics and Government

## Credits: 4

SMU credit for political science courses in comparative politics and government taken in SMU-approved programs abroad.

## PLSC 3464 - Studies Abroad: Political Theory

## Credits: 4

SMU credit for political science courses in political theory taken in SMU-approved programs abroad.

## PLSC 3484 - Studies Abroad: International Relations

## Credits: 4

SMU credit for political science courses in international relations taken in SMU-approved programs abroad.

## PLSC 4102 - Directed Readings

## Credits: 1

Students develop and execute independent reading or research projects under the guidance of a departmental faculty member, culminating in a written report. Prerequisites: Written approval of the instructor and the department chair or a designate, at least sophomore standing, and appropriate introductory and advanced course preparation.

## PLSC 4202 - Directed Readings

## Credits: 2

Students develop and execute independent reading or research projects under the guidance of a departmental faculty
member, culminating in a written report. Prerequisites: Written approval of the instructor and the department chair or a designate, at least sophomore standing, and appropriate introductory and advanced course preparation.

## PLSC 4301 - Washington Term

## Credits: 3

Intensive study of national political institutions. Includes a 4 hour research project (PLSC 4401), a 4-hour internship (PLSC 4402), and an 8-hour seminar (PLSC 4403, 4404). Prerequisites: Two courses in political science, at least one at the upper level, that are relevant to the selected program. Available for political science, public policy, or international studies majors or minors.

## PLSC 4302 - Directed Readings

## Credits: 3

Students develop and execute independent reading or research projects under the guidance of a departmental faculty member, culminating in a written report. Prerequisites: Written approval of the instructor and the department chair or a designate, at least sophomore standing, and appropriate introductory and advanced course preparation.

## PLSC 4304 - Departmental Seminar: Scope and Methods of Political Science

## Credits: 3

An overview of the enterprise of political science. It canvasses the areas of interest to the discipline, the questions political scientists pursue, and the ways scholars have addressed these questions.

## PLSC 4306 - Internship in Political Science

## Credits: 3

Undergraduate students who arrange for part-time or full-time jobs in government, political parties, interest groups, or other organizations relate these experiences to their academic curriculum through research and writing, under the guidance of a departmental faculty member. Prerequisites: Written approval of the instructor and the department chair or a designate, at least sophomore standing, and appropriate introductory and advanced preparation.

## PLSC 4307 - Departmental Distinction Thesis

## Credits: 3

Candidates for departmental distinction write a thesis under the direction of a departmental faculty member, culminating in an oral examination over the field of the thesis. Prerequisite: Admission to departmental honors candidacy.

## PLSC 4320 - Special Studies in American Government and Politics

## Credits: 3

## PLSC 4321 - Basic Issues in American Democracy

## Credits: 3

An analysis of current American public policy issues within a theoretical framework. Examines the foundations of concepts and value orientations within which policy considerations are made.

## PLSC 4322 - Latino Politics

## Credits: 3

An analysis of contexts, causes, and consequences of Latino political participation. The focus is on Latinos in the Southwest with some attention to other racial and ethnic groups elsewhere in the U.S.

## PLSC 4323 - The Politics of Change in America, 1930-2000

## Credits: 3

Focuses upon American politics and society from 1930 to the present. Examines the ways America has changed, explains why changes occur, and assesses the consequences of these changes.

## PLSC 4324 - Political Dynamics

## Credits: 3

Covers the use of political parties in formulating political opinions. Also, pressure groups, propaganda, measurement of mass opinions, and political leadership.

## PLSC 4325 - Practical Electoral Politics

## Credits: 3

An exploration of techniques of political organization drawing on studies of recent campaigns and examining the political pressures that affect policymaking in government.

## PLSC 4326 - Presidential Elections

## Credits: 3

Examines presidential nominations and elections. Topics include voter decision-making, media coverage, campaign finance, delegate selection rules, and the Electoral College.

## PLSC 4328 - Seminar: American Government and Politics

Credits: 3
An overview of the central questions in the study of American government and politics.

## PLSC 4330 - Politics and Film

Credits: 3
Uses films as a vehicle for understanding politics, leadership, and the political process in the U.S. Involves substantial reading and writing. Prerequisite: Political science or film studies major or minor, or permission of instructor.

## PLSC 4331 - Law and Film

Credits: 3
American popular culture has demonstrated an enduring fascination with lawyers, the law, and the legal system. This course focuses on how the portrayal of attorneys and the legal system in films shapes public perception of lawyers, creates viewer expectations regarding law and justice, and perhaps influences the conduct of practicing attorneys and judges.

## PLSC 4332 - Supreme Court Seminar

## Credits: 3

Examines the development of constitutional law and the dynamics of decision making on the Supreme Court, from the perspectives of political science and history, built around a week of research in the Library of Congress.

## PLSC 4333 - Policy, Politics, and the Budget

## Credits: 3

Examines the federal budget's historical evolution and contemporary significance. Also, the constitutional division of the power of the purse between the legislative and executive branches, presidential-congressional conflicts over control of budget policy, major policy issues relating to the size of the federal budget, spending and tax policy priorities, and deficit and debt problems.

## PLSC 4334 - The Politics and Legacies of the Civil Rights Movement

## Credits: 3

Examines the politics and legacies of the movement that destroyed the system known as Jim Crow and removed barriers to political participation by African Americans.

## PLSC 4335-Constitutional Law

## Credits: 3

Examines the scope of constitutional power in the American governmental system, questions of separation of powers between the branches of the national government, and the federal relationship between the national government and state governments.

## PLSC 4336-Civil Liberties: First Amendment and Privacy

## Credits: 3

Examines the place and treatment of expression, religion, and personal autonomy in the American Constitution and in the cases in which the Supreme Court has defined and applied the Constitution.

## PLSC 4337 - Civil Rights

Credits: 3
Examines changes wrought in the American system of governance by addition of the 14th Amendment, particularly its Equal Protection Clause, and the ways the Supreme Court has interpreted and applied it over time. Topics of attention include racial discrimination, sex discrimination, and equality in the political process.

## PLSC 4338 - Criminal Procedure: 4th Amendment Rights

Credits: 3
Examines the application of the rules regulating police as they investigate crimes and pursue suspects, specifically, the constitutional rules governing search and seizure under the Fourth Amendment.

## PLSC 4339 - Criminal Procedure: 5th and 6th Amendment Rights

## Credits: 3

Examines the application of the rules regulating police as they investigate crimes and pursue suspects, specifically the Fifth and Sixth Amendments.

## PLSC 4340 - Special Studies in Comparative Governments and Politics

## Credits: 3

## PLSC 4341 - Comparative Rights and Representation

## Credits: 3

Examines the tension that exists between rights and democratic representation. Explores judicial activism in making social policy, individual versus collective rights, aboriginal rights, and affirmative action.

## PLSC 4342 - Why Nations Revolt

## Credits: 3

Survey of the major theories that have been developed to explain the occurrence of revolutions. Examines various revolutions as case studies, including the French, Russian, Nazi, and Chinese revolutions, and at least one peasant revolution in the Third World.

## PLSC 4344 - Gender in World Politics

## Credits: 3

A survey of classic and contemporary scholarship on women and gender in world politics, focusing on theoretical and empirical explorations of political participation, representation, activism, democracy, war, and human rights.

## PLSC 4345 - Islam and Politics

## Credits: 3

Examines how Islamic political philosophy, institutions, and actors have evolved in diverse ways as Muslims have responded to challenges from inside and outside their societies both historically and in contemporary times.

## PLSC 4346 - Movements and Protests

Credits: 3
Examines why social movements, protests, and revolutions occur, and explores their impact on culture and political processes. Focuses on non-democracies and transitional regimes in Eastern Europe, East Asia, and the Middle East.

## PLSC 4348 - Seminar: Comparative Government and Politics

## Credits: 3

An overview of the central questions in the study of comparative government and politics.

## PLSC 4350 - Game Theory for Political Science

## Credits: 3

Politics is about conflict. When there is conflict, there will be strategy. This course examines the complicated strategic interactions within the framework of game theory.

## PLSC 4353 - Political Economy of East Asia

## Credits: 3

Analysis of the interplay between politics and economics in East Asia, examining in what ways and to what degree the
growth experiences of the high-performing economies in East Asia shed light on the prospects for long-term success of reforms currently underway in China.

## PLSC 4354 - The Third World and North-South Relations

## Credits: 3

An inquiry into problems and theories of political economy of development and dependency in Third World countries.

## PLSC 4355 - Comparative Political Economy of Industrialized Democracies

## Credits: 3

Examines the nature and workings of the political economies of industrialized democracies of North America, Europe, and the Pacific in comparative perspective. Recommended: Prior completion of one introductory political science and/or economics course.

## PLSC 4356 - Latin American Political Economy

## Credits: 3

Focuses on the challenges facing public policy in the Latin American region and ways to interpret that region's politics and economic frustrations. Attentive to the basic rules of the Latin American political game and the lack of agreement on them.

## PLSC 4360 - Special Studies in Political Theory

## Credits: 3

## PLSC 4363 - Religion and Politics in the Western Tradition

## Credits: 3

Analysis of the relationship between religious faith and civil government in the Western tradition, with a focus on thinkers and controversies from the late Roman Empire to the contemporary United States.

## PLSC 4368 - Seminar: Political Theory and Philosophy

Credits: 3
An overview of the central questions in the study of political theory and philosophy.

## PLSC 4369 - Republicanism and the Good Society

Credits: 3
Examines the intellectual history of republicanism, its uneasy alliance with liberalism, and its various contemporary manifestations, particularly in the U.S. and Canada.

## PLSC 4371 - Jurisprudence

## Credits: 3

An introduction to alternative ways of viewing the sources, functions, and uses of law. Attention is given to various understandings of concepts of justice and rights.

## PLSC 4375 - The Ethics of Revolution and Civil Disobedience

## Credits: 3

A survey of the ethical and philosophical issues surrounding resistance to state power and disobedience of civil law. Examines ancient, medieval, and modern perspectives on when such defiance is justifiable.

## PLSC 4380 - Special Studies in International Relations

## Credits: 3

## PLSC 4381 - National Security Policy

## Credits: 3

Examines the changing nature of foreign policy and national security policy issues in a world characterized by growing interdependence and globalization, with particular attention to how technology offers both new opportunities and new dangers. Includes analysis of counterterrorism and homeland security, cyberterrorism, global public health, energy security, nuclear proliferation, and global financial stability. Students learn how to analyze national security policy objectives by using real-world situations and how to determine optimal policy implementation by examining potential actors, potential hurdles to implementation, and sources of funding.

## PLSC 4382 - The Politics of Military Force

## Credits: 3

Examines use of U.S. military force as a political instrument and its effectiveness as a tool of American foreign policy since the end of the World War II.

## PLSC 4384 - American-Russian Relationship

## Credits: 3

Surveys American-Russian relations since 1945, with emphasis on how and why the Cold War began. Also, the reasons for the end of the Cold War, the nature of American-Russian relations in the post-Cold War era, and common interests and issues that divide the two nations. Incorporates a negotiation simulation exercise between American and Russian negotiating teams.

## PLSC 4386 - International Relations of East Asia

## Credits: 3

A survey of the history of diplomacy, war, and economic relations of the East Asian region while introducing the leading theories and debates about regional cooperation in the field of international relations.

## PLSC 4388 - Seminar: International Government and Politics

Credits: 3
An overview of the central questions in the study of international government and politics.

## PLSC 4392 - Strategy

Credits: 3
An introduction to major debates about strategy, or the relationship between military violence and political objectives. Includes close examination of historical cases and current conflicts.

## PLSC 4393 - Intelligence and National Security

## Credits: 3

Describes the theory and practice of intelligence. Includes a history of U.S. intelligence agencies and efforts to reform them. Discusses the tension between secret intelligence and democratic norms.

## PLSC 4398 - Nuclear Weapons and World Politics

## Credits: 3

Focuses on the nuclear rivalry between the U.S. and the USSR, and on how this rivalry has transformed the nature and conduct of world politics. Emphasis is placed on theoretical and analytical perspectives, including deterrence theory, bargaining, and game theory. Attention is also given to the implications stemming from both the vertical and horizontal proliferation of nuclear weapons.

## PLSC 4401 - Washington Term

## Credits: 4

Intensive study of national political institutions. Includes a 4-hour research project (PLSC 4401), a 4 hour internship (PLSC 4402), and an 8-hour seminar (PLSC 4403, 4404). Prerequisites: Two courses in political science, at least one at the upper level, that are relevant to the selected program. Available for political science, public policy, or international studies majors or minors.

## PLSC 4402 - Washington Term

## Credits: 4

Intensive study of national political institutions. Includes a 4-hour research project (PLSC 4401), a 4 hour internship (PLSC 4402), and an 8-hour seminar (PLSC 4403, 4404). Prerequisites: Two courses in political science, at least one at the upper level, that are relevant to the selected program. Available for political science, public policy, or international studies majors or minors.

## PLSC 4403 - Washington Term

## Credits: 4

Intensive study of national political institutions. Includes a 4-hour research project (PLSC 4401), a 4 hour internship (PLSC 4402), and an 8-hour seminar (PLSC 4403, 4404). Prerequisites: Two courses in political science, at least one at the upper level, that are relevant to the selected program. Available for political science, public policy, or international studies majors or minors.

## PLSC 4404 - Washington Term

## Credits: 4

Intensive study of national political institutions. Includes a 4-hour research project (PLSC 4401), a 4 hour internship (PLSC 4402), and an 8-hour seminar (PLSC 4403, PLSC 4404). Prerequisites: Two courses in political science, at least one at the upper level, that are relevant to the selected program. Available for political science, public policy, or international studies majors or minors.

## PLSC 5341 - European Politics: The European Union

Credits: 3
Europe is in a period of transformation, emerging as a major player on the world scene while internally developing a novel balance between unification of countries and the rise of local identities. What are the forces that shape the new Europe? How does European policy materialize, and who makes the decisions? (SMU-in-Copenhagen)

## Psychology

www.smu.edu/psychology
Professor George Holden, Department Chair
Professors: Alan Brown, George Holden, Ernest Jouriles, Akihito Kamata, Renee McDonald, Thomas Ritz
Associate Professors: Austin Baldwin, Robert Hampson, Chrystyna Kouros, Alicia Meuret, David Rosenfield, Lorelei Simpson Rowe
Assistant Professors: Michael Chmielewski, Nathan Hudson, Priscilla Lui, Benjamin A. Tabak
Senior Lecturers: Michael Crow, Susan Hornstein, Chris Logan
Lecturer: James Calvert
Clinical Assistant Professor: Naomi Tabak

## General Information

Psychology is the study of human behavior and cognition. A degree in psychology equips students with a variety of fundamental and transferable skills, including the ability to think scientifically, interpersonal and communication skills, and a sensitivity to diversity. A degree in psychology provides students with a solid academic foundation and prepares graduates to succeed in a variety of careers in psychology, law, medicine and business.

The research interests of faculty members fall into three broad areas: psycho-pathology, biological and health psychology, and family psychology. There are many opportunities for students to become involved in faculty research. A departmental distinction program provides highly motivated students with the opportunity to design and execute their own research project.

The Psychology Department offers one minor and two majors: a Bachelor of Arts and a Bachelor of Science. Students interested in the BS degree need to plan course-work very early to ensure completion within four years.

## Departmental Distinction

The department offers a distinction program to select majors with high academic achievement. The program consists of a sequence of classes where students, under the guidance of their faculty mentor, develop and conduct an independent research study. The program includes designing the study, collecting and analyzing the data, and then writing a paper for conference presentation and journal submission. To be eligible for the program, a student must have at least a 3.5 GPA overall and a 3.5 GPA in Psychology. Interested students should consult with the departmental adviser or director of undergraduate studies. Distinction may be added to either the BA or BS.

## Psychology, B.A.

A BA in Psychology requires 36 course credit hours (12 courses). Prior to declaring a BA, students must complete a foundation sequence of three courses including PSYC 1300, PSYC 3301 and STAT 2331 with no individual grade less than a $C$-. Research training, practicum, and independent study courses are available (PSYC 3099, PSYC 3199, PSYC 3299, PSYC 3399, and PSYC 4395) on a pass/fail basis. These courses will not count toward the required hours for the major. Students must earn a $C$ - or higher in all graded classes for the BA.

## Requirements for the Major

## Psychology Foundation: (9 Credit Hours)

- PSYC 1300 - Introduction to Psychology
- PSYC 3301 - Research Methods in Psychology
- STAT 2331 - Introduction to Statistical Methods


## Psychology Breadth: (15 Credit Hours)

Students choose one course from each of the five breadth areas in the department:

Developmental:

- PSYC 2332 - Developmental Psychology Or
- PSYC 4334 - Psychological Disorders of Children


## Abnormal or Health:

- PSYC 2351 - Abnormal Psychology
or
- PSYC 3360 - Health Psychology


## Social or Personality:

- PSYC 3341 - Social Psychology
or
- PSYC 3370 - Personality

Biological:

- PSYC 4320 - Biological Psychology
or
- PSYC 4321 - Behavioral Action of Drugs

Cognitive:

- PSYC 3310 - Memory and Cognition or
- PSYC 4381 - Special Topics (Cognitive Neuropsychology)


## Advanced PSYC Electives: (12 Credit Hours)

- Students must also complete 12 advanced hours of Psychology electives.


## Total: 36 Credit Hours

## Psychology, B.S.

A BS in Psychology requires 45 or 46 course credit hours ( 15 courses). Prior to declaring a Bachelor of Science with a major in Psychology, students must complete the four-course foundation sequence of PSYC 1300, PSYC 3301, PSYC 4301, and STAT 2331. An approved alternate analysis course may be substituted for STAT 2331 with departmental permission. The foundation courses must be completed with a $C$ or higher on the first attempt in order to declare the BS.

Research training, practicum, and independent study courses are available (PSYC 3099, PSYC 3199, PSYC 3299, PSYC 3399, and PSYC 4395) on a pass/fail basis. These courses will not count toward the required advanced elective hours for the major. To earn the BS, students must earn a $C$ - or higher in all breadth and elective classes and have a major GPA of 2.5 .

## Requirements for the Major

## Psychology Foundation: (12 Credit Hours)

- PSYC 1300 - Introduction to Psychology
- PSYC 3301 - Research Methods in Psychology
- PSYC 4301 - Advanced Quantitative Methods in Psychology
- STAT 2331 - Introduction to Statistical Methods or
- approved alternate analysis course


## Psychology Breadth: (15 Credit Hours)

Students choose one course from each of the five breadth areas in the department:

## Developmental:

- PSYC 2332 - Developmental Psychology
or
- PSYC 4334 - Psychological Disorders of Children


## Abnormal or Health:

- PSYC 2351 - Abnormal Psychology or
- PSYC 3360 - Health Psychology


## Social or Personality:

- PSYC 3341 - Social Psychology
or
- PSYC 3370 - Personality


## Biological:

- PSYC 4320 - Biological Psychology
or
- PSYC 4321 - Behavioral Action of Drugs


## Cognitive:

- PSYC 3310 - Memory and Cognition
or
- PSYC 4381 - Special Topics (Cognitive Neuropsychology)


## Advanced PSYC Electives: (9 Credit Hours)

Students must also complete 9 advanced hours of Psychology electives.

## Scientific Perspective: (3-4 Credit Hours)

Students must take a lab-based science course for science or engineering majors taken as part of the University Curriculum, or major elective.

## Advanced Analysis: (3 Credit Hours)

In addition to the Foundation statistics course, BS students need to complete an additional advanced elective in STAT 3312 Categorical Data Analysis.

## Experiential Learning: (3 Credit Hours)

BS students need to complete 3 hours of Research Training with a faculty mentor in the Psychology Department. Students may substitute Internship/Practicum with department approval.

## Total: 45-46 Credit Hours

## Psychology Minor

A minor in Psychology consists of 18 credit hours ( 6 courses). PSYC 1300 must be successfully completed with a grade of $C$ - or higher before declaring a psychology minor. Research training, practicum, and independent study courses are available (PSYC 3099, PSYC 3199, PSYC 3299, PSYC 3399, and PSYC 4395) on a pass/fail basis. These courses will not count toward the required hours for the minor. Students must earn a $C$ - or higher in all classes for the minor.

## Requirements for the Minor

## Psychology Foundation: (3 Credit Hours)

- PSYC 1300 - Introduction to Psychology


## Psychology Breadth: (9 Credit Hours)

Students must take at least one course from three of the five breadth areas in the department:
Developmental:

- PSYC 2332 - Developmental Psychology
or
- PSYC 4334-Psychological Disorders of Children

Abnormal or Health:

- PSYC 2351 - Abnormal Psychology or
- PSYC 3360 - Health Psychology

Social or Personality:

- PSYC 3341 - Social Psychology
or
- PSYC 3370 - Personality


## Biological:

- PSYC 4320 - Biological Psychology
or
- PSYC 4321 - Behavioral Action of Drugs


## Cognitive:

- PSYC 3310 - Memory and Cognition
or
- PSYC 4381 - Special Topics (Cognitive Neuropsychology)


## Advanced PSYC Electives: (6 Credit Hours)

Students must also complete 6 advanced hours of Psychology electives.

## Total: 18 Credit Hours

## Courses:

## PSYC 1300 - Introduction to Psychology

## Credits: 3

Broad introduction to psychology as a behavioral science with special emphasis on cognition, development, learning, social, personality, physiological, and clinical psychology (psychopathology and psychotherapy).

## PSYC 2332 - Developmental Psychology

## Credits: 3

A survey of the processes and variables that influence the development of the fetus, infant, child, and adolescent. Emphasis is on theories and research in such areas as perceptual, cognitive, language, social/emotional, and moral development.

## PSYC 2351 - Abnormal Psychology

## Credits: 3

A study of the theories, causes, assessment, and treatment of abnormal behavior, including depression, anxiety, psychosis, personality disorders, and other forms of psychopathology in adults. There is an examination of the continuum of normal and abnormal behavior, with consideration of historical and cultural perspectives, ethical concerns, and research methodologies in understanding psychological disorders. Prerequisite: PSYC 1300 or instructor approval.

## PSYC 3099 - Research Training

## Credits: 0

Supervised experience in faculty research projects in labs, clinics, or field settings. May involve library research, participant recruitment, data collection, and data input and analysis. Prerequisites: PSYC 1300 and instructor approval.

## PSYC 3192 - Distinction Seminar in Psychology: Data Collection and Analyses

## Credits: 1

The second course in a three-course sequence for the psychology distinction program. During the term, students collect their data and begin analyses. In addition, continued attention is devoted to scientific writing. Prerequisite: Instructor approval.

## PSYC 3199 - Research Training

Credits: 1
Supervised experience in faculty research projects in labs, clinics, or field settings. May involve library research, participant recruitment, data collection, and data input and analysis. Prerequisites: PSYC 1300 and instructor approval.

## PSYC 3291 - Distinction Seminar in Psychology: Research Project Development

Credits: 2
The first course in a three-course sequence for the psychology distinction program. Includes advanced training in research methodology. During the term, students design a rigorous research project. Prerequisite: Instructor approval.

## PSYC 3299 - Research Training

## Credits: 2

Supervised experience in faculty research projects in labs, clinics, or field settings. May involve library research, participant recruitment, data collection, and data input and analysis. Prerequisites: PSYC 1300 and instructor approval.

## PSYC 3301 - Research Methods in Psychology

## Credits: 3

Design and evaluation of psychological research, with emphasis on scientific method, data collection, experimentation, control procedures, validity, reliability, and report-writing skills. This is a challenging and rigorous class in research; required for psychology majors. Prerequisites: PSYC 1300 and one additional psychology course or instructor approval.

## PSYC 3310 - Memory and Cognition

## Credits: 3

A survey of how information is encoded, stored, and retrieved in adults. Topics may include attentional processes, perception, verbal learning, and memory. Prerequisites: PSYC 1300 and one additional psychology course, or instructor approval.

## PSYC 3335 - Psychology of the Family

## Credits: 3

A basic introduction to understanding the family. Topics include coupling and dating, parenting of young and older children, and progression to older age. Also, understanding competent family functioning, dealing with health and illness, and family counseling. Prerequisites: PSYC 1300 and one additional psychology course or instructor approval.

## PSYC 3341 - Social Psychology

## Credits: 3

Addresses the question of how an individual's thoughts, feelings, and behaviors are influenced by his/her social environment; includes topics such as attitude change, conformity, attraction, aggression, and small-group behavior.

## PSYC 3360 - Health Psychology

## Credits: 3

A basic introduction to the subject. Topics include causes and correlates of health, illness, and dysfunction, as well as the interplay of emotions, cognitions, and behavioral and/or physical factors. Prerequisites: PSYC 1300 and one additional psychology course, or instructor approval.

## PSYC 3364 - Forensic Psychology

## Credits: 3

Examination of the interface between psychology and the legal system, focusing in particular on the role of mental health experts in criminal trials and civil disputes. Prerequisites: PSYC 1300 and one additional psychology course, or instructor approval.

## PSYC 3365 - Organizational Psychology

## Credits: 3

Psychological principles applied to organizations, both business and volunteer, emphasizing a systems approach and including personnel selection, leadership, motivation, communication, group dynamics, and an overview of organizational development. Prerequisites: PSYC 1300 and one additional psychology course or instructor approval.

## PSYC 3370 - Personality

## Credits: 3

An examination of theories and research that address the underlying bases of personality and the causes of individual differences. Emphasis is on the normal personality, but the causes of abnormal personality development are also considered. Prerequisites: PSYC 1300 and one additional psychology course or instructor approval.

## PSYC 3371 - Psychology of Women

## Credits: 3

This course focuses on understanding women as individuals. Also, personality theories as they relate particularly to women. Modern women's options and conflicts, motives and values, and their perceptions of their individuality in the face of rapid social change are examined. Prerequisites: PSYC 1300 and one additional psychology course or instructor approval.

## PSYC 3375 - Human Rights From a Psychological Perspective

## Credits: 3

Examines human rights as informed by psychological concepts and research. Insights from social, clinical, and developmental psychology are used to better understand human rights violations and issues. Prerequisite: Instructor approval.

## PSYC 3384 - Special Topics Abroad: Psychology

## Credits: 3

Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitle. A maximum of 6 credit hours permissible toward the B.A. in psychology.

## PSYC 3393 - Advanced Research Methods in Psychology

## Credits: 3

The first course in a course sequence for the psychology distinction program. During the term, students collect their data and begin analyses. Continued attention is devoted to scientific writing. Prerequisite: Instructor approval.

## PSYC 3399 - Research Training

## Credits: 3

Supervised experience in faculty research projects in labs, clinics, or field settings. May involve library research, participant recruitment, data collection, and data input and analysis. Prerequisites: PSYC 1300 and instructor approval.

## PSYC 3484 - Special Topics Abroad: Psychology

## Credits: 4

Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitle. A maximum of 6 credit hours permissible toward the B.A. in psychology.

## PSYC 4172 - Practicum

## Credits: 1

An intensive study of interpersonal helping relationships based upon psychological theories and research, with an emphasis on supervised personal involvement with others as a helper.

## PSYC 4301 - Advanced Quantitative Methods in Psychology

## Credits: 3

Covers common research design and quantitative methods used in psychological research. Students learn how to apply these methods and how to read and critically evaluate psychological research. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course.

## PSYC 4320-Biological Psychology

## Credits: 3

An advanced overview of the topic. Classes focus on understanding perception, consciousness and sleep, motor behavior, emotion, and learning, with evidence from biological and medical fields. Students learn basic anatomy, physiology, and research methods. Applications to research and treatment are addressed. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course, or instructor approval.

## PSYC 4321 - Behavioral Action of Drugs

## Credits: 3

Addresses the principles of drugs and behavior, classification, and chemical effects of behaviorally active drugs; influences of environmental, response, and task variables; and the evaluation and treatment of addiction. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course, or instructor approval.

## PSYC 4325 - Psychology of Emotions

## Credits: 3

An advanced introduction to the topic, with a focus on theory as well as psychological and psychobiological research on humans and animals. Considers the role that cognitions, culture, language, and the nervous system play in determining emotions. Classes include group projects and demonstrations. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course, or instructor approval.

## PSYC 4334-Psychological Disorders of Children

## Credits: 3

Theories, causes, assessment, and treatment of abnormal behavior from infancy through adolescence. Topics include behavioral and emotional disorders, as well as developmental and learning problems. Historical and cultural perspectives, ethics, and research methods are also addressed. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course, or instructor approval.

## PSYC 4339 - Psychology of Aging

## Credits: 3

An exploration of the biological, psychological, and sociocultural influences on adult development and aging. Difficulties specific to older adults such as elder abuse and neurodegenerative diseases are also covered. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course, or instructor approval.

## PSYC 4341 - Social Cognition

## Credits: 3

Surveys social perception and cognition, including person perception, nonverbal communication, emotional expression, accuracy, and stereotyping. Considers ecological, evolutionary, and cognitive theoretical approaches. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course, or instructor approval.

## PSYC 4342-Close Relationships

## Credits: 3

Covers research and theory in the psychology of close relationships, including different theoretical perspectives, with emphasis on attraction, relationship development and maintenance, communication, conflict resolution, and relationship dissolution. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course, or instructor approval.

## PSYC 4352 - Introduction to Clinical Psychology

## Credits: 3

A survey of the important issues and subfields of clinical psychology from the viewpoint of the scientist-practitioner model. Covers research, assessment, diagnosis, and theories in the area of psychotherapy. Intended for students contemplating graduate school in clinical psychology or related fields. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course, or instructor approval.

## PSYC 4363 - Psychology of Conflict Resolution

## Credits: 3

Covers research and theory in the psychology of interpersonal conflict, as well as mechanisms for resolving, managing, or avoiding conflict. Emphasized domains are alternative dispute resolution, close relationships, and workplace and international conflict. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course, or instructor approval.

## PSYC 4376 - Psychology of Religion

## Credits: 3

Introduces the major issues, theories, and empirical approaches to the psychology of religion. Topics covered include the role that religion plays in the beliefs, motivations, emotions, and behavior of individuals. Prerequisites: PSYC 1300 and one additional psychology course, or instructor approval.

## PSYC 4377 - Environmental Psychology

## Credits: 3

Incorporates research and theory from several fields within psychology to understand the relationship between individuals and their built and natural environments. Prerequisites: PSYC 1300 and PSYC 3301, or instructor approval. Prerequisites waived for SMU-in-Taos students.

## PSYC 4380 - History of Psychology

## Credits: 3

Covers the most important movements and individuals contributing to the development of modern psychology.
Prerequisites: Instructor approval or PSYC 1300, PSYC 3301, and one additional psychology course.

## PSYC 4381 - Special Topics

## Credits: 3

Covers topics that may have temporary or limited interest. Topics include child development, family violence, advanced family psychology, anxiety disorders, and positive psychology. Prerequisites: PSYC 1300 and PSYC 3301, or instructor approval.

## PSYC 4393 - Distinction Seminar in Psychology: Completion of Research Project

Credits: 3
The third course in a three-course sequence for the psychology distinction program. Over the course of the term, students complete their research projects and prepare them for dissemination. Prerequisite: Instructor approval.

## PSYC 4395 - Practicum/Internship

## Credits: 3

An intensive study of interpersonal helping relationships based upon psychological theories and research findings, with emphasis on supervised personal involvement with others. Prerequisites: PSYC 1300, PSYC 3301 and instructor approval.

## PSYC 5381 - Special Topics

Credits: 3
Designed to cover topics that may have temporary or limited interest. Topics include psychology and law, health psychology, and the psychology of attachment. Prerequisites: PSYC 1300, PSYC 3301, and one additional psychology course, or instructor approval.

## Religious Studies

Professor Carl Johan Elverskog, Department Chair

Professors: William Barnard, Mark Chancey, Carl Johan Elverskog, Serge Frolov
Associate Professors: Richard Cogley, Jill DeTemple, John Lamoreaux, Steven Lindquist
Professor of Practice: Shira Lander

## Departmental Distinction

A student majoring in religious studies with a minimum overall GPA of 3.000 and a 3.500 GPA in the major by the middle of the junior year may apply for the degree with departmental distinction. Candidates for distinction must enroll in a directed research tutorial in the fall term of their senior year followed by an independent studies course in the spring term for which they will write a senior thesis. Only the directed research tutorial may be used to fulfill the 30-term-hour requirement for the major.

## Religious Studies, B.A.

The B.A. degree in religious studies is appropriate for a general liberal arts education and for preprofessional training leading to graduate degrees in religious studies, law, theology or other areas of the humanities.

Departmental courses are offered in four areas: philosophical studies of religious ideas and values, historical studies of religious movements and institutions, social-scientific studies of religious beliefs and behavior, and textual studies of religious traditions and scriptures. A well-balanced program of undergraduate study includes courses from each of these four areas. Students planning to undertake Ph.D. work in religious studies are strongly encouraged to take the major with departmental distinction and to complete 12 term hours in either French or German.

A total of 30 term hours are required in the department, and 24 hours must be completed in courses numbered at the 3000 level or above.

## Requirements for the Major

One from the following: (3 Credit Hours)

- RELI 3306 - Hinduism
- RELI 3307 - Buddhism
- RELI 3378 - Religions of China

One from the following: (3 Credit Hours)

- RELI 3319 - Old Testament
- RELI 3326 - New Testament

One from the following: (3 Credit Hours)
(if not taken for the above requirements)

- RELI 3306 - Hinduism
- RELI 3307 - Buddhism
- RELI 3352 - Love and Death
- RELI 3365 - Understanding Self: East and West
- RELI 3368 - Wholeness and Holiness: Religion and Healing Across Cultures
- RELI 3375 - The Feminine Divine
- RELI 3377-The Cultural History of Tibet
- RELI 3378 - Religions of China
- RELI 3382 - Mysticism
- RELI 3384 - Hinduism and Colonial Encounters
- RELI 3386 - Myths, Epics, and Tales From India


## Additional RELI courses at the 3000 level or above (15 Credit Hours)

- Additional RELI courses at the 3000 level or above

Other departmental courses (6 Credit Hours)

- Other departmental courses

Total: 30 Credit Hours

## Religious Studies Minor

## Requirements for the Minor

Students majoring in other departments or schools may obtain a minor in religious studies by completing 15 credit hours in the department. Nine hours must be completed in courses numbered at the 3000 level or above.

## Courses:

## RELI 1300 - Special Topics Abroad: Religious Studies

Credits: 3
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under a different subtitle.

## RELI 1301 - Religious Literacy

Credits: 3
An introduction to the world's religions and the academic discipline of religious studies, leading to a familiarity with the histories, beliefs, practices, social contexts and scriptures of several world religions, as well as to an awareness of key issues in the methodology of religious studies.

## RELI 1302 - Religious Literacy: Difference, Representation, and Identity in Taos

## Credits: 3

An introduction to religious traditions of the world with an emphasis on literacy in those traditions, including practices, beliefs, scriptures, history, and human interaction.

## RELI 1303 - Introduction to Asian Religions

## Credits: 3

An introductory historical overview of select religious traditions of Asia. The course explores developments in religious and cultural trends expressed in South Asia and East Asia in traditions such as Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Taoism, and/or Shintoism.

## RELI 1304 - Introduction to Western Religions

## Credits: 3

A historical introduction to Judaism, Christianity, and Islam. Topics include Moses and ancient Israelite religion; Jesus and early Christianity; rabbinic Judaism; Muhammad and classical Islam; the birth of Protestantism; and Jewish, Christian, and Islamic modernism.

## RELI 1305-Introduction to Primal Religions

## Credits: 3

An introduction to the religious world views and ritual life of such primal cultures as Australian aboriginals, African tribal peoples, and native North and South Americans. Also, the significance of the resurgence of neo-paganism in the West.

## RELI 1308 - Religion in the United States

Credits: 3
Explores the role of religion in contemporary American culture, including mainstream civil religion, specific religious traditions, and the interactions among different groups.

## RELI 1311 - Judaism, Christianity, and the Bible

## Credits: 3

An exploration of the common and distinctive elements in Judaism and Christianity; a study of the historical relationships between Jews and Christians.

## RELI 2300 - Special Topics Abroad: Religious Studies

Credits: 3
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitle.

## RELI 3300 - Special Topics Abroad: Religious Studies

Credits: 3
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitle.

## RELI 3302 - Problems in the Philosophy of Religion

## Credits: 3

The philosophy of religion, considering such problems as religious experience, human freedom, good and evil, belief in God, and immortality.

## RELI 3304 - Christian Theology

## Credits: 3

An exploration of such theological problems as the authority of the Bible, the reality of God, the meaning of Christ, the nature of humanity, and the end of history in light of the biblical heritage and contemporary thought.

## RELI 3306 - Hinduism

## Credits: 3

An exploration of the major attitudes and institutions that define Hinduism, with attention to ideology, social organization, and ritual in light of both historical development and contemporary practice.

## RELI 3307 - Buddhism

Credits: 3
Communal rituals, practice, ethics, and political involvement of the Buddhist community ("sangha") as it has taken form in five cultural areas: India, South Asia, Tibet, East Asia, and America.

## RELI 3308 - Christian Ethics and Moral Issues

Credits: 3
An examination of the relationship between moral reasoning and Christian belief. An analysis of various Roman Catholic and Protestant theories of religious ethics and of specific questions of personal conduct and social policy.

## RELI 3309 - Bioethics From a Christian Perspective

Credits: 3
Examines bioethics from a Christian ethical perspective, with special attention to different methodological approaches to the significant themes and realities involved (e.g., life, health, suffering, death), and to the most important issues faced today.

## RELI 3310 - The Social-Scientific Study of Religion

Credits: 3
An introduction to scientific ways of thinking about the social, cultural, and psychological aspects of religious life. Attention is given to major thinkers and theories dealing with religion in the disciplines of anthropology, psychology, sociology, and the social-scientific study of religion.

## RELI 3314 - Studies: Comparative Religion

Credits: 3
An examination of a particular topic or theme as expressed in a variety of religious traditions, Eastern and Western, ancient and modern. Topics will vary from term to term.

## RELI 3315 - Religion in Politics

## Credits: 3

An examination of the impact of religious belief and ethical thought, as well as social, cultural, and psychological factors, on the involvement of religious people in the political sphere. Introduces the social-scientific study of religion to aid in the analysis of current and recent case studies, ranging from far-right conservatism to the revolution of the political left, and involving Christian, Jewish, Muslim, Hindu, and Buddhist traditions.

## RELI 3316 - Religion and Science

## Credits: 3

An exploration of how religion and science understand such topics as the origins and destiny of the universe and the evolution of life.

## RELI 3318 - The Hero in the Bible and the Ancient Near East

## Credits: 3

An examination of concepts of the hero in the literatures of ancient Mesopotamia, Canaan, and Israel, with special attention to the nature of traditional narrative and to the relationship between the hero, society, and the self.

## RELI 3319 - Old Testament

## Credits: 3

An introduction to the Old Testament and to the religion and history of ancient Israel. Special emphasis is given to the ancient Near Eastern roots of biblical religion and to the modern interpretation of biblical myth, epic, and prophecy.

## RELI 3320 - Classical Judaism

## Credits: 3

An introduction to the study of religion through examination of Judaism. The course looks at central Jewish religious ideas and their development within the rabbinic and medieval periods. Special attention is given to conflicts and controversies, such as Judaism's rejection of early Christianity, heretical movements within medieval Judaism, and Jewish attitudes toward other religions.

## RELI 3321 - Religion and the Holocaust

## Credits: 3

A study of responses to the Holocaust by Jews and Christians. Includes an overview of the history of the Holocaust as it affected the Jewish communities of Central and Eastern Europe. Students read personal memoirs of survivors of ghettos, concentration camps, and Nazi Germany. Postwar responses include questions of faith after the Holocaust, Christian responsibility for modern anti-Semitism, the impact of the Holocaust on the creation of the State of Israel and Middle East politics today, and postwar relations between Jews and Germans.

## RELI 3324 - American Judaism

## Credits: 3

An examination of Jewish life in America, including history, literature, cultural expressions, and religious beliefs from the 17th century to the present.

## RELI 3326 - New Testament

## Credits: 3

An introduction to the writings of the New Testament, the formative events, and the people who played leading roles in the origin of Christianity.

## RELI 3329 - Islam

## Credits: 3

An examination of the history, doctrines, and rituals of the Muslim community, including Islam in the past and present and in its global context.

## RELI 3330 - History of Christianity

## Credits: 3

An introduction to the European development of Christianity, focusing on the key movements, the outstanding leaders, and crucial turning points in the history of Christianity.

## RELI 3331 - Renewal: Roman Catholicism

## Credits: 3

Concentrates on the more significant documents of the Second Vatican Council (1962-1965). Includes the background prior to the Second Vatican Council, the changes that helped bring it about, and developments in Roman Catholicism during the last 30 years.

## RELI 3333 - Religion in America

## Credits: 3

A consideration of the history of religion in America from the Colonial period to the present. Special emphasis on either selected religious groups, movements, or thinkers.

## RELI 3334 - Conservatism and Liberalism in Christianity

## Credits: 3

An examination of the fundamentalist, evangelical, and liberal understandings of Christianity, with attention to the issues at stake, and the problems and possibilities of dialogue.

## RELI 3335 - Religious Sects in America

## Credits: 3

An examination of new religious movements that originated in America, e.g., Mormonism; Seventh-Day Adventism; Scientology; the Church of Christ, Scientist (Christian Science); and the Nation of Islam, as well as religious movements in the U.S. that originated abroad, e.g., Hasidic Judaism, Theosophy, the Unification Church, the Hare Krishna movement, and Baha'i.

## RELI 3336 - African-American Religious History

## Credits: 3

Examines the major movements, figures, and critical issues in African-American religious history, with a focus on the U.S., although West African, Caribbean, and South American materials are included. Special attention is given to slave religion, the civil rights movement, and black criticism of Christianity.

## RELI 3337 - Christianity and American Public Life

## Credits: 3

Explores the individualism permeating American understanding and life, and the communitarian dimensions of human existence from the Christian perspective. Helps students enter more critically into the dialogue about the role of religion in pluralistic, contemporary American society.

## RELI 3339 - The Puritan Tradition in England and America

## Credits: 3

An examination of the religious, political, scientific, economic, and literary dimensions of the Puritan movement in TudorStuart England and in Colonial America.

## RELI 3340 - Religious Experience

## Credits: 3

An examination of the varieties of religious experience from traditional forms of mystical and ecstatic experience, to nontraditional forms of altered states of consciousness. Attention is given to social, cultural, ethical, psychological, and existential dimensions of religious experience approached from a cross-cultural perspective.

## RELI 3341 - Religion in the United States Since 1865

## Credits: 3

Explores American religion and the role of religion in politics, science and knowledge, community, gender and family, and culture.

## RELI 3342 - Religion in the United States to 1865

## Credits: 3

Investigates the foundations of American religious culture, including native, African, and European traditions; colonization; early evangelicalism; the Revolutionary War; and the religious culture of the new United States.

## RELI 3343 - Religion and the American Revolution

Credits: 3
Investigates the history of religion and the American Revolution, including their Colonial background, evangelicalism and Enlightenment, and the influence of religion on founding documents and leaders.

## RELI 3348 - Temples, Churches, and Synagogues in the Ancient Mediterranean

## Credits: 3

Explores the forms, politics, and social functions of sacred spaces in the ancient Mediterranean using contemporary theories of spatiality. Students learn how to analyze archaeological and literary remains.

## RELI 3350 - History of Biblical Interpretation

## Credits: 3

A survey of the interpretive approaches to the Bible in Jewish and Christian traditions from ancient times to the modern era. Topics include interpretation in the biblical period, rabbinic and early Christian exegesis, mystical interpretation, and modern historical scholarship. The social context and the aims of interpretation are key concerns of the course.

## RELI 3352 - Love and Death

## Credits: 3

An exploration of love and death in the mythologies of Mesopotamia, Egypt, Canaan, Greece, and India. The interaction of these twin themes will be pursued as a key to the religious and philosophical perspectives of these ancient peoples. The significance of ancient mythology for modern reflection will be a central concern throughout the course.

## RELI 3353 - Identity and the Sacred in the Southwest

## Credits: 3

An introduction to the Latino/a religions and religious practices in the United States, with a special emphasis on social constructions of the borderland.

## RELI 3358 - Psychology of Religion

## Credits: 3

An investigation of the biological and psychological underpinning of religious belief, behavior, and experience, as well as the psychological and biological consequences of religion.

## RELI 3359 - Nordic Mythology

## Credits: 3

An examination of the beliefs, practices, and values of the Teutonic peoples prior to the Christianization of Northern Europe.

## RELI 3360 - The History of Judaism

Credits: 3
An overview of both the historical development of the Jewish tradition and its central laws, religious practices, and theology.

## RELI 3362 - Islam and the West

Credits: 3
A study of past and present encounters between Islam and the West, with special attention to the bearing of the contemporary Islamic resurgence upon these encounters today.

## RELI 3364 - Native American Religions

Credits: 3
An investigation of the mythologies of North America, centering on southwestern and northern Plains cultures. Native texts are approached by way of modern theories of the interpretation of myth, ritual, and religion. Topics include creation myths, culture heroes, trickster tales, sacred music and dance, and rites of healing and passage.

## RELI 3365 - Understanding Self: East and West

## Credits: 3

An examination of several basic notions pertaining to selfhood, including consciousness, cognition, motivation, personal identity, and decision, as found in Eastern and Western sources.

## RELI 3366 - Magic, Myth and Religion Across Cultures

## Credits: 3

A cross-cultural and comparative exploration of religion, ritual, magic, and supernatural belief systems. Examines how religion permeates other aspects of society and culture.

## RELI 3367 - The Religious Life of China and Japan

## Credits: 3

An introduction to the history, thought, and religious practices of Taoism, Confucianism, Shinto, and Mahayana Buddhism.

## RELI 3368 - Wholeness and Holiness: Religion and Healing Across Cultures

## Credits: 3

An exploration of various understandings of the relationship between religion and healing. Analysis of the interface between medical and religious models of health through a wide range of ethnographic examples and theoretical perspectives. Special attention is also given to different religious healing modalities.

## RELI 3371 - The World of the New Testament

## Credits: 3

Investigates the intersections of political history, social history, philosophical thought, and religious belief and practice, with particular attention to Judaism and Christianity in their Greco-Roman context.

## RELI 3374 - Female and Male in Religion and Culture

## Credits: 3

Students explore how the study of gender differences affects their understanding of history, religion, and culture. Includes a critical look at current discussions in the field of women's studies and their impact on contemporary thought.

## RELI 3375 - The Feminine Divine

Credits: 3
A historical and cross-cultural overview of the relationship between feminine and religious cultural expressions through comparative examinations and analyses of various goddess figures in world religions.

## RELI 3377 - The Cultural History of Tibet

## Credits: 3

A critical study of Tibetan history, culture, and religion, and how they relate to the representation of Tibet in travel, scholarly, and popular literature.

## RELI 3378 - Religions of China

## Credits: 3

A historical survey of the religious cultures of China from the ancient Shang dynasty through the contemporary period.

## RELI 3379 - Plants of the Gods: Religion and Psychedelics

## Credits: 3

An exploration of the religious use of psychedelic ("mind manifesting") substances throughout history and in a variety of cultures.

## RELI 3380 - Women and Religion in America

## Credits: 3

A historical introduction to the role of women in American religious history with special attention to the interplay between women and wider religious and cultural values.

## RELI 3381 - Religion, Gender, and Economic Development

## Credits: 3

A consideration of gender and religion in the context of international economic development with a particular emphasis on "tradition" as a category of analysis and evaluation.

## RELI 3382-Mysticism

## Credits: 3

An inquiry into mysticism as a path for attaining individual religious fulfillment. Attention to such mystic traditions as Zen, Tantra, Yoga, Sufism, Kabbalah, and Christian mysticism.

## RELI 3383 - Reel Judaism: Cinematic Representations of Jewish Life

## Credits: 3

Explores how American, European, and Israeli films variously represent Jewish life past and present. Addresses issues of identity-construction, cultural context, collective memory, politicization, majority representation, and minority selfrepresentation.

## RELI 3384 - Hinduism and Colonial Encounters

Credits: 3
A critical study of the history of colonialism in India and its impact on social, religious, and political discourse.

## RELI 3386 - Myths, Epics, and Tales From India

Credits: 3
Examines religious narratives from ancient India. Students read and analyze many examples across different genres (myth, epic, folktale) in text and performance, focusing on literary and historical context and interpretation.

## RELI 3387 - Religion and Human Rights

Credits: 3
Major world religious traditions and modern ideas of human rights. Religious understandings of humanity and political order are considered in relation to contemporary human rights issues.

## RELI 3389 - Living From the Heart (Of It All): An Exploration of Mystical/Spiritual Ethics

## Credits: 3

Explores the intersection between ethics and mysticism/spirituality, and compares the ethical ideals and metaphysical assumptions of various mystical traditions, as well as the prosaic ethical implications of mysticism and spirituality.

## RELI 3390 - A Persistent Prejudice: Anti-Semitism in Western Civilization

## Credits: 3

Studies the evolution of anti-Jewish stereotypes in Western culture in the context of human rights as well as classical antiJudaism's transformation into the modern phenomena of anti-Semitism and anti-Zionism.

## RELI 3391 - Waking Up: The Philosophy of Yoga and the Practice of Meditation

## Credits: 3

Explores the Hindu traditions of yoga and tantra, investigating key understandings of meditation, selfhood, and consciousness, with an equal emphasis on theory, experience, and practice.

## RELI 4198 - Independent Study

Credits: 1
Individual study with an instructor. Permission of instructor and departmental chair required.

## RELI 4199 - Independent Study

Credits: 1
Individual study with an instructor. Permission of instructor and departmental chair required.

## RELI 4298 - Independent Study

Credits: 2
Individual study with an instructor. Permission of instructor and departmental chair required.

## RELI 4299 - Independent Study

## Credits: 2

Individual study with an instructor. Permission of instructor and departmental chair required.

## RELI 4300 - Special Topics Abroad: Religious Studies

Credits: 3
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitle.

## RELI 4352 - Jesus and the Gospels

Credits: 3
An examination of canonical and noncanonical Christian Gospels, with special attention to methods of Gospel research and to the study of the historical Jesus.

## RELI 4354 - Prophets of the Old Testament

## Credits: 3

An introduction to the writings and religious concepts of the prophets of ancient Israel. Special emphasis will be given to the roots of prophecy in ancient Near Eastern religions, the social role of the Israelite prophet, and comparisons with seers and shamans of modern religious traditions.

## RELI 4356 - The Bible and Ethics

## Credits: 3

An examination of the ways in which Christians have appealed to the Bible in ethical debates, with special attention to classic ethical approaches, specific ethical issues, and methodological problems.

## RELI 4371 - Pauline Christianity

## Credits: 3

A study of Paul and Pauline Christianity, drawing on Paul's letters, the Acts of the Apostles, and other documents of the New Testament.

## RELI 4381 - Internship in Religious Studies

Credits: 3
This course enables students to gain vocational experience by working in nonsectarian religious organizations and institutions, such as social justice agencies, ecumenical associations, and charitable or educational foundations.

## RELI 4388 - Special Topics in Religious Studies

## Credits: 3

A detailed investigation of a topic chosen by the instructor. Topics vary.

## RELI 4389 - Special Topics in Religious Studies

Credits: 3
A detailed investigation of a topic chosen by the instructor. Topics vary.

## RELI 4396 - Directed Reading and Research

Credits: 3
Special topics to be selected by the student in consultation with the department. Open to seniors upon departmental approval.

## RELI 4397 - Directed Reading and Research

Credits: 3
Special topics to be selected by the student in consultation with the department. Open to seniors upon departmental approval.

## RELI 4398 - Independent Study

## Credits: 3

Individual study with an instructor. Permission of instructor and departmental chair required.

## RELI 4399 - Independent Study

Credits: 3
Individual study with an instructor. Permission of instructor and departmental chair required.

## RELI 4498 - Independent Study

Credits: 4
Individual study with an instructor. Permission of instructor and departmental chair required.

## RELI 4499 - Independent Study

Credits: 4
Individual study with an instructor. Permission of instructor and departmental chair required.

## RELI 5330 - Introduction to Digital Humanities

## Credits: 3

Provides a theoretical and practical introduction to the digital humanities, covering digital texts, GIS tools, visualizations, online archiving and presentation, and the culture of this developing field.

## Sociology

www.smu.edu/sociology

Associate Professor Matthew R. Keller, Interim Department Chair

Associate Professors: Matthew R. Keller, Sheri Kunovich, Anne E. Lincoln<br>Assistant Professor: Lucas Kirkpatrick<br>Senior Lecturer: Debra Branch<br>Lecturers: Nancy Campbell-Jeffrey, Leslie DeArman

## General Information

The sociology curriculum includes courses on research design, data analysis and social theory, as well courses on developing an understanding of domestic and international social conditions. In today's information society, these skills give sociology majors a competitive advantage in fields that rely heavily upon social research.

Sociology majors entering the business world often work in marketing research, human resources, personnel management, industrial relations, public relations or sales, while sociology majors entering human services often work in nonprofits focused on addressing social problems and helping individuals solve problems related to economic insecurity, substance abuse or housing insecurity. In the government sector, sociology majors often work in policy analysis, program evaluation or urban planning. A sociology degree also provides a strong foundation for careers in law, government, community organizing, health care and education.

The Department of Sociology offers three majors and one minor. Students are not permitted to pursue both a B.A. and B.S. in sociology but may pursue the combination of a markets and culture major and either the B.A. or B.S. in sociology. Students who combine a markets and culture major with the B.A. or B.S. in sociology may double count up to 15 hours of course credit between these programs. SOCI 3311, SOCI 3312 will automatically be included, as well as three additional courses as determined by the department.

## Departmental Distinction

The department offers graduation with distinction to majors of high academic achievement. Interested students with a minimum 3.000 overall GPA and a 3.500 GPA in the major may consult with the director of undergraduate study for admission to the distinction track. If the director determines that the student has satisfied the requirements, the student may then contact a departmental faculty member to request direction of the distinction paper. The candidate's distinction paper must be a substantial piece of independent and original research. The research will be presented and evaluated by a distinction committee comprised of at least two faculty members. Upon positive recommendation from this committee, the student will be awarded graduation with distinction. Criteria for graduating with departmental distinction include the following:

- A minimum 3.000 overall GPA at graduation.
- A minimum 3.500 GPA in required courses for the major.
- A minimum grade of $A$ - in SOCI 4396.


## Markets and Culture, B.A.

## Associate Professor Sheri Kunovich, Director

The B.A. in markets and culture provides students the opportunity to learn about the world's marketplaces from an interdisciplinary vantage in the social sciences. Students receive a firm grounding in the economic principles
of markets, the values and history of commerce, the social bases of economic behavior, and business concepts and practices while gaining an understanding of the multiple institutions and cultures that shape the world's markets.

Prior to declaring a major in markets and culture, students must achieve a grade of $C$ or better in SOCI 2377. Students must receive at least a $C$ - in all remaining required courses and meet a minimum GPA of 2.000 in all courses counted toward the major. Students are encouraged to choose their electives using one of the three areas of specialization presented below. Students who earn a second major in Spanish, German, French, or World Languages will automatically satisfy the elective requirements for the MKCL major. Students who earn a minor in languages where there is no option for a major at SMU will automatically satisfy the elective requirements for the MKCL major. Only one independent study course (SOCI 4393 or SOCI 4396) may be taken for a grade and applied toward the major. General internship courses (SOCI 4179, SOCI 4279, SOCI 4379) may only be taken on a pass/fail basis and they will not be counted toward the major.

Students are also permitted to petition to include specific courses that broaden their knowledge of global society or of a particular region or country from disciplines such as history, English and world languages. Relevant study abroad courses may also be petitioned for approval. Students interested in the management, business strategy and organizations elective concentration are encouraged to consider completing the Cox minor in business.

## Requirements for the Major

## Core Courses (30 Credit Hours)

- SOCI 2377 - Introduction to Markets and Culture
- ENGL 2302 - Business Writing
or
- BLI 3302 - Business Communications and Leader Development (Cox majors only) or
- SOCI 4351 - Nonprofit Fundraising and Grant Writing
- ACCT 2301 - Introduction to Financial Accounting
or
- ACCT 2310 - Accounting Concepts
- SOCI 3311- Social Science Research Methods
- SOCI 3312 - Database Methods and Analysis

One from the following:

- SOCI 3376 - Sociology of Work
- SOCI 3377- Organizations and Their Environments

One from the following:

- SOCI 4377 - Economic Sociology
- SOCI 4384 - Sociology of Innovation: Knowledge, Technology, and Institutions
- SOCI 4376 - Social Organization of Professional Work

One from the following:

- ECO 3355 - Money and Banking
- FINA 3330 - Money and Capital Markets (Cox majors only)
- FINA 3310 - Finance Concepts

One from the following:

- STAT 2301 - Statistics for Modern Business Decisions
- STAT 2331 - Introduction to Statistical Methods
- ITOM 2305 - Managerial Statistics (Cox pre-majors and majors only)
- ITOM 3310 - Business Decisions and Processes (Cox majors only)

One from the following:

- SOCI 3340 - Global Society
- SOCI 3368 - Global Urbanism: Implosions/Explosions


## Electives (12 Credit Hours)

From one or more of the following groups.

## Management, Business Strategy, and Organizations

- ANTH 3344-Cultural Aspects of Business
- BL 3310 - Business Law Concepts
- BUSE 2301 - Life Cycle Economics: Personal Financial Planning for Today and Tomorrow
- BUSE 3310 - Markets and Freedom
- CISB 2388 - Entrepreneurship Concepts
- CCPA 3321 - Communication in Global Contexts
- ECO 3301 - Price Theory (Intermediate Microeconomics)
- ECO 3302 - Intermediate Macroeconomics
- ECO 4351 - Labor Economics
- ECO 4368 - Foundations of Financial Economics
- ECO 5365 - Federal Government Expenditures
- FINA 3310 - Finance Concepts
- FINA 3312 - Personal Finance
- MKTG 3310 - Marketing Concepts
- MKTG 3340 - Fundamentals of Marketing (Cox majors only)
- MNO 3310 - Management Concepts
- MNO 3370 - Management
- MNO 3373 - Negotiations (Cox majors only)
- MNO 4371 - Leadership and Culture (Cox majors only)
- PHIL 1317 - Business Ethics
- PLSC 3320 - Principles of Public Policy
- PLSC 3382 - International Organizations: Global and Regional
- PSYC 3365-Organizational Psychology
- SOCI 3321 - Nonprofit Organizations: Conceptual Primer
- SOCI 4353 - Nonprofit Management and Community Leadership
- STRA 5370 - Strategic Management in a Global Economy (Cox majors only)

Political Economy, Inequality, and Development

- ANTH 3385 - Sustainable Living
- ANTH 4303 - Political Economy of Health
- ANTH 4384 - Global Issues and Development: An Overview
- ECO 4357 - International Trade
- ECO 4358 - International Macroeconomic Theory and Policy
- ECO 4365 - State and Local Government
- ECO 5360 - Economic Development: Macroeconomic Perspectives
- ECO 5366 - Federal Government Taxation
- PLSC 3389 - International Political Economy
- PLSC 4353 - Political Economy of East Asia
- PLSC 4355 - Comparative Political Economy of Industrialized Democracies
- PLSC 4356 - Latin American Political Economy
- SOCI 3335 - Political Sociology
- SOCI 3340 - Global Society
- SOCI 3368 - Global Urbanism: Implosions/Explosions
- SOCI 3369 - U.S.Urbanism: Inclusions/Exclusions
- SOCI 3372 - Contemporary Issues in the American Southwest
- SOCI 4373 - Class, Race, and Gender Inequalities
- SOCI 4385 - Environmental Sociology


## Consumers and Markets in Historical and Cultural Contexts

- ADV 1341 - Marketing Principles of Advertising
- ADV 2301 - Consumer Behavior (Advertising majors and minors only)
- ANTH 3310 - Gender and Sex Roles: A Cross-Cultural Perspective
- ANTH 3314 - Peoples of Africa
- ANTH 3336 - Gender and Globalization: Cultural and Ethical Issues
- ANTH 3350 - Good Eats and Forbidden Flesh: Culture, Food, and the Global Grocery Market
- ANTH 3354 - Latin America: Peoples, Places, and Power
- ANTH 3361 - Language in Culture and Society
- CCPA 3342 - Race and Identity Construction in Global Contexts
- HIST 3327 - Women in American History From 1865
- HIST 3364 - Consumer Culture in the United States, 1700-1990
- PLSC 4354 - The Third World and North-South Relations
- RELI 3381 - Religion, Gender, and Economic Development
- SOCI 3345-Construction of Social Identities in the Media
- SOCI 3376 - Sociology of Work
- SOCI 3377 - Organizations and Their Environments
- SOCI 4340 - Sociology of Culture
- SOCI 4372 - Wealth and Consumption


## Total: 42 Credit Hours

## Departmental Distinction


#### Abstract

The department offers graduation with distinction to majors of high academic achievement. Interested students with a minimum 3.000 overall GPA and a 3.500 GPA in the major may consult with the director of undergraduate study for admission to the distinction track. If the director determines that the student has satisfied the requirements, the student may then contact a departmental faculty member to request direction of the distinction paper. The candidate's distinction paper must be a substantial piece of independent and original research. The research will be presented and evaluated by a distinction committee comprised of at least two faculty members. Upon positive recommendation from this committee, the student will be awarded graduation with distinction. Criteria for graduating with departmental distinction include the following:


- A minimum 3.000 overall GPA at graduation.
- A minimum 3.500 GPA in required courses for the major.
- A minimum grade of $A$ - in SOCI 4396.


## Sociology, B.A.

Prior to declaring a sociology major, students must complete SOCI 1300 with a grade of $C$ or better. Students must receive at least a $C$ - in all remaining required courses and meet a minimum GPA of 2.000 in all courses counted toward the major. STAT 2301 or STAT 2331 is recommended but is not applied toward the B.A. Only one independent study course (SOCI 4393 or SOCI 4396) may be taken for a grade and applied toward the major. General internship courses (SOCI 4198, SOCI 4298, SOCI 4398) may only be taken on a pass/fail basis, and will not be counted toward the major.

## Requirements for the Major

## Core Courses (12 Credit Hours)

- SOCI 1300 - Introduction to Sociology
- SOCI 3311 - Social Science Research Methods
- SOCI 3312 - Database Methods and Analysis
- SOCI 4313 - The Sociological Tradition or
- SOCI 4314 - Contemporary Sociological Theory


## Electives (21 Credit Hours)

- Four additional courses at the 2000 or 3000 level
- Three additional courses at the 4000 level


## Total: 33 Credit Hours

## Sociology, B.S.

The B.S. degree provides a more rigorous curriculum in social science research and analytic writing, and a solid foundation for graduate study or professional school. Prior to declaring a sociology major, students must complete SOCI 1300 with a grade of $C$ or better. Students must receive at least a $C$-in all remaining required courses and meet a minimum GPA of 2.000 in all courses counted toward the major. Only one independent study course (SOCI 4393 or SOCI 4396) may be taken for a grade and applied toward the major. General internship courses (SOCI 4198, SOCI 4298, SOCI 4398) may only be taken on a pass/fail basis, and will not be counted toward the major.

## Requirements for the Major

## Core Courses (18 Credit Hours)

- SOCI 1300 - Introduction to Sociology
- SOCI 3311 - Social Science Research Methods
- SOCI 3312 - Database Methods and Analysis
- SOCI 4313 - The Sociological Tradition
- SOCI 4314 - Contemporary Sociological Theory
- STAT 2301 - Statistics for Modern Business Decisions or
- STAT 2331 - Introduction to Statistical Methods


## Electives (18 Credit Hours)

- Three additional courses at the 2000 or 3000 level
- Three additional courses at the 4000 level


## Total: 36 Credit Hours

## Sociology Minor

A minor in sociology complements many other majors. Markets and culture majors who want to minor in sociology will be allowed to double count up to six hours, specifically SOCI 3311 and SOCI 3312.

## Requirements for the Minor

Core Courses (3 Credit Hours)

- SOCI 1300 - Introduction to Sociology

One from the following: (3 Credit Hours)

- SOCI 3311- Social Science Research Methods
- SOCI 3312 - Database Methods and Analysis
- SOCI 4313 - The Sociological Tradition
- SOCI 4314 - Contemporary Sociological Theory


## Additional Courses (9 Credit Hours)

- Two out of three additional courses at the 3000 level or above


## Total: 15 Credit Hours

## Courses:

## SOCI 1300 - Introduction to Sociology

Credits: 3
This course presents the sociological approach to understanding human behavior. Sociology considers how particular life experiences, attitudes, and values are shaped by membership in ascribed and achieved social categories such as social class, race/ethnicity, sex, sexuality, and nationality.

## SOCI 2180 - SMU Abroad: Sociology

Credits: 1
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitle. Maximum of 6 credit hours permissible toward the B.A. or B.S. in sociology or the B.A. in markets and culture.

## SOCI 2280 - SMU Abroad: Sociology

## Credits: 2

Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitle. Maximum of 6 credit hours permissible toward the B.A. or B.S. in sociology or the B.A. in markets and culture.

## SOCI 2300 - Social Problems

Credits: 3
Examines social problems within the contexts of their particular societies and cultures; how a social problem is defined; and how solutions are shaped by politics, corporations, media interests, and social movements.

## SOCI 2377 - Introduction to Markets and Culture

## Credits: 3

General introduction to economic sociology, examining the effects of culture and social relations on shaping production, distribution, and consumption in domestic and global markets. Prerequisite: First-year, sophomore, or junior standing only. Must have access to Microsoft Excel. Recommended to take after completing DISC 1311, DISC 1312, or their equivalents.

## SOCI 2380 - SMU Abroad: Sociology

Credits: 3
Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit
under different subtitle. Maximum of 6 credit hours permissible toward the B.A. or B.S. in sociology or the B.A. in markets and culture.

## SOCI 3180 - SMU Abroad: Sociology

## Credits: 1

Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitle. Maximum of 6 credit hours permissible toward the B.A. or B.S. in sociology or the B.A. in markets and culture

## SOCI 3280 - SMU Abroad: Sociology

## Credits: 2

Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitle. Maximum of 6 credit hours permissible toward the B.A. or B.S. in sociology or the B.A. in markets and culture

## SOCI 3301 - Health, Healing, and Ethics: Cross-Cultural Perspectives on Sickness and Society

## Credits: 3

A cross-cultural exploration of cultures and organization of medical systems, economic development and the global exportation of biomedicine, and ethical dilemmas associated with medical technologies and global disparities in health.

## SOCI 3305 - Introduction to Race and Ethnicity in the United States

## Credits: 3

An interdisciplinary seminar designed to introduce the analysis of race and ethnicity in the United States. Topics include inequality, residential segregation, immigration, and ethics.

## SOCI 3311 - Social Science Research Methods

## Credits: 3

Introduces qualitative and quantitative research methods used by sociologists. Students learn how to design, conduct, and report research in an ethical, clear, and concise manner. Assignments provide hands-on experience using and collecting data for social science research. This is the first course in the research methods sequences. Prerequisite: SOCI 1300, SOCI 2377, or SOCI 3321.

## SOCI 3312 - Database Methods and Analysis

## Credits: 3

Focuses on data analysis of existing data commonly used for economic and social scientific purposes (e.g., U.S. Census, General Social Survey, World Bank) and the construction of new data from multiple sources. Reviews basic quantitative research methodology, descriptive and inferential statistics, data reduction and management techniques, and the interpretation of statistics in applied social research. Students become adept at using multiple database programs (e.g., Excel, SPSS, SAS). This is the second course in the research methods sequence. Prerequisite: C- or better in SOCI 3311.

## SOCI 3320 - The Social-Scientific Study of Religion

## Credits: 3

An introduction to scientific ways of thinking about the social, cultural, and psychological aspects of religious life. Attentive to major thinkers and theories dealing with religion in the disciplines of anthropology, psychology, sociology, and the social-scientific study of religion.

## Credits: 3

Explores the nonprofit sector and relevant topics such as nonprofit history, theories, management, and trends, with a focus on strategies for improving organizations in light of the nonprofit sector's relationship with government and business.
Prepares students for their subsequent nonprofit internship.

## SOCI 3322 - Nonprofits At Work in the Community

## Credits: 3

Explores the nonprofit sector's role in addressing myriad social problems, especially those most prevalent in the Dallas area. Students examine issues such as poverty, domestic violence, health care, and the aging population. Traditional lectures on campus introduce concepts relating to the social issue being explored and the specific ways in which the nonprofit sector is working to mitigate the problems. Includes fieldtrips to local nonprofit agencies to tour facilities and meet with administrators, volunteers, and clients who are working to address the social problems discussed in class.

## SOCI 3330 - Social Construction of Identities

## Credits: 3

Examines classical and contemporary theoretical explanations for the development, persistence, and destruction of constructed social identities based on gender, sexuality, race and ethnicity, social class, disability status, etc.

## SOCI 3335 - Political Sociology

## Credits: 3

Covers political movements, the impact of politics on other institutions in America, issues of power and control, and global issues of economics and political power.

## SOCI 3340-Global Society

## Credits: 3

Provides students with a sociological orientation to the evolving interconnectedness among societies, nation-states, cultures, economies, and individuals around the globe.

## SOCI 3345-Construction of Social Identities in the Media

## Credits: 3

Provides a broad historical and contemporary background to the study of media representations of groups in society.
Particular attention is paid to how gender, race, sexuality, and social class are constructed in visual and print media.

## SOCI 3350 - Ethnoviolence: Interdisciplinary Perspectives

Credits: 3
An introduction to ethnoviolence (violence or the threat of violence based on one's race, ethnicity, religion, gender, or sexual orientation) from a comparative, global, and critical framework that synthesizes sociology, colonial studies, and communications, as well as ethnic, religious, historical, and gender studies.

## SOCI 3351 - Sociology of the Family

Credits: 3
Examines the relationship between social structure and the family by considering the historical development of the family, variations in families, and current issues and changes affecting the family.

SOCI 3355 - Just a Game? Sport and Society

Credits: 3
As athlete or spectator, sport IS more than just a game-it is a microcosm of our society. Course provides a foundation in sociological ways of thinking about sports. Recommended prerequisites (any of the following): SOCI 3311, PSYC 3301, SOCI 3330, APSM 4310, SOCI 3371, SOCI 3305.

SOCI 3360 - Law and Society

## Credits: 3

A broad overview of the history and functions of American major legal institutions and their relationship to American culture and social structure.

## SOCI 3363 - Crime and Delinquency

## Credits: 3

Explores U.S. crime problems from a sociological perspective, including impacts of inequality, crime patterns, theories of criminal behavior, and prevention of crime.

## SOCI 3368-Global Urbanism: Implosions/Explosions

## Credits: 3

An introduction to urban life and culture around the world, including how to study cities, who inhabits cities, and the special features of city places and spaces.

## SOCI 3369 - U.S.Urbanism: Inclusions/Exclusions

Credits: 3
Introduction to historical and contemporary U.S. cities from the perspective of "the urban" (space of cities), "urbanism" (city as a way of life), and "urbanization" (city as a societal process).

## SOCI 3370 - Minority-Dominant Relations

Credits: 3
The nature, origins, and consequences of relationships between unequal groups; U.S. and other societies are compared.

## SOCI 3371 - Sociology of Gender

Credits: 3
This course examines the social and cultural construction of gender within relationships, friendships, families, schools, the media, and the workplace. It also explores the intersection of gender with race, ethnicity, social class, and sexuality.

## SOCI 3372 - Contemporary Issues in the American Southwest

## Credits: 3

Focuses on contemporary issues facing the American Southwest, including social problems that exist within the contexts of particular groups, communities, cultures, and societies. Explores sociological issues relating to the environment, the media, poverty, immigration, food insecurity, education, crime, economic development, and health, among others.

## SOCI 3376 - Sociology of Work

## Credits: 3

A survey of macro- and micro-level perspectives on the American occupational structure and the social forces shaping workplaces, workers, and the world of paid employment in the United States.

SOCI 3377-Organizations and Their Environments

## Credits: 3

Explores theories of organizations and relationships between organizations and their environments, and applies these theories to the analysis of real-world organization activities. C or better in SOCI 2377 recommended.

## SOCI 3380 - SMU Abroad: Sociology

## Credits: 3

Courses offered in SMU-approved international programs. Prior departmental approval required. May be repeated for credit under different subtitle. Maximum of 6 credit hours permissible toward the B.S. in sociology

## SOCI 4093 - Undergraduate Full-Time Status

## Credits: 0

Noncredit-bearing course with no tuition.

## SOCI 4179 - Markets and Culture Internship

Credits: 1
Students arrange for part-time jobs in fields of interest to markets and culture and relate their experiences to their academic curriculum through written organizational analyses under the guidance of an approved departmental faculty sponsor. Students apply for permission to enroll. Graded on a pass/fail basis only. Prerequisites: Sociology or markets and culture major, and sophomore standing or above.

## SOCI 4193 - Individual Research

Credits: 1
Students develop an independent research project under the guidance of a department faculty sponsor, culminating in a written report. Prerequisites: C- or better in SOCI 3311, SOCI 3312; sociology or markets and culture major; and instructor consent.

## SOCI 4198 - Sociological Internship

Credits: 1
Students arrange for part-time jobs in fields of interest to sociology and relate their experiences to their academic curriculum through written organizational analyses under the guidance of an approved departmental faculty sponsor. Students apply for
permission to enroll. Graded on a pass/fail basis only. Prerequisites: Sociology or markets and culture major, and sophomore standing or above.

## SOCI 4279 - Markets and Culture Internship

## Credits: 2

Students arrange for part-time jobs in fields of interest to markets and culture and relate their experiences to their academic curriculum through written organizational analyses under the guidance of an approved departmental faculty sponsor. Students apply for permission to enroll. Graded on a pass/fail basis only. Prerequisites: Sociology or markets and culture major, and sophomore standing or above.

## SOCI 4293 - Individual Research

## Credits: 2

Students develop an independent research project under the guidance of a department faculty sponsor, culminating in a written report. Prerequisites: C- or better in SOCI 3311, SOCI 3312; sociology or markets and culture major; and instructor consent.

## SOCI 4298 - Sociological Internship

## Credits: 2

Students arrange for part-time jobs in fields of interest to sociology and relate their experiences to their academic curriculum through written organizational analyses under the guidance of an approved departmental faculty sponsor. Students apply for permission to enroll. Graded on a pass/fail basis only. Prerequisites: Sociology or markets and culture major, and sophomore standing or above.

## SOCI 4313 - The Sociological Tradition

## Credits: 3

Introduction to theories of 19th- and early 20th-century sociologists. Prerequisites: Sociology major or sociology minor, and sophomore standing or above.

## SOCI 4314 - Contemporary Sociological Theory

## Credits: 3

Surveys recent trends in sociological theory. Prerequisites: Sociology major or sociology minor, and sophomore standing or above.

## SOCI 4321 - The Politics of Immigration: A Global Perspective

## Credits: 3

Utilizes a political and comparative approach to examine the causes and consequences of the movement of people across state borders. Using case studies of the U.S. and other predominantly immigrant-receiving nations, the course explores immigration control via laws and policies, rights of non-citizens, political debates, nationalism, public opinion, immigration patterns, and experiences of immigrants in different national and cultural contexts.

SOCI 4335 - Social Movements and Collective Behavior

## Credits: 3

The nature, causes, and consequences of social movements and collective behavior (e.g., crowds, riots, fads, public opinion, social movements, and revolution).

## SOCI 4340 - Sociology of Culture

## Credits: 3

Provides an overview of the sociological study of culture, focusing on the ways language, artifacts, ideas, identities, and narratives construct social reality.

## SOCI 4351 - Nonprofit Fundraising and Grant Writing

## Credits: 3

Examines sources of revenue for nonprofit organizations. Specific topics include fundraising, grant writing, the history of philanthropic giving in America, and donor dynamics. Prerequisite: SOCI 3321 or instructor approval.

## SOCI 4353 - Nonprofit Management and Community Leadership

## Credits: 3

Examines issues, strategies, and techniques related to leadership and management of third-sector organizations. Provides future nonprofit managers with an overview of a range of concerns and practices, while honing analytic skills. Prerequisite: SOCI 3321.

## SOCI 4363 - The Administration of Justice

## Credits: 3

Examination of law enforcement and criminal court systems, as well as the ideal of justice and public policy.

## SOCI 4364 - Correctional Systems

Credits: 3
The history of punishment, adjustment to incarceration, comparison of prisons for men and women, and constitutional issues of criminal punishment.

## SOCI 4366 - Deviant Behavior

Credits: 3
Explores causes and consequences of deviant behavior and evaluates leading theories.

## SOCI 4372 - Wealth and Consumption

## Credits: 3

Focuses on how group membership (e.g., race, social class) and societal forces (e.g., economic development) affect spending and savings patterns, with particular attention to sociological theories of consumption. Prerequisites: SOCI 3311 or SOCI 3312 and markets and culture major, sociology major, or sociology minor.

SOCI 4373 - Class, Race, and Gender Inequalities

## Credits: 3

Explores the causes and consequences of the unequal distribution of power, prestige, and opportunity within society. Prerequisites: SOCI 3311 or SOCI 3312 and markets and culture major, sociology major, or sociology minor.

## SOCI 4374 - Social Change

Credits: 3
Review of major social change theories emphasizing technology, modernization, and social power. Also, the impact of change on individuals and institutions, and possible solutions to resulting problems. Prerequisites: SOCI 1300 and sophomore standing or above.

## SOCI 4376 - Social Organization of Professional Work

Credits: 3
Uses case studies to explore professions and professional work in the U.S., including medicine, law, and science. Emphasizes closure processes, recruitment, licensure, and threats to professional jurisdiction. Recommended: SOCI 3376 or 3377. Prerequisites: SOCI 3311; sociology or markets and culture majors only.

## SOCI 4377 - Economic Sociology

## Credits: 3

Students develop critical understanding of the social, economic, technological, and political forces shaping current global markets. Recommended: SOCI 3377 or equivalent. Prerequisite: SOCI 3311.

## SOCI 4379 - Markets and Culture Internship

## Credits: 3

Students arrange for part-time jobs in fields of interest to markets and culture and relate their experiences to their academic curriculum through written organizational analyses under the guidance of an approved departmental faculty sponsor. Students apply for permission to enroll. Graded on a pass/fail basis only. Prerequisites: Sociology or markets and culture major, and sophomore standing or above.

## SOCI 4384 - Sociology of Innovation: Knowledge, Technology, and Institutions

## Credits: 3

Examines the social, organizational, and institutional bases of the development and diffusion of innovations, with a focus on the dynamics and debates concerning the generation of new knowledge and novel technologies. Recommended: SOCI 3376 or SOCI 3377. Prerequisite: SOCI 3311.

## SOCI 4385 - Environmental Sociology

## Credits: 3

Capstone course that examines the relationships among society, culture, economy, and the environment. Prerequisite: SOCI 3311 or instructor approval.

SOCI 4390 - Advanced Research Methods

## Credits: 3

Supervised research experience collecting primary data in the field and/or secondary data and data analysis in the classroom. Students gain advanced understanding of specific methods, sampling and recruitment, data collection, and analysis. Prerequisite: SOCI 3311 or SOCI 3312.

## SOCI 4393 - Individual Research

Credits: 3
Students develop an independent research project under the guidance of a department faculty sponsor, culminating in a written report. Prerequisites: C- or better in SOCI 3311, SOCI 3312; sociology or markets and culture major; and instructor consent.

## SOCI 4396 - Individual Research for Distinction

Credits: 3
Students develop a substantial piece of independent and original research for graduation with distinction. Prerequisites: Minimum overall GPA of 3.000 , minimum major GPA of 3.500 , SOCI 3311 and SOCI 3312, sociology or markets and culture major, and junior standing or above.

## SOCI 4398 - Sociological Internship

## Credits: 3

Students arrange for part-time jobs in fields of interest to sociology and relate their experiences to their academic curriculum through written organizational analyses under the guidance of an approved departmental faculty sponsor. Students apply for permission to enroll. Graded on a pass/fail basis only. Prerequisites: Sociology or markets and culture major, and sophomore standing or above.

## SOCI 4399 - Special Topics: Sociology Seminar

Credits: 3
Seminar on selected sociological areas. May be repeated for credit if topics differ.

## Statistical Science

www.smu.edu/statistics

Professor Lynne Stokes, Department Chair

Professors: Ronald Butler, Daniel Heitjan, Hon Keung Ng, Lynne Stokes, Sherry Wang, Wayne Woodward
Associate Professors: Jing Cao, Ian Harris, Monnie McGee
Assistant Professor: Cornelis Potgieter
Senior Lecturers: Alan Elliot, Stephen Robertson
Lecturers: Mahesh Fernando, Bivin Sadler

## General Information

Statistical data scientists are specialists in the collection, analysis and interpretation of data. There is an accelerating demand for experts in statistical analysis and data analytics because of today's big data phenomenon fueled by an explosion of data from sources such as sensors, social media, cloud computing, medical instruments, business processes and surveys. As a result, the field of statistics will be increasingly more fundamental to academia, business and government in order to accommodate the escalating dependence on data-driven decisions. An attractive aspect of the statistics profession is the wide variety of problems that can be addressed:

- Government agencies such as the U.S. Census Bureau and the Food and Drug Administration need statisticians.
- Manufacturing and related industries employ statisticians to work in areas such as quality and productivity.
- Banks and insurance companies hire statisticians to assist in modeling financial data.
- Medical schools, research hospitals and pharmaceutical companies typically employ statistical specialists as biostatisticians.
Because of its interdisciplinary nature, statistical science is a valuable double major or minor.


## Statistical Science, B.S.

The B.S. in statistical science prepares students for a career in data science, or for advanced studies in statistical science, such as graduate work in the field or in a related discipline.

## Requirements for the Major

## Mathematics and Statistics (18 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- STAT 3300 - Applied Statistics: Regression
- STAT 3304 - Introduction to Statistical Computing
- STAT 4340 /EMIS 3340 /CSE 4340 - Statistical Methods for Engineering and Applied Scientists or
- STAT 4341 - Probability and Statistics for Scientists and Engineers

One from the following:

- STAT 2331 - Introduction to Statistical Methods
or
- ITOM 2305 - Managerial Statistics


## Electives (24 Credit Hours)

At least 9 hours from the following:

- Any STAT 3000 level class
- Any STAT 4000 level class (except STAT 4341 )
- Any 6000 level or higher class (with permission)

Remaining hours from below if not included in the 9 hours above:

- ECO 3301 - Price Theory (Intermediate Microeconomics)
- Any ECO 4000 level or higher class
- EMIS 3308 - Engineering Management
- EMIS 3360-Operations Research
- EMIS 3361 - Stochastic Models in Operations Research
- Any EMIS 5000 level class
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3313 - Ordinary Differential Equations
- Any MATH 3000 level or higher class
- Other approved courses


## Total: 42 Credit Hours

## Statistical Science Minor

A minor in statistical science is a valuable complement to majors in the natural or social sciences, engineering or business. Students planning careers that involve the collection, processing, description and/or the analysis of quantitative information will enhance their career opportunities with a minor in statistical science. A minor in statistical science requires at least 15 term hours, as specified below.

## Requirements for the Minor

- ITOM 2305 - Managerial Statistics
or
- STAT 2331 - Introduction to Statistical Methods
- STAT 3300 - Applied Statistics: Regression
- At least three additional STAT courses at the 3000 level or higher (or PSYC 3301)


## Total: 15 Credit Hours

## Courses:

## STAT 2301 - Statistics for Modern Business Decisions

## Credits: 3

A foundation in data analysis and probability models is followed by elementary applications of confidence intervals, hypothesis testing, correlation, and regression. Introduces the use of Excel for statistical analysis, with a focus on business applications.

## STAT 2331 - Introduction to Statistical Methods

Credits: 3
An introduction to statistics for behavioral, biological, and social sciences. Topics include descriptive statistics, probability, and inferential statistics, including hypothesis testing and contingency tables.

## STAT 3300 - Applied Statistics: Regression

## Credits: 3

Emphasizes the analysis of data using state-of-the art statistical methods and specialized statistical software. Case studies form a major component of the course requirements. Prerequisite: STAT 2301, STAT 2331, or ITOM 2305.

STAT 3304 - Introduction to Statistical Computing

## Credits: 3

Intended for undergraduate statistics majors and minors, and students from other disciplines who are interested in statistical computing. R and SAS, two widely used statistical languages for research and industry, are used throughout the course.
Enables students to do essential computations and statistical analysis with commonly used statistical software. Prerequisite: STAT 2301, STAT 2331 or equivalent.

STAT 3312-Categorical Data Analysis

Credits: 3
Examines techniques for analyzing data that are described by categories or classes. Discusses classical chi-square tests and modern log-linear models. Emphasizes practical applications using computer calculations and graphics. Prerequisite: STAT 2301 or STAT 2331, or equivalent.

STAT 3380 - Environmental Statistics

## Credits: 3

Examines statistical design and analysis methods relevant to environmental sampling, monitoring, and impact assessment. Emphasizes statistical procedures that accommodate the likely temporal and spatial correlation in environmental data. Prerequisite: STAT 2301 or STAT 2331, or equivalent.

## STAT 4340 - Statistical Methods for Engineers and Applied Scientists

Credits: 3
Basic concepts of probability and statistics useful in the solution of engineering and applied science problems. Covers probability, probability distributions, data analysis, sampling distributions, estimation, and simple tests of hypothesis. Prerequisites: MATH 1337, MATH 1338.

STAT 4341 - Probability and Statistics for Scientists and Engineers

## Credits: 3

Introduction to fundamentals of probability and distribution theory, statistical techniques used by engineers and physical scientists. Examples of tests of significance, operating characteristic curve, tests of hypothesis about one and two parameters, estimation, analysis of variance, and the choice of a particular experimental procedure and sample size. Prerequisites: MATH 1337, MATH 1338, and MATH 3302, or equivalent.

## STAT 4344 - Statistical Quality Control

## Credits: 3

Statistics and simple probability are introduced in terms of problems that arise in manufacturing; their application to control of manufacturing processes. Acceptance sampling in terms of standard sampling plans: MIL-STD 105, MIL-STD 414, Dodge-Romig plans, continuous sampling plans, etc. Prerequisites: STAT 4340 or STAT 5340.

## STAT 4370 - Survey Sampling

## Credits: 3

Explores simple random sampling; stratified, systematic, subsampling; means, variances, confidence limits; finite population correction; and sampling from binominal populations. Examines principles of planning and conducting surveys.
Prerequisite: STAT 2301 or STAT 2331, or permission of instructor. Reserved for declared STAT majors or minors.

## STAT 4375 - Economic and Business Forecasting

## Credits: 3

This course presents methods used by economists to forecast economic and business trends. Statistical procedures for evaluating the usefulness of these methods are also discussed. Illustrative examples include forecasting GNP, interest rates, and unemployment. Prerequisites: C- or better in ECO 3301 and one of the following: STAT 2301, 2331, STAT 4340; or ITOM 2305. Undergraduate only, no graduate STAT credit.

STAT 4377 - Statistical Design and Analysis of Experiments

Credits: 3
Introduction to statistical principles in the design and analysis of industrial experiments. Completely randomized, randomized complete and incomplete block, Latin square, and Plackett-Burman screening designs. Complete and fractional factorial experiments. Descriptive and inferential statistics. Analysis of variance models. Mean comparisons. Prerequisite: STAT 4340, undergraduate only, no graduate STAT credit.

## STAT 4385 - Introduction to Nonparametric Statistics

## Credits: 3

Statistical methods that do not require explicit distributional assumptions such as normality. Analyses based on ranks. Oneand multi- sample procedures. Tests of randomness and independence. Prerequisites: STAT 2301 or STAT 2331, or equivalent. Statistical science major or minor.

## Credits: 3

Practical experience on projects dealing with the collection, analysis and interpretation of data. Three to four major projects, one of the student's design. Case studies from a variety of disciplines. Prerequisites: STAT 4340; statistical science major or minor with senior class standing.

STAT 5110 - Independent Study in Statistical Science

## Credits: 1

Independent study of a selected topic in statistical science. Individual study under direction of a faculty member allowed for STAT 5110; group projects allowed for STAT 5310.

## STAT 5310 - Independent Study in Statistical Science

## Credits: 3

Independent study of a selected topic in statistical science. Individual study under direction of a faculty member allowed for STAT 5110; group projects allowed for STAT 5310.

## STAT 5350 - Introductory Econometrics

Credits: 3
The basic concepts of econometrics and, in particular, regression analysis, with topics geared to first-time regression users. Prerequisites: Graduate standing or C- or better in the following: MATH 1309 or MATH 1337; ECO 3301; and ITOM 2305 or STAT 2301, STAT 2331, or STAT 4340.

## STAT 5370 - Survey Sampling

Credits: 3
Covers principles of planning and conducting surveys: simple random sampling; stratified and systematic subsampling; means, variances, and confidence limits; finite population correction; sampling from binomial populations; and margin of error and sample-size determination. Prerequisite: STAT 2301 or STAT 2331.

## STAT 5380 - Data Mining Techniques for Economists

Credits: 3
A study of data mining techniques used by economists in the fields of applied economics, marketing, finance, and statistics. These techniques include classification methods (logistic models, classification trees, neural networks), affinity analysis (association rules), and data reduction and exploration methods (principal components and k-means clustering). Prerequisites: C- or better in ECO 5350 and one of the following: STAT 2301, STAT 2331, or STAT 4340; or ITOM 2305 or equivalent; or graduate standing.

# World Languages and Literatures 

www.smu.edu/worldlanguages

Associate Professor Dayna Oscherwitz, Department Chair<br>ARABIC: Senior Lecturer: Liljana Elverskog<br>Lecturer: Omar Al-Rashdan<br>CHINESE: Senior Lecturer: Yan Xia<br>Professors of Practice: Xiao Hu, Wei Qu<br>FRENCH: Professor: Thomas DiPiero<br>Associate Professors: Dayna Oscherwitz, Hervé Tchumkam<br>Assistant Professor: Maxime Foerster<br>Senior Lecturers: Gwendoline Aaron, Paola Buckley, Martine Kincaid<br>Lecturers: Omar Al-Rashdan, Denis Bettaver, Caroline Grubbs, Rachel Ney<br>Professors of Practice: Janet Dodd, Thierry Tirado<br>GERMAN: Associate Professor: Marie-Luise Gäettens<br>Senior Lecturer: Stephen Grollman<br>Lecturer: Gizem Arlsan<br>ITALIAN: Senior Lecturers: Brandy Alvarez, Teresa Brentegani<br>Lecturers: Damiano Bonuomo, Daniele Forlino<br>JAPANESE: Senior Lecturer: Keiko Flores<br>LATIN: Lecturer: Justin Michael Germain<br>SPANISH: Professors: Denise DuPont, Francisco Morán<br>Associate Professors: Olga Colbert, Luis Maldonado-Peña, Alberto Pastor, Elizabeth Russ, Rubén SánchezGodoy, Gabriela Vokic, Alicia Zuese<br>Senior Lecturers: Maria Eguez, Susana Fernandez-Solera, Verónica León, Leticia McDoniel<br>Lecturers: Maria del Pilar Melgarejo Acosta, Sarah Bogard, Marlen Y. Collazo, Miroslava Detcheva, Rachel Hall, Constantin Icleanu, Michael Korrie, Allison Larkin, Maria Villar Martin, Luis Polanco, Joy Saunders<br>Professors of Practice: Donna Binkowski, Lourdes Molina

## General Information

The Department of World Languages and Literatures offers eight modern languages and one classical language. Students may pursue a B.A. degree in French, French Studies, German, Spanish and World Languages and minors in Arabic, Chinese, French, German, Italian, Italian Area Studies, Japanese, Latin, Russian Area Studies and Spanish. The B.A. in World Languages allows students to specialize in two different languages.

In pursuing language study, students gain communicative proficiency in a second or third language, as well as cultural proficiency and heightened global awareness. Courses taught toward a language major or minor emphasize all of these through the study of communication, culture, literature, linguistics, history, film, politics business, and other diverse aspects of language and culture. Students may also apply these skills through a language-based internship, either in Dallas or abroad, and through independent research.

SMU Abroad Rules for Credit. Students participating in an SMU Abroad term program may automatically count nine hours of courses taught in an approved program toward a B.A. and six hours toward a minor.

Students studying abroad for a full year may apply 15 hours with specific approval from the area chair of the language.

## Departmental Distinction

1. Overall 3.500 GPA by the middle of the junior year.
2. Overall 3.700 GPA in the major by the middle of the junior year.
3. Invitation of area faculty after the area as a whole has discussed the student's candidacy.
4. Two extra courses beyond the requirements for the major. One course must include a major research paper, to be undertaken and completed in the first term of the candidate's senior year.

## Majors, Minors and Courses in World Languages

Requirements for a B.A. degree in French, French Studies, German, Spanish and World Languages, as well as for minors in Arabic, Chinese, French, German, Italian, Italian Area Studies, Japanese, Latin, Russian Area Studies and Spanish are given below.

## French Studies, B.A.

Courses are to be selected in consultation with the major adviser. Study with SMU-in-France is strongly recommended.

## French Courses

All courses are conducted in French.

| Language Courses | FREN 1401, 1402, 1601, 2201, 2401, 2455, 3101, 3356, 4103, 4185, 4285, <br> $4355,4356, ~ 4357, ~ 4385 ~$ |
| :--- | :--- |, | FREN 4356, 4370-76, 4381, 4391, 5180, 5320, 5321, 5325, 5334, 5335, 5344, |
| :--- |
| Literature and Culture <br> Courses |

## Required Courses

Core Courses (10 Credit Hours)

- FREN 2302 - Intermediate French II
- FREN 3101 - French Phonics
- FREN 3356 - Advanced French II
- FREN 4375 - Introduction to French History and Culture


## Three from the following: (9 Credit Hours)

- 4000-level FREN courses or
- 5000-level FREN courses


## One from the following: (3 Credit Hours)

- WL 3302 - Ethnoviolence: Interdisciplinary Perspectives
- WL 3308 - Introduction to General Linguistics
- WL 3309 - French Cinema: 1945 to the Present
- WL 3330 - Migration, Occupation, and Independence in North African Cinema
- WL 3341 - The Failure of Humanity in Rwanda
- WL 3351 - Introduction to Media Literacy: Semiotics and Current Cultural Myths
- WL 3355 - Tradition, Community, and Identity in African Cinema
- WL 3362 - Postcolonial France
- or another approved WL course


## Electives: (6 Credit Hours)

(Other courses, through a process of student petition, will be considered provided a substantial portion of the course is devoted to aspects of the cultures of the francophone world.)

Two courses from the following approved list:

- ARHS 1335 - Monsters, Mayhem, and Miracles: Life in the Medieval World
- ARHS 3320-Medieval Art
- ARHS 3346 - Paris Art and Architecture II
- ARHS 3348-18th-Century Art
- ARHS 3352 - Impressionism, Symbolism, and the Deviant Body: Making a Difference
- ARHS 4320 - Seminar on Medieval Art
- DANC 1301 - Beginning Ballet
- EDU 5121 - Field Experience I: Elementary (with approval)
- EDU 5122 - Field Experience II: Elementary (with approval)
- EDU 5123 - Field Experience III: Elementary (with approval)
- EDU 5124 - Field Experience I: Secondary (with approval)
- EDU 5125 - Field Experience II: Secondary (with approval)
- EDU 5126 - Field Experience III: Secondary (with approval)
- EDU 5363 - Elementary Student Teaching (with approval)
- EDU 5364 - Elementary Student Teaching (with approval)
- EDU 5373 - Secondary Student Teaching (with approval)
- EDU 5374 - Secondary Student Teaching (with approval)
- FILM 3375 - Postwar European Cinema: 1945-Present
- HIST 3329 - Women in Early Modern Europe
- HIST 3332 - Ancient and Medieval France
- HIST 3334 - France Since 1789
- HIST 3352 - The Age of the Crusades
- HIST 3355 - Class and Gender in Ancient Society
- HIST 3359 - Europe in the Age of the Reformation, 1520-1598
- HIST 3365 - Problems in European History
- HIST 3366 - Problems in European History
- HIST 3381 - The First World War and Its Impact
- HIST 4372 - History of France I
- HIST 4373 - History of Modern France
- HIST 5370 - Seminar in French History
- HIST 5371 - The French Revolution and Napoleon, 1789-1815
- MUHI 3302 - Survey of Music History II
- MUHI 3343 - Music and Identity in Colonial and Postcolonial France
- PLSC 3340 - Western European Politics
- PLSC 3341 - Introduction to Comparative Law
- PLSC 5341 - European Politics: The European Union
- THEA 4386 - European Theatre, 1879-1953

Total: 28 Credit Hours

## French, B.A.

Courses are to be selected in consultation with the major adviser. Study with SMU-in-France is strongly recommended.

## French Courses

All courses are conducted in French.

| Language Courses | FREN 1401, 1402, 1601, 2201, 2401, 2455, 3101, 3356, 4103, 4185, 4285, <br> $4355, ~ 4356, ~ 4357, ~ 4385 ~$ |
| :--- | :--- |, | FREN 4356, 4370-76, 4381, 4391, 5180, 5320, 5321, 5325, 5334, 5335, 5344, |
| :--- |
| Literature and Culture <br> Courses |

## Required Courses

Core Courses (10 Credit Hours)

- FREN 2302 - Intermediate French II
- FREN 3101 - French Phonics
- FREN 3356 - Advanced French II
- FREN 4375 - Introduction to French History and Culture

One from the following: (3 Credit Hours)

- FREN 4370 - Introduction to the Analysis of French and Francophone Texts
- FREN 4371 - Survey of French Literature: From the Middle Ages to the Revolution
- FREN 4372 - French Literature, 1789-Present: Show Me Your Teeth
- FREN 4381 - Introduction to French Culture and Literature III


## Additional Requirements (6 Credit Hours)

- Two 5000-level FREN courses or
- One 5000-level FREN course

And one from the following:

- WL 3302 - Ethnoviolence: Interdisciplinary Perspectives
- WL 3308 - Introduction to General Linguistics
- WL 3309 - French Cinema: 1945 to the Present
- WL 3330 - Migration, Occupation, and Independence in North African Cinema
- WL 3341 - The Failure of Humanity in Rwanda
- WL 3351 - Introduction to Media Literacy: Semiotics and Current Cultural Myths
- WL 3355 - Tradition, Community, and Identity in African Cinema
- WL 3362 - Postcolonial France
- or another approved WL course


## Electives: (9 Credit Hours)

- Three 4000 - or 5000 -level FREN courses


## Total: 28 Credit Hours

## German, B.A.

Proficiency in written and spoken German is demonstrated by coursework in GERM 3311. Study in the SMU-inWeimar summer program or in an approved term or junior-year program in a German-speaking country is highly recommended. Suggested electives outside the German area are courses in a second world language; other world literature in translation; literary criticism; English and American literature; linguistics, semiotics or philology; and German art history, philosophy or history.

## Required Courses

## Core Courses (6 Credit Hours)

- GERM 3311- Talking and Writing About Modern Germany
- GERM 3320 - Contemporary German Culture


## Electives (18 Credit Hours)

3000 level and above, approved by adviser

## Total: 24 Credit Hours

## Spanish, B.A.

The Spanish major has three tracks, for non-native, heritage and native speakers of Spanish. The distinction between heritage and native speakers is described on the Spanish page ("FAQs" tab) of the Dedman College website at smu.edu/dedman. Courses are selected in consultation with the major adviser. Study abroad in a Spanish-speaking country is strongly recommended.

Track for Heritage Speakers. Heritage speakers must replace SPAN 3358 with SPAN 4358 . From the second category below, they may select SPAN 3373, SPAN 3374, SPAN 3375 or SPAN 4355.

Track for Native Speakers. Native speakers will start coursework at the 4000 level. In consultation with the area chair, native speakers who have not had formal academic training in written Spanish may begin coursework with SPAN 4358; otherwise, they should begin with SPAN 4357 or SPAN 4395.

## Spanish Courses

| Advanced Courses in Linguistics | SPAN 5340, 5341, 5342, 5343 |
| :--- | :--- |
| Advanced Courses in Peninsular | SPAN 5310, 5311, 5315, 5320, 5321, 5323, 5325, 5334, 5335, <br> Literature |
| Advanced Courses in Spanish-American <br> Literature | SPAN 53515, 5316, 5365,5370 |

## Required Courses

## Core Courses (21 Credit Hours)

- SPAN 2302 - Intermediate Spanish II or equivalent
- SPAN 3358 - Advanced Spanish
or
- SPAN 4358 - Advanced Spanish for Hispanic Speakers
- SPAN 4357 - Introduction to Spanish Linguistics
- SPAN 4395 - Introduction to Hispanic Literature
- Three or more 5000-level literature and linguistics courses (at least one in Peninsular literature, one in SpanishAmerican literature, and one in linguistics)

One from the following: (3 Credit Hours)

- SPAN 3310 - Readings in Spanish and Spanish-American Literature
- SPAN 3311 - Cultural Dialogues: Spain
- SPAN 3312-Cultural Dialogues: Mexico
- SPAN 3313 - Cultural Dialogues: Latin America
- SPAN 3355 - Spanish Conversation
or
- SPAN 4355 - Culture and Communication for Spanish Speakers
- SPAN 3357- Spanish Phonetics
- SPAN 3373 - Topics in Spanish Civilization
- SPAN 3374 - Topics in Spanish-American Civilization
- SPAN 3375 - Topics in Spanish-Speaking Communities in the United States


## Electives: (6 Credit Hours)

- Two electives from the 3000,4000 , or 5000 level, as appropriate according to a student's track. Students on the non-native track may take up to one elective about the Spanish-speaking world taught in English, including WL 3303, WL 3306, WL 3371, WL 3372, WL 3373, WL 3376, WL 3396, or WL 4345. Students on the heritage and native tracks may take up to two such courses. Courses taught outside the Department of World Languages must be approved by the Spanish advisor on a case-by-case basis.


## Total: 30 Credit Hours

## World Languages: Chinese, B.A.

The Bachelor of Arts in World Languages allows students to specialize in two languages. Students choose one primary language (Chinese, French, German, Italian or Spanish) and one secondary language. Students must complete 6 more hours in the primary language than the secondary language for a total of at least 23 hours of course work beyond the first-year sequence in the primary language and at least 17 hours in the secondary language.

## Required Courses

## Core Courses (14 Credit Hours)

- CHIN 2401 - Intermediate Chinese
- CHIN 2402 - Intermediate Chinese: Second Term

Two from the following:

- CHIN 3311 - Advanced Chinese
- CHIN 3312 - Advanced Chinese, Second Term
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films


## Three from the following: (9 Credit Hours)

- CHIN 4380 - Directed Studies in Chinese
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films
- HIST 3393 - China in Revolution
- HIST 3395 - Problems in Asian History
- HIST 3398 - Women in Chinese History
- RELI 3377-The Cultural History of Tibet
- RELI 3378 - Religions of China
- WL 3310 - Transnational Chinese Cinema
- WL 3325 - Perspective On Modern China
- WL 3397 - China Before 1850


## Total: 23 Credit Hours

## Secondary Language

## Arabic

## Required Courses

## Core Courses (12 Credit Hours)

- ARBC 2301 - Intermediate Arabic I or equivalent
- ARBC 2302 - Intermediate Arabic II or equivalent
- ARBC 3301 - Advanced Arabic I or equivalent
- ARBC 3302 - Advanced Arabic II or equivalent

Two from the following: (6 Credit Hours)
(with at least one 3000-level or higher)

- ANTH 3359 - Peoples and Cultures of the Middle East
- HIST 2355 - History of the Ancient Near East and Egypt
- HIST 2379 - A History of Islamic Empires
- HIST 3323 - History of Islam in South Asia
- HIST 3326 - US Religious History Since 1865
- HIST 3371 - Conflicts in the Modern Middle East
- HIST 3389 - Problems in Middle Eastern History
- HIST 3390 - Modern Middle East: 1914 to Present
- HIST 4325 - Islam to A.D. 1453
- PLSC 3345 - Governments and Politics of the Middle East
- PLSC 4340 - Special Studies in Comparative Governments and Politics
- RELI 3329 - Islam
- RELI 3362 - Islam and the West
- WL 3355 - Tradition, Community, and Identity in African Cinema

Total: 18 Credit Hours

## Chinese

## Required Courses

Core Courses (8 Credit Hours)

- CHIN 2401 - Intermediate Chinese
- CHIN 2402 - Intermediate Chinese: Second Term

Two from the following: (6 Credit Hours)

- CHIN 3311 - Advanced Chinese
- CHIN 3312 - Advanced Chinese, Second Term
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films

One from the following: (3 Credit Hours)

- CHIN 4380 - Directed Studies in Chinese
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films
- HIST 3393 - China in Revolution
- HIST 3395 - Problems in Asian History
- HIST 3398 - Women in Chinese History
- RELI 3377-The Cultural History of Tibet
- RELI 3378 - Religions of China
- WL 3310 - Transnational Chinese Cinema
- WL 3325 - Perspective On Modern China
- WL 3397 - China Before 1850

Total: 17 Credit Hours

## French

## Required Courses

- FREN 2401 - Second-Year/Intermediate French or equivalent
- FREN 2302 - Intermediate French II
- FREN 3101 - French Phonics
- FREN 3356 - Advanced French II
- FREN 4370 - Introduction to the Analysis of French and Francophone Texts or
- FREN 4375 - Introduction to French History and Culture
- Four 4000- or 5000-level FREN courses

Total: 26 Credit Hours

## German

## Required Courses

- GERM 2311 - Culture, Grammar, and Literature
- GERM 2312 - Culture, Grammar, and Literature
- GERM 3311 - Talking and Writing About Modern Germany
- Three advanced GERM courses approved by adviser


## Total: 18 Credit Hours

## Italian

## Required Courses

- ITAL 2401 - Intermediate Italian: First Term
- ITAL 2402 - Intermediate Italian: Second Term
- ITAL 3355-Advanced Italian Conversation
- ITAL 3357- Grammar and Composition
or
- ITAL 3373 - Italian Culture
- One 4000-level ITAL courses approved by adviser

Total: 17 Credit Hours

## Japanese

## Required Courses

Core Courses (14 Credit Hours)

- JAPN 2401 - Intermediate Japanese
- JAPN 2402 - Intermediate Japanese: Second Term
- JAPN 3311 - Third-Year Japanese
- JAPN 3312 - Third-Year Japanese: Second Term

One from the following: (3 Credit Hours)

- ARHS 3394-Art and Architecture of Japan
- FILM 3359 - National Cinemas
- HIST 3395 - Problems in Asian History
- PLSC 3346 - Japanese Politics and Society

Total: 17 Credit Hours

Latin

## Required Courses

Core Courses (6 Credit Hours)

- LATN 2311 - Second-Year Latin or equivalent
- LATN 2312 - Second-Year Latin: Second Term or equivalent

Three from the following: (9 Credit Hours)

- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid

One from the following: (3 Credit Hours)

- ARHS 1303 - Introduction to Western Art I
- ARHS 3310 - War, Looting, and Collecting in the Ancient World
- ARHS 3311 - Mortals, Myths, and Monuments of Ancient Greece
- ARHS 3313-The Etruscans and Iron Age Italy
- ARHS 3315-Classical Sculpture
- ARHS 3316 - Art in Rome
- ARHS 4310 - Seminar on Ancient Art
- ARHS 5304 - Seminar on Ancient Art
- ARHS 5305-Seminar on Greek Art
- CLAS 2311 - Myth and Thought in the Ancient World
- CLAS 2332 - Society Expanding: Polis and Empire
- CLAS 3312 - Classical Rhetoric
- ENGL 3382 - Heroic Visions: The Epic Poetry of Homer and Vergil
- HIST 2350 - Life in the Medieval World, A.D. 306 to 1095
- HIST 2351 - Life in the Medieval World, 1095 to 1350
- HIST 2352 - Greek Mythology and History
- HIST 2353 - Currents in Classical Civilization
- HIST 2354 - Ancient Foundations of Modern Civilization
- HIST 3350 - A History of Ancient Egypt
- HIST 3353 - The History of Ancient Greece
- HIST 3354 - Warfare and Diplomacy in Antiquity
- HIST 3355 - Class and Gender in Ancient Society
- HIST 3356 - City of Light, City of Change: Paris in the Modern Era
- HIST 3361 - Roman History and the Roman Mind
- HIST 5380 - Augustus and the Roman Empire
- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid
- PHIL 3351 - History of Western Philosophy (Ancient)
- RELI 1304 - Introduction to Western Religions
- RELI 3348 - Temples, Churches, and Synagogues in the Ancient Mediterranean
- RELI 3352 - Love and Death
- RELI 3371 - The World of the New Testament


## Total: 18 Credit Hours

## Russian

## Required Courses

## Core Courses (12 Credit Hours)

- RUSS 2341 - Russian Reading and Conversation
- RUSS 2351 - Russian Syntax and Composition
- RUSS 3341 - Russian Reading and Conversation
- RUSS 3302 - Practicum in Russian Conversation and Phonetics or
- RUSS 3304 - Russian Grammar Practicum and one supporting course

One from the following: (3 Credit Hours)

- RUSS 3323 - Practicum in Russian Culture
- RUSS 3351 - Russian Syntax and Composition
- RUSS 3361 - Comparative Grammar
- RUSS 3362 - Comparative Grammar

One from the following: (3 Credit Hours)

- HIST 3340 - The Revolutionary Experience in Russia: 1900-1930
- HIST 3341 - Soviet and Post-Soviet Society and Politics, 1917 to the Present
- HIST 5367 - Russia From the Kievan Era to 1881
- PLSC 3358 - Government and Politics of Russia
- PLSC 3359 - From Communism to Democracy
- PLSC 3365 - Communism and Post-Communism
- PLSC 4384 - American-Russian Relationship
- WL 3323 - Russian Culture


## Total: 18 Credit Hours

## Spanish

## Required Courses

## Core Courses (16 Credit Hours)

- SPAN 2401 - Intermediate Spanish I
and
- SPAN 2302 - Intermediate Spanish II or equivalent
- SPAN 3358 - Advanced Spanish
or
- SPAN 4358 - Advanced Spanish for Hispanic Speakers
- Two additional advanced courses

One from the following: (3 Credit Hours)

- SPAN 3310 - Readings in Spanish and Spanish-American Literature
- SPAN 3311 - Cultural Dialogues: Spain
- SPAN 3312 - Cultural Dialogues: Mexico
- SPAN 3313-Cultural Dialogues: Latin America
- SPAN 3355-Spanish Conversation
or
- SPAN 4355 - Culture and Communication for Spanish Speakers
- SPAN 3373 - Topics in Spanish Civilization
- SPAN 3374 - Topics in Spanish-American Civilization
- SPAN 3375 - Topics in Spanish-Speaking Communities in the United States

Total: 19 Credit Hours

## World Languages: French, B.A.

The Bachelor of Arts in World Languages allows students to specialize in two languages. Students choose one primary language (Chinese, French, German, Italian or Spanish) and one secondary language. Students must complete 6 more hours in the primary language than the secondary language for a total of at least 23 hours of course work beyond the first-year sequence in the primary language and at least 17 hours in the secondary language.

## Required Courses

- FREN 2401 - Second-Year/Intermediate French or equivalent
- FREN 2302 - Intermediate French II
- FREN 3101 - French Phonics
- FREN 3356 - Advanced French II
- FREN 4370 - Introduction to the Analysis of French and Francophone Texts or
- FREN 4375 - Introduction to French History and Culture
- Three 4000 - or 5000-level FREN courses


## Total: 23 Credit Hours

## Secondary Language

## Arabic

## Required Courses

## Core Courses (12 Credit Hours)

- ARBC 2301 - Intermediate Arabic I or equivalent
- ARBC 2302 - Intermediate Arabic II or equivalent
- ARBC 3301 - Advanced Arabic I or equivalent
- ARBC 3302 - Advanced Arabic II or equivalent

Two from the following: (6 Credit Hours)
(with at least one 3000-level or higher)

- ANTH 3359 - Peoples and Cultures of the Middle East
- HIST 2355 - History of the Ancient Near East and Egypt
- HIST 2379 - A History of Islamic Empires
- HIST 3323 - History of Islam in South Asia
- HIST 3326 - US Religious History Since 1865
- HIST 3371 - Conflicts in the Modern Middle East
- HIST 3389 - Problems in Middle Eastern History
- HIST 3390 - Modern Middle East: 1914 to Present
- HIST 4325 - Islam to A.D. 1453
- PLSC 3345 - Governments and Politics of the Middle East
- PLSC 4340 - Special Studies in Comparative Governments and Politics
- RELI 3329 - Islam
- RELI 3362 - Islam and the West
- WL 3355 - Tradition, Community, and Identity in African Cinema

Total: 18 Credit Hours

## Chinese

## Required Courses

Core Courses (8 Credit Hours)

- CHIN 2401 - Intermediate Chinese
- CHIN 2402 - Intermediate Chinese: Second Term

Two from the following: (6 Credit Hours)

- CHIN 3311 - Advanced Chinese
- CHIN 3312 - Advanced Chinese, Second Term
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films

One from the following: (3 Credit Hours)

- CHIN 4380 - Directed Studies in Chinese
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films
- HIST 3393 - China in Revolution
- HIST 3395 - Problems in Asian History
- HIST 3398 - Women in Chinese History
- RELI 3377-The Cultural History of Tibet
- RELI 3378 - Religions of China
- WL 3310 - Transnational Chinese Cinema
- WL 3325 - Perspective On Modern China
- WL 3397 - China Before 1850

Total: 17 Credit Hours

## French

## Required Courses

- FREN 2401 - Second-Year/Intermediate French or equivalent
- FREN 2302 - Intermediate French II
- FREN 3101 - French Phonics
- FREN 3356 - Advanced French II
- FREN 4370 - Introduction to the Analysis of French and Francophone Texts or
- FREN 4375 - Introduction to French History and Culture
- Four 4000 - or 5000 -level FREN courses

Total: 26 Credit Hours

## German

## Required Courses

- GERM 2311 - Culture, Grammar, and Literature
- GERM 2312 - Culture, Grammar, and Literature
- GERM 3311 - Talking and Writing About Modern Germany
- Three advanced GERM courses approved by adviser


## Total: 18 Credit Hours

## Italian

## Required Courses

- ITAL 2401 - Intermediate Italian: First Term
- ITAL 2402 - Intermediate Italian: Second Term
- ITAL 3355-Advanced Italian Conversation
- ITAL 3357- Grammar and Composition or
- ITAL 3373 - Italian Culture
- One 4000-level ITAL courses approved by adviser

Total: 17 Credit Hours
Japanese

## Required Courses

Core Courses (14 Credit Hours)

- JAPN 2401 - Intermediate Japanese
- JAPN 2402 - Intermediate Japanese: Second Term
- JAPN 3311 - Third-Year Japanese
- JAPN 3312 - Third-Year Japanese: Second Term

One from the following: (3 Credit Hours)

- ARHS 3394-Art and Architecture of Japan
- FILM 3359 - National Cinemas
- HIST 3395 - Problems in Asian History
- PLSC 3346 - Japanese Politics and Society

Total: 17 Credit Hours

## Latin

## Required Courses

Core Courses (6 Credit Hours)

- LATN 2311 - Second-Year Latin or equivalent
- LATN 2312 - Second-Year Latin: Second Term or equivalent

Three from the following: (9 Credit Hours)

- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid

One from the following: (3 Credit Hours)

- ARHS 1303 - Introduction to Western Art I
- ARHS 3310 - War, Looting, and Collecting in the Ancient World
- ARHS 3311 - Mortals, Myths, and Monuments of Ancient Greece
- ARHS 3313 - The Etruscans and Iron Age Italy
- ARHS 3315-Classical Sculpture
- ARHS 3316 - Art in Rome
- ARHS 4310 - Seminar on Ancient Art
- ARHS 5304 - Seminar on Ancient Art
- ARHS 5305 - Seminar on Greek Art
- CLAS 2311 - Myth and Thought in the Ancient World
- CLAS 2332 - Society Expanding: Polis and Empire
- CLAS 3312 - Classical Rhetoric
- ENGL 3382 - Heroic Visions: The Epic Poetry of Homer and Vergil
- HIST 2350 - Life in the Medieval World, A.D. 306 to 1095
- HIST 2351 - Life in the Medieval World, 1095 to 1350
- HIST 2352 - Greek Mythology and History
- HIST 2353 - Currents in Classical Civilization
- HIST 2354 - Ancient Foundations of Modern Civilization
- HIST 3350 - A History of Ancient Egypt
- HIST 3353 - The History of Ancient Greece
- HIST 3354 - Warfare and Diplomacy in Antiquity
- HIST 3355 - Class and Gender in Ancient Society
- HIST 3356 - City of Light, City of Change: Paris in the Modern Era
- HIST 3361 - Roman History and the Roman Mind
- HIST 5380 - Augustus and the Roman Empire
- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid
- PHIL 3351 - History of Western Philosophy (Ancient)
- RELI 1304 - Introduction to Western Religions
- RELI 3348 - Temples, Churches, and Synagogues in the Ancient Mediterranean
- RELI 3352 - Love and Death
- RELI 3371-The World of the New Testament


## Total: 18 Credit Hours

## Russian

## Required Courses

## Core Courses (12 Credit Hours)

- RUSS 2341 - Russian Reading and Conversation
- RUSS 2351 - Russian Syntax and Composition
- RUSS 3341 - Rusian Reading and Conversation
- RUSS 3302 - Practicum in Russian Conversation and Phonetics or
- RUSS 3304 - Russian Grammar Practicum and one supporting course

One from the following: (3 Credit Hours)

- RUSS 3323 - Practicum in Russian Culture
- RUSS 3351 - Russian Syntax and Composition
- RUSS 3361 - Comparative Grammar
- RUSS 3362-Comparative Grammar

One from the following: (3 Credit Hours)

- HIST 3340 - The Revolutionary Experience in Russia: 1900-1930
- HIST 3341 - Soviet and Post-Soviet Society and Politics, 1917 to the Present
- HIST 5367 - Russia From the Kievan Era to 1881
- PLSC 3358 - Government and Politics of Russia
- PLSC 3359 - From Communism to Democracy
- PLSC 3365 - Communism and Post-Communism
- PLSC 4384 - American-Russian Relationship
- WL 3323 - Russian Culture


## Total: 18 Credit Hours

## Spanish

## Required Courses

Core Courses (16 Credit Hours)

- SPAN 2401 - Intermediate Spanish I
and
- SPAN 2302 - Intermediate Spanish II or equivalent
- SPAN 3358 - Advanced Spanish
or
- SPAN 4358 - Advanced Spanish for Hispanic Speakers
- Two additional advanced courses

One from the following: (3 Credit Hours)

- SPAN 3310 - Readings in Spanish and Spanish-American Literature
- SPAN 3311 - Cultural Dialogues: Spain
- SPAN 3312 - Cultural Dialogues: Mexico
- SPAN 3313-Cultural Dialogues: Latin America
- SPAN 3355 - Spanish Conversation
or
- SPAN 4355 - Culture and Communication for Spanish Speakers
- SPAN 3373 - Topics in Spanish Civilization
- SPAN 3374 - Topics in Spanish-American Civilization
- SPAN 3375 - Topics in Spanish-Speaking Communities in the United States

Total: 19 Credit Hours

## World Languages: German, B.A.

The Bachelor of Arts in World Languages allows students to specialize in two languages. Students choose one primary language (Chinese, French, German, Italian or Spanish) and one secondary language. Students must complete 6 more hours in the primary language than the secondary language for a total of at least 23 hours of course work beyond the first-year sequence in the primary language and at least 17 hours in the secondary language.

## Required Courses

- GERM 2311 - Culture, Grammar, and Literature
- GERM 2312 - Culture, Grammar, and Literature
- GERM 3311 - Talking and Writing About Modern Germany
- Five advanced GERM courses approved by adviser

Total: 24 Credit Hours

## Secondary Language

## Arabic

## Required Courses

## Core Courses (12 Credit Hours)

- ARBC 2301 - Intermediate Arabic I or equivalent
- ARBC 2302 - Intermediate Arabic II or equivalent
- ARBC 3301 - Advanced Arabic I or equivalent
- ARBC 3302 - Advanced Arabic II or equivalent

Two from the following: (6 Credit Hours)
(with at least one 3000-level or higher)

- ANTH 3359 - Peoples and Cultures of the Middle East
- HIST 2355 - History of the Ancient Near East and Egypt
- HIST 2379 - A History of Islamic Empires
- HIST 3323 - History of Islam in South Asia
- HIST 3326 - US Religious History Since 1865
- HIST 3371 - Conflicts in the Modern Middle East
- HIST 3389 - Problems in Middle Eastern History
- HIST 3390 - Modern Middle East: 1914 to Present
- HIST 4325 - Islam to A.D. 1453
- PLSC 3345 - Governments and Politics of the Middle East
- PLSC 4340 - Special Studies in Comparative Governments and Politics
- RELI 3329 - Islam
- RELI 3362 - Islam and the West
- WL 3355 - Tradition, Community, and Identity in African Cinema

Total: 18 Credit Hours

## Chinese

## Required Courses

## Core Courses (8 Credit Hours)

- CHIN 2401 - Intermediate Chinese
- CHIN 2402 - Intermediate Chinese: Second Term

Two from the following: (6 Credit Hours)

- CHIN 3311 - Advanced Chinese
- CHIN 3312 - Advanced Chinese, Second Term
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films

One from the following: (3 Credit Hours)

- CHIN 4380 - Directed Studies in Chinese
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films
- HIST 3393 - China in Revolution
- HIST 3395 - Problems in Asian History
- HIST 3398 - Women in Chinese History
- RELI 3377 - The Cultural History of Tibet
- RELI 3378 - Religions of China
- WL 3310 - Transnational Chinese Cinema
- WL 3325 - Perspective On Modern China
- WL 3397 - China Before 1850

Total: 17 Credit Hours

## French

## Required Courses

- FREN 2401 - Second-Year/Intermediate French or equivalent
- FREN 2302 - Intermediate French II
- FREN 3101 - French Phonics
- FREN 3356 - Advanced French II
- FREN 4370 - Introduction to the Analysis of French and Francophone Texts or
- FREN 4375 - Introduction to French History and Culture
- Four 4000 - or 5000 -level FREN courses

Total: 26 Credit Hours

## German

## Required Courses

- GERM 2311 - Culture, Grammar, and Literature
- GERM 2312 - Culture, Grammar, and Literature
- GERM 3311 - Talking and Writing About Modern Germany
- Three advanced GERM courses approved by adviser


## Total: 18 Credit Hours

## Italian

## Required Courses

- ITAL 2401 - Intermediate Italian: First Term
- ITAL 2402 - Intermediate Italian: Second Term
- ITAL 3355 - Advanced Italian Conversation
- ITAL 3357- Grammar and Composition or
- ITAL 3373 - Italian Culture
- One 4000-level ITAL courses approved by adviser

Total: 17 Credit Hours

Japanese

## Required Courses

Core Courses (14 Credit Hours)

- JAPN 2401 - Intermediate Japanese
- JAPN 2402 - Intermediate Japanese: Second Term
- JAPN 3311 - Third-Year Japanese
- JAPN 3312 - Third-Year Japanese: Second Term

One from the following: (3 Credit Hours)

- ARHS 3394 - Art and Architecture of Japan
- FILM 3359 - National Cinemas
- HIST 3395 - Problems in Asian History
- PLSC 3346 - Japanese Politics and Society

Total: 17 Credit Hours

## Latin

## Required Courses

Core Courses (6 Credit Hours)

- LATN 2311 - Second-Year Latin or equivalent
- LATN 2312 - Second-Year Latin: Second Term or equivalent

Three from the following: (9 Credit Hours)

- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid

One from the following: (3 Credit Hours)

- ARHS 1303 - Introduction to Western Art I
- ARHS 3310 - War, Looting, and Collecting in the Ancient World
- ARHS 3311 - Mortals, Myths, and Monuments of Ancient Greece
- ARHS 3313-The Etruscans and Iron Age Italy
- ARHS 3315-Classical Sculpture
- ARHS 3316-Art in Rome
- ARHS 4310 - Seminar on Ancient Art
- ARHS 5304 - Seminar on Ancient Art
- ARHS 5305 - Seminar on Greek Art
- CLAS 2311 - Myth and Thought in the Ancient World
- CLAS 2332 - Society Expanding: Polis and Empire
- CLAS 3312 - Classical Rhetoric
- ENGL 3382 - Heroic Visions: The Epic Poetry of Homer and Vergil
- HIST 2350 - Life in the Medieval World, A.D. 306 to 1095
- HIST 2351 - Life in the Medieval World, 1095 to 1350
- HIST 2352 - Greek Mythology and History
- HIST 2353 - Currents in Classical Civilization
- HIST 2354 - Ancient Foundations of Modern Civilization
- HIST 3350-A History of Ancient Egypt
- HIST 3353 - The History of Ancient Greece
- HIST 3354 - Warfare and Diplomacy in Antiquity
- HIST 3355 - Class and Gender in Ancient Society
- HIST 3356 - City of Light, City of Change: Paris in the Modern Era
- HIST 3361 - Roman History and the Roman Mind
- HIST 5380 - Augustus and the Roman Empire
- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid
- PHIL 3351 - History of Western Philosophy (Ancient)
- RELI 1304 - Introduction to Western Religions
- RELI 3348 - Temples, Churches, and Synagogues in the Ancient Mediterranean
- RELI 3352 - Love and Death
- RELI 3371 - The World of the New Testament

Total: 18 Credit Hours

## Russian

## Required Courses

## Core Courses (12 Credit Hours)

- RUSS 2341 - Russian Reading and Conversation
- RUSS 2351 - Russian Syntax and Composition
- RUSS 3341 - Russian Reading and Conversation
- RUSS 3302 - Practicum in Russian Conversation and Phonetics or
- RUSS 3304 - Russian Grammar Practicum and one supporting course

One from the following: (3 Credit Hours)

- RUSS 3323 - Practicum in Russian Culture
- RUSS 3351 - Russian Syntax and Composition
- RUSS 3361 - Comparative Grammar
- RUSS 3362 - Comparative Grammar

One from the following: (3 Credit Hours)

- HIST 3340 - The Revolutionary Experience in Russia: 1900-1930
- HIST 3341 - Soviet and Post-Soviet Society and Politics, 1917 to the Present
- HIST 5367 - Russia From the Kievan Era to 1881
- PLSC 3358 - Government and Politics of Russia
- PLSC 3359 - From Communism to Democracy
- PLSC 3365 - Communism and Post-Communism
- PLSC 4384 - American-Russian Relationship
- WL 3323 - Russian Culture


## Total: 18 Credit Hours

## Spanish

## Required Courses

## Core Courses (16 Credit Hours)

- SPAN 2401 - Intermediate Spanish I
and
- SPAN 2302 - Intermediate Spanish II or equivalent
- SPAN 3358 - Advanced Spanish
or
- SPAN 4358 - Advanced Spanish for Hispanic Speakers
- Two additional advanced courses

One from the following: (3 Credit Hours)

- SPAN 3310 - Readings in Spanish and Spanish-American Literature
- SPAN 3311 - Cultural Dialogues: Spain
- SPAN 3312 - Cultural Dialogues: Mexico
- SPAN 3313-Cultural Dialogues: Latin America
- SPAN 3355 - Spanish Conversation
or
- SPAN 4355 - Culture and Communication for Spanish Speakers
- SPAN 3373 - Topics in Spanish Civilization
- SPAN 3374 - Topics in Spanish-American Civilization
- SPAN 3375 - Topics in Spanish-Speaking Communities in the United States

Total: 19 Credit Hours

## World Languages: Italian, B.A.

The Bachelor of Arts in World Languages allows students to specialize in two languages. Students choose one primary language (Chinese, French, German, Italian or Spanish) and one secondary language. Students must complete 6 more hours in the primary language than the secondary language for a total of at least 23 hours of course work beyond the first-year sequence in the primary language and at least 17 hours in the secondary language.

## Required Courses

- ITAL 2401 - Intermediate Italian: First Term
- ITAL 2402 - Intermediate Italian: Second Term
- ITAL 3355-Advanced Italian Conversation
- ITAL 3357- Grammar and Composition or
- ITAL 3373 - Italian Culture
- Three 4000 -level ITAL courses approved by adviser


## Total: 23 Credit Hours

## Secondary Language

## Arabic

## Required Courses

Core Courses (12 Credit Hours)

- ARBC 2301 - Intermediate Arabic I or equivalent
- ARBC 2302 - Intermediate Arabic II or equivalent
- ARBC 3301 - Advanced Arabic I or equivalent
- ARBC 3302 - Advanced Arabic II or equivalent

Two from the following: (6 Credit Hours)
(with at least one 3000-level or higher)

- ANTH 3359 - Peoples and Cultures of the Middle East
- HIST 2355 - History of the Ancient Near East and Egypt
- HIST 2379 - A History of Islamic Empires
- HIST 3323 - History of Islam in South Asia
- HIST 3326 - US Religious History Since 1865
- HIST 3371 - Conflicts in the Modern Middle East
- HIST 3389 - Problems in Middle Eastern History
- HIST 3390 - Modern Middle East: 1914 to Present
- HIST 4325 - Islam to A.D. 1453
- PLSC 3345 - Governments and Politics of the Middle East
- PLSC 4340 - Special Studies in Comparative Governments and Politics
- RELI 3329 - Islam
- RELI 3362 - Islam and the West
- WL 3355 - Tradition, Community, and Identity in African Cinema

Total: 18 Credit Hours

## Chinese

## Required Courses

Core Courses (8 Credit Hours)

- CHIN 2401 - Intermediate Chinese
- CHIN 2402 - Intermediate Chinese: Second Term

Two from the following: (6 Credit Hours)

- CHIN 3311 - Advanced Chinese
- CHIN 3312 - Advanced Chinese, Second Term
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films

One from the following: (3 Credit Hours)

- CHIN 4380 - Directed Studies in Chinese
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films
- HIST 3393 - China in Revolution
- HIST 3395 - Problems in Asian History
- HIST 3398 - Women in Chinese History
- RELI 3377-The Cultural History of Tibet
- RELI 3378 - Religions of China
- WL 3310 - Transnational Chinese Cinema
- WL 3325 - Perspective On Modern China
- WL 3397 - China Before 1850

Total: 17 Credit Hours

## French

## Required Courses

- FREN 2401 - Second-Year/Intermediate French or equivalent
- FREN 2302 - Intermediate French II
- FREN 3101 - French Phonics
- FREN 3356 - Advanced French II
- FREN 4370 - Introduction to the Analysis of French and Francophone Texts or
- FREN 4375 - Introduction to French History and Culture
- Four 4000 - or 5000 -level FREN courses

Total: 26 Credit Hours

## German

## Required Courses

- GERM 2311 - Culture, Grammar, and Literature
- GERM 2312 - Culture, Grammar, and Literature
- GERM 3311 - Talking and Writing About Modern Germany
- Three advanced GERM courses approved by adviser


## Total: 18 Credit Hours

## Italian

## Required Courses

- ITAL 2401 - Intermediate Italian: First Term
- ITAL 2402 - Intermediate Italian: Second Term
- ITAL 3355-Advanced Italian Conversation
- ITAL 3357- Grammar and Composition or
- ITAL 3373 - Italian Culture
- One 4000-level ITAL courses approved by adviser

Total: 17 Credit Hours
Japanese

## Required Courses

Core Courses (14 Credit Hours)

- JAPN 2401 - Intermediate Japanese
- JAPN 2402 - Intermediate Japanese: Second Term
- JAPN 3311 - Third-Year Japanese
- JAPN 3312 - Third-Year Japanese: Second Term

One from the following: (3 Credit Hours)

- ARHS 3394-Art and Architecture of Japan
- FILM 3359 - National Cinemas
- HIST 3395 - Problems in Asian History
- PLSC 3346 - Japanese Politics and Society

Total: 17 Credit Hours

Latin

## Required Courses

Core Courses (6 Credit Hours)

- LATN 2311 - Second-Year Latin or equivalent
- LATN 2312 - Second-Year Latin: Second Term or equivalent

Three from the following: (9 Credit Hours)

- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid

One from the following: (3 Credit Hours)

- ARHS 1303 - Introduction to Western Art I
- ARHS 3310 - War, Looting, and Collecting in the Ancient World
- ARHS 3311 - Mortals, Myths, and Monuments of Ancient Greece
- ARHS 3313-The Etruscans and Iron Age Italy
- ARHS 3315-Classical Sculpture
- ARHS 3316 - Art in Rome
- ARHS 4310 - Seminar on Ancient Art
- ARHS 5304 - Seminar on Ancient Art
- ARHS 5305-Seminar on Greek Art
- CLAS 2311 - Myth and Thought in the Ancient World
- CLAS 2332 - Society Expanding: Polis and Empire
- CLAS 3312 - Classical Rhetoric
- ENGL 3382 - Heroic Visions: The Epic Poetry of Homer and Vergil
- HIST 2350 - Life in the Medieval World, A.D. 306 to 1095
- HIST 2351 - Life in the Medieval World, 1095 to 1350
- HIST 2352 - Greek Mythology and History
- HIST 2353 - Currents in Classical Civilization
- HIST 2354 - Ancient Foundations of Modern Civilization
- HIST 3350 - A History of Ancient Egypt
- HIST 3353 - The History of Ancient Greece
- HIST 3354 - Warfare and Diplomacy in Antiquity
- HIST 3355 - Class and Gender in Ancient Society
- HIST 3356 - City of Light, City of Change: Paris in the Modern Era
- HIST 3361 - Roman History and the Roman Mind
- HIST 5380 - Augustus and the Roman Empire
- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid
- PHIL 3351 - History of Western Philosophy (Ancient)
- RELI 1304 - Introduction to Western Religions
- RELI 3348 - Temples, Churches, and Synagogues in the Ancient Mediterranean
- RELI 3352 - Love and Death
- RELI 3371 - The World of the New Testament


## Total: 18 Credit Hours

## Russian

## Required Courses

## Core Courses (12 Credit Hours)

- RUSS 2341 - Russian Reading and Conversation
- RUSS 2351 - Russian Syntax and Composition
- RUSS 3341 - Russian Reading and Conversation
- RUSS 3302 - Practicum in Russian Conversation and Phonetics or
- RUSS 3304-Russian Grammar Practicum and one supporting course

One from the following: (3 Credit Hours)

- RUSS 3323 - Practicum in Russian Culture
- RUSS 3351 - Russian Syntax and Composition
- RUSS 3361 - Comparative Grammar
- RUSS 3362 - Comparative Grammar

One from the following: (3 Credit Hours)

- HIST 3340 - The Revolutionary Experience in Russia: 1900-1930
- HIST 3341 - Soviet and Post-Soviet Society and Politics, 1917 to the Present
- HIST 5367 - Russia From the Kievan Era to 1881
- PLSC 3358 - Government and Politics of Russia
- PLSC 3359 - From Communism to Democracy
- PLSC 3365 - Communism and Post-Communism
- PLSC 4384 - American-Russian Relationship
- WL 3323 - Russian Culture


## Total: 18 Credit Hours

## Spanish

## Required Courses

## Core Courses (16 Credit Hours)

- SPAN 2401 - Intermediate Spanish I
and
- SPAN 2302 - Intermediate Spanish II or equivalent
- SPAN 3358 - Advanced Spanish
or
- SPAN 4358 - Advanced Spanish for Hispanic Speakers
- Two additional advanced courses

One from the following: (3 Credit Hours)

- SPAN 3310 - Readings in Spanish and Spanish-American Literature
- SPAN 3311 - Cultural Dialogues: Spain
- SPAN 3312 - Cultural Dialogues: Mexico
- SPAN 3313-Cultural Dialogues: Latin America
- SPAN 3355-Spanish Conversation
or
- SPAN 4355 - Culture and Communication for Spanish Speakers
- SPAN 3373 - Topics in Spanish Civilization
- SPAN 3374 - Topics in Spanish-American Civilization
- SPAN 3375 - Topics in Spanish-Speaking Communities in the United States

Total: 19 Credit Hours

## World Languages: Spanish, B.A.

The Bachelor of Arts in World Languages allows students to specialize in two languages. Students choose one primary language (Chinese, French, German, Italian or Spanish) and one secondary language. Students must complete 6 more hours in the primary language than the secondary language for a total of at least 23 hours of course work beyond the first-year sequence in the primary language and at least 17 hours in the secondary language.

## Required Courses

## Core Courses (22 Credit Hours)

- SPAN 2401 - Intermediate Spanish I
and
- SPAN 2302 - Intermediate Spanish II
- or equivalent
- SPAN 3358 - Advanced Spanish
or
- SPAN 4358 - Advanced Spanish for Hispanic Speakers
- Four additional advanced courses

One from the following: (3 Credit Hours)

- SPAN 3310 - Readings in Spanish and Spanish-American Literature
- SPAN 3311 - Cultural Dialogues: Spain
- SPAN 3312 - Cultural Dialogues: Mexico
- SPAN 3313 - Cultural Dialogues: Latin America
- SPAN 3355 - Spanish Conversation
or
- SPAN 4355 - Culture and Communication for Spanish Speakers
- SPAN 3373-Topics in Spanish Civilization
- SPAN 3374 - Topics in Spanish-American Civilization
- SPAN 3375-Topics in Spanish-Speaking Communities in the United States


## Total: 25 Credit Hours

## Secondary Language

## Arabic

## Required Courses

Core Courses (12 Credit Hours)

- ARBC 2301 - Intermediate Arabic I or equivalent
- ARBC 2302 - Intermediate Arabic II or equivalent
- ARBC 3301 - Advanced Arabic I or equivalent
- ARBC 3302 - Advanced Arabic II or equivalent

Two from the following: (6 Credit Hours)
(with at least one 3000-level or higher)

- ANTH 3359 - Peoples and Cultures of the Middle East
- HIST 2355 - History of the Ancient Near East and Egypt
- HIST 2379 - A History of Islamic Empires
- HIST 3323 - History of Islam in South Asia
- HIST 3326 - US Religious History Since 1865
- HIST 3371 - Conflicts in the Modern Middle East
- HIST 3389 - Problems in Middle Eastern History
- HIST 3390 - Modern Middle East: 1914 to Present
- HIST 4325 - Islam to A.D. 1453
- PLSC 3345 - Governments and Politics of the Middle East
- PLSC 4340 - Special Studies in Comparative Governments and Politics
- RELI 3329 - Islam
- RELI 3362 - Islam and the West
- WL 3355 - Tradition, Community, and Identity in African Cinema

Total: 18 Credit Hours

## Chinese

## Required Courses

## Core Courses (8 Credit Hours)

- CHIN 2401 - Intermediate Chinese
- CHIN 2402 - Intermediate Chinese: Second Term

Two from the following: (6 Credit Hours)

- CHIN 3311 - Advanced Chinese
- CHIN 3312 - Advanced Chinese, Second Term
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films

One from the following: (3 Credit Hours)

- CHIN 4380 - Directed Studies in Chinese
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films
- HIST 3393 - China in Revolution
- HIST 3395 - Problems in Asian History
- HIST 3398 - Women in Chinese History
- RELI 3377- The Cultural History of Tibet
- RELI 3378 - Religions of China
- WL 3310 - Transnational Chinese Cinema
- WL 3325 - Perspective On Modern China
- WL 3397 - China Before 1850


## Total: 17 Credit Hours

## French

## Required Courses

- FREN 2401 - Second-Year/Intermediate French or equivalent
- FREN 2302 - Intermediate French II
- FREN 3101 - French Phonics
- FREN 3356 - Advanced French II
- FREN 4370 - Introduction to the Analysis of French and Francophone Texts or
- FREN 4375 - Introduction to French History and Culture
- Four 4000 - or 5000 -level FREN courses

Total: 26 Credit Hours

## German

## Required Courses

- GERM 2311 - Culture, Grammar, and Literature
- GERM 2312 - Culture, Grammar, and Literature
- GERM 3311 - Talking and Writing About Modern Germany
- Three advanced GERM courses approved by adviser

Total: 18 Credit Hours

## Italian

## Required Courses

- ITAL 2401 - Intermediate Italian: First Term
- ITAL 2402 - Intermediate Italian: Second Term
- ITAL 3355 - Advanced Italian Conversation
- ITAL 3357- Grammar and Composition
or
- ITAL 3373 - Italian Culture
- One 4000-level ITAL courses approved by adviser

Total: 17 Credit Hours

## Japanese

## Required Courses

Core Courses (14 Credit Hours)

- JAPN 2401 - Intermediate Japanese
- JAPN 2402 - Intermediate Japanese: Second Term
- JAPN 3311 - Third-Year Japanese
- JAPN 3312 - Third-Year Japanese: Second Term

One from the following: (3 Credit Hours)

- ARHS 3394-Art and Architecture of Japan
- FILM 3359 - National Cinemas
- HIST 3395 - Problems in Asian History
- PLSC 3346 - Japanese Politics and Society


## Total: 17 Credit Hours

## Latin

## Required Courses

## Core Courses (6 Credit Hours)

- LATN 2311 - Second-Year Latin or equivalent
- LATN 2312 - Second-Year Latin: Second Term or equivalent

Three from the following: (9 Credit Hours)

- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid

One from the following: (3 Credit Hours)

- ARHS 1303 - Introduction to Western Art I
- ARHS 3310 - War, Looting, and Collecting in the Ancient World
- ARHS 3311 - Mortals, Myths, and Monuments of Ancient Greece
- ARHS 3313 - The Etruscans and Iron Age Italy
- ARHS 3315-Classical Sculpture
- ARHS 3316-Art in Rome
- ARHS 4310 - Seminar on Ancient Art
- ARHS 5304 - Seminar on Ancient Art
- ARHS 5305 - Seminar on Greek Art
- CLAS 2311 - Myth and Thought in the Ancient World
- CLAS 2332 - Society Expanding: Polis and Empire
- CLAS 3312 - Classical Rhetoric
- ENGL 3382 - Heroic Visions: The Epic Poetry of Homer and Vergil
- HIST 2350 - Life in the Medieval World, A.D. 306 to 1095
- HIST 2351 - Life in the Medieval World, 1095 to 1350
- HIST 2352 - Greek Mythology and History
- HIST 2353 - Currents in Classical Civilization
- HIST 2354 - Ancient Foundations of Modern Civilization
- HIST 3350-A History of Ancient Egypt
- HIST 3353 - The History of Ancient Greece
- HIST 3354 - Warfare and Diplomacy in Antiquity
- HIST 3355 - Class and Gender in Ancient Society
- HIST 3356 - City of Light, City of Change: Paris in the Modern Era
- HIST 3361 - Roman History and the Roman Mind
- HIST 5380 - Augustus and the Roman Empire
- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid
- PHIL 3351 - History of Western Philosophy (Ancient)
- RELI 1304 - Introduction to Western Religions
- RELI 3348 - Temples, Churches, and Synagogues in the Ancient Mediterranean
- RELI 3352 - Love and Death
- RELI 3371 - The World of the New Testament

Total: 18 Credit Hours

## Russian

## Required Courses

## Core Courses (12 Credit Hours)

- RUSS 2341 - Russian Reading and Conversation
- RUSS 2351 - Russian Syntax and Composition
- RUSS 3341 - Russian Reading and Conversation
- RUSS 3302 - Practicum in Russian Conversation and Phonetics or
- RUSS 3304 - Russian Grammar Practicum and one supporting course

One from the following: (3 Credit Hours)

- RUSS 3323 - Practicum in Russian Culture
- RUSS 3351 - Russian Syntax and Composition
- RUSS 3361 - Comparative Grammar
- RUSS 3362 - Comparative Grammar

One from the following: (3 Credit Hours)

- HIST 3340 - The Revolutionary Experience in Russia: 1900-1930
- HIST 3341 - Soviet and Post-Soviet Society and Politics, 1917 to the Present
- HIST 5367 - Russia From the Kievan Era to 1881
- PLSC 3358 - Government and Politics of Russia
- PLSC 3359 - From Communism to Democracy
- PLSC 3365 - Communism and Post-Communism
- PLSC 4384 - American-Russian Relationship
- WL 3323 - Russian Culture

Total: 18 Credit Hours

## Spanish

## Required Courses

## Core Courses (16 Credit Hours)

- SPAN 2401 - Intermediate Spanish I
and
- SPAN 2302 - Intermediate Spanish II or equivalent
- SPAN 3358 - Advanced Spanish
or
- SPAN 4358 - Advanced Spanish for Hispanic Speakers
- Two additional advanced courses

One from the following: (3 Credit Hours)

- SPAN 3310 - Readings in Spanish and Spanish-American Literature
- SPAN 3311 - Cultural Dialogues: Spain
- SPAN 3312 - Cultural Dialogues: Mexico
- SPAN 3313-Cultural Dialogues: Latin America
- SPAN 3355 - Spanish Conversation
or
- SPAN 4355 - Culture and Communication for Spanish Speakers
- SPAN 3373-Topics in Spanish Civilization
- SPAN 3374 - Topics in Spanish-American Civilization
- SPAN 3375 - Topics in Spanish-Speaking Communities in the United States


## Total: 19 Credit Hours

## Arabic Minor

## Required Courses

## Core Courses (12 Credit Hours)

Either these or equivalent courses:

- ARBC 2301 - Intermediate Arabic I
- ARBC 2302 - Intermediate Arabic II
- ARBC 3301 - Advanced Arabic I
- ARBC 3302 - Advanced Arabic II


## Two from the following: (6 Credit Hours)

(with at least one 3000-level or higher)

- ANTH 3359 - Peoples and Cultures of the Middle East
- ARBC 3331 - Arabic Culture: The Cultural Evolution of Arab Societies
- ARBC 3355 - Advanced Arabic Conversation
- ARBC 4312 - Advanced Media Arabic
- HIST 2355 - History of the Ancient Near East and Egypt
- HIST 2379 - A History of Islamic Empires
- HIST 3389 - Problems in Middle Eastern History
- HIST 3390 - Modern Middle East: 1914 to Present
- KNW 2399 - Special Topics
- PLSC 4340 - Special Studies in Comparative Governments and Politics
- PLSC 4345 - Islam and Politics
- RELI 3329 - Islam
- RELI 3362 - Islam and the West
- WL 3355 - Tradition, Community, and Identity in African Cinema
- WL 4310/HRTS 4374 - French Muslim Citizens and the Algerian War: The Harkis


## Total: 18 Credit Hours

## Chinese Minor

Students taking CHIN 4381 and CHIN 4382 for the language training component of the requirement must take another course from the list of supporting courses (Chinese culture, history or literature courses), for a total of 20 hours. Students testing into any course above CHIN 2402 will have to earn nine hours in SMU credit (six hours in Chinese language and three hours in Chinese culture) in order to receive the minor in Chinese. Study with SMU-in-China's summer program is strongly recommended.

## Required Courses

## Language Training (14 Credit Hours)

- CHIN 2401 - Intermediate Chinese
- CHIN 2402 - Intermediate Chinese: Second Term

Two from the following:

- CHIN 3311 - Advanced Chinese
- CHIN 3312 - Advanced Chinese, Second Term
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films


## Supporting Courses (3 Credit Hours)

(one from the following)

- CHIN 4380 - Directed Studies in Chinese
- CHIN 4381 - Readings in Chinese Literature and Culture
- CHIN 4382 - Chinese Culture and Society in Films
- HIST 3393 - China in Revolution
- HIST 3395 - Problems in Asian History
- HIST 3398 - Women in Chinese History
- RELI 3377 - The Cultural History of Tibet
- RELI 3378 - Religions of China
- WL 3310 - Transnational Chinese Cinema
- WL 3325 - Perspective On Modern China
- WL 3397 - China Before 1850

Total: 17 Credit Hours

## French Minor

## French Courses

All courses are conducted in French.

| Language Courses | FREN 1401, 1402, 1601, 2201, 2401, 2455, 3101, 3356, 4103, 4185, 4285, <br> $4355, ~ 4356, ~ 4357, ~ 4385 ~$ |
| :--- | :--- |, | FREN 4356, 4370-76, 4381, 4391, 5180, 5320, 5321, 5325, 5334, 5335, 5344, |
| :--- |
| Literature and Culture <br> Courses |

## Required Courses

Core Courses (14 Credit Hours)

- FREN 2401 - Second-Year/Intermediate French or equivalent
- FREN 2302 - Intermediate French II
- FREN 3101 - French Phonics
- FREN 3356 - Advanced French II
- FREN 4370 - Introduction to the Analysis of French and Francophone Texts or
- FREN 4375 - Introduction to French History and Culture

Two from the following: (6 Credit Hours)

- 4000-level FREN courses or
- 5000-level FREN courses

Total: 20 Credit Hours

## German Minor

## Required Courses

Core Courses (9 Credit Hours)

- GERM 2311 - Culture, Grammar, and Literature
- GERM 2312 - Culture, Grammar, and Literature
- GERM 3311 - Talking and Writing About Modern Germany


## Additional Requirements (9 Credit Hours)

- Three advanced GERM courses approved by adviser

Total: 18 Credit Hours

## Italian Area Studies Minor

## Italian Courses

## All courses are conducted in Italian.

## Literature Courses $\quad$ ITAL 4323, 4324, 4325, 4368, 4381, 4382

## Required Courses

## Core Courses (17 Credit Hours)

- ITAL 2401 - Intermediate Italian: First Term
- ITAL 2402 - Intermediate Italian: Second Term
- ITAL 3355-Advanced Italian Conversation
- ITAL 3357-Grammar and Composition
or
- ITAL 3373 - Italian Culture
- One 4000 -level ITAL course approved by adviser

One from the following: (3 Credit Hours)
(with adviser's approval)

- ARHS 3312 - Portraiture and Selfhood, 1400-1914
- ARHS 3314-Art of the Moving Image
- ARHS 3331-Art and Culture of the Italian Renaissance
- ARHS 3332-16th-Century Italian Art
- HIST 3351 - History of Ancient Near East
- HIST 3358 - The Renaissance
- HIST 3359 - Europe in the Age of the Reformation, 1520-1598
- HIST 3361 - Roman History and the Roman Mind
- HIST 3365 - Problems in European History
- HIST 3366 - Problems in European History
- HIST 3376 - Social and Intellectual History of Europe
- WL 2395 - Italian Culture
- WL 3390 - Italian Cinema
- WL 3391 - Italian Literature in Translation: The Italian Novel
- WL 3392 - Italian Literature in Translation: Early Humanism
- WL 3393 - Dante's Poetic Vision
- WL 3394 - Boccaccio's Decameron and Medieval Storytelling

Total: 20 Credit Hours

## Italian Minor

## Italian Courses

## All courses are conducted in Italian.

Literature Courses $\quad$ ITAL 4323, 4324, 4325, 4368, 4381, 4382

## Required Courses

- ITAL 2401 - Intermediate Italian: First Term
- ITAL 2402 - Intermediate Italian: Second Term
- ITAL 3355 - Advanced Italian Conversation
- ITAL 3357- Grammar and Composition or
- ITAL 3373 - Italian Culture
- Two 4000-level ITAL courses approved by adviser


## Total: 20 Credit Hours

## Japanese Minor

## Required Courses

Core Courses (14 Credit Hours)

- JAPN 2401 - Intermediate Japanese
- JAPN 2402 - Intermediate Japanese: Second Term
- JAPN 3311 - Third-Year Japanese
- JAPN 3312 - Third-Year Japanese: Second Term

One from the following: (3 Credit Hours)

- ARHS 3394-Art and Architecture of Japan
- FILM 3359 - National Cinemas
- HIST 3395 - Problems in Asian History
- PLSC 3346 - Japanese Politics and Society


## Total: 17 Credit Hours

## Latin Minor

## Required Courses

## Core Courses (6 Credit Hours)

- LATN 2311 - Second-Year Latin or equivalent
- LATN 2312 - Second-Year Latin: Second Term or equivalent

Three from the following: (9 Credit Hours)

- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid

One from the following: (3 Credit Hours)

- ARHS 1300 - From Mummies to Gladiators: Art and People of the Ancient World
- ARHS 1303 - Introduction to Western Art I
- ARHS 3310 - War, Looting, and Collecting in the Ancient World
- ARHS 3311 - Mortals, Myths, and Monuments of Ancient Greece
- ARHS 3313 - The Etruscans and Iron Age Italy
- ARHS 3315-Classical Sculpture
- ARHS 3316 - Art in Rome
- ARHS 4304 - The City as Place
- ARHS 5304 - Seminar on Ancient Art
- ARHS 5305 - Seminar on Greek Art
- CLAS 2311 - Myth and Thought in the Ancient World
- CLAS 2332 - Society Expanding: Polis and Empire
- CLAS 3311 - Mortals, Myths, and Monuments of Ancient Greece
- CLAS 3312 - Classical Rhetoric
- HIST 2350 - Life in the Medieval World, A.D. 306 to 1095
- HIST 2352 - Greek Mythology and History
- HIST 2353 - Currents in Classical Civilization
- HIST 2354 - Ancient Foundations of Modern Civilization
- HIST 2355 - History of the Ancient Near East and Egypt
- HIST 3350 - A History of Ancient Egypt
- HIST 3353 - The History of Ancient Greece
- HIST 3354 - Warfare and Diplomacy in Antiquity
- HIST 3355 - Class and Gender in Ancient Society
- HIST 3356 - City of Light, City of Change: Paris in the Modern Era
- HIST 3361 - Roman History and the Roman Mind
- HIST 5380 - Augustus and the Roman Empire
- LATN 3323 - Latin Literature
- LATN 3324 - Advanced Latin Grammar and Composition
- LATN 3325 - Advanced Latin Readings and Composition
- LATN 3326 - Advanced Latin Readings: Vergil
- LATN 3327 - Advanced Latin: Myth Via Ovid
- PHIL 3351 - History of Western Philosophy (Ancient)
- RELI 3320 - Classical Judaism
- RELI 3326 - New Testament
- RELI 3348 - Temples, Churches, and Synagogues in the Ancient Mediterranean
- RELI 3371-The World of the New Testament

Total: 18 Credit Hours

## Russian Area Studies Minor

## Required Courses

Core Courses (6 Credit Hours)

- RUSS 2341 - Russian Reading and Conversation
- RUSS 2351 - Russian Syntax and Composition

One from the following: (3 Credit Hours)

- RUSS 3323 - Practicum in Russian Culture
- RUSS 3351 - Russian Syntax and Composition
- RUSS 3361 - Comparative Grammar
- RUSS 3362-Comparative Grammar


## Additional Requirements (6 Credit Hours)

- RUSS 3341 - Russian Reading and Conversation
- RUSS 3302 - Practicum in Russian Conversation and Phonetics or
- RUSS 3304 - Russian Grammar Practicum and one supporting course or
- Two from the list below.

Two from the Following:

- HIST 3340 - The Revolutionary Experience in Russia: 1900-1930
- HIST 3341 - Soviet and Post-Soviet Society and Politics, 1917 to the Present
- HIST 5367 - Russia From the Kievan Era to 1881
- PLSC 3358 - Government and Politics of Russia
- PLSC 3359 - From Communism to Democracy
- PLSC 3365 - Communism and Post-Communism
- PLSC 4384 - American-Russian Relationship
- WL 3323 - Russian Culture


## Total: 15 Credit Hours

## Spanish Minor

The Spanish minor has three tracks, for non-native, heritage and native speakers of Spanish. The distinction between heritage and native speakers is described on the Spanish page ("FAQs" tab) of the Dedman College website at smu.edu/dedman. Non-native speakers may take SPAN 3355 before SPAN 3358 and/or may take one of the following with SPAN 3358 : SPAN 3311 , SPAN 3312 , SPAN 3313 , or SPAN 3355.

Track for Heritage Speakers. Heritage speakers must replace SPAN 3358 with SPAN 4358 . From the second category below, they may select SPAN 3373, SPAN 3374, SPAN 3375, or SPAN 4355.

Track for Native Speakers. Native speakers will start coursework at the 4000 level. In consultation with the area chair, native speakers who have not had formal academic training in written Spanish may begin coursework with SPAN 4358; otherwise, they should begin with SPAN 4357 or SPAN 4395.

## Spanish Courses

| Advanced Courses in Linguistics | SPAN 5340, 5341, 5342, 5343 |
| :--- | :--- |
| Advanced Courses in Peninsular <br> Literature | SPAN 5310, 5311, 5315, 5320, 5321, 5323, 5325, 5334, 5335, <br> $5361,5364,5365,5370 ~$ |
| Advanced Courses in Spanish-American <br> Literature | SPAN 5315, 5316, 5336, 5337, 5338, 5339, 5370, 5375 |

## Required Courses

## Core Courses (15 Credit Hours)

- SPAN 2302 - Intermediate Spanish II or equivalent
- SPAN 3358 - Advanced Spanish
or
- SPAN 4358 - Advanced Spanish for Hispanic Speakers
- Three additional advanced courses


## One from the following: (3 Credit Hours)

- SPAN 3310 - Readings in Spanish and Spanish-American Literature
- SPAN 3311 - Cultural Dialogues: Spain
- SPAN 3312-Cultural Dialogues: Mexico
- SPAN 3313 - Cultural Dialogues: Latin America
- SPAN 3355-Spanish Conversation
or
- SPAN 4355-Culture and Communication for Spanish Speakers
- SPAN 3357 - Spanish Phonetics
- SPAN 3373 - Topics in Spanish Civilization
- SPAN 3374 - Topics in Spanish-American Civilization
- SPAN 3375 - Topics in Spanish-Speaking Communities in the United States


## Total: 18 Credit Hours

## Courses:

## ARABIC

## ARBC 1310 - Special Topics Abroad in Arabic

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## ARBC 1320-Special Topics Abroad in Arabic

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## ARBC 1401 - Beginning Arabic I

Credits: 4
Introductory course for students with no knowledge of the language. The course presents essential vocabulary, grammar, and Arabic culture. Prerequisites: Reserved for students who have no previous Arabic experience or fewer than two years of Arabic and the appropriate placement exam score. Approval from the WLL adviser is required for enrollment.

## ARBC 1402 - Beginning Arabic II

Credits: 4
Continues the oral practice, reading, writing, grammar, and cultural studies begun in ARBC 1401. Students acquire a substantial amount of vocabulary and idiomatic language. Prerequisite: ARBC 1401 (C- or higher) or its equivalent.

## ARBC 2301 - Intermediate Arabic I

Credits: 3
Continues oral practice, reading, writing, grammar, and cultural studies. Students acquire a substantial amount of vocabulary, idiomatic language, and syntax that is more advanced. Prerequisite: Reserved for students who have completed

ARBC 1402 or have the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## ARBC 2302 - Intermediate Arabic II

Credits: 3
Continues oral practice, reading, writing, grammar, and cultural studies. Students acquire a substantial amount of vocabulary, idiomatic language, syntax that is more advanced. Prerequisite: ARBC 2301 ( C - or higher) or its equivalent.

## ARBC 2310 - Special Topics Abroad in Arabic

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## ARBC 2320 - Special Topics Abroad in Arabic

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## ARBC 3301 - Advanced Arabic I

## Credits: 3

Provides a thorough study of authentic materials in classical prose for mastery of classical Arabic. Involves extended readings and discussions of contemporary and historical cultural topics. Prerequisite: ARBC 2302 or its equivalent.

## ARBC 3302 - Advanced Arabic II

## Credits: 3

Provides a thorough study of authentic materials in classical prose for mastery of classical Arabic. Involves extended readings and discussions of contemporary and historical cultural topics. Prerequisite: ARBC 3301 (C- or higher) or its equivalent.

## ARBC 3310 - Special Topics Abroad in Arabic

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## ARBC 3320 - Special Topics Abroad in Arabic

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## ARBC 3331 - Arabic Culture: The Cultural Evolution of Arab Societies

## Credits: 3

Emphasizes cultural, artistic, and intellectual trends. Prerequisite: C- or better in ARBC 2302 or permission of instructor.

## ARBC 3355 - Advanced Arabic Conversation

Credits: 3
Study of themes related to the Arabic experience. Primarily oriented toward conversation on topics of everyday life. Prerequisites: C- or better in ARBC 2402, or permission of the instructor.

## ARBC 4312 - Advanced Media Arabic

## Credits: 3

Introduces authentic texts and audio files from a wide variety of media sources and emphasizes the semantic and stylistic aspects of media Arabic rather than its grammar. Prerequisites: ARBC 3301 and ARBC 3302, or placement test, or departmental permission.

## ARBC 4380 - Special Topics in Arabic

## Credits: 3

Independent study in Arabic language, literature, and culture in selected topics, authors, and genres. Prerequisite: ARBC 3302 or permission of instructor.

## ARBC 4381 - Special Topics in Arabic Literature and Culture

## Credits: 3

Independent study of selected topics, authors, and genres in Arabic literature and culture. Prerequisite: ARBC 3302 or permission of instructor.

## CHINESE

## CHIN 1401 - Beginning Chinese

## Credits: 4

Introduction to spoken and written Mandarin Chinese. Emphasizes intensive drills in sounds and tones, sentence structure, and a vocabulary of 500 characters. Students attend three weekly master classes plus 2 hours of practice in small groups. Computer, video, and audio assignments are required. Prerequisites: Reserved for students who have no previous Chinese experience or fewer than two years of Chinese and the appropriate placement exam score. Approval from the WLL adviser is required for enrollment.

## CHIN 1402 - Beginning Chinese: Second Term

Credits: 4
Introduction to spoken and written Mandarin Chinese. Emphasizes intensive drills in sounds and tones, sentence structure, and a vocabulary of 500 characters. Students attend three weekly master classes plus 2 hours of practice in small groups.
Computer, video, and audio assignments are required. Prerequisite: C- or better in CHIN 1401 or permission of area chair.

## CHIN 2401 - Intermediate Chinese

## Credits: 4

Enhances basic language skills learned in beginning Chinese but focuses on language proficiency, particularly in the areas of description, narration, correspondence, and comparisons based on situational context. Students attend four weekly classes. Video and audio materials are used. Prerequisite: C- or better in CHIN 1402 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## CHIN 2402 - Intermediate Chinese: Second Term

## Credits: 4

Enhances basic language skills learned in beginning Chinese but focuses on language proficiency, particularly in the areas of description, narration, correspondence, and comparisons based on situational context. Students attend four weekly classes. Video and audio materials are used. Prerequisite: C- or better in CHIN 2401 or permission of area chair.

## CHIN 3311 - Advanced Chinese

Credits: 3
Emphasizes the refinement of skills in Mandarin Chinese through the study of selected topics in contemporary Chinese
culture and society. Students develop the ability to express themselves in sustained oral and written forms. Prerequisite: Beginning and intermediate Chinese.

## CHIN 3312 - Advanced Chinese, Second Term

Credits: 3
Enhances students' proficiency in Mandarin Chinese through a multimedia software program. Special concentration is given to China's current affairs through the use of authentic journalistic materials: television news and newspaper reports. Prerequisite: CHIN 3311

## CHIN 3321 - Special Topics Abroad in Chinese

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## CHIN 3322 - Special Topics Abroad in Chinese

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## CHIN 4380 - Directed Studies in Chinese

Credits: 3
Independent study in Chinese literature and culture in selected topics, authors, and genres. Permission of department required.

## CHIN 4381 - Readings in Chinese Literature and Culture

## Credits: 3

An upper-level course designed for students who have finished third-year Chinese. Students enhance their four language skills, especially reading and writing, through a wide variety of primary, unedited texts. Prerequisite: CHIN 3312 or consent of area chair.

## CHIN 4382 - Chinese Culture and Society in Films

Credits: 3
An advanced course for students who have completed CHIN 4381. Enhancement of all four language skills through unedited texts and films from China and Taiwan. Prerequisite: CHIN 4381 or consent of area chair.

## FRENCH

## FREN 1401 - Beginning French: Term One

## Credits: 4

Stresses acquisition of basic skills: speaking, listening comprehension, reading, and writing. Five classes per week. Prerequisites: Reserved for students who have no previous French experience or fewer than two years of French and the appropriate placement exam score. Approval from the WLL adviser is required for enrollment.

## FREN 1402 - Beginning French: Term Two

Credits: 4
Stresses acquisition of basic skills: speaking, listening comprehension, reading, and writing. Five classes per week.
Prerequisite: C- or better in FREN 1401 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## FREN 1502 - Beginning French II with Review

## Credits: 5

Extensive review of the first term of French, designed for students who have had French previously but who are not ready for FREN 1402. Prerequisites: Reserved for students who have previous French experience but did not place into FREN 1402. Approval from the WLL adviser is required for enrollment.

## FREN 1601 - Accelerated Beginner French

## Credits: 6

An accelerated, immersion beginner course taught in Paris that covers all the material in FREN 1401, FREN 1402. By application. Prerequisite: Permission of program director. (SMU Abroad)

## FREN 2101 - Intermediate Conversation Practice

Credits: 1
Offered in the South of France, SMU-Abroad.

## FREN 2102 - Intermediate Conversation Practice

Credits: 1
Offered in the South of France, SMU-Abroad.
FREN 2201 - France Today: Culture, Society, and Daily Life
Credits: 2
In conjunction with FREN 2401, a systematic exploration of diverse aspects of French life, involving both classroom study and on-site investigation. Emphasis on contextual language acquisition, both written and oral. Prerequisite: Permission of program director. (SMU-in-the-South of France only)

## FREN 2302 - Intermediate French II

## Credits: 3

Refinement of all four language skills, with special emphasis on oral proficiency. Includes study of oral presentations, viewing and discussion of films, vocabulary development, grammar review, short literary readings, and compositions. Three classes per week. Prerequisite: C- or better in FREN 2401 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## FREN 2401 - Second-Year/Intermediate French

## Credits: 4

Continues to strengthen the four language skills, with added emphasis on reading and writing. Five classes per week.
Completes the second-year language requirement in French. Prerequisite: C- or better in FREN 1402 or FREN 1502, or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## FREN 2455 - Intermediate French II

## Credits: 4

Refinement of all four language skills, with special emphasis on oral proficiency. Includes study of phonetics, oral presentations, viewing and discussion of films, vocabulary development, grammar review, short literary readings, and compositions. Five classes per week. Prerequisite: C- or better in FREN 2401.

## FREN 3101 - French Phonics

## Credits: 1

Perfecting French pronunciation: individual sounds, word groups, rhythmic patterns, intonation. Use of audiocassettes and interactive software. Corequisite: FREN 3355. Prerequisite: FREN 2401.

## FREN 3102 - Advanced Conversation Practice

## Credits: 1

## FREN 3321 - Special Topics Abroad in French

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## FREN 3322 - Special Topics Abroad in French

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## FREN 3356 - Advanced French II

## Credits: 3

Refinement of all four language skills. Special emphasis on writing proficiency, particularly in the following areas: exposition, narration, description, correspondence, and literary analysis. Includes grammar review, oral presentations, dictionary research, and outside reading. Prerequisite: C- or better in FREN 2302 or permission of area chair.

## FREN 4185 - Internship in French

Credits: 1
Offers experience in organizations where knowledge of French and the cultures of French-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in French of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or corporation.

## FREN 4285 - Internship in French

## Credits: 2

Offers experience in organizations where knowledge of French and the cultures of French-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in French of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or corporation.

## FREN 4321 - Special Topics Abroad in French

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## FREN 4322 - Special Topics Abroad in French

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## FREN 4355 - Advanced Spoken French

Credits: 3
Focuses on the development of oral and aural skills and topic-specific vocabulary. Includes readings and discussion of texts
and commentaries on contemporary French society and culture, and viewing and discussion of feature films. Prerequisite: Cor better in FREN 3356 or permission of area chair.

## FREN 4356 - Advanced Communication Skills: The French-Language Media

Credits: 3
An exploration of the many countries and regions of the French-speaking world through the use of films, videos, and the Internet, as well as expository texts from the French-language press and other media. Development of listening and reading comprehension, advanced conversational skills, and writing of short expository texts. Prerequisite: C- or better in FREN 3356 or permission of area chair.

## FREN 4357 - French Stylistics

## Credits: 3

Intensive hands-on study of advanced grammatical, syntactic, lexical, and rhetorical features of written (and formal spoken) French. Comparison of standard French and English styles. French-English and English-French translation. Prerequisite: Cor better in FREN 3356 or permission of area chair.

## FREN 4365 - Introduction to French Cinema

## Credits: 3

Introduces French cinema's major works, filmmakers, and trends, with a continued emphasis on improvement of advanced French language skills. Prerequisite: C- or better in FREN 3356 or permission of area chair. Students may use either WL 4365 or FREN 4365 toward a major or minor.

FREN 4370 - Introduction to the Analysis of French and Francophone Texts
Credits: 3
Strategies for interpreting French and Francophone written and filmic texts. Focus on the principal genres: poetry, prose narrative, and essay. Prerequisite: C- or better in FREN 3356 or permission of area chair.

## FREN 4371 - Survey of French Literature: From the Middle Ages to the Revolution

Credits: 3
Overview of French literary history from the beginning to the end of the 18th century. Selection of texts from major dramatists, poets, and prose writers. Prerequisite: C- or better in FREN 4370 or permission of area chair.

## FREN 4372 - French Literature, 1789-Present: Show Me Your Teeth

## Credits: 3

Overview of French and Francophone literary history from the beginning of the 19th century to the present. Selection of texts from major dramatists, poets, and writers of prose fiction.

## FREN 4373 - French Civilization

## Credits: 3

The evolution of French society, with emphasis on cultural, artistic, and intellectual trends. Prerequisites: C- or better in FREN 3455, FREN 3356 or permission of area chair. (SMU-in-Paris and SMU-in-the-South of France only)

## FREN 4374 - French Civilization

## Credits: 3

The evolution of French society, with emphasis on cultural, artistic, and intellectual trends. Prerequisites: C- or better in FREN 3455, FREN 3356 or permission of area chair. (SMU-in-Paris and SMU-in-the-South of France only)

## FREN 4375 - Introduction to French History and Culture

## Credits: 3

Survey of French political and cultural history from Roman Gaul to the Fifth Republic. Topics include characteristic institutions, social groups and individuals, and key cultural myths. Prerequisite: C- or better in FREN 3356 or permission of instructor and area chair.

## FREN 4376 - Introduction to Francophone Cultures

## Credits: 3

Introduction to cultures once colonized by France. An exploration of the history and impact of French colonization on North America, Africa, and the Caribbean and the relationship between these regions and France. Prerequisites: C- or better in FREN 4375 or permission of area chair.

## FREN 4379 - Introduction to French Culture and Literature I

Credits: 3
Survey of French social, cultural, and literary histories from the time of Charlemagne to the end of the reign of Louis XIV. Prerequisite: FREN 4370.

## FREN 4380 - Introduction to French Culture and Literature II

Credits: 3
Survey of French and Francophone social, cultural, and literary histories from the death of Louis XIV to the Dreyfus scandal. Prerequisite: FREN 4370.

## FREN 4381 - Introduction to French Culture and Literature III

## Credits: 3

Survey of French and francophone social, cultural, and literary histories from the beginning of the 20th century to the present. Prerequisites: C- or better in FREN 4375.

## FREN 4385 - Internship in French

## Credits: 3

This course offers students experience in organizations where knowledge of French and the cultures of French-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in French of 3.300 or higher; and sponsorship of a professor and of the organization, agency or corporation.

FREN 4391 - Commercial French for International Trade

Credits: 3
An advanced course for international trade and communication. Prerequisite: C- or better in FREN 3356 or permission of area chair.

FREN 5180 - Independent Study
Credits: 1

## FREN 5322 - France: Culture and Society

Credits: 3

## FREN 5325 - Literature on Human Rights: Thinking a Better World

## Credits: 3

Dedicated to the reading, discussion, and analysis of a series of essays and fictions written in 19th-century France. The literature deals with the common thread of social justice and human rights through four specific themes: women, proletarian workers, slaves, and artists. Students explore the literature's engagement in the illustration and discussion of human rights in the aftermath of the French Revolution. Prerequisites: B- or better in FREN 4370 and in any two additional 4000-level FREN courses; consent of the French area chair.

## FREN 5334 - Genre Studies

Credits: 3
Examines the works of several authors as a means of understanding the nature and evolution of a particular genre. Specific topics vary. Prerequisites: FREN 4370 and any two additional French courses at the 4000 or 5000 level.

## FREN 5344 - Literary Movements

Credits: 3
Explores the conventions that shape a specific movement through a reading of representative texts by various authors. Topics vary. Prerequisites: FREN 4370 and any two additional French courses at the 4000 or 5000 level.

## FREN 5350 - Problems in French Literature

## Credits: 3

The definition of a particular theme as elaborated by a group of writers, usually covering different times and genres. Specific topics vary. Prerequisites: FREN 4370 and any two additional French courses at the 4000 or 5000 level.

## FREN 5351 - Problems in French Literature

## Credits: 3

The definition of a particular theme as elaborated by a group of writers, usually covering different times and genres. Specific topics vary. Prerequisites: FREN 4370 and any two additional French courses at the 4000 or 5000 level.

## FREN 5361 - Literary Translation: Theory and Practice

## Credits: 3

Exploring the relationship between interpretation and translation. Individual projects in a workshop setting. Prerequisites: Any two from FREN 4371, FREN 4372, FREN 4373, FREN 4374 or permission of area chair.

## FREN 5365 - Topics in French and Francophone Cinema

## Credits: 3

A seminar in French and Francophone film studies. Topics vary. Prerequisites: C- in FREN 3455, FREN 3356 or permission of instructor and French area chair.

## FREN 5366 - Topics in French and Francophone Cinema

Credits: 3
A seminar in French and Francophone film studies. Topics vary. Prerequisites: C- in FREN 3455, FREN 3356 or permission of instructor and French area chair.

## FREN 5367 - Major Authors

Credits: 3
Focused study of one especially important writer and/or thinker whose work has had a major impact on French and European literature and thought (e.g., Montaigne, Rousseau, Balzac, or Sartre). Prerequisites: C- or better in FREN 4370 and any two other courses at the 4000 level, or permission of area chair.

## FREN 5369 - French Colonial and Postcolonial Cinema

## Credits: 3

A study of the evolution of French attitudes toward colonialism and colonized peoples through film, with an emphasis on the colonization of North and West Africa. Prerequisites: FREN 3356 and FREN 4375, or instructor permission.

## FREN 5370 - Seminar in French Literature

## Credits: 3

## FREN 5380 - Tutorial for Juniors and Seniors

## Credits: 3

By invitation of the entire area only. Special project set up with the help of the area chair. Prerequisite: Permission of the department.

## FREN 5381 - Tutorial for Juniors and Seniors

## Credits: 3

By invitation of the entire area only. Special project set up with the help of the area chair. Prerequisite: Permission of the department.

## GERMAN

## GERM 1401 - Beginning German

## Credits: 4

Stresses acquisition of basic skills: speaking, aural comprehension, reading, and writing. Classes meet 5 hours a week. Prerequisites: Reserved for students who have no previous German experience or fewer than two years of German and the appropriate placement exam score. Approval from the WLL adviser is required for enrollment.

## GERM 1402 - Beginning German II

## Credits: 4

Stresses acquisition of basic skills: speaking, aural comprehension, reading, and writing. Classes meet 5 hours a week. Prerequisite: C- or better in GERM 1401 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## GERM 2311 - Culture, Grammar, and Literature

## Credits: 3

Discussions and compositions based on literary and cultural texts, and review of grammar. Prerequisite: $\mathrm{C}-$ or better in GERM 1402 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## GERM 2312-Culture, Grammar, and Literature

Credits: 3
Discussions and compositions based on literary and cultural texts, and review of grammar. Prerequisite: C- or better in GERM 2311 or permission of the area chair.

## GERM 3311 - Talking and Writing About Modern Germany

## Credits: 3

An advanced course intended to increase active command of the language. Utilizes a variety of short modern texts. Prerequisite: GERM 2312 or the equivalent.

## GERM 3312 - Advanced German Composition

## Credits: 3

Discussion of short contemporary texts; compositions on personal topics. Selective study of grammar. Prerequisite: GERM 3311 or permission of department.

## GERM 3313 - Germany Today: People, Culture, and Society

## Credits: 3

Explores current German culture; readings in newspapers and magazines to acquaint students with today's German cultural and political scene; and conversations, oral presentations, and compositions. Prerequisite: C- or better in GERM 3311 or permission of instructor.

## GERM 3320 - Contemporary German Culture

## Credits: 3

An exploration of the German cultural scene through magazine and newspaper articles, short stories, television, and films from the postwar era to the present. Prerequisite: C- or better in GERM 3311 or permission of instructor.

## GERM 3321 - Special Topics Abroad in German

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## GERM 3322 - Special Topics Abroad in German

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## GERM 3325 - Introduction to German Literature

## Credits: 3

Includes works from major genres (lyric poetry, drama, narrative fiction), an overview of the history of German literature, and an introduction to analytical techniques and procedures. Prerequisite: C- or better in GERM 3311 or permission of instructor.

## GERM 3330 - Great German Stories: Kafka, Mann, Wolf, and Others

## Credits: 3

Short narrative forms from the beginning of the 20th century to the present: Mann, Kafka, Brecht, Boll, Seghers, Bachmann, Wolf, and others. Includes consideration of two postwar German literatures (the German Democratic Republic and the Federal Republic of Germany). Prerequisite: GERM 3311 or permission of instructor.

## GERM 3370 - Advanced German Grammar and Usage

## Credits: 3

Intensive study of advanced grammatical forms, syntactical structures, and usage distinctions in modern German. Weekly short, written assignments. Not open to native speakers of the language. Prerequisite: C- or better in GERM 3311 or permission of instructor.

## GERM 4185 - Internship in German

Credits: 1
Offers experience in organizations where knowledge of German and the cultures of German-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in German of 3.000 or higher; and sponsorship of a professor and of the organization, agency, or corporation.

## GERM 4285 - Internship in German

## Credits: 2

Offers experience in organizations where knowledge of German and the cultures of German-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in German of 3.000 or higher, and sponsorship of a professor and of the organization, agency, or corporation.

## GERM 4310 - Middle Ages to Present: German Poetry

## Credits: 3

Historical survey of poetic forms from medieval Minnesang through the Baroque and Sturm und Drang to Classicism, Romanticism, and 20th-century styles. Prerequisites: GERM 3320, GERM 3313 or permission of instructor.

## GERM 4320 - Modern Drama

Credits: 3
Critical reading of dramatic works by major German, Austrian, and Swiss authors (Büchner, Schnitzler, Brecht, Dürrenmatt, Aichinger, Bachman, Müller, Jelineck, and others), with some attention to critical theory. Prerequisites: GERM 3313, GERM 3320 or permission of instructor.

## GERM 4321 - Special Topics Abroad in German

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## GERM 4322 - Special Topics Abroad in German

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## GERM 4330 - 19th-Century Stories

Credits: 3
Short narrative forms from Romanticism through realism to fin-de-siècle Vienna: Grimm, Eichendorff, Kleist, Storm, Schnitzler, and others. Prerequisite: GERM 3320 or permission of instructor.

GERM 4350 - History, Culture, and Identity in Postwar German Film

## Credits: 3

An examination of German films since 1945 from both German states, ending with the depiction of the unification in film, with continued emphasis on improvement of advanced German language skills. Prerequisite: GERM 3320 or permission of instructor.

## GERM 4360 - Childhood and Youth in German Literature and Film

Credits: 3
Traces the representation of childhood and youth through German literature and film from the 19th century to the present. Prerequisite: GERM 3320, or GERM 3330, or permission of instructor

GERM 4370 - Memory and Victimization Discourses in Germanic Film and Literature Since 1945
Credits: 3
Introduces students to discourses in German-speaking lands related to World War II and the Holocaust through film and literature, and explores major historical developments in coming to terms with the Nazi past. Prerequisite: C- or better in GERM 3320 or permission of instructor.

## GERM 4385 - Internship in German

## Credits: 3

Offers experience in organizations where knowledge of German and the cultures of German-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in German of 3.000 or higher; and sponsorship of a professor and of the organization, agency, or corporation.

## GERM 5310-Reading the Classics

Credits: 3
Narrative, poetry, and drama representing the German Enlightenment, Sturm und Drang, Classicism and Romanticism: Lessing, Goethe, Schiller, Kleist, Novalis, and others. Prerequisite: Any 4000-level course or permission of instructor.

## GERM 5326 - Special Topics Abroad in German

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## GERM 5380 - Directed Studies

Credits: 3
Permission of department.

## GERM 5381 - Directed Studies

Credits: 3
Independent study in German literature and culture in selected topics, authors, and genres. Prerequisite: Permission of the department.

## GREEK

## GRE 1401 - Beginning Ancient Greek I

Credits: 4
Students will learn basic syntax, grammar, and morphology of Ancient Greek. They will gain the skills to read adapted passages from Greek authors and will gain insight into ancient Greek history and culture.

## GRE 1402 - Beginning Ancient Greek II

Credits: 4
Students will learn basic syntax, grammar, and morphology of Ancient Greek. They will acquire the skills to read adapted passages from Greek authors and will gain insight into ancient Greek history and culture.

## ITALIAN

## ITAL 1401 - Beginning Italian

## Credits: 4

Stresses acquisition of basic skills: speaking, aural comprehension, reading, and writing. Students attend three weekly foundations classes plus 2 hours of applications classes for practice in small groups. Computer, video, and audio assignments in the World Language Learning Center are required. Prerequisites: Reserved for students who have no previous Italian experience or fewer than two years of Italian and the appropriate placement exam score. Approval from the WLL adviser is required for enrollment.

## ITAL 1402 - Beginning Italian: Second Term

## Credits: 4

Stresses acquisition of basic skills: speaking, aural comprehension, reading, and writing. Students attend three weekly foundations classes plus 2 hours of applications classes for practice in small groups. Computer, video, and audio assignments in the World Language Learning Center are required. Prerequisite: C- or better in ITAL 1401 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## ITAL 2401 - Intermediate Italian: First Term

Credits: 4
Continues to strengthen the four language skills, with added emphasis on reading and writing. Students attend three weekly foundations classes plus 2 hours of applications classes for practice in small groups. Computer, video, and audio assignments in the World Language Learning Center are required. Prerequisite: C- or better in ITAL 1402 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

ITAL 2402 - Intermediate Italian: Second Term

## Credits: 4

Continued strengthening of all four language skills (listening, speaking, reading, writing). Computer, video, and audio assignments are required. Prerequisite: C- or better in ITAL 2401 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## ITAL 3320 - Special Topics Abroad in Italian

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## ITAL 3321 - Special Topics Abroad in Italian

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## ITAL 3355 - Advanced Italian Conversation

Credits: 3
An advanced course for majors and nonmajors intended to improve linguistic proficiency within the context of studying contemporary Italian movies and culture. Prerequisite: C- or better in ITAL 2402 or permission of the instructor.

## ITAL 3357-Grammar and Composition

Credits: 3
Analysis and imitation of short contemporary texts: letters, film reviews, articles, criticism, narratives. Development of oral and written proficiency. Selective study of grammar. Prerequisite: ITAL 2401.

## ITAL 3373 - Italian Culture

Credits: 3
The evolution of Italian society with emphasis on cultural, artistic, and intellectual trends. Prerequisite: ITAL 2401.

## ITAL 4185 - Internship in Italian

## Credits: 1

Offers experience in organizations where knowledge of Italian and the cultures of Italian-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in Italian of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or corporation.

## ITAL 4285 - Internship in Italian

## Credits: 2

Offers experience in organizations where knowledge of Italian and the cultures of Italian-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in Italian of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or corporation.

## ITAL 4320 - Special Topics Abroad in Italian

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## ITAL 4321 - Special Topics Abroad in Italian

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## ITAL 4322 - Modern Italian Literature I

Credits: 3

## ITAL 4323 - Modern Italian Literature II

Credits: 3
Covers the latter half of the 19th century to World War I: realism, decadentism, and the grotesque and authors Verga, D'Annunzio, and Pirandello. Prerequisite: ITAL 2401.

## ITAL 4324 - Contemporary Italian Literature

Credits: 3
Covers the fascist period and World War II: introspection, society, and the problem of evil and authors Moravia, Pavese, Bassani, Buzzati, and Ginzburg. Prerequisite: ITAL 2401.

## ITAL 4325 - Italian Poetry Since Dante

Credits: 3
Historical survey of works of poetry presented in their original form, from the medieval Dolce Stil Novo movement to the poetic styles of the 20th century. Prerequisite: ITAL 3357 or permission of instructor.

## ITAL 4367 - Italian Authors

Credits: 3
Italian authors from the Middle Ages to the modern age.

## ITAL 4368 - Italian Authors: Contemporary

Credits: 3
Prerequisite: ITAL 2401.
ITAL 4381 - Tutorial for Juniors and Seniors: Directed Readings and Research

Credits: 3
Directed reading and research in specific literary topics or writers. Prerequisite: ITAL 3357 or permission of instructor

## ITAL 4382 - Tutorial for Juniors and Seniors: Directed Readings and Research

## Credits: 3

Directed reading and research in specific literary topics or writers. Prerequisite: ITAL 3357 or permission of instructor.

## ITAL 4385 - Internship in Italian

## Credits: 3

Offers experience in organizations where knowledge of Italian and the cultures of Italian-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in Italian of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or corporation.

## JAPANESE

## JAPN 1401 - Beginning Japanese

## Credits: 4

Focuses on oral and aural proficiency for daily communication situations, mastery of Japanese writing systems (hiragana, katakana, basic kanji), and foundational grammar. Prerequisites: Reserved for students who have no previous Japanese experience or fewer than two years of Japanese and the appropriate placement exam score. Approval from the WLL adviser is required for enrollment.

## JAPN 1402 - Beginning Japanese: Second Term

## Credits: 4

Focuses on oral and aural proficiency for daily communication situations, mastery of Japanese writing systems (hiragana, katakana, basic kanji), and foundational grammar. Prerequisite: C- or better in JAPN 1401 or permission of area chair.

## JAPN 1501 - Japanese at KGU, Level 1

Credits: 5
Emphasis on understanding of basic Japanese grammar, mastery of fundamental sentence patterns, and acquisition of 170 new kanji. Provides basic reading skills.

## JAPN 2201 - Japanese at KGU, Level 3

Credits: 2

## JAPN 2401 - Intermediate Japanese

## Credits: 4

Focuses on developing and enriching literacy experience in Japanese through reading and writing narrative and descriptive texts, as well as conversing on personal topics in more complicated situations. Prerequisite: C- or better in JAPN 1402 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## JAPN 2402 - Intermediate Japanese: Second Term

## Credits: 4

Focuses on developing and enriching literacy experience in Japanese through reading and writing narrative and descriptive texts, as well as conversing on personal topics in more complicated situations. Prerequisite: C- or better in JAPN 2401 or permission of area chair.

## JAPN 2500 - Japanese at KGU, Level 2

## Credits: 5

## JAPN 3311 - Third-Year Japanese

## Credits: 3

Emphasis on enhancing abilities in advanced reading and writing skills, and communicating with accuracy and grammatical complexity. Students also acquire the ability to use refined honorific forms in appropriate cultural contexts. Prerequisite: Cor better in JAPN 2402 or permission of area chair.

## JAPN 3312 - Third-Year Japanese: Second Term

## Credits: 3

Emphasis on enhancing abilities in advanced reading and writing skills, communicating with accuracy and grammatical complexity. Students also acquire the ability to use refined honorific forms in appropriate cultural contexts. Prerequisite: Cor better in JAPN 3311 or permission of area chair.

## JAPN 3320 - Special Topics Abroad in Japanese

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## JAPN 3321 - Special Topics Abroad in Japanese

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## JAPN 3501 - Japanese at KGU, Level 2

## Credits: 5

Further development of basic reading skills, with emphasis on an adequate command of complex sentence patterns.
Acquisition of 200 new kanji.

## JAPN 3600 - Studies in Japan

## Credits: 6

Selected coursework at KGU, chosen in consultation with adviser. Equivalent SMU course numbers to be determined upon receipt of grades after the end of the term.

## JAPN 3900 - Studies in Japan: Second Term

## Credits: 9

Selected coursework at KGU, chosen in consultation with adviser. Equivalent SMU course numbers to be determined upon receipt of grades after the end of the term.

## JAPN 4501 - Japanese at KGU, Level 3

Credits: 5
Grammar and reading, advanced. Vocabulary buildup and acquisition of reading and writing 200 new kanji.

## JAPN 5501-Japanese at KGU, Level 4

## Credits: 5

Students read a variety of selected materials for better understanding of the Japanese culture and ways of thinking. Acquisition of a larger vocabulary and 250 new kanji.

## LATIN

## LATN 1401 - Beginning Latin I

Credits: 4
Structures of the Latin language: vocabulary, grammar, and syntax. Also, introduction to Roman history and culture, and simple readings from Latin authors. Prerequisites: Reserved for students who have no previous Latin experience or fewer than two years of Latin and the appropriate placement exam score. Approval from the WLL adviser is required for enrollment.

## LATN 1402 - Beginning Latin II

## Credits: 4

Structures of the Latin language: vocabulary, grammar, and syntax. Also, introduction to Roman history and culture, and simple readings from Latin authors. Prerequisite: C- or better in LATN 1401.

## LATN 2311 - Second-Year Latin

## Credits: 3

Readings from Latin prose authors: Caesar, Livy, Eutropius. Prerequisite: C- or better in LATN 1402 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## LATN 2312 - Second-Year Latin: Second Term

Credits: 3
Readings from Roman prose and poetry (Caesar, Pliny, Ovid). Prerequisite: C- or better in LATN 2311 or consent of the area chair.

## LATN 3185 - Internship in Latin

## Credits: 1

Offers experience in organizations or institutions where knowledge of Latin is relevant: museums, libraries, historical archives, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in Latin of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or institution.

## LATN 3285 - Internship in Latin

## Credits: 2

Offers experience in organizations or institutions where knowledge of Latin is relevant: museums, libraries, historical archives, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in Latin of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or institution.

## LATN 3323 - Latin Literature

## Credits: 3

A thematic approach to Roman literature incorporating excerpts from a variety of authors and genres. Topics include aspects of Roman life and culture, history and politics, and religion and philosophy. Prerequisite: C- or better in LATN 2312 or permission of the area chair.

## LATN 3324 - Advanced Latin Grammar and Composition

## Credits: 3

Development of skills in analyzing and translating complex grammatical structures; practice in writing Latin with correct syntax and usage. Prerequisite: C- or better in LATN 2312 or permission of instructor.

## LATN 3325 - Advanced Latin Readings and Composition

## Credits: 3

This course concentrates on the Latin language as a powerful vehicle for communication and artistry through reading and writing. Students will study Latin texts on universal themes from various authors and times.

## LATN 3326 - Advanced Latin Readings: Vergil

## Credits: 3

Students experience the integration of storytelling with the artistry of language in the Aeneid, through which Vergil creates a national epic with political and cultural impact. Prerequisite: C- or better in LATN 2312 or permission of instructor.

## LATN 3327 - Advanced Latin: Myth Via Ovid

Credits: 3
Students discover the classical inspiration for great works of Western civilization's art and literature through Ovid's recounting of mythological transformations and heroic tales in the poem "Metamorphoses." Prerequisite: C- or better in LATN 2312 or permission of instructor.

## LATN 3330 - Special Topics Abroad in Latin

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## LATN 3331 - Special Topics Abroad in Latin

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## LATN 3385 - Internship in Latin

## Credits: 3

Offers experience in organizations or institutions where knowledge of Latin is relevant: museums, libraries, historical archives, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in Latin of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or institution.

## RUSSIAN

## RUSS 1401 - Beginning Russian

Credits: 4
An overview of the structures of the Russian language, with emphasis on skills of comprehension, speaking, reading, and writing. Foundations sections (two $50-$ minute classes per week) aim at understanding concepts and grammatical structures. Applications sections (three 50-minute classes per week) concentrate on oral drill and conversation practice. Prerequisites: Reserved for students who have no previous Russian experience or fewer than two years of Russian and have the appropriate placement exam score. Approval from the WLL adviser is required for enrollment.

## RUSS 1402 - Beginning Russian, Second Term

## Credits: 4

An overview of the structures of the Russian language, with emphasis on skills of comprehension, speaking, reading, and
writing. Foundations sections (two 50-minute classes per week) aim at understanding concepts and grammatical structures. Applications sections (three 50-minute classes per week) concentrate on oral drill and conversation practice. Prerequisite: Cor better in RUSS 1401 or permission of area chair.

## RUSS 2341 - Russian Reading and Conversation

## Credits: 3

Russian language work beyond the first-year level is done in multilevel workshops, organized by target skills, each including students with varying levels of experience and background with the Russian language. Small classes permit an individualized approach, so that students completing varying assignments work together in the same classroom. Each workshop is completed twice, once at the second-year level, and once at the third-year level. Progress to higher levels will be measured by proficiency tests. This workshop targets skills of oral and textual comprehension and active conversational skill. Prerequisite: C- or better in RUSS 1402 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## RUSS 2351 - Russian Syntax and Composition

## Credits: 3

Students review grammatical and syntactic structures and employ them in writing, using text and materials from everyday life in today's Russia. Uses the multilevel workshop system also employed in RUSS 2341. Prerequisite: C- or better in RUSS 1402 or permission of area chair.

RUSS 3202 - Practicum in Russian Conversation and Phonetics
Credits: 2

## RUSS 3302 - Practicum in Russian Conversation and Phonetics

Credits: 3
(Russia, summer)

## RUSS 3304 - Russian Grammar Practicum

Credits: 3
Held in Russia.

## RUSS 3311 - Advanced Russian Conversation

## Credits: 3

Intensive training in Russian composition with a thorough study of grammatical structure. Continued work on conversation and reading. Prerequisite: RUSS 2312 or consent of instructor.

## RUSS 3312 - Advanced Russian Composition

## Credits: 3

Continuation of advanced Russian grammar and syntax. Prerequisite: RUSS 3311 or consent of instructor.

## RUSS 3321 - Special Topics Abroad in Russian

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## RUSS 3322 - Special Topics Abroad in Russian

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## RUSS 3323 - Practicum in Russian Culture

## Credits: 3

Held in St. Petersburg.

## RUSS 3341 - Russian Reading and Conversation

## Credits: 3

Continuation of RUSS 2341.

## RUSS 3351-Russian Syntax and Composition

## Credits: 3

Continuation of RUSS 2351.

## RUSS 3361-Comparative Grammar

## Credits: 3

For students who are fully bilingual in Russian and English. Provides a practical analysis of the similarities and differences between the two languages. Includes special problems of native speakers of Russian speaking English, translation in both directions, weekly compositions and translations, and essay exams. Prerequisite: 16 hours of Russian by examination.

## RUSS 3362 - Comparative Grammar

## Credits: 3

For students who are fully bilingual in Russian and English. Provides a practical analysis of the similarities and differences between the two languages. Includes special problems of native speakers of Russian speaking English, translation in both directions, weekly compositions and translations, and essay exams. Prerequisite: RUSS 3361 or permission of area chair.

## RUSS 4185 - Internship in Russian

## Credits: 1

Offers experience in organizations where knowledge of Russian and the cultures of Russian-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in Russian of 3.300 or higher, and sponsorship of a professor and of the organization, agency, or corporation.

## RUSS 4285 - Internship in Russian

## Credits: 2

Offers experience in organizations where knowledge of Russian and the cultures of Russian-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in Russian of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or corporation.

## RUSS 4380 - Directed Studies

Credits: 3
Independent study in Russian literature and culture, with selected topics, authors, and genres. Prerequisite: Permission of department.

## RUSS 4381 - Directed Studies

Credits: 3
Independent study in Russian literature and culture, with selected topics, authors, and genres. Prerequisite: Permission of department.

## RUSS 4385 - Internship in Russian

## Credits: 3

Offers experience in organizations where knowledge of Russian and the cultures of Russian-speaking countries is relevant: corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in Russian of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or corporation.

## SPANISH

## SPAN 1401 - Beginning Spanish I

Credits: 4
Develops insight into the interconnectedness of the fundamentals of language and their application to communication. Provides rudimentary linguistic skills (vocabulary and grammar) and an acquaintance with the Spanish-speaking world tools that allow further study of Hispanic cultures. Focuses on the four linguistic skills (listening, speaking, reading, and writing). Each course is comprised of a fundamentals module (MWF) and an applications (TTH) module. Enrollment is required in both. Prerequisites: Reserved for students who have no previous Spanish experience or fewer than two years of Spanish and the appropriate placement exam score. Approval from the WLL adviser is required for enrollment.

## SPAN 1402 - Beginning Spanish II

## Credits: 4

Develops insight into the interconnectedness of the fundamentals of language and their application to communication. Provides rudimentary linguistic skills (vocabulary and grammar) and an acquaintance with the Spanish-speaking world tools that allow further study of Hispanic cultures. Focuses on the four linguistic skills (listening, speaking, reading, and writing). Each course is comprised of a fundamentals module (MWF) and an applications (TTH) module. Enrollment is required in both. Reserved for students who have no previous Spanish experience or who have 2 years or less of Spanish. A student may not receive credit for both SPAN 1402 and SPAN 1502. Prerequisite: C- or better in SPAN 1401 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## SPAN 1502 - Beginning Spanish with Intensive Review (Term II)

## Credits: 5

Provides an intensive review of the first term of Spanish. Designed for students who have had Spanish previously but are not ready for SPAN 1402. To varying degrees, attention is devoted to all four linguistic skills (listening, speaking, reading, and writing). A student may not receive credit for both SPAN 1402 and SPAN 1502. Prerequisites: Reserved for students who have previous Spanish experience but did not place into SPAN 1402. Approval from the WLL adviser is required for enrollment.

## SPAN 2302 - Intermediate Spanish II

Credits: 3
For students who are comfortable using Spanish in all timeframes (past, present, future) but who need to improve overall fluency and to fine tune grammatical details. Focuses on the development of oral and written expression and significant vocabulary expansion, and their application to authentic social contexts and cultural situations. Prerequisite: $\mathrm{C}-$ or better in SPAN 2401 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## SPAN 2310 - Intermediate Applied Spanish for Healthcare

## Credits: 3

Focuses on development of oral and written expression and cultural competency in healthcare contexts. For students comfortable using Spanish in all timeframes who need to improve fluency and expand vocabulary. Prerequisite: C- or better in SPAN 2401 or equivalent.

## SPAN 2311 - Intermediate Spanish I

## Credits: 3

For students who are relatively comfortable expressing their personal needs and describing their immediate environment in Spanish. Moves students toward fluency through significant vocabulary expansion and mastery of advanced verbal and sentence structure. To varying degrees, attention is devoted to cultural competence and to the four linguistic skills (listening, speaking, reading, and writing). Prerequisite: C- or better in SPAN 1402 or equivalent. (SMU Abroad).

## SPAN 2312 - Intermediate Spanish II

## Credits: 3

For students who are comfortable using Spanish in all timeframes (past, present, future) but who need to improve overall fluency and to fine tune grammatical details. Focuses on the development of oral and written expression and significant vocabulary expansion, and their application to authentic social contexts and cultural situations. Prerequisite: C - or better in SPAN 2401 or equivalent. (SMU Abroad)

## SPAN 2401 - Intermediate Spanish I

## Credits: 4

For students who are relatively comfortable expressing their personal needs and describing their immediate environment in Spanish. Moves students toward fluency through significant vocabulary expansion and mastery of advanced verbal and sentence structure. To varying degrees, attention is devoted to cultural competence and to the four linguistic skills (listening, speaking, reading, and writing). Prerequisite: C- or better in SPAN 1402/SPAN 1502 or the appropriate placement exam score. Students meeting these requirements will be able to enroll. Otherwise, approval from the WLL adviser is required for enrollment.

## SPAN 3310 - Readings in Spanish and Spanish-American Literature

## Credits: 3

Refinement of oral and written proficiency based on reading, discussion, and production of literary texts. Prerequisites: SPAN 3358 and C- or better in SPAN 2302 or SPAN 2312. Not for heritage or native speakers of Spanish.

## SPAN 3311 - Cultural Dialogues: Spain

Credits: 3
Students improve linguistic proficiency by surveying Spanish Peninsular culture and history. Course content varies and may cover topics such as Peninsular film, music, or art. Prerequisite: C- or better in SPAN 2302 or SPAN 2312. Prerequisite or corequisite: SPAN 3358. Not for heritage or native speakers of Spanish.

SPAN 3312-Cultural Dialogues: Mexico
Credits: 3
Students improve their linguistic proficiency by surveying Mexican culture and history. Course content varies; may include Mexican film, music, art, etc. Prerequisite: C- or better in SPAN 2302 or SPAN 2312. Prerequisite or corequisite: SPAN 3358. Not for heritage or native speakers of Spanish.

## SPAN 3313 - Cultural Dialogues: Latin America

## Credits: 3

Improves linguistic proficiency by surveying Latin American culture and history. Course content varies; may include topics such as Latin American film, music, and art. Prerequisite: C- or better in SPAN 2302 or SPAN 2312. Prerequisite or corequisite: SPAN 3358. Not for heritage or native speakers of Spanish.

## SPAN 3321 - Special Topics Abroad in Spanish

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## SPAN 3322 - Special Topics Abroad in Spanish

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## SPAN 3355 - Spanish Conversation

## Credits: 3

An advanced course for majors and nonmajors intended to increase active command of the language. Prerequisite: C- or better in SPAN 2302 or SPAN 2312. Not for heritage or native speakers of Spanish.

## SPAN 3357 - Spanish Phonetics

Credits: 3
A detailed analysis both in theory and practice of Spanish speech patterns, vowels, consonants, and intonation.

## SPAN 3358 - Advanced Spanish

Credits: 3
By acquiring grammar through culture, students prepare for effective oral and written communication in Spanish.
Prerequisite: C- or better in SPAN 2302 or SPAN 2312. Not for heritage or native speakers of Spanish; heritage speakers should take SPAN 4358.

## SPAN 3373 - Topics in Spanish Civilization

Credits: 3
A topical exploration of Spanish-American culture and societies, with particular emphasis on artistic and sociological aspects. The topic explored varies by instructor. Prerequisite: SPAN 4358 (or can be taken concurrently) or C- or better in SPAN 3358.

SPAN 3374 - Topics in Spanish-American Civilization

## Credits: 3

A topical exploration of Spanish-American culture and societies, with particular emphasis on artistic and sociological aspects. The topic explored varies by instructor. Prerequisite: SPAN 4358 (or can be taken concurrently) or C- or better in SPAN 3358.

## SPAN 3375 - Topics in Spanish-Speaking Communities in the United States

## Credits: 3

A survey of social and cultural issues surrounding Spanish-speaking communities in the U.S. that highlights selected topics. Prerequisite: SPAN 4358 (or can be taken concurrently) or C- or better in SPAN 3358.

## SPAN 3377 - Spanish Civilization in Madrid

Credits: 3
An exploration of Spanish culture and society, with a multi-disciplinary perspective accentuated by local excursions in Madrid, with short visits to the culturally-significant cities of Barcelona, Granada, and Cordoba. Prerequisites: C- or better in SPAN 3358 or SPAN 4358 (can be taken concurrently).

## SPAN 4321 - Special Topics Abroad in Spanish

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## SPAN 4322 - Special Topics Abroad in Spanish

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## SPAN 4352 - Conversations and Community

## Credits: 3

Advanced Spanish course that brings oral and written language to the center of students' learning by bringing them in contact with native Spanish speakers from a variety of Dallas communities. Includes fieldwork and contact hours in the classroom. Aimed at improving oral and listening skills of non-native speakers of Spanish. Prerequisite: C- or better in SPAN 3358 or SPAN 4358.

## SPAN 4355 - Culture and Communication for Spanish Speakers

## Credits: 3

An advanced course intended primarily for bilingual students whose home language is Spanish but whose dominant intellectual language is English. Because of its emphasis on cultural readings and communication skills, the course if suitable for native speakers who would like to broaden their knowledge of the language, Hispanic culture, and the major Hispanic groups in the U.S. Prerequisite: C- or better in SPAN 4358. Not for non-native speakers of Spanish; non-native speakers should take SPAN 3355.

## SPAN 4357 - Introduction to Spanish Linguistics

## Credits: 3

What is language? How do languages function? How is human language different from other communication systems? This course focuses on Spanish and also explores language acquisition, language contact, and bilingualism. Prerequisites: C- or better in SPAN 3358/SPAN 4358 and one of the following: SPAN 3310, SPAN 3311, SPAN 3312, SPAN 3313, SPAN 3355/SPAN 4355, SPAN 3373, SPAN 3374, or SPAN 3375.

## SPAN 4358 - Advanced Spanish for Hispanic Speakers

## Credits: 3

Specifically designed for Spanish-English bilingual students who learned Spanish at home in the U.S. and who have oral proficiency but little or no formal training. Students reactivate their Spanish and develop it further to learn more about their language and cultural heritage, to acquire Spanish literacy skills, and to develop or expand their Spanish academic language skills. Non-native speakers of Spanish take SPAN 3358; native speakers of Spanish take SPAN 4357 or SPAN 4395. Prerequisite: Placement test.

## SPAN 4365 - Spanish American Film

## Credits: 3

A study of key cultural themes, historical contexts, and cinematography concepts through and for the analysis and understanding of Spanish American films. This course is an equivalent of WL 3371. Students may only take WL 3371 or SPAN 4365. Prerequisites: C- or better in SPAN 3358/SPAN 4358 and one of the following: SPAN 3310, SPAN 3311, SPAN 3312, SPAN 3313, SPAN 3355/ SPAN 4355, SPAN 3373, SPAN 3374, or SPAN 3375.

## SPAN 4385 - Internship in Spanish

## Credits: 3

Offers experience in organizations where knowledge of Spanish and the cultures of Spanish-speaking countries is relevant:
corporations involved in international business, government agencies, health clinics, etc. Prerequisites: Junior or senior standing; an overall GPA of 3.000 or higher; GPA in Spanish of 3.300 or higher; and sponsorship of a professor and of the organization, agency, or corporation.

## SPAN 4391 - Commercial Spanish for International Trade

## Credits: 3

An advanced course in Spanish for international trade and communication. Prerequisites: Permission of instructor or C- or better in SPAN 3358/SPAN 4358 and one of the following: SPAN 3310, SPAN 3311, SPAN 3312, SPAN 3313, SPAN 3355/SPAN 4355, SPAN 3373, SPAN 3374, or SPAN 3375.

SPAN 4395 - Introduction to Hispanic Literature

## Credits: 3

A study of the tools necessary for analysis and understanding of literature, and the application of these tools through the reading of Hispanic texts. Prerequisites: C- or better in SPAN 3358/SPAN 4358 and one of the following: SPAN 3310, SPAN 3311, SPAN 3312, SPAN 3313, SPAN 3355/SPAN 4355, SPAN 3373, SPAN 3374, or SPAN 3375.

## SPAN 4396 - Leadership and Ethics in Literature

## Credits: 3

Examines the intersection between leadership and ethics in selected literary texts and explores leadership in a variety of settings such as business, civic and political engagement, and education.

## SPAN 5310 - Spanish Literature Before 1700

Credits: 3
An introduction to Spanish prose, drama, and lyric and narrative poetry through the Golden Age. Prerequisite: C- or better in SPAN 4395.

## SPAN 5311 - Spanish Literature Since 1700

Credits: 3
Major writers and movements from 1700 to the present. Prerequisite: C- or better in SPAN 4395.
SPAN 5315 - Spanish-American Literature to 1888
Credits: 3
Literary figures and trends from the Spanish conquest to modernism. Prerequisite: C- or better in SPAN 4395.
SPAN 5316 - Spanish-American Literature Since 1888
Credits: 3
Literary figures and trends from modernism to the present. Prerequisite: C- or better in SPAN 4395.

## SPAN 5321 - The Renaissance and Golden Age: Prose Fiction

## Credits: 3

An exploration of the development of Spanish narrative through various modes of idealism, realism, and self-reflection.
Readings include works from Cervantes and Zayas, their contemporaries, and their literary predecessors. Prerequisite: C- or better in SPAN 4395.

## SPAN 5323 - 19th-Century Prose Fiction

## Credits: 3

Major prose writers of the realistic and naturalistic movements in the context of 19th-century political, social, and economic development. Prerequisite: C- or better in SPAN 4395.

## SPAN 5325 - 20th-Century Peninsular Prose Fiction

## Credits: 3

Examination of significant individuals, movements, themes, and works of 20th-century Spanish prose fiction (e.g., generation of 1898, exile of 1939, Francoism, transition to democracy, social realism, and postmodernism). Prerequisite: Cor better in SPAN 4395.

## SPAN 5326 - Special Topics Abroad in Spanish

## Credits: 3

Courses in SMU-approved international programs. Prior departmental approval required.

## SPAN 5327 - Special Topics Abroad in Spanish

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.
SPAN 5334 - The Novel, Post-Civil War

Credits: 3
The development of the novel and short story in Spain from 1940 to the present. Readings from Cela, Delibes, Sanchez Ferlosio, Goytisolo, etc. Prerequisite: C- or better in SPAN 4395.

SPAN 5335 - Genre Studies (Spain)
Credits: 3
A study of the evolution of contemporary Spanish theatre within the context of dominant historical, social, and cultural trends. Prerequisite: C- or better in SPAN 4395.

## SPAN 5336 - Spanish-American Novel

Credits: 3
Study of the Spanish-American novel through analysis of works from the 19th, 20th, and/or 21st centuries. Prerequisite: Cor better in SPAN 4395.

## SPAN 5337 - Spanish-American Essay

## Credits: 3

Students analyze essays from the 19th, 20th, and/or 21st centuries to explore key intellectual debates of Spanish America around topics such as race, gender, politics, history, and relations with the U.S. Prerequisite: C- or better in SPAN 4395.

## SPAN 5338 - Spanish-American Short Story

## Credits: 3

Study of the Spanish-American short story through analysis of works from the 19th, 20th, and/or 21st centuries. Students may only take WL 3373 or SPAN 5338. Prerequisite: C- or better in SPAN 4395.

## SPAN 5339 - Spanish-American Poetry

Credits: 3
Major Spanish-American poets, with emphasis on the 20th century: Octavio Paz, Nicolas Guillen, Gabriela Mistral, Pablo Neruda, and others. Prerequisite: C- or better in SPAN 4395.

SPAN 5340 - The Structure of Spanish
Credits: 3
Explanation of Spanish syntactic structures using conventional and more recent treatments of Spanish grammar and current
developments in syntactic theory. Development of skills in analyzing Spanish syntax. Prerequisite: C- or better in SPAN 4357.

## SPAN 5341 - Spanish Phonetics and Phonology

Credits: 3
Survey of phonetic (acoustic, physical) and phonological (distributional) properties of the Spanish sound system, and comparison with the English sound system. Introduces phonologically conditioned dialectal variation in the Spanishspeaking world. Prerequisite: C- or better in SPAN 4357.

SPAN 5342 - Linguistic Variation in the Spanish-Speaking World

## Credits: 3

Introduction to language change and a panoramic overview of regionally and socially conditioned linguistic variation in Peninsular and Latin American Spanish, including topics such as language contact and bilingualism. Prerequisite: C- or better in SPAN 4357.

## SPAN 5343 - Spanish as a Second Language: Principles of Second-Language Acquisition and Teaching

## Credits: 3

Provides a background in issues pertaining to the acquisition of Spanish as a second language and addresses how findings from Spanish second-language acquisition research are applicable to the teaching of Spanish. Prerequisite: C- or better in SPAN 4357.

SPAN 5361 - Don Quixote: The Idea, the Character, the Book
Credits: 3
An exploration of Cervantes' masterpiece "Don Quixote" and its influence on art and society. Prerequisite: C- or better in SPAN 4395.

## SPAN 5364 - Human Rights Issues in Contemporary Spanish Literature

Credits: 3
A study of human rights issues such as repression, torture, violence against women and the disabled, children's rights, genocide, and immigration as represented in contemporary Spanish literature. Prerequisite: C- or better in SPAN 4395.

## SPAN 5365 - Contemporary Spanish Women Writers

Credits: 3
This course explores constructions of gender and identity in contemporary Spanish literature by women. Written texts, music, film, and documentary combine to offer multiple perspectives on the subject. Prerequisite: C- or better in SPAN 4395.

## SPAN 5370 - Rewriting Discovery and Exploration in the Spanish Borderlands

## Credits: 3

An examination of shifts in the articulation of discovery and exploration in writings treating the northern frontier of New Spain during the mid-to-late 16th century. Prerequisite: C- or better in SPAN 4395.

## SPAN 5375 - Contemporary Fiction by Latin American Women Writers

## Credits: 3

Explores constructions of gender and identity in 20th-century fiction by Latin American women. Examines novels, short stories, film, and critical texts. Prerequisite: C- or better in SPAN 4395. This course is the equivalent of HRTS/WL 4345. Students may only take HRTS/WL 4345 or SPAN 5375.

## SPAN 5380 - Tutorial for Juniors and Seniors

Credits: 3
Special project arranged by the student with the help of a faculty adviser and the approval of the chair of the department.

## SPAN 5381 - Tutorial for Juniors and Seniors

Credits: 3
Special project arranged by the student with the help of a faculty adviser and the approval of the chair of the department.

## WORLD LANGUAGES AND LITERATURES

| All WL/WLAN courses are conducted in English. <br> Chinese Culture and Literature | WL 3310, 3312, 3325, 3395 |
| :--- | :--- |
| Francophone Cultures | WL 3361 (SMU-in-Paris only), WL 3365, 3366 <br> (Electives that do not count toward the French major.) |
| German Culture | WL 3321, WL 3322, 4321, 4322, 5326 |
| Italian Culture and Literature | WL 2201, WL 2395, WL 3390 (FILM 3390), WL <br>  <br> 3391-WL 3394 |
| Russian Culture | WL 2343, WL 3323 (HIST 2323) |
| Hispanophone Culture and Literature | WL 3303, WL 3305, WL 3306, WL 3360, WL 3371, |
| Linguistics | WL 3372, WL 3373, WL 3376, WL 3396, WL 4345 |

## WL 2395 - Italian Culture

Credits: 3
Significant aspects of Italian culture and thought, beginning with the age of Dante, are presented from poetry, prose, drama, journalism, architecture, the fine arts, music, and film.

## WL 3301 - Introduction to Literary Translation

Credits: 3
Explores the art and practice of literary translation by examining the ways in which language and ideas travel across linguistic and cultural boundaries. Students should have a working knowledge of a source language, in order to develop strategies to create clean and compelling literary translations into English.

## WL 3302 - Ethnoviolence: Interdisciplinary Perspectives

Credits: 3
An introduction to ethnoviolence (violence or the threat of violence based on one's race, ethnicity, religion, gender, or sexual orientation) from a comparative, global, and critical framework that synthesizes sociology; colonial studies; communications; and ethnic, religious, historical, and gender studies.

## WL 3303 - Topics in Spanish Civilization

## Credits: 3

A topical exploration of Spanish culture and society, with particular emphasis on artistic and sociological aspects. The topic explored varies by instructor.

## WL 3306 - Chicano Cultural Heritage

## Credits: 3

A study of the Chicano/mestizo cultural identity in the Southwest. Includes readings from selected contemporary authors as well as from the early recorded contacts between Native Americans and their European conquerors.

## WL 3308 - Introduction to General Linguistics

## Credits: 3

This course is an introduction to the field of linguistics, which is concerned with the study of human language in the broadest sense.

## WL 3309 - French Cinema: 1945 to the Present

## Credits: 3

Uses cultural studies theory to explore the evolution of the French national identity from the end of the Nazi occupation of France in 1945 to the present day.

## WL 3310 - Transnational Chinese Cinema

## Credits: 3

Introduces films produced in the People's Republic, Taiwan, and Hong Kong. In considering cinema as a sign system for the construction of sociocultural and aesthetic meanings, this course examines different national identities and film genres. Students learn to understand non-Western cultural texts and to analyze cinematic representations.

## WL 3322 - Modern Japanese Novels in Translation

## Credits: 3

Students study a number of Japanese novels, from Shimazaki Toson's "The Broken Commandment" (1906) to Yoshimoto Banana's "Kitchen" (1988). Each student is required to give a talk on at least one novel, which may be developed into the essay that is a major component of assessment. Students' presentation and participation in the discussion in class, together with short critical comments on other students' talks, form the basis for continuous assessment.

## WL 3323 - Russian Culture

## Credits: 3

Significant aspects of Russian thought and culture at its various stages of development are presented and illustrated by examples from literature, folklore, prose, drama, journalism, architecture, the fine arts, and music.

## WL 3325 - Perspective On Modern China

## Credits: 3

Survey of China in the 20th century in terms of cultural trends, literature, and cinema. Stresses the interactions between reality and representation, between author and reader and/or audience, and between text and interpretation. Emphasizes close reading of texts or viewing of films, followed by critical analysis.

## WL 3330 - Migration, Occupation, and Independence in North African Cinema

## Credits: 3

An introduction to the cinemas of Algeria, Tunisia, Morocco, Chad, and Mali. The course explores the themes of migration, occupation, and independence in both individual and national terms.

## WL 3331 - Survey: Russian Literature in Translation

## Credits: 3

Russian literature from the 18th century to the present. Works by Tolstoy, Dostoevsky, Chekhov, Solzhenitsyn, and others.

## WL 3332 - Special Topics: Russian Literature in Translation

Credits: 3
Texts, periods, and thematic and critical approaches vary from term to term.

## WL 3340 - Semiotics and Interpretation

## Credits: 3

Semiotics is the study of how meaning is produced and communicated. This course explores semiotic approaches to the interpretation of the most complex of all human communications: literary texts.

## WL 3341 - The Failure of Humanity in Rwanda

## Credits: 3

An introduction to 1994 Rwanda genocide that seeks to understand not only its origins but also its sociological, ethical, and human rights implications.

## WL 3349 - The African Diaspora: Literature and History of Black Liberation

## Credits: 3

Black literature played an important role in bringing on the collapse of the European colonial order, and it remains a major force in the struggle against neocolonialism today. The course explores links between literature and politics, literature and history, and thought and action in 20th-century Africa and the Caribbean. Readings and lectures are supplemented by class discussion, films, and videotapes about the Caribbean and Africa.

## WL 3350 - Existentialism and Literature

## Credits: 3

Existentialist perspectives on society, individual responsibility, politics, and war as presented in key literary texts by Kierkegaard, Dostoevsky, Malraux, Sarte, Camus, Ellison, and others.

## WL 3351 - Introduction to Media Literacy: Semiotics and Current Cultural Myths

## Credits: 3

Students learn how to decode a variety of verbal and nonverbal languages in mass media such as advertising, journalism, and entertainment TV. Focus is on the values (ideology) these discourses convey.

## WL 3355 - Tradition, Community, and Identity in African Cinema

## Credits: 3

Uses cultural studies theory to explore evolutions of African identity (individual, collective, and national) in the postcolonial period.

## WL 3359 - Masculinities: Images and Perspectives

## Credits: 3

The representation of male sex roles in Western literature, from Achilles to James Bond. Open to juniors and seniors; sophomores by permission of instructor.

## WL 3362 - Postcolonial France

## Credits: 3

A multidisciplinary course providing an introduction to, or better understanding of, some of the most passionate debates on assimilation, difference, and multiculturalism that have emerged in France in recent years.

## WL 3363 - Figuring the Feminine

Credits: 3
The feminist inquiry in France from the Middle Ages to the present. Texts by women that bear witness to women's struggles for civil, social, and political adulthood.

## WL 3365 - Special Topics French Literature in Translation

Credits: 3
Texts, periods, and thematic and critical approaches will vary from term to term.

## WL 3369 - Perspectives on Modern Germany

Credits: 3
A multidisciplinary survey of the German heritage, with emphasis on Germany's quest for identity and unity. Prerequisite: Sophomore standing or permission of instructor.

## WL 3370 - Shadows of Enlightenment: Human Rights in Germany

Credits: 3
Study of documents and debates on human rights, literature, and art from the Enlightenment to the present. Discussion of the Holocaust, human rights concerns in divided Germany, migration, and multiculturalism.

## WL 3371 - Latin America Through Film

Credits: 3
An exploration of key cultural themes, historical contexts, and cinematography concepts through the analysis of films portraying Latin American countries and their people. This course is an equivalent of SPAN 4365 . Students may only take WL 3371 or SPAN 4365.

## WL 3372 - Relocating Latinos and Their Cultures

## Credits: 3

Examines the multidisciplinary field of Latino/a Studies to better understand the place of Latinos in the U.S. A selection of texts from a variety of disciplines will inform our discussions of the major themes addressed: identity, immigration (history), language, education, and culture.

## WL 3373 - The Short Story in Latin America

## Credits: 3

Introduces important writers from countries including Argentina, Brazil, Colombia, Mexico, Chile, and Puerto Rico, as well as U.S. Latino/a writers. Examines how these different authors articulate their perspectives about cultural, social, and political dynamics through short stories. Students may only take WL 3373 or SPAN 5338.

## WL 3375 - Introduction to Psycholinguistics

## Credits: 3

Explores how the human brain learns, comprehends, and produces language. Employs a multidisciplinary approach that draws from linguistics, psychology, neurosciences, and philosophy.

## WL 3376 - Literature and Nation in Spanish America

## Credits: 3

Examines the important historical role literature plays in Latin American nation-building projects.

## WL 3377 - Havana as Revolution: The Cuban Capital in the National and Global Imagination

## Credits: 3

Examines ways in which Havana has functioned as a site for sustained cultural, social, and political revolution in both the national and global imagination from the late 19th century to the present. Students will study literary and historical texts, take field trips to significant sites, and engage in dialogue with members of the Havana community. (SMU-in-Havana)

## WL 3379 - Modern German Culture From the Enlightenment to the Present

## Credits: 3

Explores the history and culture of Germany from the late 18th century to the present. Focuses on conceptions of the nation and middle-class identities.

## WL 3380 - Classical Latin Literature in Translation

Credits: 3

## WL 3390 - Italian Cinema

Credits: 3
A chronological survey of Italian cinema from its beginnings to the present. Themes and cinematic styles of several internationally noted directors such as Rossellini, DeSica, Fellini, Antonioni, and Bertolucci, with attention to the Italian cinema as a reflection of sociopolitical trends.

## WL 3391 - Italian Literature in Translation: The Italian Novel

## Credits: 3

A close reading of five representative works. While the novels are considered in light of historical events, students give special attention to form and rhetoric in order to understand the novel's unique ability to express and create reality.

## WL 3392 - Italian Literature in Translation: Early Humanism

## Credits: 3

The course defines and characterizes the major aspects of 14th-century humanism by exploring the seminal works of Petrarch, Boccaccio, Salutati, Valla, and others.

## WL 3393 - Dante's Poetic Vision

## Credits: 3

Students read "Inferno" and "Purgatory" in English translation and explore the cultural and poetic values that reflect a specific world vision strongly conditioned by religious and political philosophy.

## WL 3394 - Boccaccio's Decameron and Medieval Storytelling

## Credits: 3

Students read stories from the Decameron in English translation along with such narrative predecessors as the Roman exempla, hagiography, monks' tales, sermons, and the bawdy French tales known as the fabliaux.

## WL 3396 - Leadership and Ethics in Literature

## Credits: 3

Examines the intersection between leadership and ethics in selected literary texts and explores leadership in a variety of settings such as business, civic and political engagement, and education.

## WL 3397 - China Before 1850

## Credits: 3

Examines changes and continuities from Neolithic times to 1850 in Chinese state, society, and religion, and the relations among the three spheres, through scholarly writings and primary sources.

## WL 4185 - Internship: World Languages

## Credits: 1

Offers experience in organizations where knowledge of a foreign language and/or the culture of the language communities is relevant. Prerequisites: Rising sophomore, junior, or senior standing; an overall GPA of 3.000 or higher; and sponsorship of the organization, agency, or corporation. Corequisite: Beginning or intermediate world language course that is relevant to the internship.

## WL 4285 - Internship: World Languages

## Credits: 2

Offers experience in organizations where knowledge of a foreign language and/or the culture of the language communities is relevant. Prerequisites: Rising sophomore, junior, or senior standing; an overall GPA of 3.000 or higher; and sponsorship of the organization, agency, or corporation. Corequisite: Beginning or intermediate world language course that is relevant to the internship.

## WL 4310 - French Muslim Citizens and the Algerian War: The Harkis

## Credits: 3

Focuses on the Harkis, the Muslim Algerian loyalists who served as auxiliaries in the French Army during the Algerian War from 1954 to 1962. Examines the Harkis as neither fully French nor Algerian through historical readings, visual media (films and documentaries), and popular culture. Meet once a week for 3 hours.

## WL 4311 - Literature and Theology: Catholic Thought From Augustine to the Present

## Credits: 3

Studies the Catholic vision of God and humanity in its development from antiquity to the present, through autobiographies, novels, poetry, film, and theology.

## WL 4345 - Gender and Human Rights in Latin American Women Writers

## Credits: 3

Explores constructions of sexuality, gender, and identity in key historical moments in literature by Latin American women, with a focus on the intersecting themes of gender rights and human rights. This course is the equivalent of SPAN 5375 /HRTS 4345. Students may only take WL 4345/HRTS 4345 or SPAN 5375.

## WL 4365 - Introduction to French Cinema

## Credits: 3

An introduction to French cinema's major works, filmmakers, and trends with an emphasis on the historic and cultural context of this cinema.

## WL 4385 - Internship: World Language

## Credits: 3

Offers experience in organizations where knowledge of a foreign language and/or the culture of the language communities is relevant. Prerequisites: Rising sophomore, junior, or senior standing; an overall GPA of 3.000 or higher; and sponsorship of the organization, agency, or corporation. Corequisite: Beginning or intermediate world language course that is relevant to the internship.

## World Languages

All WL/WLAN courses are conducted in English.

## WLAN 1301 - Beginning Language (Languages Not Taught At SMU)

## Credits: 3

Stresses the acquisition of basic skills: speaking, listening comprehension, reading, and writing. Three classes a week. For SMU Abroad students only.

## WLAN 1302 - Beginning Language Term Two

## Credits: 3

Stresses the acquisition of basic skills: speaking, listening comprehension, reading, and writing. Three classes a week.

Prerequisite: C- or better in WLAN 1301 (same language) or permission of program director. For SMU Abroad students only.

## WLAN 1401 - Beginning Language Term One (Languages Not Taught At SMU)

Credits: 4
Stresses the acquisition of basic skills: speaking, listening comprehension, reading, and writing. Five classes a week. For SMU Abroad students only.

## WLAN 1402 - Beginning Language Term Two

Credits: 4
Stresses the acquisition of basic skills: speaking, listening comprehension, reading, and writing. Five classes a week.
Prerequisite: C- or better in WLAN 1401 (same language) or permission of the program director. For SMU Abroad students only.

## WLAN 3311 - Special Topics Abroad in World Languages

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

## WLAN 3313 - Special Topics Abroad in World Languages

Credits: 3
Courses in SMU-approved international programs. Prior departmental approval required.

# Cox School of Business 

## General Information

## Vision Statement

The mission of the Edwin L. Cox School of Business is to improve the school's academic programs and reputation as a top-tier business school by providing a high-quality business education to students and the business community, conducting research that contributes to the understanding of business and management, and participating in the service activities of the University and professional organizations.

## History

From its beginning as the Department of Commerce for Southern Methodist University, the Edwin L. Cox School of Business has been educating the country's business leaders for more than 90 years.

Named in 1978 in honor of Dallas businessman Edwin L. Cox, the Cox School has a rich heritage that began in 1920 when the SMU Board of Trustees established a Department of Commerce at the request of the Dallas business community. In 1921 the Department of Commerce was renamed the School of Commerce, and in 1941 the Board of Trustees established the School of Commerce as a separate entity within the University. At this point, the School of Commerce became the School of Business Administration, and the Bachelor of Business Administration degree was approved by the trustees.

The graduate program at the School of Business Administration began in 1949 with the authorization of a Master of Business Administration program. Both the undergraduate and the graduate degree programs are accredited by the Association to Advance Collegiate Schools of Business (AACSB International). The Cox School also grants a minor in business administration and a minor in business to undergraduates. The graduate program at the School of Business Administration began in 1949 with the authorization of a Master of Business Administration program. Both the undergraduate and the graduate degree programs are fully accredited by the Association to Advance Collegiate Schools of Business (AACSB International). The graduate program offers M.B.A; M.S.; M.A./M.B.A.; J.D./M.B.A.; and M.S./M.B.A. degrees, including degrees offered in joint and dual programs with the other SMU schools. Also, the Cox school offers custom and open enrollment Executive Education certificate programs.

In 1965, the SMU Foundation for Business Administration was established. This group of advisers has helped guide the Cox School throughout the years and today is known as the Executive Board. Also instrumental in supporting the Cox School are members of its two successful mentoring programs: the Associate Board for M.B.A. students and the BBA Mentoring Alliance. These two boards involve more than 350 area business leaders who volunteer their time and expertise to students who want to start making business connections for the future.

## Cox School Complex

In 1952, ground was broken for the Joseph Wylie Fincher Memorial Building for the School of Business Administration. In 1987, two buildings were added to the Cox School complex: the Cary M. Maguire Building and the Trammell Crow Building. In 2005, the Cox School opened the James M. Collins Executive Education Center.

Today, the Fincher Building houses administrative and faculty offices as well as conference and meeting rooms, while the Maguire and Crow buildings primarily house classrooms and study rooms. The Collins Center is home to the region's premier resources for working professionals and executives and houses the Cox School's Executive Education programs, Executive M.B.A. program and M.B.A. Global Leadership Program Office (supported by The Norman E. Brinker Global Leadership Endowment Fund), as well as the Southwestern Graduate School of Banking.

Hailed as one of the most technologically advanced business learning facilities in the country, the Cox School complex has as its hub the Business Library, which combines many of the features of a traditional university library with the latest in online databases, search tools and presentation facilities. Through the Business Library, Cox School students, faculty and staff have access to instruction and research assistance from dedicated business librarians to enhance their use of current business news and financial, industry and market data from premier providers. In addition, the library contains a group presentation room, multimedia studio, personal computers, printers and scanners for student use. The Kitt Investing and Trading Center, added to the Business Library in 2011, is a state-of-the-art instructional and research facility designed to integrate financial data and technology into the finance curriculum, enhance innovative faculty research and teach students practical finance and investment applications. The BBA Library Research Program ensures that students are experienced in finding answers to complex questions and can present their research in an ethical and professional manner. These skills impact students' performance in the classroom, the interview process and their future career path.

## Centers and Institutes

## Edwin L. Cox Business Leadership Institute

Paula Hill Strasser, Director

The Edwin L. Cox Business Leadership Institute (BLI) offers undergraduate courses designed to develop B.B.A. students' fundamental business communication and leadership skills. The BLI provides students with essential knowledge and experience through lectures, corporate presenters, class discussions, self-assessments, simulations and comprehensive team projects. In addition, students sharpen their career management skills by perfecting their résumés and cover letters, and researching future career choices. The BLI helps students understand channels of communication and appropriate mediums within organizations, and also understand how global cultural diversity affects business communication and leaders. Students use course textbook, experiential learning, hands-on assignments and individual coaching to develop demonstrable written/oral communication skills and a portfolio essential for initiating a business career.

## The Executive Education Center

## Frank R. Lloyd, Associate Dean of Executive Education

The Executive Education Center is located in the Collins Center. The center is Dallas' best resource for advanced leadership and business training, offering numerous open-enrollment certificate programs to managers and working professionals in the business community. The center also offers custom programs tailored to the specific needs of individual organizations and designed to improve organizational performance. In addition to offering general leadership and business topics, the center offers specialties in leadership skills for the energy industry and Latino leadership development. A distinctive offering is the Summer Business Institute, a four-week business certificate for current nonbusiness students and recent graduates. The institute provides a solid foundation in accounting, marketing, finance and other key business topics, along with in-depth career guidance. This program, open to SMU and non-SMU students, provides a valuable credential in a competitive job market as it sets participants apart from other nonbusiness undergraduates.

## The Center for Marketing Management Studies

## Raj Sethuraman, Executive Director

The Center for Marketing Management Studies serves as a focal point for interaction among faculty, practitioners and students who share a common interest in applied marketing management research and education. The center sponsors research and educational programs in marketing management. Since 1989, the center has sponsored the

Graduate Marketing Certificate Program, designed to provide current and aspiring business professionals with the latest in marketing thought and practice. The program is held at the Dallas campus and at the SMU-in-Plano campus, one night each week throughout the school year.

## The Caruth Institute for Entrepreneurship

Jerry F. White, The Linda A. and Kenneth R. Morris Endowed Director

Founded in August 1970 and one of the earliest entrepreneurship centers, the Caruth Institute for Entrepreneurship has continuously developed innovative courses and programs to help individuals keep pace with the dynamic, rapidly changing field of entrepreneurship. The institute currently offers undergraduate, graduate, and professional development courses to give students the skills and knowledge necessary to launch and manage successful entrepreneurial ventures. In addition to its academic courses, the institute sponsors entrepreneurship clubs, a business plan competition and an MBA Venture Fund, and has created a number of unique programs that enable students to experience and better understand starting and building entrepreneurial ventures. Programs include the Southwest Venture Forum, where entrepreneurs, investors and the professionals who serve them can meet, and the Dallas $100^{\mathrm{TM}}$ Awards - an annual event that identifies and honors the 100 fastest-growing privately held companies in the Dallas area.

# The Robert and Margaret Folsom Institute for Real Estate 

Joseph D. Cahoon, Director

The Robert and Margaret Folsom Institute for Real Estate was established in 1984. The institute is engaged in a number of initiatives to support both undergraduate and graduate programs. It serves as a conduit for the commercial real estate industry, Folsom Institute Advisory Board members, alumni and SMU students to support and foster industry knowledge, training, internships, networking and community outreach. The institute cultivates tomorrow's innovative real estate leaders not only with monetary support but also by its dedication to academic excellence, real world applications, leadership coaching and career placements.

## Maguire Energy Institute

## W. Bruce Bullock, Director

The Maguire Energy Institute promotes the study of policy, marketing and management issues that affect oil, natural gas and electricity. Founded by Cary M. Maguire, chairman, president and chief executive officer of Maguire Oil Company, the institute is a leading-edge resource for energy industry information and facilitates the exchange of ideas among students, businesses, the media and government officials.

Students can participate in courses, workshops and seminars. The institute also conducts research and analysis, publishes a quarterly newsletter on important policy issues and focuses on exploring innovative ways to improve management of the world's oil and gas resources.

## JCPenney Center for Retail Excellence

Edward J. Fox, Executive Director

The JCPenney Center for Retail Excellence was endowed in 1999 through a gift from the J.C. Penney Company Inc. in order to promote, develop and integrate retail education and practice. Today, the center has become a leading source of academic expertise on consumer shopping behavior and the impact of marketing and merchandising decisions on retailer performance. Among its activities, the center fosters cutting-edge retail research, facilitates

SMU's undergraduate Retailing Club to stimulate interest in retail careers and cosponsors a retail speaker series with the Dallas/Fort Worth Retail Executives Association.

# The EnCap Investments \& LCM Group Alternative Asset Management Center 

William F. Maxwell, Director<br>Made possible by gifts from EnCap Investments and LCM Group, the EnCap Investments \& LCM Group Alternative Asset Management Center is designed to meet the increasing demand for investment professionals in the growing field of alternative assets, including hedge funds, private equity, venture capital, real estate, and oil and gas. The center offers courses leading to a specialization within the finance major at the undergraduate level. Selected course offerings are also open to M.B.A. and M.S. in Finance students. Undergraduate students interested in earning a specialization in alternative asset management apply for admission to the program during their junior year, and complete two courses under the direction of the EnCap Investments \& LCM Group Alternative Asset Management Center.

## William J. O'Neil Center for Global Markets and Freedom

## W. Michael Cox, Director

The O'Neil Center for Global Markets and Freedom was established by William J. "Bill" O'Neil (BBA, '55) and his wife Fay C. O'Neil. The O'Neil Center's focus is the study of the impact of competitive market forces on freedom and prosperity in the global economy: why some economies grow and others fail. The center conducts economic research on the nature of causes and consequences of economic freedom and other topics related to global prosperity, and provides economic education to students and the public on the principles of an open, competitive and free economy. More information is available at www.oneilcenter.org.

## Admission

The Cox School of Business offers three undergraduate programs. All Cox classes, unless otherwise noted in the course descriptions, are open only to students in the Bachelor of Business Administration or Minor in Business Administration programs. Students in the minor in business may enroll only in the classes listed in this minor's curriculum (Minor Requirements section). Note: Detailed information regarding SMU's admission requirements, regulations and procedures is found in the Admission to the University section of this catalog.

- The B.B.A. program offers seven academic majors within business. Admission is available to entering SMU students through the BBA Scholars Program, the Business Direct Program, or to continuing and transfer students through the process described in Admission of SMU Students to a Business Major or Admission of External Transfer Students to a Business Major below.
- The minor in business administration provides a comprehensive introduction to business for SMU students who have majors outside the Cox School. Courses in this minor are a subset of the B.B.A. core courses and are offered throughout the academic year. Admission to the minor in business administration follows the same requirements outlined in Admission of SMU Students to a Business Major or Admission of External Transfer Students to a Business Major below.
- The minor in business offers non-Cox students a foundation in business concepts to complement their primary areas of academic interest. Courses in this program are offered during summer and intersession terms at the three SMU campuses (Dallas and Plano in Texas and Taos, New Mexico). These courses are open to all non-Cox majors or students not enrolled in the minor in business administration. Cox majors and minors in business administration may take BUSE 3310 as free elective credit only; they may not take other minor in business courses.


## Guidelines for In-class Requirement and Use of Electronic Devices

All B.B.A. majors and minors in business administration and all prebusiness students enrolled in ITOM 2308, ITOM 3306 and ACCT 4307/ITOM 4307 are required to have laptop computers and bring them to each class session. Windows-based PCs are highly preferred, particularly for finance majors. Note: Students must have Windows AND the current version of Office for Windows installed on their laptops.

All instructors have the right and responsibility to set course policy, which should be included in the syllabus. Students are bound by the instructor's policy regardless of what other instructors or courses may accept and/or require. This policy may include (but is not restricted to) the following alternatives.

- The use of laptop computers is limited to one of the following levels:
- Laptop use is restricted to course-related (and possibly session-related) content and applications only.
- If there is no course-related content that students can reasonably be expected to need during class sessions, laptop use can be restricted to note-taking use only.
- If in-class tests are provided in electronic form, students may be allowed to take the test on their laptops.
- If none of the above uses is desired, the use of laptops can be prohibited during class sessions.
- Use of chat services during class sessions is prohibited.
- Unless there are course-related applications of mobile phones, PDAs and smart-phones, the use of such equipment during class sessions is prohibited. Mobile phones must be shut off or set to silent mode during class sessions, and answering telephone calls and text messages during class is prohibited.
- Use of cameras and video cameras on mobile phones and laptops during class sessions may be prohibited or allowed. For example, instructors may allow students to take photos of the whiteboard and/or projected materials in the session.


## Admission of SMU Students to a Business Major/B.B.A. Degree Program

Admission to the Cox undergraduate program may be earned by current SMU students via the admission requirements below, or at the time a student is admitted to SMU via the BBA Scholars Program or the Business Direct Program (under Applying for Admission as a First-Year Applicant). Regular admission to any B.B.A. major requires

1. Completion of a minimum of 39 credit hours.
2. A minimum all-college cumulative GPA of 3.500 .
3. Successful completion of the business subset courses:

ACCT 2301
DISC 1312 or DISC 2305; DISC 1313 or DISC 2306
ECO 1311, ECO 1312
ITOM 2305, or STAT 2331, or EMIS 3340, or CSE 4340/STAT 4340
MATH 1309 or MATH 1337 or MATH 1340

## Notes

- For admission purposes to the Cox B.B.A. program, the all-college cumulative GPA is recorded at the end of the term the student completes the business subset courses AND has at least 39 cumulative credit hours. The all-college cumulative GPA includes all SMU coursework and courses completed at all other colleges if these courses have content-based equivalents at SMU. If credit is nontransferable because the
grade earned is below $C$-, but the course is equivalent in content to an SMU course, the grade will count toward the all-college cumulative GPA.
- Once a student enrolls at SMU, all remaining subset courses must be completed through enrollment at SMU.
- All subset courses must be taken for a grade (not taken pass/fail), with the exception of those courses in which the student has test credit.
- Students must have passing grades in all subset courses before entering the Cox School.
- Current University grading policy, as summarized under Academic Forgiveness in the General Policies section of this catalog, permits forgiveness of academic work taken 10 or more years prior to the term of admission. Academic work forgiven under this policy will not be included in the all-college cumulative GPA.


## Admission via the Extended Subset

Students who do not achieve a 3.500 all-college cumulative GPA and/or 39 credit hours completed may seek admission to Cox through the extended subset option by adding the first graded attempt of ACCT 2302 to the original subset. Students who have completed at least 39 credit hours and who earn a minimum 3.500 all-college cumulative GPA as of the term in which the extended subset is completed will be admitted to the Cox B.B.A. degree program. Once a student enrolls at SMU, ACCT 2302 must be completed through enrollment at SMU.

## Applying for Admission as a First-Year Applicant

First-year applicants submit an application for admission to the SMU Division of Enrollment Services and follow the University requirements for admission (under the Admission to the University section in this catalog). Applicants who are admitted to SMU and who indicate business as their primary academic interest on the application for admission are automatically reviewed for admission to the Cox BBA Scholars Program or the Business Direct Program. More information is available in the BBA Scholars and Business Direct programs sections.

Admission to the Cox BBA Scholars Program and to the Business Direct Program is by invitation only to students entering SMU directly from high school. Transfer students are not considered for admission in either the BBA Scholars Program or the Business Direct Program. First-year students invited to join either program must accept their invitation no later than the University's deposit deadline (typically May 1) prior to SMU matriculation in the following fall. Students who accept admission to the Cox BBA Scholars Program may enter Cox during their first year at SMU. Students who accept admission to the Business Direct Program may enter Cox after completion of the subset courses with good academic standing.

## Declaring a Business Major as a Current SMU Student

Students who meet the Cox admission requirements should complete a Change of Degree Program form at the records office of their current school. This form will be forwarded with the student's academic record to the Cox School. Business majors normally enter Cox after three terms of full-time enrollment; students who take longer to complete the admission requirements may need additional time to complete degree requirements.

# Admission of External Transfer Students to a Business Major/B.B.A. Degree Program 

## Admission of external transfer students to a B.B.A. major requires

1. Admission to SMU.
2. Completion of a minimum of 39 credit hours of transferable college credit.
3. Minimum all-college cumulative GPA of 3.500.
4. Successful completion of the business subset courses:

ENGL 1301 or DISC 1311; ENGL 1302 or DISC 1312; DISC 1313 (if required)
ECO 1311, ECO 1312
MATH 1309 or MATH 1337 or MATH 1340
ACCT 2301
ITOM 2305, or STAT 2331, or EMIS 3340, or CSE 4340/STAT 4340
Notes

- For admission purposes to the Cox B.B.A. program, the all-college cumulative GPA is recorded at the end of the term the student completes the business subset courses AND has at least 39 cumulative credit hours. The all-college cumulative GPA includes all SMU coursework and courses completed at all other colleges if these courses have content-based equivalents at SMU. If credit is nontransferable because the grade earned is below $C$-, but the course is equivalent in content to an SMU course, the grade will count toward the all-college cumulative GPA.
- Current University grading policy, as summarized under Academic Forgiveness in the General Policies section of this catalog, permits forgiveness of academic work taken 10 or more years prior to the term of admission. Academic work forgiven under this policy will not be included in the all-college cumulative GPA.
- Students must have passing grades in all subset courses before entering the Cox School.
- When evaluating courses taken at other colleges or universities, the Cox School will use the grades and credit hours designated by the school at which the courses were taken. The Cox School will not recalculate grades earned at schools that use grading systems different from SMU's nor change the number of credit hours for a course.

Transfer students who have not completed the business subset courses may be eligible for admission to SMU as prebusiness majors and will then follow the admission requirements outlined above for current SMU students. Those who have completed the subset courses but who do not meet Cox admission requirements may be eligible for admission to SMU via the extended subset option or for admission to SMU to pursue a nonbusiness major.

## Transfer Admission via the Extended Subset

Students who do not achieve a 3.500 all-college cumulative GPA and/or 39 credit hours completed may seek admission to Cox through the extended subset option by adding the first graded attempt of ACCT 2302 to the original subset. Students who have completed at least 39 credit hours and who earn a minimum 3.500 all-college cumulative GPA as of the term in which the extended subset is completed will be admitted to the Cox B.B.A. degree program. Once a student enrolls at SMU, ACCT 2302 must be completed through enrollment at SMU.

## Admission to Minors

SMU students who are NOT seeking a major in the Cox School may select from two business minors. The minor in business administration provides a comprehensive introduction to business for SMU students who have majors outside the Cox School. Students in this minor take specified B.B.A. core courses, which are offered throughout the academic year. The minor in business offers non-Cox students a foundation in business concepts to complement their primary areas of academic interest. Courses in this program are offered during summer and intersession terms at SMU's three campuses (Dallas and Plano in Texas and Taos, New Mexico). These courses are open to all non-Cox majors or students not enrolled in the minor in business administration.

## Admission to the Minor in Business Administration

The minor in business administration operates concurrently with the B.B.A. degree program and includes seven courses that can apply toward either the B.B.A. degree or the minor in business administration (Minor Requirements section). Students in this minor must meet the same admission requirements as students in the Cox B.B.A. program as described above and will be enrolled in the same sections of business courses as business majors.

## Admission to the Minor in Business

The minor in business is open to all SMU students who are NOT pursuing a B.B.A. major or the minor in business administration. The minor in business does not have prerequisite courses or GPA-based admission requirements. The minor in business offers courses designed to provide a general overview of business topics to complement a variety of academic interests. Students may pursue this minor by enrolling in the appropriate courses and completing a minor declaration form with the academic adviser for their major.

## Statute of Limitations

If a student is readmitted to SMU after an absence of three years or longer, the student will be readmitted under the University catalog in effect at the time of readmission and will be subject to degree and admissions requirements in that current catalog.

## Acceptance of Transfer Credit Prior to Enrollment

A prospective transfer student must present to the Division of Enrollment Services official transcripts containing a full record of all previous college work attempted. Failure to provide full records of all work is grounds for dismissal from the Cox School. To avoid delay, students should forward transcripts to the SMU Division of Enrollment Services no later than July 1 for the fall term and December 1 for the spring term.

In general, transfer credit will be accepted for business major or minor credit only if the courses completed are equivalent in content to those offered at SMU and if the university's school of business at which the courses were completed is accredited by The Association to Advance Collegiate Schools of Business (AACSB International). In the case of transfer credit completed at a junior/community college, only those courses with equivalents at the first-year and sophomore level at SMU (1000- and 2000-level courses) will be accepted for business major or minor credit.

Prior to matriculation, the Cox School will accept transfer business credit toward the B.B.A. degree from schools accredited by AACSB International regardless of the student's classification if there are equivalent/appropriate courses at SMU.

Courses completed with a grade of $D+$ or less or those completed without letter grades (pass/fail or satisfactory/unsatisfactory) will not be transferred for any degree credit. Grades earned elsewhere will be considered for admission purposes and in determining graduation with honors. When evaluating courses taken at other colleges and universities, the Cox School will use the grades designated by the school at which the courses were taken. The Cox School will not recalculate grades earned at schools that use grading systems different from SMU's.

## Transfer Credit for Current SMU Students

Students enrolled in the Cox School who are seeking to fulfill any portion of their degree requirements through transfer credit must file a petition for approval of their intentions with the B.B.A. Academic Advising and Records Office in 252 Maguire prior to enrollment for such courses. With the approval of the appropriate SMU departmental chair, SMU students may complete a maximum of 30 transfer credit hours for degree credit. Students are cautioned to check the current SMU catalog before enrolling in courses at other institutions and to verify transferability with the
appropriate offices. Matriculated students must complete all required business courses through enrollment at SMU. Exceptions to this policy require concurrent approval of the associate dean for undergraduate studies, the appropriate department chair, and the director of B.B.A. academic advising and records.

Regardless of the number of acceptable transfer credit hours, at least 60 of the total 122 baccalaureate credit hours must be completed through enrollment at SMU. Of the required business credit hours, a minimum of 30 must be completed through enrollment at SMU or SMU-approved international programs.

Detailed information regarding University-wide policies is provided in this catalog in the Admission to the University section and the Academic Records and General and Enrollment Standards section, and topics for the latter are listed in the table of contents.

## Academic Regulations

## B.B.A. Degree Requirements

The Edwin L. Cox School of Business adheres to the Association to Advance Collegiate Schools of Business (AACSB International) standards of accreditation. Students will be awarded the Bachelor of Business Administration degree upon successful completion of the following requirements:

- Admission. Detailed information regarding admission to the Cox School of Business is found in the Admission section above.
- Grade Requirements. An overall GPA of at least 2.000 on all SMU work attempted and on all SMU business coursework attempted. Students must earn at least a 2.000 GPA in all business coursework attempted within the student's declared major to graduate with that major.
- Pass/Fail Requirements. Business students may elect the pass/fail option in business elective courses only after satisfactory completion of the previous term, all Cox core course requirements and all requirements of the student's declared major. The exception is courses within Cox that are designated as pass/fail only.
- Minimum Credit hours and SMU Credit Requirement. University policy requires a minimum of 122 approved credit hours. Detailed information is found in the Curriculum section below. Of the 122 minimum required credit hours for a degree, at least 60 academic credit hours must be earned as SMU credit in SMU courses or SMU-approved international programs. No more than two credit hours of Wellness or PRW courses can count toward the 122 minimum credit hours. A minimum of 30 business credit hours must be completed through enrollment at SMU or SMU-approved international programs. The maximum number of business credit hours a student may take is the sum of the number of credit hours required to complete the student's major, plus up to 12 credit hours in one concentration if the student is pursuing a concentration (under Concentrations for Majors below), plus up to six credit hours of unrestricted business electives. Students may not exceed six credit hours of unrestricted business electives. Students are not required to take courses in a concentration or unrestricted business electives. The maximum limit on business credit hours does not include business courses taken abroad, business internship courses not required for a major, business-directed studies or credit hours needed to meet the business degree requirements related to the minimum credit hours taken at or through SMU. Business majors are limited to one major within the Cox School.


## Major

## Minimum Number of Business Credit Hours

Accounting
Finance

All other business majors

## Application for Graduation

In order to graduate, students must file an application for candidacy to graduate with the B.B.A. Academic Advising and Records Office of the Cox School (in 252 Maguire) before the final term of coursework. Students should consult the Official University Calendar for graduation application deadlines.

In addition to requiring students to fulfill all academic requirements, the Cox School may consider any judicial or disciplinary matters before any degree may be conferred. Students must meet all financial obligations to the University in order to receive their diploma and transcript(s).

## Commencement Activities Prior to Completion of Degree Requirements

Participation in May graduation activities is allowed for students who are August graduates provided they are enrolled to complete all graduation requirements during the summer following May graduation activities.

## Curriculum Requirements

The requirements summarized below must be satisfied to earn the Bachelor of Business Administration degree. In addition to the University-wide requirements, a core of required business fundamental courses has been designed by the faculty of the Cox School as specified below. Each core course must be passed for a student to be eligible for graduation. Generally, Discernment and Discourse, calculus, and economics courses should be completed in the student's first year; accounting, managerial statistics, business communications and information systems requirements in the sophomore year; finance, legal environment and ethics, marketing, management, and operations management requirements in the junior year; and the business strategy requirement (STRA 5370 or CISB 5397, also known as capstone courses) in the senior year. Students must be enrolled in BLI 3302 in their first semester in the Cox School.

Students are responsible for designing their own degree programs with assistance from the Cox academic advisers. Coordination with the Cox Career Center is highly advantageous for students who want to align major and course selection with their career aspirations. Close attention should be given to course and knowledge prerequisites as well as course content to maximize the value of each course and to avoid enrolling in a course for which a student has insufficient preparatory background. It is expected that students will consult with faculty and academic advisers in determining their course selections.

Each student's file, reflecting his or her total academic record, is located in the B.B.A. Academic Advising and Records Office, 252 Maguire. Transcripts of the student's official record should be requested from the Office of the Registrar.


#### Abstract

Advising

The undergraduate program of the Cox School of Business is strongly committed to the academic advising process and believes that advising is effective only if the student actively participates in, and assumes responsibility for, the advising process. Cox academic advisers are available in 252 Maguire for student appointments. All students admitted to the Cox School are required to complete a two-part orientation session, which includes the B.B.A. Academic Advising and Records Office, the Cox Career Center and the Business Library. After the initial orientation, students are required to consult with a B.B.A. adviser prior to enrollment every term until graduation.


Prior to each advising appointment, students are expected to examine their electronic degree progress report carefully, as it is the student's responsibility to help assure the eDPR's accuracy. Students enroll, swap and drop courses on my.SMU. The director of B.B.A. academic advising and records will add a student to a closed class only if the student is a graduating senior and there are no other course options for completing a degree requirement.

Cox faculty members provide assistance in the areas of their professional expertise, offering guidance in selecting and sequencing courses appropriate for meeting specific academic and career goals.

## Education Abroad

Cox students may take no more than six credit hours of B.B.A. business core courses (out of 33 total credit hours of business core courses) in SMU Abroad programs. Students may take no more than six credit hours of courses required for their business major in SMU Abroad programs. Students may take no more than six credit hours of business courses that do not count for the business core or for the major in SMU Abroad programs.

## Career Education and Services

The undergraduate Cox Career Center fosters the development of lifelong career management skills, providing exposure to various careers and developing skills that will help students secure employment. Students learn career planning, personal marketing, resume and professional correspondence development, and interview and job search skills. Career management fundamentals are taught in the required BLI 3302 course. The career coaches meet with students one-on-one to develop individualized career plans and assist them with their internship or job search. Internships are strongly encouraged and are considered a key component of the undergraduate experience at Cox. SMU's location in Dallas allows students to pursue part-time internships during the academic year as well as partand/or full-time internships during the summer worldwide. In addition, the Cox Career Center provides opportunities for B.B.A. students to interact with employers at career-related events such as career fairs, workshops, panels and seminars focused on specific industries, professions or companies. Students are encouraged to start this process early and make an appointment with a career coach during the term they are accepted to Cox. Ongoing meetings with career coaches are important for students to continue polishing the professional skill sets necessary for a successful job search. The Cox Career Center is located in 254 Maguire.

## BBA Mentoring Alliance

The BBA Mentoring Alliance is a professional mentoring experience that pairs business undergraduates one-on-one with executives in the Dallas-area business community. The Mentoring Alliance enhances a student's collegiate experience by providing firsthand insights into the business world while teaching the value of effective networking. Eligibility for the mentoring program requires a declared major in business, junior or senior status, and good academic standing. B.B.A. students on academic probation are not eligible to participate. After acceptance into the program, students are matched with a mentor for an academic year.

## Honors Program

The Cox B.B.A. Honors Program offers an enhanced curriculum to outstanding business students. B.B.A. students admitted to this program have the opportunity to take rigorous courses that challenge their intellectual abilities and sharpen their professional skills. These courses are taught by some of the outstanding professors at the Cox School and are similar to M.B.A. courses. Honors courses are structured to provide students with a greater understanding of current business practices and the academic theories that will help create the business practices of the future. In addition to honors courses, students in the Cox B.B.A. Honors Program have the opportunity to participate in extracurricular activities that complement their business education. Enrolling in the Cox B.B.A. Honors Program does not preclude participation in other honors programs at SMU.

## Types of Honors Classes

The Cox School offers two types of undergraduate honors courses:
Core Courses. The B.B.A. program has 11 required core courses that introduce students to the basic disciplines in business, such as accounting, finance, marketing, management, communication, law and strategy. Honors sections of the B.B.A. core courses are open only to students in the B.B.A. Honors Program. It is expected that honors students will enroll in as many honors core courses as possible.

Electives. Business elective courses teach advanced concepts in one area of business. A number of honors sections of advanced electives are offered each year. Students in the B.B.A. Honors Program may apply to enroll in honors sections of elective courses. These sections are also open to business majors who are not in the B.B.A. Honors Program. Students in the B.B.A. Honors Program are encouraged to enroll in electives related to their major.

## Admission to the B.B.A. Honors Program

Students who are accepted into the B.B.A. Honors Program must maintain a minimum GPA of 3.500 in their SMU GPA and their B.B.A. Honors Program courses to remain in the program; this GPA requirement begins once a student has at least six credit hours of honors courses. Students whose GPA falls below 3.500 have a one term grace period to meet the requirement. There are two paths to entering the Cox B.B.A. Honors Program:

Entry by Invitation. High school students who apply for admission to SMU and who indicate business as their primary academic interest are automatically reviewed for admission to the Cox B.B.A. program as BBA Scholars. Admission to the Cox BBA Scholars Program is by invitation only. Selected BBA Scholars will be invited to join the B.B.A. Honors Program at the time of admission to SMU. There are no additional admissions materials that a student needs to complete to be considered for the B.B.A. Honors Program. BBA Scholars who are not selected for the B.B.A. Honors Program at the time of admission to SMU may apply to join the B.B.A. Honors Program at the time of completion of the business subset courses.

Entry by Application. All Cox students may apply for admission into the program at the end of the term in which the business subset courses are completed. In order to apply, students must have at least a 3.500 GPA in the sixcourse subset and have at least a 3.500 SMU GPA. Admission approval is obtained in the B.B.A. Academic Advising and Records Office. Admission criteria for the B.B.A. Honors Program are updated periodically and are based on academic achievements and potential. Admission may not be offered to all students who apply.

## The Honors Curriculum

The following is a sample schedule of honors sections for an honors student:

| First Year | ITOM 2305 | BLI 3302 |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Sophomore <br> Year | ACCT 2301 | ACCT 2302 | ITOM 2308 |  |
| Junior Year | FINA 3320 | ITOM 3306 | MKTG 3340 | MNO 3370 |
| Senior Year | BL 3335 | STRA 5370 | Honors Electives |  |

Additional information about the courses is in the Course Descriptions section.

## Honors Notation on the Diploma

Students who are in the Cox B.B.A. Honors Program will receive an honors notation ("Honors in Business") on their transcript and diploma if they complete at least six honors courses ( 18 credit hours), at least four ( 12 credit hours) of which must be at the junior or senior level, and have both an SMU GPA and a Cox Honors Program GPA of at least 3.500. The Cox Honors distinction is separate from the cum laude distinctions awarded at graduation.

## BBA Scholars Program

The BBA Scholars Program affords numerous special opportunities, including networking with Cox faculty and the Dallas business community, invitations to special events, and tailored academic advising and career services. Participation in this program enhances students' educational experience and helps develop the skills and connections necessary for professional success. BBA Scholars are encouraged to participate in honors-level business courses to enhance their education experience in the Cox School.

## Business Direct Program

The Business Direct Program offers admission to the Cox School by invitation only based on students' high school performance and after completion of the Cox required subset courses with good academic standing (2.000 minimum GPA). The list of subset courses is found under Admission of SMU Students to a Business Major/B.B.A. Degree Program. Business Direct students may enter the Cox Honors Program if they qualify by their subset grades and SMU GPA; additional information is found under Entry by Application.

## Directed Studies

Business students may pursue independent studies, a research-based project, in a specified department under the sponsorship of a full-time Cox faculty member. This project may involve further study by the student in some aspect not covered in regularly scheduled business courses. B.B.A. students must first complete the basic required course in the field of study. Business elective or free elective credit will be granted to a maximum of six credit hours and cannot be used to fulfill major requirements. Directed studies courses may be taken pass/fail without completion of the business major. Independent studies will be exempted from the maximum credit hour limit. Students on academic probation may not register for independent studies.

## Internships

Business students may take up to three credit hours of general internship courses for work experience. With the exception of students in the marketing major, students cannot use the credit hours toward the B.B.A. major or minor requirements. Internships are for pass/fail credit only.

## Concurrent Degrees

B.B.A. students may simultaneously complete additional major(s) and/or minor(s) outside of business. Interested students should contact the B.B.A. Academic Advising and Records Office in the Cox School in 252 Maguire and the appropriate representative of the dean of the school in which the additional major/minor will be earned.

## Programs of Study and Business Courses

The Cox School offers seven business majors, a specialization within one major, a minor in business administration and a minor in business. Declared business majors may also choose to add one of four concentrations.

## Majors

Accounting
Finance
Financial Consulting
General Business
Management
Marketing
Real Estate Finance

## Concentrations

Energy Management
Entrepreneurship
Real Estate Finance
Risk Management and Insurance

## Specialization (Finance Major)

Alternative Asset Management
All business courses have been approved by the faculty of the Edwin L. Cox School of Business. It should be noted that not all courses described in this catalog are necessarily offered in any given academic year. Students should check published course schedules to see which courses are offered. From time to time, some courses may be changed and new courses added. Students should use caution in selecting courses to avoid repetition of courses previously taken.

## Concentrations for B.B.A. Students

SMU students who are declared business majors may choose to add one of four concentrations: energy management, entrepreneurship, real estate finance, or risk management and insurance. Each concentration consists of four courses (12 hours).

Courses for the concentrations will not double count toward the business core or the majors with the exception of the general business major. No courses may be substituted for concentration courses.

## Accounting

## Professor Hemang Desai, Department Chair

Professors: Hemang Desai, Joseph Magliolo, Stanimir Markov, Wayne Shaw
Associate Professors: Nilabhra Bhattacharya, J. Douglas Hanna
Assistant Professors: Gauri Bhat, Ruihao Ke, Sorabh Tomar, Dimitris Vrettos, Kara Elyse Wells
Professors of Practice: Barry Bryan, Gregory Sommers, Wendy M. Wilson
Clinical Professor: Susan Riffe

## Accounting, B.B.A.

All B.B.A. degree-seeking students should take ACCT 2301 and ACCT 2302 during their sophomore year. Matriculated students must take these courses through enrollment in courses offered by the Cox School of Business.

Most accounting majors also complete an accounting internship, ACCT 5325 and ACCT 5326, which does not count toward the B.B.A. degree requirements but is completed using additional available business credit hours.

To earn the B.B.A. degree with a major in accounting, students must complete all University-wide requirements and the core B.B.A. degree requirements, and satisfy the following additional requirements:

Note: The core accounting courses must be taken through enrollment at SMU.

## Core Requirements (15 Credit Hours)

- ACCT 3311 - Intermediate Accounting I
- ACCT 3312 - Intermediate Accounting II
- ACCT 4311 - Cost Accounting I
- ACCT 4315 - Federal Income Tax I
- ACCT 5314 - Audit Risk and Controls


## Electives: (6 Credit Hours)

Selected from the following:

- ACCT 3391 - Ethics in Accounting
- ACCT 4307 - Business Modeling with Spreadsheets
- ACCT 5317-Accounting Theory


## Courses:

ACCT 2301 - Introduction to Financial Accounting

Credits: 3
Develops an understanding of how the fundamental activities of a business enterprise are reflected in its financial statements, and how financial accounting information can be used effectively for external decision-making purposes (decisions such as investment, credit, risk management, and financing). Prerequisites: ECO 1311, ECO 1312 and MATH 1309 or MATH 1337.

## ACCT 2302 - Introduction to Managerial Accounting

## Credits: 3

Introduces the use of accounting information for management purposes, including decision-making, planning, and control of operations. Students learn to integrate topics in cost determination, economic analysis, budgeting, and management and financial control. Prerequisite: ACCT 2301.

## ACCT 2310 - Accounting Concepts

## Credits: 3

A broad introduction to financial, cost, and managerial accounting concepts and practices. Stresses the understanding of financial statements as contrasted to the preparation of these documents. Covers product cost, including estimating overhead and the underlying assumptions. Discusses using managerial accounting techniques for decision-making, including breakeven analysis, relevant costing, and budgeting. Students who already have credit for ACCT 2301 will not receive credit for this course. Cox majors and minors in business administration will not receive credit for this course and may not enroll in it.

## ACCT 3311 - Intermediate Accounting I

## Credits: 3

An overview of financial statements and revenue recognition that focuses on the left-hand side (assets) of the balance sheet. Provides the necessary foundation for comprehension by users and preparers of the information in financial statements.
Prerequisite: ACCT 2302. Reserved for Cox majors.

## ACCT 3312 - Intermediate Accounting II

## Credits: 3

Continuation of ACCT 3311. Focuses on items on the right-hand side (liabilities and stockholders' equity) of the balance sheet. Prerequisite: ACCT 3311. Reserved for Cox majors.

## ACCT 3391 - Ethics in Accounting

## Credits: 3

Develops students' ability to identify and evaluate ethical issues related to accounting and business management in a corporate environment. Students who take MNO 3375 may not receive credit for ACCT 3391, nor may students taking ACCT 3391 take MNO 3375 for credit. Students seeking accounting certification should note that ACCT 3391 is a gateway course for eligibility to take the CPA examination. Prerequisite: Accounting major with senior standing or ACCT 5325. Reserved for Cox majors.

## ACCT 4116 - Tax Compliance

## Credits: 1

Provides tax students with a general understanding of corporate, partnership, and Sub-S corporation tax rules. Teaches students to prepare tax returns for each of these entities and how the information on these returns affects individuals. Prepares students for the tax internships they will be working on in the spring. Prerequisite: ACCT 4315. Reserved for Cox majors.

## ACCT 4307-Business Modeling with Spreadsheets

## Credits: 3

Introduces advanced quantitative modeling techniques for business decision-making. Covers a variety of modeling techniques, business analytics concepts, and data analysis tools. Students learn to implement these techniques in spreadsheet
models that assist businesses in understanding and managing risk and improving decision-making. Applications cover a broad range of functional areas, including accounting, finance, marketing, and operations. Prerequisites: ACCT 2302; ITOM 2308, ITOM 3306; FINA 3320. Reserved for Cox majors.

## ACCT 4311-Cost Accounting I

## Credits: 3

Focuses on the measurement, accumulation, and control of costs. Topics include product cost accounting, cost behavior analysis, direct costing, standard cost variance analysis, and relevant cost analysis. Prerequisite: ACCT 2302. Reserved for Cox majors.

## ACCT 4315-Federal Income Tax I

## Credits: 3

Covers the conceptual basis and structure for the determination of income taxes, including the tax research methods used in preparing tax returns, solving problems, and planning business decisions. Prerequisite: ACCT 2302. Reserved for Cox majors.

## ACCT 5314 - Audit Risk and Controls

## Credits: 3

Covers understanding, developing, and analyzing financial and management accounting systems; applying fundamental concepts to contemporary issues; and analyzing management internal control functions. Presents the behavioral characteristics and mechanics of accounting fraud. Prerequisite: ACCT 3311. Reserved for Cox majors.

## ACCT 5317-Accounting Theory

Credits: 3
Study of selected topics and current issues in the area of accounting theory. Prerequisite: ACCT 3312. Reserved for Cox majors.

## ACCT 5318 - Independent Studies in Accounting

## Credits: 3

Directed research in accounting. Prerequisites: ACCT 3311, junior standing, and instructor approval.

## ACCT 5319 - Independent Studies in Accounting

## Credits: 3

Directed research in accounting. Prerequisites: ACCT 3311, junior standing, and instructor approval.

## ACCT 5325-Accounting Internship

Credits: 3
Prerequisites: Senior standing and departmental approval.

## ACCT 5326-Accounting Internship

Credits: 3
Prerequisites: Senior standing and departmental approval.

## Business Administration and Business Leadership

## BUSINESS ADMINISTRATION

BA 3200 - Special Topics: International Business Administration

Credits: 2
Special topics in international business taught abroad.

BA 3300 - Special Topics: International Business Administration

Credits: 3
Offered through SMU Abroad. Prerequisite: Junior standing.

BA 3301-Special Topics: International Business II

Credits: 3
Offered through SMU Abroad. Prerequisite: Junior standing.

BA 4111 - Business Internship

Credits: 1

BA 4112 - Business Internship

Credits: 1

BA 4113 - Business Internship

Credits: 1

BA 4315 - European Common Market

Credits: 3
Offered through SMU Abroad. Prerequisite: Junior standing.

BA 5180 - Directed Study

Credits: 1
Directed research in business. Prerequisite: Junior standing and permission of the instructor.

BA 5280 - Directed Study

Credits: 2
Directed research in business. Prerequisites: ACCT 2312, junior standing, and permission of the instructor.

BA 5380 - Directed Study

Credits: 3
Directed research in business. Prerequisites: ACCT 2312, junior standing, and permission of the instructor.

## BUSINESS LEADERSHIP INSTITUTE

## BLI 1110 - Special Topics in Business Administration: BBA Scholars Seminar

Credits: 1
Introduces various business topics, including an overview of business disciplines and careers in business. Restricted to BBA Scholars.

## BLI 3302 - Business Communications and Leader Development

## Credits: 3

Promotes students' professional success as effective communicators and leaders. Covers interpersonal skills and the vital roles that ethics, integrity, and trust play in leading a successful business. Develops skills for effective career management, oral presentations, business writing, teamwork, project management, global communication, and increases understanding of contemporary business topics. Students must be enrolled in BLI 3302 in their first semester in the Cox school. Reserved for Cox majors and BBA Scholars.

## Finance

Professor James S. Linck, Department Chair
Professors: James S. Linck, William F. Maxwell, Darius P. Miller, James L. Smith, Rex W. Thompson, Kumar Venkataraman, Michel R. Vetsuypens
Associate Professors: Amar Gande, Chotibhak Jotikasthira
Assistant Professors: Nickolay Gantchev, Stacey Elizabeth Jacobsen, Mattia Landoni, Mehrdad Samadi
Professors of Practice: Mukunathan Santhanakrishnan, Art Selender, Donald Shelly, Nathan G.
Walcott, Brian E. Young
Clinical Professor: Michael L. Davis
Visiting Assistant Professor: Diego Patricio Vega San Martin

## Finance, B.B.A.

To earn the B.B.A. degree with a major in finance, students must complete all University-wide requirements and the core B.B.A. degree requirements, and satisfy the following additional requirements:

Note: The core finance courses must be taken through enrollment at SMU.

Core Requirements (18 Credit Hours)

- FINA 4325 - Advanced Financial Management
- FINA 4326 - Investment Analysis and Portfolio Management
- FINA 4327 - Derivatives
- FINA 4329 - International Finance
- ACCT 3311 - Intermediate Accounting I
- ACCT 3312 - Intermediate Accounting II

Electives: (6 Credit Hours)

Selected from the following:

- FINA 3330 - Money and Capital Markets
- FINA 4328 - Management of Financial Institutions
- FINA 5132 - Portfolio Management Practicum and
- FINA 5232 - Honors Practicum in Portfolio Management
- FINA 5240
and
- FINA 5441
- FINA 5348 - Financial Modeling


## Financial Consulting, B.B.A.

To earn the B.B.A. degree with a major in financial consulting, students must complete all University-wide requirements and the core B.B.A. degree requirements, and satisfy the following additional requirements:

Note: The core accounting and finance courses must be taken through enrollment at SMU.

## Accounting Core (9 Credit Hours)

- ACCT 3311 - Intermediate Accounting I
- ACCT 3312 - Intermediate Accounting II
- ACCT 4315 - Federal Income Tax I


## Finance Core (9 Credit Hours)

- FINA 4325 - Advanced Financial Management
- FINA 4326 - Investment Analysis and Portfolio Management
- FINA 4329 - International Finance


## Electives: (6 Credit Hours)

Selected from the following:

- ACCT 4307 - Business Modeling with Spreadsheets
- ACCT 4311 - Cost Accounting I
- ACCT 5317-Accounting Theory
- FINA 3330 - Money and Capital Markets
- FINA 4327 - Derivatives
- FINA 4328 - Management of Financial Institutions
- FINA 5132 - Portfolio Management Practicum
and
- FINA 5232 - Honors Practicum in Portfolio Management
- FINA 5240
and
- FINA 5441


## Courses:

## FINA 3300-Topics in International Finance

Credits: 3
Offered through SMU Abroad. Prerequisite: Junior standing.

## FINA 3310 - Finance Concepts

Credits: 3
Survey of concepts, practices, and problems surrounding financial markets, securities, and decision-making. Includes time value of money, market efficiency, evaluation of securities, and capital budgeting. Required for the minor in business. Students may not receive credit for this course and FINA 3320. Cox majors and minors in business administration will not receive credit for this course and may not enroll in it.

FINA 3312 - Personal Finance

Credits: 3
Covers personal financial planning. Topics include setting up financial accounts at banks and brokerages; investments in stocks and mutual funds; personal income taxation; auto, property, life, and health insurance; and employee benefit plans. Elective for minor in business. B.B.A. majors can take course for free elective credit only.

FINA 3320 - Financial Management

## Credits: 3

Survey of concepts, practices, and problems surrounding financial markets, securities, and decision-making. Includes time value of money, market efficiency, evaluation of securities, and capital budgeting. Prerequisites: ACCT 2301; ECO 1311 and ECO 1312; MATH 1309 or MATH 1337; STAT 2301 or one from the following: CSE 4340; EMIS 3340; ITOM 2305; STAT 2331, STAT 4340. Reserved for Cox majors and minors in business administration. Students will not receive credit for this course and ECO 4368.

## FINA 3330 - Money and Capital Markets

Credits: 3
Analyzes the structural interrelationships among the important participants in the U.S. financial markets. Topics include flow of funds, determinants of interest rates, monetary policy and interest rates, money and capital market instruments, and problems in managing financial institutions. Prerequisite: FINA 3320. Reserved for Cox majors. Students may not receive credit for this course and ECO 3355.

## FINA 3350 - Essentials of Personal Finance

## Credits: 3

Students focus on key elements of personal financial planning using life cycle economics as the foundation for financial health. Also, credit scores, credit cards, borrowing money for major purchases, investment history and prospects for individual securities and mutual funds, taxes, personal insurance, and common employee benefits. Tools include spreadsheet modeling and life cycle software. Counts as business elective credit only. Reserved for Cox majors. Prerequisite or corequisite: FINA 3320.

## FINA 4325-Advanced Financial Management

Credits: 3
In-depth analysis of capital budgeting, cost of capital, sources of capital open to the firm, capital structure, dividend policy, mergers, and bankruptcy. Students may not receive credit for this course and ECO 4388. Prerequisite: FINA 3320. Reserved for Cox majors.

## FINA 4326 - Investment Analysis and Portfolio Management

Credits: 3
Evaluates the interactive effects of economic, industry, company, and market considerations on the risk and return of
individual assets. Analyzes the interrelationships of risky assets when combined in portfolios; also asset pricing theory and implications. Prerequisite: FINA 3320. Reserved for Cox majors. Students may not receive credit for this course and ECO 4378.

## FINA 4327 - Derivatives

Credits: 3
Introduces analysis of financial derivatives such as futures, swaps, and options. Covers the underlying theories explaining derivatives markets and discusses strategies such as hedging and arbitrage. Prerequisite: FINA 3320. Reserved for Cox majors.

## FINA 4328 - Management of Financial Institutions

## Credits: 3

Management of assets, liabilities, and capital accounts of financial institutions in general and commercial banks in particular. Emphasis on understanding the interrelationship among profitability, liquidity, and capital adequacy. Prerequisite: Reserved for Cox majors.

## FINA 4329 - International Finance

## Credits: 3

Examines international financial markets and such issues as interest rate differences between countries' spot and forward transactions in international currencies, and the impact of international operations for the corporate financial manager. Students may not receive credit for this course and FINA 4335. Prerequisite: FINA 3320. Reserved for Cox majors.

## FINA 5132 - Portfolio Management Practicum

## Credits: 1

Offers practical experience in investments through management of the Ann Rife Cox Investment Fund. Economic and industry analysis and determining how that analysis affects investment decisions. Topics include money and capital market forecasts, selection of individual securities, and development of a portfolio strategy. Honors section. Prerequisite or corequisite: FINA 4326. Application required.

## FINA 5232 - Honors Practicum in Portfolio Management

Credits: 2
Offers practical experience in investments by managing an investment fund. Prerequisite: FINA 5132. Reserved for Cox majors.

## FINA 5240 - Alternative Assets I

## Credits: 3

Topics include portfolio construction, arbitrage pricing theory, controlled-risk strategies (e.g., event-driven, long-short equity; dedicated short bias; arbitrage), and performance measurement. Covers operational issues such as implementation costs, leverage, and the mechanics of security lending. Prerequisites: FINA 4326, FINA 5441. Reserved for Cox majors.

## FINA 5325 - Independent Study

## Credits: 3

Directed research in finance. Prerequisites: FINA 3320, junior standing, and permission of the instructor.

## FINA 5326 - Independent Study

## Credits: 3

Directed research in finance. Prerequisites: FINA 3320, junior standing, and instructor approval. Reserved for Cox majors.

## FINA 5345 - Energy Project Valuation and Finance

Credits: 3
Covers valuation, organization, and funding of major energy industry projects. Examines sources of external finance, energy banking, nonrecourse financing, the links between project structure and financial performance, and the volatility of energy prices. Also, master techniques needed to assess and manage commodity price risk, basis risk, and effective hedging strategies. Requires laptops in class with Microsoft Excel and advanced spreadsheet tools. Prerequisites: FINA 3320, finance or financial consulting major, and senior standing. Reserved for Cox majors.

## FINA 5348 - Financial Modeling

## Credits: 3

Covers hands-on modeling of valuation of public and private companies, integrated cash flow models, leveraged buyout models, mergers and acquisitions models, and exposure to handling large financial databases. Prerequisite: FINA 3320. Reserved for Cox majors.

## FINA 5441 - Alternative Assets II

Credits: 3
Focuses on leveraged finance and the necessary skills to calculate total enterprise valuation. Also, the different segments of leveraged finance: high-yield bonds, leveraged loans, credit default swaps, collateralized debt obligation, debtor-inpossession financing, and distressed investing. Prerequisites: FINA 3320 and ACCT 3311. Prerequisites or corequisites: ACCT 3312 and FINA 4326. Application required. Reserved for Cox majors.

## General Business

## General Business, B.B.A.

## Requirements for the Major

In addition to the University-wide requirements, the required credit hours for the B.B.A. degree are distributed as follows:
Core Courses (30 Credit Hours)

- ACCT 2301 - Introduction to Financial Accounting
- ACCT 2302 - Introduction to Managerial Accounting
- BL 3335 - Business Law
- BLI 3302 - Business Communications and Leader Development
- FINA 3320 - Financial Management
- ITOM 2308 - Information Systems for Management
- ITOM 3306- Operations Management
- MKTG 3340 - Fundamentals of Marketing
- MNO 3370 - Management
- STRA 5370 - Strategic Management in a Global Economy
or
- CISB 5397 - Entrepreneurship: Starting a Business

One from the following: (3 Credit Hours)

- ITOM 2305 - Managerial Statistics
- STAT 2331 - Introduction to Statistical Methods
- EMIS 3340-Statistical Methods for Engineering and Applied Scientists
- CSE 4340/ STAT 4340 - Statistical Methods for Engineers and Applied Scientists


## Business Hours (18-24 Credit Hours)

- Toward major


## Total: 51-57 Credit Hours

Note: Management science/business double majors take ITOM 2308 and either STRA 5370 or CISB 5397; however, they take EMIS 3360 and EMIS 5362 instead of ITOM 3306.

## Major Requirements

To earn the B.B.A. degree with a major in general business, students must comply with the core B.B.A. degree requirements and satisfy the following additional requirements:

- Business electives (any combination of Cox departments)


## Total: 18 Credit Hours

# Information Systems 

Professor Amit Basu, Department Chair

Professors: Amit Basu, Bezalel Gavish, John H. Semple<br>Associate Professors: Sreekumar R. Bhaskaran, R. Canan Savaskan-Ebert, Ulrike Schultze<br>Assistant Professors: Vishal Ahuja, Rajiv Mukherjee, Fangyun T. Tan<br>Clinical Professors: Ellen Parker Allen, Amy V. Puelz<br>Professor of Practice: Robert A. Gwinn<br>Senior Lecturer: James C. Collins, Jr.<br>Executive-in-Residence: Hettie Tabor

## Courses:

## ITOM 2305 - Managerial Statistics

## Credits: 3

Introduces probability and descriptive statistics, regression analysis, forecasting, decision-making under uncertainty, and use of data in decision-making. Includes problem-solving, case assignments, and the use of Excel in analyzing problems. Students may not receive credit for ITOM 2305 and STAT 2301 or STAT 2331. Reserved for prebusiness and business students only.

## ITOM 2308 - Information Systems for Management

## Credits: 3

Discusses computer technologies for the management of information resources in business. Covers spreadsheet analytical tools for data analysis, reporting, and forecasting. Also includes database design and implementation for data storage, retrieval, aggregation, and reporting as well as the creation of Web pages using HTML. Requires laptops equipped with the Windows operating system and Microsoft Office for use in class. Prerequisite: ITOM 2305 or one from the following: CSE 4340; EMIS 3340; STAT 2301, STAT 2331, STAT 4340. Reserved for Cox majors and minors in business administration only.

ITOM 3306-Operations Management

## Credits: 3

Introduces several common business analytics models and their applications in solving operational business problems. Topics include optimization (particularly linear programming), decision analysis, computer simulation, and project scheduling. Prerequisites: ACCT 2301; ECO 1311 and ECO 1312; ITOM 2308; MATH 1309 or MATH 1337; and STAT 2301 or one from the following: CSE 4340; EMIS 3340; ITOM 2305; STAT 2331, STAT 4340. Reserved for Cox majors and minors in business administration.

ITOM 3310 - Business Decisions and Processes

## Credits: 3

Focuses on two skill sets: developing spreadsheets to support decision-making in organizations and analyzing and improving business processes. Teaches relatively advanced Excel skills to format, manipulate, and visualize information in order to answer business questions; also how to represent business processes diagrammatically using flowcharts. Processes covered include sales, purchasing, and project management. Half of each class session takes place in the computer lab. Minor in business elective. Cox majors and minors in business administration receive free elective credit for this course.

ITOM 4307 - Business Modeling with Spreadsheets

Credits: 3
Introduces advanced quantitative modeling techniques for business decision-making. Covers a variety of modeling techniques, business analytics concepts, and data analysis tools. Students learn to implement these techniques in spreadsheet models that assist businesses in understanding and managing risk and improving decision-making. Applications cover a broad range of functional areas, including accounting, finance, marketing, and operations. Prerequisites: ACCT 2302; ITOM 2308, ITOM 3306; FINA 3320. Reserved for Cox majors.

## Management and Organizations

Professor Miguel A. Quiñones, Department Chair

Professors: Steven C. Currall, Albert W. Niemi, Robin L. Pinkley, Miguel A. Qui-ñones, Linda B. Stearns
Associate Professors: Marcus Butts, Maribeth Kuenzi, Ellen F. Jackofsky, Don VandeWalle
Assistant Professor: Robert W. Rasberry, McKenzie Rees
Professor of Practice: Sal Mistry
Visiting Professor of Practice: Jay Carson

## Management, B.B.A.

To earn the B.B.A. degree with a major in management, students must complete all University-wide requirements and the core B.B.A. degree requirements, and satisfy the following additional requirements:

Note: The core management courses must be taken through enrollment at SMU.

## Requirements for the Major

## Management Courses (6 Credit Hours)

Two from the following:

- MNO 3371 - Human Resources Management
- MNO 4361 - Project Management
- MNO 4371 - Leadership and Culture
or
- MNO 4372 - Leadership and Culture in the Southwest


## Electives (6 Credit Hours)

Selected from the following:

- MNO 3373 - Negotiations
- MNO 3375 - Corporate Social Responsibility and Ethical Leadership
- MNO 4307 - Global and Public Health
- MNO 4330 - Introduction to Consulting and Change Management
- MNO 4371 - Leadership and Culture
or
- MNO 4372 - Leadership and Culture in the Southwest (if not taken for core requirement) or
- RMI 4340 - Employee Benefits
- CISB 2379 - Identifying Entrepreneurial Opportunities
- CISB 4398 - Managing the Entrepreneurial Business
- CISB 5397 - Entrepreneurship: Starting a Business (if senior core is completed with STRA 5370)
- ITOM 4307 - Business Modeling with Spreadsheets (ACCT 4307 will not count for the major)
- STRA 5370 - Strategic Management in a Global Economy (if senior core is completed with CISB 5397)


## Other Business Electives (6 Credit Hours)

## Courses:

## MNO 3300 - Special Topics in International Management I

Credits: 3
Offered through SMU Abroad.

## MNO 3301 - Special Topics in International Management II

Credits: 3
Offered through SMU Abroad. Prerequisite: Junior standing.

## MNO 3310 - Management Concepts

## Credits: 3

Provides a broad survey of key issues, theories, and practices that underpin how organizations function, evolve, and perform. Topics include motivation, job design, organizational theory, leadership, organizational culture, competitive strategy, and competitive advantage. Required for the minor in business. Cox majors and minors in business administration will not receive credit for this course and may not enroll in it.

## MNO 3370 - Management

## Credits: 3

Develops skills in managerial behavior that facilitate high performance and satisfaction as well as continued selfdevelopment for all organization members. Prerequisites: ACCT 2301; ECO 1311 and ECO 1312; MATH 1309 or MATH 1337; and STAT 2301 or one from the following: CSE 4340; EMIS 3340; ITOM 2305; STAT 2331, STAT 4340. Reserved for Cox majors, minors in business administration, and management science majors.

## MNO 3371 - Human Resources Management

## Credits: 3

Develops an understanding of how organizations recruit, develop, and retain high-performing talent and facilitate a high quality of life in an organization. Insights gained can help facilitate one's initial job search, career management, and personal effectiveness. Prerequisite: MNO 3370. Reserved for Cox majors.

## MNO 3373 - Negotiations

Credits: 3
Presents theories and processes of negotiation as practiced in a variety of settings. Focuses on understanding the behavior of individuals, groups, and organizations in the context of competitive situations. Emphasizes simulations, role-playing, and cases. Prerequisite: MNO 3370. Reserved for Cox majors.

## MNO 3375 - Corporate Social Responsibility and Ethical Leadership

Credits: 3
Develops managerial decision-making and stakeholder analysis through a study of ethical dilemmas in contemporary
business. Topics include whistle blowing, corruption, bribery, human rights, crisis management, role of corporate boards, lobbying, philanthropy, externalities, and sustainability. Students who take MNO 3375 may not receive credit for ACCT 3391, nor may students taking ACCT 3391 take MNO 3375 for credit. Students seeking accounting certification should note that ACCT 3391 is a gateway course for eligibility to take the CPA examination. Prerequisite: MNO 3370. Reserved for Cox majors.

## MNO 4307-Global and Public Health

Credits: 3
Provides an overview of issues in international health, with a focus on contributions from anthropology and anthropologists to international public health issues. Students may not receive credit for MNO 4307 and ANTH 4307 or APSM 4307. Prerequisites: Junior standing, permission of instructor. Reserved for Cox majors.

## MNO 4330 - Introduction to Consulting and Change Management

Credits: 3
Develops understanding of the consulting process and change management. Examines the behaviors of effective consultants: how to define and diagnose client needs and implement change. Also studies prominent change and consulting frameworks. As a final project, teams provide consulting services to an organization. Prerequisite: MNO 3370. Reserved for Cox majors.

## MNO 4361-Project Management

Credits: 3
Presents a set of practices and interpersonal skills designed to deliver business results that are on time and on budget and meet quality standards. Examines project management in modern industries and organizational structures as a preferred, standard process to achieve successful results. Discusses defining the project goals, developing a plan to achieve the goals, executing the plan, and evaluating progress. Covers interpersonal skills, including communication, collaboration, and team management. Prerequisite: MNO 3370. Reserved for Cox majors.

## MNO 4371 - Leadership and Culture

## Credits: 3

Enhances effectiveness and success as a leader. Emphasizes core theories of motivation, leadership, interpersonal relationships, culture, and communication. Prerequisite: MNO 3370.

## MNO 4372-Leadership and Culture in the Southwest

Credits: 3
Study of the psychological, behavioral economics, sociological, and organizational behavior foundations of leadership within the context of the human diversity factors of gender, ethnicity, and culture. Prerequisite: MNO 3370. (SMU-in-Taos)

## MNO 4378 - Independent Studies in Organizational Behavior I

Credits: 3
Considers contemporary issues (theoretical, ethical, methodological, social, etc.) that are currently of interest to organizational theorists and behavioral scientists. Prerequisite: MNO 3370. Reserved for Cox majors.

## Marketing

## Professor Raj Sethuraman, Department Chair

Professors: Richard A. Briesch, William R. Dillon, Daniel J. Howard, Matthew B. Myers, Raj Sethuraman, Glenn Voss, Zannie G. Voss
Associate Professors: Michael H. Braun, Edward J. Fox, Nickolay Gantchev, Tasadduq Shervani, Jacquelyn S. Thomas
Assistant Professors: Chaogun Chen, Wayne Taylor
Senior Lecturers: Charles A. Besio, Judith H. Foxman
Professor of Practice: Marci Armstrong
Visiting Assistant Professor: Milica Mormann

## Marketing, B.B.A.

To earn the B.B.A. degree with a major in marketing, students must complete all University wide requirements and the core B.B.A. degree requirements, and satisfy the following additional requirements:

## Notes:

- The core marketing courses must be taken through enrollment at SMU.
- Students may choose to take zero or one credit hour for the required internship; if one credit hour is chosen, the required minimum hours for the major will be increased from 51 to 52 .
- ADV 1341 substitutes for MKTG 3340 for advertising majors or minors only.


## Requirements for the Major

## Marketing Core (9-10 Credit Hours)

- MKTG 3342 - Marketing Research
- MKTG 3343 - Consumer Behavior
- MKTG 5050 - Marketing Internship or
- MKTG 5150 - Marketing Internship
- MKTG 5341 - Marketing Management


## Electives (6 Credit Hours)

Selected from the following:

- MKTG 3345 - Sales and Distribution Management
- MKTG 3346 - Retailing
- MKTG 3348 - International Marketing
- MKTG 3349 - Product and Brand Management
- MKTG 3350 - Digital and Social Media Marketing
- MKTG 4345 - Sports Marketing


# Business Electives (3 Credit Hours) 

## Courses:

MKTG 3300-Topics in International Marketing

Credits: 3
Offered through SMU Abroad. Prerequisite: Junior standing.

## MKTG 3310 - Marketing Concepts

Credits: 3
Covers the basic principles of consumer marketing and the role of each element of the marketing mix. Emphasizes creating a familiarity with the marketing strategy and planning processes and viewing marketing within a societal context. Required for the minor in business. Students who have already completed MKTG 3340 will not receive credit for this course. Cox majors and minors in business administration will not receive credit for this course and may not enroll in it.

## MKTG 3340 - Fundamentals of Marketing

## Credits: 3

Examines the nature of marketing decisions; the environment in which these decisions are made; and the relationship of these decisions to the firm, business, and society. Prerequisites: ACCT 2301, ECO 1311 and ECO 1312, MATH 1309 or MATH 1337, and STAT 2301 or one from the following: CSE 4340, EMIS 3340, ITOM 2305, STAT 2331, STAT 4340. Reserved for Cox majors, minors in business administration, or management science majors. Students may not receive credit for both MKTG 3340 and ADV 1341.

## MKTG 3342-Marketing Research

Credits: 3
Explores the role of information in marketing decisions, discusses research methods, and teaches students how to plan and execute a research project. Prerequisite: MKTG 3340 or ADV 3362. Reserved for Cox majors.

## MKTG 3343-Consumer Behavior

Credits: 3
Helps students understand the motivation and behavior of buyers and consumers. Discusses consumer behavior within a marketing framework and relates it to marketing management. Prerequisite: MKTG 3340 and/or ADV 1341. Reserved for Cox majors. Students may not receive credit for MKTG 3343 and ADV 2301 unless the ADV credit predates enrollment in MKTG 3343. ADV 2301 will not be accepted for the Marketing major requirement.

## MKTG 3345 - Sales and Distribution Management

## Credits: 3

A multidisciplinary approach to the study of sales and sales force management. Focuses on the total sales process: selection, training, motivation, and compensation of personnel; sales forecasting; sales territory management; and analysis. Provides a fundamental understanding of the elements of the sales process and a management perspective to plan, organize, and direct a sales force. Prerequisite: MKTG 3340 and/or ADV 1341. Reserved for Cox majors.

## MKTG 3346-Retailing

## Credits: 3

Focuses on the environment of retailing management, retail strategy, merchandise management, sales promotion and customer services, and expense and productivity management. Prerequisite(s): MKTG 3340 or ADV 1341. Reserved for Cox majors.

## MKTG 3348 - International Marketing

## Credits: 3

Examines international marketing from the underlying common nature of all humans in the global arena to the subtle nuances of localized marketing strategies in the subregions of international markets. Emphasizes novel problem-solving and an expanded worldview, with a focus on real-world approaches to understanding the global marketing environment. Prerequisite: MKTG 3340 or ADV 1341. Reserved for Cox majors.

## MKTG 3349 - Product and Brand Management

## Credits: 3

Deals with the management of product development programs and the appraisal of the many factors that affect product decision-making. Examines policies concerning branding, product line strategy, and compliance with social and government restrictions. Prerequisite: MKTG 3340 and/or ADV 1341. Reserved for Cox majors.

## MKTG 3350 - Digital and Social Media Marketing

## Credits: 3

Explains the most important digital marketing concepts and provides hands-on experience with relevant digital channels. Examines what it takes to conceive, plan and execute a digital campaign. Explores social media and emerging digital marketing trends. Topics include online ads, content marketing, mobile marketing, search engine marketing and social media. Prerequisite: MKTG 3340. Reserved for Cox majors.

## MKTG 4345 - Sports Marketing

Credits: 3
Explores sports marketing from two perspectives: the marketing of sports and marketing through sports. Topics include fan segmentation, branding, licensing, and sponsorship. Prerequisite: MKTG 3340 and/or ADV 1341. Reserved for Cox majors.

## MKTG 5050 - Marketing Internship

## Credits: 0

Requires students to work in a professional capacity in a marketing-oriented position within a company; the job and company to be approved by the Marketing Department. The internship must involve a minimum of 100 hours of work and meet the requirements determined by the internship adviser. Reserved for Cox majors. Prerequisite: MKTG 3340.

## MKTG 5150-Marketing Internship

## Credits: 1

Requires students to work in a professional capacity in a marketing-oriented position within a company. The internship must involve a minimum of 100 hours of work and meet the requirements as determined by the internship adviser. Students may choose to take zero credits (MKTG 5050) or one credit (MKTG 5150) for the required internship; if one credit is chosen, the required minimum hours for the major will be increased from 51 to 52 . Prerequisite: MKTG 3340 . Reserved for Cox marketing majors.

## MKTG 5341 - Marketing Management

## Credits: 3

Provides a fundamental understanding of the marketing strategy planning process within the firm and develops skills for coping with the marketing management problems encountered by senior marketing managers, general management executives, and marketing consultants. This capstone course for marketing majors includes case analysis, class projects, and/or marketing simulation. Prerequisites: MKTG 3340 or ADV 1341. Reserved for senior marketing majors.

## MKTG 5342 - Directed Studies in Marketing

## Credits: 3

Directed research in marketing. Prerequisites: MKTG 3340, junior standing, and permission of the instructor.

## MKTG 5343 - Directed Studies in Marketing II

Credits: 3
Directed research in marketing. Prerequisites: MKTG 5342, junior standing, and instructor approval.

## MKTG 5345 - Honors Marketing Practicum

## Credits: 3

Students apply marketing concepts and theories learned in the classroom to a real-life business situation by working with a business entity where they are responsible for researching, designing, and presenting a comprehensive integrated marketing campaign. Prerequisite: By application only. Reserved for Cox majors.

# Real Estate, Risk Management and Business Law 

Professor William B. Brueggeman, Department Chair<br>Professor: William B. Brueggeman<br>Associate Professor: Robert Puelz<br>Senior Lecturers: Barbara W. Kincaid, Catherine Weber

## Real Estate Finance, B.B.A.

To earn the B.B.A. degree with a major in real estate finance, students must complete all University-wide requirements and the core B.B.A. degree requirements, and satisfy the following additional requirements:

Note: The core real estate courses must be taken through enrollment at SMU.

## Requirements for the Major

## Real Estate Core (12 Credit Hours)

- RE 3381 - Real Estate Fundamentals
- RE 4338 - Real Estate Law
- RE 4382 - Real Estate Markets and Valuation
- RE 4389 - Real Estate Finance


## Electives (6 Credit Hours)

Selected from the following:

- ACCT 4307 - Business Modeling with Spreadsheets
or
- ITOM 4307 - Business Modeling with Spreadsheets
- BUSE 3300 - Evolution of American Capitalism
- BUSE 4332 - Energy and Environmental Law
- CISB 5397 - Entrepreneurship: Starting a Business (if senior core is completed with STRA 5370)
- FINA 3330 - Money and Capital Markets
- FINA 4325 - Advanced Financial Management
- FINA 4326 - Investment Analysis and Portfolio Management
- FINA 4327 - Derivatives
- FINA 4328 - Management of Financial Institutions
- FINA 4329 - International Finance
- FINA 5132 - Portfolio Management Practicum and
- FINA 5232 - Honors Practicum in Portfolio Management
- FINA 5240
and
- FINA 5441
- MNO 3373 - Negotiations
- MNO 4361 - Project Management
- RMI 3360 - Principles of Risk Management


## Courses:

## BUSINESS LEADERSHIP

## BL 3300 - Special Topics: International Business Law

## Credits: 3

Special topics in international business law taught abroad.

## BL 3310 - Business Law Concepts

## Credits: 3

Addresses legal issues encountered in personal and business situations. Includes cyber law, litigation management, arbitration, intellectual property, white-collar crime, real estate purchase fundamentals, standard apartment leases, contract basics, business formation structures, employee management, and wealth management tools. Elective for minor in business. Cox majors and minors in business administration will not receive credit for this course and may not enroll in it.

## BL 3335 - Business Law

## Credits: 3

Emphasizes the nature, formation, and application of law with a macro view; also public law and regulation of business. Prerequisites: ACCT 2301; ECO 1311 and ECO 1312; MATH 1309 or MATH 1337; and STAT 2301 or one from the following: CSE 4340; EMIS 3340; ITOM 2305; STAT 2331, STAT 4340. Reserved for Cox majors.

## BL 4300 - Special Topics: International Business Law

## Credits: 3

Offered through SMU Abroad. Prerequisite: Junior standing.

## BL 4340 - Law for the Entrepreneur

## Credits: 3

Examines critical legal issues encountered by private domestic enterprises during the first years of operation. Topics include the hiring of counsel, alternatives for entity formation, establishment of a board of directors, debt and equity financing, real estate leases, criminal and civil liabilities, and litigation and risk management strategies. Prerequisite: BL 3335. Reserved for Cox majors.

## REAL ESTATE

## RE 3381 - Real Estate Fundamentals

## Credits: 3

Introduces various aspects of real estate, including market analysis, financing, investment, and legal principles. Serves as the foundation for other courses in real estate. Prerequisites: ACCT 2302 and FINA 3320. Reserved for Cox majors.

## RE 4338 - Real Estate Law

## Credits: 3

Surveys real estate law, with an emphasis on real estate transactions, leases, financing, and land use regulation. Prerequisites: BL 3335 and RE 3381. Reserved for Cox majors.

## RE 4382 - Real Estate Markets and Valuation

## Credits: 3

Presents principles and techniques of estimating the value of residential and income producing properties. Considers the economic base and distribution of land use in urban areas; also, case studies involving the cost, market compensation, and income approaches. Prerequisites: RE 3381 and FINA 3320. RE 3381 may be taken concurrently with the permission of the instructor. Reserved for Cox majors.

## RE 4389-Real Estate Finance

## Credits: 3

Students develop the technical competence necessary to finance and evaluate real estate investments. Covers computation of periodic payments, amortization schedules, and true borrowing costs. Also considers the secondary mortgage market, application of techniques for structuring real estate transactions, and financing real estate development. Prerequisites: RE 3381 and FINA 3320; RE 4382 recommended. Reserved for Cox majors.

## RISK MANAGEMENT

## RMI 3360 - Principles of Risk Management

## Credits: 3

Focuses on the principles of risk and the role of insurance in handling risk. Topics include an introduction to corporate risk management, insurance markets and insurance operations, personal insurance contracts, and legal principles that reinforce insurance contracts. Reserved for Cox majors.

## RMI 4340 - Employee Benefits

## Credits: 3

Studies employee benefits as a strategic decision for employers and an important financial planning element for employees. Covers typical employee benefits, and contrasts qualified and nonqualified plans that are of critical importance to employers and employees. Also, analyzes the complexities of the Affordable Care Act (including its social and economic implications) and the dynamics of global employee benefits. For practical experience, examines details of benefit offerings from actual job offers to SMU students. Prerequisite or corequisite: MNO 3370. Reserved for Cox majors.

## RMI 4360 - Insurance and Corporate Risk Management

Credits: 3
Explores the evolution of business risk management and offers insight into the risk management process by focusing on expense-inducing problems that exist for most businesses. Topics include risk management, enterprise risk management, the role of the commercial insurance market, and tools for risk management decision-making. Prerequisite or corequisite: RMI 3360. Reserved for Cox majors.

RMI 5325-Risk Management and Insurance Research

Credits: 3
Directed study research project on a risk management and insurance topic of academic interest. Through independent research and interaction with faculty, students undertake a review of relevant literature and report research results with advice and consent of a sponsoring faculty member. Reserved for Cox majors.

# Strategy, Entrepreneurship and Business Economics 

Professor Gordon Walker, Department Chair<br>Professor: Gordon Walker<br>Associate Professor: David T. Lei<br>Assistant Professor: Julian Kolev, Daniel Jinyong Zyung<br>Professors of Practice: Robert A. Lawson, Simon S. Mak, Gary T. Moskowitz, Harvey Rosenblum<br>Clinical Professor: Michael L. Davis<br>Visiting Assistant Professor: Yunko Cho<br>Executive-in-Residence: W. Michael Cox<br>Writer-in-Residence: Richard G. Alm<br>Research Associate Professors: Dean B. Stansel, Derek Yonai<br>Research Professor of Practice: Ryan Harrison Murphy

## Courses:

## BUSINESS ECONOMICS

BUSE 2301 - Life Cycle Economics: Personal Financial Planning for Today and Tomorrow

## Credits: 3

Students focus on personal life cycle economics as the foundation for financial planning. Topics include human capital estimation, credit scoring, stocks, mutual funds, taxes, personal insurance, and common employee benefits. Analysis undertaken with spreadsheet and life cycle software. Students must bring to each class a laptop that runs Microsoft Excel and Windows. Open to all SMU students. Prerequisite: sophomore standing. For Cox majors/minors in business administration, this course counts as free elective credit only. For minors in business, this course will substitute for FINA 3312. Students may not receive credit for BUSE 2301 and FINA 3312.

BUSE 3300 - Evolution of American Capitalism

## Credits: 3

Discusses the evolution of capitalism in the American economy from the Colonial period to the present, focusing on the post-World War II era. Topics include government regulation of business, unions and their impact on competition, trends in inequality, discrimination in the workforce, structural changes and the disappearance of the middle class, the costs and benefits of free trade, the drift toward socialism, the intense competition among states for jobs, and global challenges to America's leadership in the world. Prerequisites: ECO 1311, ECO 1312. Reserved for Cox majors.

BUSE 3310-Markets and Freedom

## Credits: 3

Discusses the indicators of economic freedom and the benefits of globalization. Explores how markets raise living standards, including the roles that technology, globalization, public policy, and economic growth play in a functioning market economy. This course can count as free elective credit for Cox majors; however, students cannot receive credit for both BUSE 3310 and STRA /FINA 4355.

BUSE 3331 - From Prospect to Production to Kilowatts: The Business of Energy

Credits: 3
Provides an in-depth understanding of the petroleum, natural gas, coal, power generation, and alternative fuels market segments, with a focus on structure, key business drivers, and technologies. Explores key business issues facing the industry,
including sustainability, globalization, and business and/or government relations. Prerequisite: FINA 3320. Reserved for Cox majors.

## BUSE 4332 - Energy and Environmental Law

## Credits: 3

Examines the legal and regulatory issues applicable to energy as they relate to finance, investment, and the economics of the business. Provides the basic tools of an energy professional to identify and analyze the legal and regulatory issues related to energy and resource development and operation, property acquisition and divestiture, and project valuation and financing. Prerequisites: BUSE 3331, BL 3335. Reserved for Cox majors.

## BUSE 4333 - Business Management, Planning, and Analysis in Energy

## Credits: 3

Examines analytical, economic, and financial concepts of the modern energy industry as they relate to planning and decision-making in the firm, with particular emphasis on oil and gas and power generation. Topics include capital structure, reserve valuation, royalties, production-sharing agreements, and management of risk and uncertainty. Prerequisite: BUSE 3331. Reserved for Cox majors.

## BUSE 4334 - Global Energy Markets, Business, and Policy: Spikes, Myths, and Risks

## Credits: 3

Examines the interrelationship among the economics of global energy markets, business profitability, and public policy as it relates to the energy business. Topics include the principles of exhaustible resource economics and their impact upon business decision-making, the impact of price shocks on the industry and the overall economy, and the global policy and regulatory environment faced by the industry. Prerequisites: Junior status and permission of BBA Advising Office. Reserved for Cox majors.

## ENTREPRENEURSHIP

CISB 2379 - Identifying Entrepreneurial Opportunities

## Credits: 3

Explores how to recognize entrepreneurial opportunities in a variety of settings, with emphasis on identifying sources of ideas and entrepreneurial opportunities, aligning with personal goals, determining market and financial feasibility, and evaluating competitive issues. Reserved for BBA Scholars and business students only.

## CISB 2388 - Entrepreneurship Concepts

## Credits: 3

Students are introduced to concepts at each stage of the entrepreneurial process, including opportunity identification, opportunity evaluation, acquiring resources, launching and managing the new venture, and exit strategies. Students also play the role of investors and learn to pitch to investors. Cox majors and minors in business administration will not receive credit for this course and may not enroll in it. Reserved for non-Cox majors and business minors only.

CISB 4398 - Managing the Entrepreneurial Business

## Credits: 3

Explores the unique challenges and opportunities involved in the management and ownership of a closely held enterprise. Examines key business, personal, and interpersonal issues relevant to the continuity and management of these firms. Topics include strategic management and corporate governance, life cycle and systems analyses, and leadership. Prerequisite: MNO 3370. Reserved for Cox majors.

## Credits: 3

Covers planning for a new business. Topics include the personal characteristics of entrepreneurs, profit and cash flow forecasts, sources of information, sales forecasts and the importance of relevant experience, entrepreneurial marketing, financing, and the business plan. Prerequisites: FINA 3320, MKTG 3340 and/or ADV 3362, MNO 3370, ITOM 2308/ITOM 3306. Reserved for Cox majors.

## STRATEGY

## STRA 5370 - Strategic Management in a Global Economy

Credits: 3
Analyzes the processes of building competitive advantage and strategy execution in single- and multi-business firms, with emphasis on industry evolution, the boundaries of the firm, and global competition. Prerequisites: ACCT 2301 and ACCT 2302; FINA 3320; MKTG 3340 and/or ADV 3362; MNO 3370; ITOM 3306; and ITOM 2305 or one from the following: CSE 4340, EMIS 3340, STAT 2301/STAT 2331, STAT 4340. Reserved for Cox majors.

## Business Minors and Concentrations

## Business Administration Minor

Undergraduates with majors outside the Cox School may complete the minor in business administration.
Note: Management science majors in the minor in business administration take ITOM 2308; however, they take EMIS 3360 and EMIS 5362 instead of ITOM 3306.

## Requirements for the Minor

The minor in business administration requires:

- Admission to the Cox School through the same admission process as admission to the business majors. Note: Admission requirements are found under Admission of SMU Students to a Business Major/B.B.A. Degree Program in the Admission section of this catalog.
- A minimum 2.000 business and 2.000 minor in business administration GPA.
- Completion of the 21 credit hours specified for the minor in business administration below and all related prerequisite courses.


## Course Requirements

Matriculated students must complete all credit hours toward the minor in business administration through enrollment at SMU. Students who transfer courses for this minor prior to SMU matriculation must still complete 21 credit hours in business through enrollment at SMU or SMU-approved international programs, and will need additional business courses beyond the 21 credit hours specified below for the minor in business administration to meet the SMU credit hour requirement. To earn a minor in business administration, students must satisfy the following requirements:

- ACCT 2301 - Introduction to Financial Accounting
- ACCT 2302 - Introduction to Managerial Accounting
- FINA 3320 - Financial Management
- ITOM 2308 - Information Systems for Management
- ITOM 3306- Operations Management
- MKTG 3340 - Fundamentals of Marketing
or
- ADV 1341-Marketing Principles of Advertising (for advertising majors and minors only)
- MNO 3370 - Management


## Total: 21 Credit Hours

## Grading

Regular grading standards will be used. None of the 21 credit hours may be completed pass/fail for the minor in business administration. A minimum 2.000 GPA on all business courses attempted is required for satisfactory completion of the minor in business administration.

## Business Minor

Undergraduates with majors outside the Cox School may complete the minor in business, which is an openenrollment program with no grade-based admission requirements. The minor in business offers courses designed to provide a general overview of business topics to complement a variety of academic interests. The minor in business requires:

- A minimum 2.000 business and 2.000 minor in business GPA.
- Completion of the 18 credit hours specified for the minor below.

Minor in business courses will be accepted in transfer prior to matriculation, but once a student has entered SMU, all remaining minor in business courses and a minimum of nine credit hours of business coursework must be completed through enrollment in courses offered by the faculty of the Cox School of Business.

Note: With the exception of BUSE 3310, no courses offered for the minor in business may be taken by B.B.A. majors or students enrolled in the minor in business administration. BUSE 3310 may be taken as free (nonbusiness) elective credit by B.B.A. majors and students enrolled in the minor in business administration.

## Course Requirements

Students must complete all credit hours toward the minor in business through enrollment in courses at SMU (or a minimum of nine credit hours for transfer students). Courses in this program are offered during summer and intersession terms at SMU's three campuses (Dallas and Plano in Texas and Taos, New Mexico).

Students entering the minor in business with prior course credit for certain business courses may substitute the following credit hours toward the minor in business: ACCT 2301 for ACCT 2310, BL 3335 for BL 3310, FINA 3320 for FINA 3310, MKTG 3340 for MKTG 3310, and MNO 3370 for MNO 3310. No other course substitutions are approved, and all postmatriculation courses must be completed at SMU. Students must complete all remaining courses and a minimum of nine credit hours toward the minor in business through enrollment in courses at SMU. Students must petition for course substitutions after having declared the minor in business.

With the exception of BUSE 3310, the courses offered as part of the minor in business may not be taken by students in the Cox B.B.A. program or in the minor in business administration. Cox B.B.A. majors and students enrolled in the minor in business administration may take BUSE 3310 as free elective credit; this course will not count as business hours toward any B.B.A. degree. To earn a minor in business, students must satisfy the following requirements:

## Core Courses (15 Credit Hours)

- ACCT 2301 - Introduction to Financial Accounting
or
- ACCT 2310 - Accounting Concepts
- BUSE 3310 - Markets and Freedom
- FINA 3310 - Finance Concepts
- MKTG 3310 - Marketing Concepts
or
- ADV 1341 - Marketing Principles of Advertising (for advertising majors and minors only)
- MNO 3310 - Management Concepts


## Elective (3 Credit Hours)

Selected from the following:

- BL 3310 - Business Law Concepts
- CISB 2388 - Entrepreneurship Concepts
- FINA 3312 - Personal Finance
- BUSE 2301 - Life Cycle Economics: Personal Financial Planning for Today and Tomorrow


## Grading

Regular grading standards will be used. None of the courses may be completed pass/fail. A minimum 2.000 GPA on all business courses attempted is required for satisfactory completion of the minor in business.

## Energy Management Concentration

Courses for the concentrations will not double count toward the business core or the majors with the exception of the general business major. No courses may be substituted for concentration courses.

## Concentration Requirements (12 Credit Hours)

- BUSE 3331 - From Prospect to Production to Kilowatts: The Business of Energy
- BUSE 4332 - Energy and Environmental Law
- BUSE 4333 - Business Management, Planning, and Analysis in Energy
- BUSE 4334 - Global Energy Markets, Business, and Policy: Spikes, Myths, and Risks


## Grading

Regular grading standards will be used. Grades in concentration courses will count in the student's business GPA and cumulative GPAs. None of the concentration courses may be completed pass/fail unless all requirements for the business major have been successfully completed.

## Entrepreneurship Concentration

Courses for the concentrations will not double count toward the business core or the majors with the exception of the general business major. No courses may be substituted for concentration courses.

## Concentration Requirements (12 Credit Hours)

- BL 4340 - Law for the Entrepreneur
- CISB 2379 - Identifying Entrepreneurial Opportunities
- CISB 4398 - Managing the Entrepreneurial Business
- CISB 5397 - Entrepreneurship: Starting a Business (STRA 5370 must be taken to complete B.B.A. core requirements)


## Grading

Regular grading standards will be used. Grades in concentration courses will count in the student's business GPA and cumulative GPAs. None of the concentration courses may be completed pass/fail unless all requirements for the business major have been successfully completed.

## Real Estate Finance Concentration

Courses for the concentrations will not double count toward the business core or the majors with the exception of the general business major. No courses may be substituted for concentration courses.

## Concentration Requirements (12 Credit Hours)

- RE 3381 - Real Estate Fundamentals
- RE 4338 - Real Estate Law
- RE 4382 - Real Estate Markets and Valuation
- RE 4389 - Real Estate Finance


## Grading

Regular grading standards will be used. Grades in concentration courses will count in the student's business GPA and cumulative GPAs. None of the concentration courses may be completed pass/fail unless all requirements for the business major have been successfully completed.

## Risk Management and Insurance Concentration

Courses for the concentrations will not double count toward the business core or the majors with the exception of the general business major. No courses may be substituted for concentration courses.

## Concentration Requirements (12 Credit Hours)

- MNO 3373 - Negotiations
- RMI 3360 - Principles of Risk Management
- RMI 4340 - Employee Benefits
- RMI 4360 - Insurance and Corporate Risk Management


## Grading

Regular grading standards will be used. Grades in concentration courses will count in the student's business GPA and cumulative GPAs. None of the concentration courses may be completed pass/fail unless all requirements for the business major have been successfully completed.

# Lyle School of Engineering 

## General Information

The Lyle School of Engineering, named in 2008 in honor of Dallas entrepreneur and industry leader Bobby B. Lyle, traces its roots to 1925, when the Technical Club of Dallas, a professional organization of practicing engineers, petitioned SMU to fulfill the need for an engineering school in the Southwest. In response to the club's request, the school began one of the first cooperative education programs in the United States, a program that continues today to put engineering students to work on real technical projects.

Included in the Lyle School of Engineering curricula are programs in civil engineering, computer engineering, computer science, electrical engineering, environmental engineering, mechanical engineering and management science. In 2000, a variety of programs were introduced to provide the combination of a traditional engineering curriculum and selected leadership coursework designed to train engineering students for futures in management, entrepreneurship and beyond.

The Dallas area's national prominence in high technology and research has been beneficial to the Lyle School of Engineering and its students. Corporate support for the Lyle School has generated a remarkable array of equipment and laboratories. Recent additions include the AT\&T Mixed Signals Lab, the Texas Instruments Digital Signal Processing Lab, the Procter and Gamble Biomedical Research Lab, and the Nokia Wireless Communication Lab. Other laboratories include the Laser Micro-machining Laboratory, the Nanoscale Electro-Thermal Sciences Laboratory and the Enterprise Systems Design Laboratory. In addition, the Lyle School is the home of the following facilities:

Research Center for Advanced Manufacturing. RCAM provides the intellectual foundation for industry to collaborate with faculty and students to resolve generic, long-range challenges, thereby producing the knowledge base for steady advances in technology and their speedy transition to the marketplace.

Center for Laser Aided Manufacturing. CLAM addresses a number of research and development issues related to laser-aided intelligent manufacturing processes.

Center for Lasers and Plasmas for Advanced Manufacturing. The center conducts research of interest to the industry and SMU as part of a multiple university team and with support from the Industry and University Cooperative Research Centers Program of the National Science Foundation.

## National Science Foundation Industrial/University Cooperation Research Center for Net-Centric

 Software and Systems. The Center for Net-Centric Software and Systems addresses fundamental software and systems research for the modeling, analysis, design, implementation, testing, deployment and evolution of net-centric and embedded systems.Darwin Deason Institute for Cyber Security. The institute advances the science, policy, application and education of cyber security through basic and problem-driven, interdisciplinary research, and conducts broad programs of research that

- Apply an interdisciplinary approach to challenging problems and incorporate elements from disciplines not traditionally associated with cyber security, such as law, business and the social sciences.
- Create a science of cyber security and address priorities in the national arena.
- Help close the skills gap in cyber security by tapping into the innovation capabilities of students to meet the demand for trained cyber professionals.

Caruth Institute for Engineering Education. The institute develops programs that increase the number and diversity of students who graduate from U.S. high schools with both the enthusiasm and knowledge to pursue the engineering careers necessary for the U.S. to compete in a global economy.

Hunter and Stephanie Hunt Institute for Engineering and Humanity. More than 1 billion people around the world live on less than $\$ 1$ per day; of those, 70 percent are women. The institute strives to change the standard of living for the world's poorest populations (including those in the U.S.), trains a new generation of engineers in modern engineering applications and provides a deep exposure to global economics, cultural awareness, collaborative leadership and principles of sustainability.

Hart Center for Engineering Leadership. The center was created in 2008 with the belief that the leadership and professional development of engineering students should not wait until after graduation. In fact, the Lyle School maintains that this development should coincide with students' technical training as they become aware of what it means to be ethical and credible professional engineers.

HCEL designs programs around the Lyle School's engineering leadership framework, which engages students in developing their personal, relational, positional and contextual leadership awareness and skills. HCEL training gives students the tools to grow personally and professionally their entire lives and includes the following curricula, programs and events:

## Leadership Development

- Leadership assessment tools identify students' understanding of leadership attributes, leadership strengths and areas of interest.
- Leadership instruction developed in collaboration with Lyle faculty is embedded in relational and experiential components of the Lyle School's engineering design courses.
- HCEL engineering ethics modules are infused in specific engineering classes.
- Leadership coaching is offered in group settings and is also available for individuals in some cases.
- The Student Engineering Joint Council holds retreats, events and leadership training.
- Lyle Engineering in the City offers community engagement and service learning activities.
- Partners in Leadership Mentoring pairs students with mid- to senior-level professionals.


## Career Development

- Career coaching helps students research and prepare for interviews with engineering companies.
- GradLeaders allows students to register for interviews and submit résumés online.
- Engineering Mock Interview Day acclimates students to the interviewing process in a riskless environment.
- The Lyle Engineering Connections career fair attracts globally recognized companies seeking to hire engineers for internship, co-op and full-time positions.
- Internships and co-ops integral to the Lyle School are directed by HCEL staff.


## Professional Engineering Licensure

All senior-year engineering students are encouraged to take the first part of the examination for professional engineering licensure in the state of Texas. Information on the exam, testing locations, fees, materials and other exam-related information is available at www.ncees.org/exams/fe-exam.

## Department Information

All programs of education and research in engineering are conducted through the Lyle School of Engineering. The school is organized into the following departments:

```
Civil and Environmental Engineering (CEE)
Computer Science and Engineering (CSE)
Electrical Engineering (EE)
Engineering Management, Information and Systems (EMIS)
Mechanical Engineering (ME)
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Each curriculum is under the jurisdiction of the faculty of the department in which the program is offered.
The Lyle School of Engineering also offers graduate programs toward the degrees of Master of Science, Doctor of Engineering and Doctor of Philosophy.

The departments are the Lyle School of Engineering's basic operating and budgetary units. Each department is responsible for the development and operation of its laboratories at all levels of activity and for all purposes; for the content, teaching and scheduling of its academic courses; and for the conduct of research programs. The chief administrative officer of each department is the department chair, who reports directly to the dean. More information on the Lyle School of Engineering and its programs is available at www.smu.edu/lyle.

## Cooperative Education

The Lyle School of Engineering has a history of demonstrated commitment to the concept of cooperative education. The school was established in 1925 with a close relationship with the Technical Club of Dallas. Members of this group owned factories and engineering consulting firms and wanted to participate in the training and development of their incoming employees. The Technical Club asked SMU to include the Cooperative Education Program in the original design of the school.

SMU was one of the first universities in the Southwest to adopt this concept of practical education. From 1925 to 1965, all engineering undergraduate students participated in the SMU Co-op Program. Since 1965, the program has been optional.

The SMU Co-op Program is designed so each student can enhance his or her education and career by receiving professional training while alternating terms of classroom instruction. Participation in the program allows students to

- Confirm that they like working in their major.
- Discover the kind of work they like within their major.
- Establish a professional reputation.
- Earn the cumulative equivalent of one year of a new graduate's starting salary before graduation.
- Gain invaluable work experience when competing for full-time jobs upon graduation.


## How the Cooperative Program Operates

Entry into the SMU Co-op Program is typically offered in the summer term after the sophomore year or the fall term of the junior year during the student's academic progression. Two sample terms of entry are shown below:

| 5 Work Terms |  |  |  | 4 Work Terms |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { PLAN } \\ & \text { A } \end{aligned}$ | Fall | Spring | Summer | PLAN B | Fall | $\underline{\text { Spring }}$ | Summer |
| First Year | SMU | SMU | Free | First Year | SMU | SMU | Free |
| Sophomore | SMU | SMU | Industry | Sophomore | SMU | SMU | Free |
| Junior | Industry | SMU | Industry | Junior | Industry | SMU | Industry |
| Senior <br> 4th | SMU | Industry | Industry | Senior 4th | SMU | Industry | Industry |
| Senior <br> 5th | SMU | SMU |  | Senior 5th | SMU | SMU |  |

Students who want to participate in the SMU Co-op Program should begin the application process during their first year to allow for career preparation. The application process includes attending Co-op Orientation, receiving interview skills training, résumé review, learning the job search process, and completing the Co-op Program application. The program director guides students through each step of the process.

Each applicant receives advising from the program's director and a direct result of advising is that the student gains a better understanding of individual options and a strategy for pursuing those options.

## Who May Apply?

Any Lyle School of Engineering undergraduate student in good standing who has enough time remaining before graduation to alternate at least three times between terms of full-time work and terms of full-time school may apply for the Co-op Program. Transfer students must be admitted and accepted to SMU before applying.

## When to Apply

Many students choose to begin the application process during the first term of their first year. This early start is especially beneficial for students planning to participate in fraternity/sorority recruitment during the second term of their first year. Students should apply two or more terms before the work term begins. The first of these terms is for preparation; the second is for applying and interviewing with companies.

## Policies of the Cooperative Engineering Education Program

Since 1925, the school has created and maintained numerous corporate relationships. Many factors contribute to these relationships, including the quality of SMU's academics and research, the achievements of alumni, and SMU's close proximity to high-tech corporations. Each SMU Co-op Program student directly benefits from the program's strong corporate relationships and bears an obligation to preserve these relationships by following the Co-op Program Undergraduate Student Agreement. The agreement balances the student's individual needs with the long-term goal of
maintaining the program's corporate relationships for future SMU students. The terms of the program include, but are not limited to, the following:

- Students must maintain good standing with SMU and their employer at all times.
- All training jobs must be approved in advance by the SMU Co-op Program director.
- Before each work term begins, undergraduate students in the program must enroll in the appropriate program course for the term when they work, including summer.
- SMU charges no fees or tuition for these courses. Each course is graded on a pass/fail basis by the program's director. The courses do not count toward graduation. The course numbers for each work term are, respectively, ENGR 1099, ENGR 2099, ENGR 3099, ENGR 4099, ENGR 5099.
- Students enroll at SMU each term, including summers, once they begin the program's rotation between work and school.
- Co-op students take full-time class loads at SMU during alternating school terms.
- Co-op students do not work part-time for the employer during school terms.
- Co-op students complete all work terms with the same company unless decided otherwise.
- Once a student accepts a Co-op Program position, the student may switch positions within the sponsoring company with the approval of the company.
- Each student in the program completes his or her originally planned number and sequence of alternating work terms. The term of graduation must be a term of full-time study at SMU.
- Each student in the program accepts responsibility for knowing and following all SMU Co-op Program regulations and those of the participating employer.
- Students agree to complete all of their University required paperwork even while participating in the Co-op Program (e.g., FAFSA, CSS Profile, enrolling for classes, enrolling for housing, applying for graduation in their last senior term.


## Co-op Certificate

SMU Co-op Program students who complete at least three of their originally planned and scheduled Co-op Program work terms in good standing with the University and the SMU Co-op Program Office receive a noncredit Cooperative Education Program Certificate to coincide with graduation. For additional information, students should contact the director of the SMU Co-op Program: phone 214-768-1845; email coop@lyle.smu.edu.

## Undergraduate Engineering Internship Program

The internship program allows full-time students to include a minimum of three terms of professional work experience during their study. Students must have obtained junior-level class status prior to participating in the internship program. Students cannot simultaneously enroll in a full-time load of coursework and participate in a fulltime work experience. A full-time course of study is defined as 12 or more credit hours per term, and a full-time work experience is defined as a minimum of 37.5 hours worked per week. In order to maintain satisfactory academic achievement, students enrolled in a full-time course load shall not work more than a maximum of 20 hours a week. Students who are actively participating in a full-time work experience shall not enroll in more than nine credit hours per term. Zero hours of credit will be awarded for each term of internship. Participation in this program will not jeopardize the full-time status of international students. Students who wish to participate in this program need to

- Receive an internship job offer relating to their major.
- Provide a job description to the Hart Center for Engineering Leadership.
- Complete the Undergraduate Engineering Internship Program Agreement form.
- Obtain the following approvals: faculty adviser, department chair, director of Undergraduate Professional Experience Programs in the Hart Center and the International Student Office (for all international students).

Once the necessary approvals are obtained, the student must register for the Undergraduate Internship Program course that is designated by the student's department (CEE 5050, CSE 5050, EE 5050, EMIS 5050, ME 5050).

Within two weeks of the end of the term or at the end of the internship, whichever comes first, the student must submit a report outlining the activities and duties of the internship. The student will submit a copy of the report to the faculty adviser, the International Office (if applicable) and the director of Undergraduate Professional Experience Programs of the Lyle School of Engineering. The director of Undergraduate Professional Experience Programs, in consultation with the student's adviser, will assess the report and recommend a grade of S (Satisfactory) or U (Unsatisfactory) to the associate dean for the Office of Academic Affairs within two weeks of receiving the report. The student's work experience will be validated and recognized on the permanent transcript.

## Admission

Note: Detailed information regarding SMU's admission requirements, regulations and procedures is found in the Admission to the University section of this catalog.

Prospective students interested in undergraduate degrees in engineering apply for undergraduate admission to SMU as first-year or transfer students through the Office of Admissions, Southern Methodist University, PO Box 750181, Dallas TX 75275-0181. All first-year applicants admitted to SMU initially enter Dedman College. For students interested in majoring in engineering, a personal interview with Lyle School of Engineering's Undergraduate Enrollment Office is highly recommended. The Lyle School of Engineering Office of Undergraduate Student Experience and Enrollment Management can be reached at 214-768-3041.

## High School Preparation

Because of the high standards of the Lyle School of Engineering and the rigorous character of its curricula, it is essential that the entering student be well prepared in basic academic subjects in high school. To be successful in SMU engineering programs, the student should have the following academic strengths:

1. Academic success in an appropriate program of study in high school.
2. Strong evidence of aptitude for math and science demonstrated through the high school curriculum.
3. A minimum SAT math sectional score of 600 or a minimum ACT math of 27.

While these guidelines do not guarantee admission to SMU, they should assist students interested in studying engineering at SMU.

## Admission to Advanced Standing

## Admission From Dedman College and Other Schools Within SMU

After completion of the engineering subset, students are admitted to the Lyle School of Engineering through an interschool transfer. These transfers are approved by the appropriate department chair and the associate dean of the Lyle School of Engineering. For admission, a student must have completed 24 credit hours, attained a 2.000 or higher cumulative GPA and completed the subset requirements as listed below.

| Major | Subset Courses | Minimum Subset GPA and Grade Requirements |
| :---: | :---: | :---: |
| Civil <br> Engineering | DISC 1312 / DISC 2305, DISC 1313 / DISC 2306 , MATH 1337 , MATH 1338 , CEE <br> 1302 , CEE 2310 / ME 2310 | 2.500 |
| Computer Engineering | DISC 1312 / DISC 2305, DISC 1313 / DISC 2306 , MATH 1337 , MATH 1338 , CSE 1341, CSE 1342 , KNW 2300 | 2.500 and C - or better in all subset courses |
| Computer Science | DISC 1312 / DISC 2305 , DISC 1313 / DISC 2306, MATH 1337, MATH 1338 , CSE 1341, CSE 1342 , KNW 2300 | 2.500 and C - or better in all subset courses |
| Electrical <br> Engineering | DISC 1312 / DISC 2305, DISC 1313 / DISC 2306 , MATH 1337 , MATH 1338 , two of EE 1350, EE 2381, CSE 1341, CHEM 1303 , PHYS 1303 | 2.500 |
| Environment Engineering | DISC 1312 / DISC 2305, DISC 1313 / DISC 2306 , MATH 1337 , MATH 1338 , CEE 1302 , CEE 2310 / ME 2310 | 2.500 |
| Management Science | DISC 1312 / DISC 2305, DISC 1313 / DISC 2306 , MATH 1337 , MATH 1338 , EMIS 1360, CSE 1341, CSE 1342 | 3.000 and C or better in all subset courses (Once a student enters SMU, all remaining subset courses must be completed through enrollment at SMU.) |
| Mechanical <br> Engineering | ME 1302, CEE 2310 / ME 2310, ME 2331, PHYS 1303, MATH 1338 | 2.700 |

With the exception of courses repeated using the First-Year Repeat Policy, all attempts of subset courses are used in computing the civil engineering, computer science, computer engineering, electrical engineering, environmental engineering and mechanical engineering subset GPA. For the management science subset GPA, only the first graded attempt is included in the subset GPA except for courses repeated using the First Year Repeat Policy. The subset GPA for students who have Advanced Placement or International Baccalaureate credit is based upon the remaining graded subset courses. Current University grading policy, as summarized under Academic Forgiveness in the Grade Policies section of this catalog, permits forgiveness of academic work taken 10 or more years prior to the term of admission. Academic work forgiven under this policy will not be included in the subset GPA.

## Admission by Transfer From Another Institution

Prospective transfer students interested in undergraduate degrees in engineering apply for undergraduate admission to SMU through the Office of Admissions, Southern Methodist University, PO Box 750181, Dallas TX 75275-0181. An undergraduate at a junior college, college or university may apply for transfer admission to SMU and the Lyle School of Engineering. Admission will be granted provided the prior academic records and reasons for transfer are acceptable to the Lyle School of Engineering. Transfer credit will be awarded in courses that have identifiable counterparts in curricula of the Lyle School of Engineering, provided they carry grades of $C$ - or better. Transfer students will be expected to meet requirements equivalent to students admitted from Dedman College and other schools within SMU.

Transfer credit is awarded only for work completed at institutions that have regional or comparable accreditation. Because of the 60 credit hour SMU requirement for a bachelor's degree, there is a limit on the total amount of credit that may be applied toward a Lyle School of Engineering degree.

## Academic Regulations

## Graduation Requirements for Baccalaureate Degrees

Graduation from the Lyle School of Engineering with a bachelor's degree requires the following standards of academic performance:

1. A passing grade must be received in every course in the prescribed curriculum.
2. An overall GPA of 2.000 or better must be attained in all college and university courses.
3. An overall GPA of 2.000 or better must be attained in all coursework attempted for the degree through enrollment at SMU.
4. An overall GPA of 2.000 or better must be attained in all coursework attempted for the degree in the major field of study.
5. A minimum of 122 credit hours must be completed, including the University-wide requirements and the requirements met for a major in engineering or applied science.

## SMU and Lyle Credit Requirements

For graduation from the Lyle School of Engineering, 60 credit hours must be earned as SMU credit, including 30 credit hours in the major department or interdisciplinary program. Of the last 60 credit hours earned toward a degree, 45 must be completed through enrollment in courses offered by the faculty of the Lyle School of Engineering. Exceptions to this requirement will be made only under unusual circumstances at the discretion of the Lyle School of Engineering faculty.

## The Major

A candidate for a degree must complete the requirements for a major in one of the departments of the Lyle School of Engineering. The applicable requirements of the major are those in effect during the academic year of matriculation, or those of a subsequent academic year. Coursework counting toward a major may not be taken pass/fail. Majors must be officially declared (or changed) through the Lyle Office of Undergraduate Studies.

## Departmental Distinction Program

Students will be awarded departmental distinction by their major department upon successful completion of a special program of study, independent of their eligibility for Latin graduation honors or for graduation honors in the liberal arts. The special program of study leading to departmental distinction, undertaken in both the junior and senior years, requires independent reading and research beyond the regular departmental requirements for a degree. This award is conferred by the major department on the basis of criteria prescribed by the department, but all programs include the following requirements:

- A major GPA of 3.500 or higher.
- Successful completion of three hours of senior thesis approved by the academic adviser.
- Formation of a supervisory committee consisting of three members, with the chair being a resident tenured or tenure-track faculty member of the department, and a minimum of two full-time Lyle faculty members.
- Successful defense of the senior thesis, which consists of the presentation of the senior thesis in a public forum and subsequent oral examination by the supervisory committee to satisfy itself that the student performed the independent reading and conducted the research.
Currently, the Computer Science and Engineering Department and the Electrical Engineering Department offer departmental distinction programs.


## University-wide Requirements

All SMU undergraduate students share a common program of study designed to assure them of a broad liberal education regardless of their major. This requirement is designed to help each student learn to reason and think for oneself, become skilled in communicating and understanding, understand both the social and the natural worlds and one's own place and responsibilities in these environments, and understand and appreciate human culture and history in various forms, including religion, philosophy and the arts. Students should see the University-wide Requirements section of this catalog for more information.

## Dual Degree Programs

The Lyle School of Engineering offers concurrent dual degree programs with other SMU schools. Students may design and pursue a second major or minor degree program in consultation with their academic adviser.

## 4+1 Master's Degree Program

The $4+1$ Program permits undergraduate Lyle Engineering students to take some graduate courses while an undergraduate, which will count both toward B.A./B.S. and M.A./M.S. degrees. Up to nine (9) SCH of graduate course work may be permitted to be taken as an undergraduate and be applied toward fulfilling the undergraduate degree requirements. In such cases, students may fulfill both Bachelors and Masters degree requirements in as few as 21 SCH beyond the B.A./B.S. coursework.

Furthermore, because the graduate work is spread over two or more academic years, students have a greater selection of courses in both their undergraduate and graduate studies and are able to complete a thesis, should they so desire. The student must work closely with his or her academic advisor to ensure that the requirements of the $4+1$ Program, the B.A./B.S. degree, and the M.A./M.S. degree all are met.

## Requirements

For students admitted to the $4+1$ Program, up to nine (9) SCH of graduate courses (7000-level and above) may be applied toward fulfilling the student's undergraduate program requirements. The student must complete a minimum of 21 term-credit hours of graduate course work at SMU beyond the undergraduate residency requirement to satisfy the graduate residency requirement. In addition, the $4+1$ student is permitted to take additional graduate courses while an undergraduate, up to their eighth semester, that can be marked for graduate credit only. No graduate course work for graduate-only credit will be permitted after the eighth semester, although the students will be permitted to take dual-credit graduate courses (up to 9 hours) even beyond the eighth semester. Furthermore, the student must take at least one of the courses for the graduate degree while holding graduate status, i.e., after the student graduates with the undergraduate degree.

## Admission Requirements

For admission to the $4+1$ Program, the student must:

1. Be enrolled in an undergraduate program in the Lyle School of Engineering,
2. Have achieved junior-level status,
3. Apply no later than the semester before they finish their undergraduate studies,
4. Have an overall GPA of 3.0 or higher,
5. Upon request, provide three letters of recommendation, one from the student's academic advisor and two from other faculty members in the School of Engineering, and
6. Be accepted into the desired M.A./M.S. program.

## Bachelor's Degree Requirements

All undergraduate degree requirements must be satisfied, with up to 9 SCH of graduate course work (7000 and above) applying toward the satisfaction of those requirements. It is important to note that the graduate courses must be taken at the 7000 level from the beginning, as no conversion from 5000 to 7000 will be permitted after the add/drop deadline in the semester the course is taken. The undergraduate advisor should be consulted on the appropriateness of the 7000 dual-counting courses for the undergraduate degree.

## Master's Degree Requirements

To receive a Master's degree under the $4+1$ Program, the student must have a cumulative GPA of 3.0 in the M.S. degree course work (including the graduate course work applied towards the undergraduate degree requirements), and satisfy all requirements for the Master's degree. The Master's degree requirements will be completed after the semester the student graduates with the Bachelor's degree. The designated graduate advisor should be consulted when registering to any graduate courses, to make sure that these courses satisfy requirements of the Master's degree pursued.

## Programs of Study

The Lyle School of Engineering offers the following degrees:
Bachelor of Science With a Major in Civil Engineering
Bachelor of Science With a Major in Computer Engineering
Bachelor of Science With a Major in Electrical Engineering
Bachelor of Science With a Major in Environmental Engineering
Bachelor of Science With a Major in Mechanical Engineering
Bachelor of Science With a Major in Computer Science
Bachelor of Science With a Major in Management Science
Bachelor of Arts With a Major in Computer Science
Engineering work can be classified by function, regardless of the branch, as follows: research, development, design, production, testing, planning, sales, service, construction, operation, teaching, consulting and management. The function fulfilled by an engineer results in large measure from personal characteristics and motivations, and only
partially from his or her curriculum of study. Nonetheless, while engineering curricula may be relatively uniform, the modes of presentation tend to point a student toward a particular large class of functions. Engineering curricula at SMU focus generally on engineering functions that include research, development, design, management and teaching - functions ordinarily associated with additional education beyond the bachelor's degree.

The Lyle School of Engineering undergraduate programs in civil engineering, computer engineering, electrical engineering, environmental engineering and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET, www.abet.org. The undergraduate computer science program that awards the degree Bachelor of Science is accredited by the Computing Accreditation Commission of ABET. The undergraduate computer science program that awards the degree Bachelor of Arts is not accredited by a Commission of ABET. ABET does not provide accreditation for the discipline of management science.

## Description of Courses

Courses offered in the Lyle School of Engineering are identified by a two-, three- or four-letter prefix code designating the general subject area of the course, followed by a four-digit number. The first digit specifies the approximate level of the course as follows: 1 - first year, 2 - sophomore, 3 - junior, 4 - senior and 5 - senior. The second digit denotes the credit hours associated with the course. The last two digits specify the course numbers. Thus, CSE 4381 denotes a course offered by the Department of Computer Science and Engineering at the senior (4) level, having three credit hours, and with the course number 81. The prefix codes are as follows:

| CEE | Department of Civil and Environmental Engineering |
| :---: | :--- |
| CSE | Department of Computer Science and Engineering |
| EE | Department of Electrical Engineering |
| EMIS | Department of Engineering Management, Information and Systems |
| ENGR | Lyle School of Engineering Multidisciplinary Studies |
| ME | Department of Mechanical Engineering |

## Army Reserve Officers' Training Corps

While Army ROTC courses are not offered on the SMU campus, students can participate in the Army ROTC program at the University of Texas at Arlington by enrolling as they enroll for other SMU courses. Further program information and application procedures may be obtained by contacting the UTA Department of Military Science at 817-272-3281. Students who participate in the UTA Army ROTC program are responsible for their own travel and other physical arrangements.

Army ROTC offers students the opportunity to graduate as officers and serve in the U.S. Army, the Army National Guard or the U.S. Army Reserve. Army ROTC scholarships are awarded on a competitive basis. Each scholarship pays for tuition and required educational fees, and provides a specified amount for textbooks, supplies and equipment. Each scholarship also includes a subsistence allowance of up to $\$ 1,000$ for every year the scholarship is in effect.

Students can enroll in the Army ROTC on-campus program as they enroll for other SMU courses. Army ROTC courses are listed under ROTC in the Access.SMU schedule of classes, and permission to enroll must be obtained from Susan Bailey at sbailey@lyle.smu.edu or 214-768-3919.

## For information about Air Force ROTC, see the Aerospace Studies: Air Force ROTC section in the Dedman College of Humanities and Sciences portion of the catalog.

## Courses:

ROTC 1141 - Foundations of Leadership
Credits: 1
Fundamental concepts of leadership in a profession, with classroom and outdoor laboratory environments. Studies time management skills, basic drill, ceremony, physical fitness, repelling, leadership reaction, first aid, presentations, and marksmanship. Corequisite: ROTC 1180. Includes mandatory participation in independent physical fitness training, plus optional participation in a weekend field training exercise.

## ROTC 1142 - Introduction to Leadership

Credits: 1
Application of principles of leadership through participation in physically and mentally challenging exercises with upperdivision ROTC students, with a focus on communication skills, organizational ethics, and time management techniques. Corequisite: ROTC 1180. Includes mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise.

## ROTC 1143 - Army ROTC: Introduction to Leadership I

Credits: 1
Introduces basic military skills, including principles of emergency first aid, evacuation of casualties, map and compass reading, terrain association, cross-country navigation, principles of physical fitness training, and military inspections. Corequisite: ROTC 1180.

## ROTC 1180 - Leadership Laboratory

Credits: 1
A practical laboratory of applied leadership and skills. Students plan, organize, and conduct training that is oriented toward leadership development. Topics include marksmanship and small-unit tactics. Multitier programs focus on individual skill levels. Uniform and equipment provided. May be repeated for credit.

## ROTC 2248 - Evolution of Contemporary Military Strategy

## Credits: 2

A review of contemporary military conflicts. Selected battles from World War II, Korea, Vietnam, and the Yom Kippur War are examined for impact upon current U.S. military doctrine, strategy, and weapons systems. Corequisite: All military science students must enroll or participate in ROTC 1180 unless exception is given by the PMS.

## ROTC 2251 - Individual and Team Development

## Credits: 2

Application of ethics-based leadership skills and fundamentals of the ROTC's Leadership Development Program. Develops skills in oral presentations, concise writing, event planning, coordination of group efforts, advanced first aid, land navigation, and military tactics. Corequisite: ROTC 1180. Includes mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise.

## ROTC 2252 - Individual and Team Military Tactics

## Credits: 2

Introduces individual and team aspects of military tactics in small-unit operations. Includes use of radio communications, safety assessments, movement techniques, team safety and security, and pre-execution checks. Corequisite: ROTC 1180. Includes mandatory participation in individual physical fitness training, plus optional participation in a weekend field training exercise.

## ROTC 2291 - Conference Course

## Credits: 2

Supplements the military science curricula through concentrated, independent study in a narrower field of military skill or subject matter. May be repeated for credit. Does not count for PE credit. Prerequisite: Permission of the PMS.

## ROTC 2343 - Leadership Training Camp

## Credits: 3

A rigorous 5-week summer camp conducted at an Army post. Stresses leadership, initiative, and self-discipline. No military obligation incurred. Course completion qualifies the student for entry into the advanced course. Three different cycles offered during the summer, but spaces are limited by the Army. Candidates can apply for a space any time during the school year prior to the summer. Open only to students who have not taken all four of ROTC 1141, ROTC 1142, ROTC 2251, and ROTC 2252 and who pass an ROTC physical examination. P/F grade only.

## ROTC 3341 - Leadership I

## Credits: 3

Development of ability to evaluate situations, plan and organize training, learn military tactics, review case studies in leadership management, and develop teaching and briefing skills. Prerequisite: Permission of PMS. Corequisite: ROTC 1180.

## ROTC 3342 - Leadership II

## Credits: 3

Practical application of squad and platoon leadership in tactical situations, operation of small-unit communications systems, and development of the leaders' abilities to express themselves, analyze military problems, and prepare and deliver logical
solutions. Demanding physical fitness training and performance-oriented instruction in preparation for summer field training. Prerequisite: Permission of PMS. Corequisite: ROTC 1180.

## ROTC 3443 - National Advanced Leadership Camp

## Credits: 4

A 5-week, off-campus field training course stressing the practical application of leadership management, with emphasis on tactical and technical military field skills. Open only to students who have successfully completed ROTC 3341 and ROTC 3342. P/F grade only.

## ROTC 3495 - Nursing Advanced Summer Training

## Credits: 4

A 7-week, off-campus internship at a major U.S. Army hospital for ROTC nursing students. This nursing practicum provides hands-on experience that integrates clinical, interpersonal, and leadership knowledge and skills. Practical experience and familiarization with Army nursing in a variety of clinical tasks in the areas of medical-surgical nursing, pediatrics, obstetrics, and, in some cases, intensive care in ICUs in some cases. May be used for partial credit for NURS 3647 or 3347 with prior arrangement and approval of the dean of nursing. Prerequisites: Completion of the junior year of a baccalaureate nursing program and permission of the PMS.

## ROTC 4341 - Advanced Leadership I

Credits: 3
Stresses leadership qualities necessary for command and staff functions and operations. Students plan and conduct meetings, briefings, conferences, physical training programs. Introduces the Army's logistical system and personnel management system. Also, preparation of after-action reports. Prerequisite: Permission of PMS. Corequisite: ROTC 1180.

## ROTC 4342 - Advanced Leadership II

## Credits: 3

Examines the ethical standards, professional roles, responsibilities, and uniqueness of the profession of officership. Includes case study analysis of military law and practical exercises on establishing an ethical command climate. Students complete a term-long senior leadership project that requires them to plan, organize, and demonstrate their leadership skills. Following course completion, students are commissioned as second lieutenants in the Army. Provides a basic working knowledge of the military justice system, with emphasis on company-level actions and requirements, including law of land warfare. Prerequisite: Permission of PMS. Corequisite: ROTC 1180.

## ROTC 4391 - Conference Course

Credits: 3
Independent study on current topics in military science. Performance is assessed by oral examination, written test, or research paper, as arranged. May be repeated for credit. Prerequisite: Permission of PMS.

# Civil and Environmental Engineering 

Associate Professor Barbara S. Minsker, Chair<br>Professors: Paul Krueger, Zhong Lu, Barbara S. Minsker, Halit Üster<br>Associate Professors: Khaled F. Abdelghany, Usama S. El Shamy, Andrew N. Quicksall, David A. Willis<br>Assistant Professors: Jaewook Myung, Brett Story, Wenjie Sun<br>Lecturer: John H. Easton<br>Adjunct Faculty: Yasser Abdelhamid, Drew Aleto, April Blount, Whitney Boger, Samir Bougacha, Mark K. Boyd, Robert Casagrande, Weiping Dai, H. Elizabeth del Monte, Roger O. Dickey, Edward Forest, Hope Hagar, Anwar Hirany, Sina Iman, Mehedy Mashnad, Steven D. McCauley, Mofid Nakhaei, Jon D. Rauscher, Patricia A. Taylor, Philip K. Turner, Rumanda K. Young, Natasha Zamani, Jessie Marshall Zarazaga

## General Information

Undergraduate programs within the Department of Civil and Environmental Engineering educate and train leaders in the fields of environmental protection, resource management, construction and engineering design. Programs are tailored to the individual needs and interests of CEE students, so that students with interests in studying global climate change, protecting the quality of the drinking water, or designing the next generation of high-rise buildings or smart highways receive the training they need to excel in their careers. As part of their education, CEE students are paired with CEOs, business leaders, professional engineers, Environmental Protection Agency directors or corporate attorneys in a mentoring program designed to propel students into promising careers.

Civil and environmental engineering are inextricably linked. While civil engineering focuses on the infrastructure of modern society, environmental engineering is concerned with the well-being and health of people and the environment. Civil and environmental engineering functioned as a single integrated discipline in the early 1900 s when it was critical to address sanitary problems to protect public health and to develop regional water supplies and the civil infrastructure to support rapid urbanization and early industrialization. Separate disciplines gradually emerged, evolving and broadening to address the overall quality and function of modern society preserving the environment while enabling the realization of an enriched life through technology.

## Civil Engineering Program

Civil engineers are engaged in planning, design, construction, maintenance and management of the infrastructure of modern society. They are responsible for the design of water supply and wastewater treatment systems; transportation systems such as highways, railways, waterways, mass transit, airports, ports and harbors; dams, reservoirs and hydroelectric power plants; thermoelectric power plants; transmission and communication towers; high-rise buildings; and even aircraft and aerospace structures, shuttles and space stations. Every major structure critical to this country, and global society, depends on the work of civil engineers.

The mission of the civil engineering program is to prepare graduates for professional practice and advanced studies by focusing on the following areas: structural engineering, geotechnical engineering, transportation planning, environmental engineering and water resources., Graduates will be equipped with the skills and knowledge necessary to be fully participatory members of civil engineering teams and contributors to civil engineering efforts conducted within the evolving global economy.

The mission and educational objectives of the civil engineering program are consistent with the missions of the Civil and Environmental Engineering Department, the Lyle School of Engineering, and the overall institutional mission of SMU, and were determined based on the needs of the program's various constituencies. The program
prepares graduates to achieve the following educational objectives during the medium term of their professional careers:

1. Assume important leadership positions in a globally competitive world.
2. Fully participate either as engineering designers or as managers in the public or private sectors.
3. Pursue advanced academic or professional degrees in engineering, medicine, law, business or public policy.
4. Licensing as professional engineers.

## Environmental Engineering Program

The environmental field is dynamic and wide-ranging, comprising many different disciplines and professional roles. Environmental engineering involve not only traditional water and wastewater management, but also the management of hazardous and radioactive materials, pollution prevention and waste minimization, innovative hazardous waste treatment and site remediation processes, environmental and occupational health, resource conservation and recovery, sustainable development of natural resources, and air quality management and pollution control. In addition, modern manufacturing, both domestic and worldwide, focuses on using recycled and natural materials to fabricate products that are competitive in the marketplace and harmlessly degraded in the environment. The trend toward global manufacturing will grow stronger in the years ahead. Environmental challenges presented by this movement must be overcome if the economic and lifestyle benefits of globalization are to be extended to all peoples of the world.

The educational objectives of the environmental engineering program are consistent with the missions of the Civil and Environmental Engineering Department, the Lyle School of Engineering, and the overall institutional mission of SMU, and were determined based on the needs of the program's various constituencies. The program prepares graduates to achieve the following educational objectives during the medium term of their professional careers:

1. Assume important leadership positions in a globally competitive world.
2. Fully participate either as engineering designers or as managers in the public or private sectors.
3. Pursue advanced academic or professional degrees in engineering, medicine, law, business or public policy.
4. Licensing as professional engineers.

The environmental engineering program prepares graduates for professional practice and advanced study through a focus in the following areas: 1) water supply and resources, 2) environmental systems and process modeling, 3) environmental chemistry, 4) wastewater management, 5) solid waste management, 6) hazardous waste management, 7) atmospheric systems and air pollution control, and 8) environmental and occupational health.

## Degrees Offered

The CEE Department offers undergraduate degrees as follows:
Bachelor of Science With a Major in Civil Engineering
Bachelor of Science With a Major in Environmental Engineering
Bachelor of Science With a Major in Environmental Engineering with a premedical specialization
Students may pursue combined degree programs offered in conjunction with Dedman College. The combined degree programs include a B.S. in Civil Engineering and a B.S. with a major in Math and a B.S. in Environmental Engineering and a B.S. with a major in Math.

The Engineering Accreditation Commission of ABET, www.abet.org, has accredited the undergraduate programs in civil engineering and environmental engineering. Both the civil and environmental engineering programs are
designed to prepare students for the Fundamentals of Engineering Examination, the first step toward licensure as a professional engineer. Engineering design is integrated throughout the civil and environmental engineering curricula, each culminating in a major design experience based on the knowledge and skills acquired in earlier coursework. In their senior year, the department's engineering students are required to take two terms of design where teams of two to four students work closely on practical projects sponsored by industry and government. Senior design projects incorporate engineering standards and realistic constraints including most of the following considerations: economic, environmental, sustainability, manufacturability, ethical, health and safety, social, and political. The department's engineering curricula ensure that students develop an understanding of the concepts of professional engineering practice, including ethical responsibilities, effective oral and written communication, management and business for engineering organizations and markets, public policy and leadership in projects and organizations, participation on multidisciplinary teams, procurement, bidding, the interaction of design and construction professionals, professional licensing, and the need for lifelong learning.

## Departmental Facilities

CEE departmental offices and instructional and research laboratories are located in the new, state-of-the-art J. Lindsay Embrey Engineering Building, which is certified as a Leadership in Energy and Environmental Design Gold Building in LEED's internationally recognized green building certification program. Environmental teaching and research laboratories include dedicated space for air quality and meteorology, industrial hygiene, environmental microbiology, soil and water quality, and contaminant modeling. The air quality and meteorology laboratory includes modern airflow, pressure and volume measurement instrumentation. The industrial hygiene laboratory includes an inventory of the latest personal monitoring equipment for assessing occupational exposure to a variety of industrial process stressors including asbestos, noise, total and respirable dust, metals, radiation, and heat stress. The contaminant-modeling laboratory provides space to conduct experiments for water quality assessment, to develop innovative biological and chemical treatment processes that remove and degrade potentially harmful contaminants, to develop multi-component reactive transport modeling of contaminants in the groundwater and subsurface environments, and to analyze groundwater flow regimes and fate and transport of contaminants in the subsurface.

The environmental teaching and research laboratories have sophisticated analytical capabilities for performing chemical analyses of air samples and for assessing the quality of water supplies and wastes and the effectiveness of water and waste treatment procedures. Major equipment includes a Thermo Scientific ozone analyzer, a Dynamax absorbance detector, a Hach DR 2500 scanning spectrophotometer for water quality analysis of numerous parameters, a Thermo Scientific inductively coupled plasma mass spectrometer, a PerkinElmer Fourier transform infrared spectrometer with attenuated total reflectance, a Dionex ion chromatography unit, a Cary bio UV-visible spectrometer with temperature control, and an Agilent gas chromatography and mass spectrometry unit for identifying and measuring numerous permanent inorganic gases and organic compounds in environmental samples. Other miscellaneous equipment includes continuous ambient air monitoring devices, a UV-visible spectrophotometer, pH and other specific ion meters, incubating ovens, microscopes, furnaces, centrifuges, dissolved oxygen meters, a Mettler titrator for chemical and acid/base surface experiments, several temperature control baths, and a tumbler for constant temperature studies. An autoclave, microscopes and a UV light reader support basic engineering microbiological work.

Civil engineering teaching and research laboratories include dedicated space for mechanics of materials and structural engineering, hydraulics and hydrology, geotechnical engineering and transportation materials, and intelligent transportation systems. The Structural and Mechanics of Materials Laboratory is equipped for instruction and research on the behavior of materials under various loading conditions such as fatigue, impact, hardness, creep, tension, compression and flexure. This lab is equipped with an Instron 5582 universal materials testing machine, a Tinius-Olsen tension and compression test machine, a Didactec and a Tecquipment torsion test machine, a deflection test machine for simply supported beams, and a cantilever beam bending and deflection test apparatus. Major hydraulics and hydrology laboratory equipment includes a 5 -meter open channel flume with various accessories (e.g., undershot weir, rotary undershot gate, and sharp and broadcrested weirs), a basic hydraulics bench for fundamental fluid mechanics experiments (e.g., hydrostatic pressure forces, Bernoulli's theorem and pipe friction losses), and a hydrology study system for hydrology experiments (e.g.,
simulating rainfall over watersheds and measuring resulting outflow hydrographs, and groundwater flow profiles). The geotechnical engineering and transportation materials laboratory has a Geocomp soil testing equipment automated set, a Geocomp direct residual shear test system automated set, a pocket penetrometer and the torvane shear device, and liquid and plastic limit devices. Traditional geotechnical testing equipment such as sieve analysis, hydrometer, constant head/falling head permeameter, liquid and plastic limits, compaction, and relative density are also available.

The Embrey Building also houses a dedicated computer-aided design laboratory with AutoCAD software and a general-use computer laboratory with personal computers, high-resolution color monitors and laser printers for use by the department's students. Computers in the CAD and general-use laboratories are connected through a high-speed network to the computer systems of the Lyle School of Engineering and SMU, as well as to offcampus systems via the Internet. The computer network provides access to general applications software and specialized software for engineering problems, including air dispersion modeling, AutoCAD, ArcGIS, hydrologic and hydraulic modeling for water resource systems, statistical analysis and stochastic modeling, structural analysis and design, transportation systems planning and analysis, and water quality modeling.

## Civil Engineering, B.S.C.E.

Curriculum Notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within the civil engineering curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (34 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3313 - Ordinary Differential Equations
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists
- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- CEE 2321-Aquatic Chemistry
- CEE 2121 - Aquatic Chemistry Laboratory
- GEOL 1301 - Earth Systems
or
- GEOL 1315 - Introduction to Environmental Science
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory


## Civil Engineering and Design (59 Credit Hours)

- CEE 1302 - Introduction to Civil and Environmental Engineering
- CEE 2304 - Fundamentals of Environmental Engineering
- CEE 2310 - Statics
- CEE 2320 - Dynamics
- CEE 2331 - Fundamentals of Thermal Science (Thermodynamics)
- CEE 2340 - Mechanics of Deformable Bodies
- CEE 2140 - Mechanics of Materials Laboratory
- CEE 2342 - Fluid Mechanics
- CEE 2142 - Fluid Mechanics Laboratory
- CEE 2372 - Introduction to CAD
- CEE 3310 - Computational Methods for Civil and Environmental Engineering Applications
- CEE 3323 - Water Resources Engineering
- CEE 3350 - Structural Analysis
- CEE 3385 - Soil Mechanics and Foundations
- CEE 4350 - Design of Steel Structures
- CEE 4351 - Design of Concrete Structures
- CEE 4380 - Civil and Environmental Engineering Design I
- CEE 4381 - Civil and Environmental Engineering Design II
- CEE 5354 - Environmental Engineering Principles and Processes
- CEE 5378 - Transportation Planning and Traffic Engineering
- KNW 2300 - Introduction to Engineering Design


## Civil Engineering Technical Electives (6 Credit Hours)

Selected with adviser's approval.

## Engineering Leadership (6 Credit Hours)

- CEE 3302 - Engineering Communications

One from

- CEE 2302 - Authentic Leadership
- CEE 5303 - Leadership Innovation Hub
- CSE 4360 - Technical Entrepreneurship
- EMIS 3308 - Engineering Management


## Total: 105 Credit Hours

## Civil Engineering, B.S.C.E., With a Major in Mathematics

Curriculum Notes. Since students acquire communication skills throughout this specialized curriculum, the CEE department waives the CEE 3302 pre-requisite from CEE 4380 . In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within this curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (46 Credit Hours)

- MATH 1337-Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3313 - Ordinary Differential Equations
- MATH 3315 - Introduction to Scientific Computing or
- MATH 3316 - Introduction to High-Performance Scientific Computing
- MATH 4337 - Boundary Value Problems and Partial Differential Equations
- Two advanced MATH electives approved by math adviser
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists
- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory
- CEE 2321 - Aquatic Chemistry
- CEE 2121 - Aquatic Chemistry Laboratory
- GEOL 1301 - Earth Systems or
- GEOL 1315 - Introduction to Environmental Science
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304-Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory


## Civil Engineering and Design (59 Credit Hours)

- CEE 1302 - Introduction to Civil and Environmental Engineering
- CEE 2304 - Fundamentals of Environmental Engineering
- CEE 2310 - Statics
- CEE 2320 - Dynamics
- CEE 2331 - Fundamentals of Thermal Science (Thermodynamics)
- CEE 2340 - Mechanics of Deformable Bodies
- CEE 2140 - Mechanics of Materials Laboratory
- CEE 2342 - Fluid Mechanics
- CEE 2142 - Fluid Mechanics Laboratory
- CEE 2372 - Introduction to CAD
- CEE 3310 - Computational Methods for Civil and Environmental Engineering Applications
- CEE 3323 - Water Resources Engineering
- CEE 3350 - Structural Analysis
- CEE 3385 - Soil Mechanics and Foundations
- CEE 4350 - Design of Steel Structures
- CEE 4351 - Design of Concrete Structures
- CEE 4380 - Civil and Environmental Engineering Design I
- CEE 4381 - Civil and Environmental Engineering Design II
- CEE 5354 - Environmental Engineering Principles and Processes
- CEE 5378 - Transportation Planning and Traffic Engineering
- KNW 2300 - Introduction to Engineering Design


## Advanced Civil Engineering/Mathematics (6 Credit Hours)

Two from

- CEE 5361 - Matrix Structural Analysis and Introduction to Finite Element Methods
- CEE 5364 - Introduction to Structural Dynamics
- ME 4322 - Vibrations


## Total: 111 Credit Hours

## Environmental Engineering, B.S.Env.

Curriculum Notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within the environmental engineering curriculum are distributed as follows:

## Requirements for the Degree

## Mathematics and Science (38 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3313 - Ordinary Differential Equations
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists
- CEE 2322 - Field Methods for Soil and Water Analysis or
- CEE 5319 - Soil Chemistry and Mineralogy
- CEE 4418 - Engineering Microbiology
- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- CEE 2321-Aquatic Chemistry
- CEE 2121 - Aquatic Chemistry Laboratory
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory


## Environmental Engineering and Design (49 Credit Hours)

- CEE 1302 - Introduction to Civil and Environmental Engineering
- CEE 2304 - Fundamentals of Environmental Engineering
- CEE 2310 - Statics
- CEE 2331 - Fundamentals of Thermal Science (Thermodynamics)
- CEE 2342 - Fluid Mechanics
- CEE 2142 - Fluid Mechanics Laboratory
- CEE 2372 - Introduction to CAD
- CEE 3310 - Computational Methods for Civil and Environmental Engineering Applications
- CEE 3323 - Water Resources Engineering
- CEE 3331 - Fundamentals of Air Quality I
- CEE 3341 - Introduction to Solid and Hazardous Waste Management
- CEE 3351 - Industrial Hygiene and Occupational Health
- CEE 4380 - Civil and Environmental Engineering Design I
- CEE 4381 - Civil and Environmental Engineering Design II
- CEE 5317 - Environmental Organic Chemistry
- CEE 5354 - Environmental Engineering Principles and Processes
- KNW 2300 - Introduction to Engineering Design


## Environmental Technical Electives (6 Credit Hours)

Selected with adviser's approval.

## Elective (3 Credit Hours)

CEE 3000+ selected with adviser's approval

## Engineering Leadership (6 Credit Hours)

- CEE 3302 - Engineering Communications

One of

- CEE 2302 - Authentic Leadership
- CEE 5303 - Leadership Innovation Hub
- CSE 4360 - Technical Entrepreneurship
- EMIS 3308 - Engineering Management


## Total: 102 Credit Hours

## Environmental Engineering, B.S.Env., Premedical Specialization

Curriculum Notes. Since students acquire communication skills throughout his specialized curriculum, the CEE department waives the CEE 3302 pre-requisite from CEE 4380 . In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within this curriculum are distributed as follows:

## Requirements for the Specialization

## Mathematics and Science (60 Credit Hours)

- MATH 1337-Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3313 - Ordinary Differential Equations
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists
- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304 - Genetics
- BIOL 3350 - Cell Biology
- CEE 2322 - Field Methods for Soil and Water Analysis or
- CEE 5319 - Soil Chemistry and Mineralogy
- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3371- Organic Chemistry
- CHEM 3117- Organic Chemistry Laboratory
- CHEM 3372- Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory
- CEE 2321 - Aquatic Chemistry
- CEE 2121 - Aquatic Chemistry Laboratory
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory


## Environmental Engineering and Design (46 Credit Hours)

- CEE 1302 - Introduction to Civil and Environmental Engineering
- CEE 2304 - Fundamentals of Environmental Engineering
- CEE 2310 - Statics
- CEE 2331 - Fundamentals of Thermal Science (Thermodynamics)
- CEE 2342 - Fluid Mechanics
- CEE 2142 - Fluid Mechanics Laboratory
- CEE 2372 - Introduction to CAD
- CEE 3310 - Computational Methods for Civil and Environmental Engineering Applications
- CEE 3323 - Water Resources Engineering
- CEE 3331 - Fundamentals of Air Quality I
- CEE 3341 - Introduction to Solid and Hazardous Waste Management
- CEE 3351 - Industrial Hygiene and Occupational Health
- CEE 4380 - Civil and Environmental Engineering Design I
- CEE 4381 - Civil and Environmental Engineering Design II
- CEE 5354 - Environmental Engineering Principles and Processes
- KNW 2300 - Introduction to Engineering Design


## Environmental Technical Electives (6 Credit Hours)

Selected with adviser's approval.

## Elective (3 Credit Hours)

CEE 3000+ selected with adviser's approval

## Total: 115 Credit Hours

## Environmental Engineering, B.S.Env., With a Major in Mathematics

Curriculum Notes. Since students acquire communication skills throughout his specialized curriculum, the CEE department waives the CEE 3302 pre-requisite from CEE 4380 . In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within this curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (50 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3313 - Ordinary Differential Equations
- MATH 3315 - Introduction to Scientific Computing or
- MATH 3316 - Introduction to High-Performance Scientific Computing
- MATH 4337 - Boundary Value Problems and Partial Differential Equations
- Two advanced MATH electives approved by math adviser
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists
- CEE 2322 - Field Methods for Soil and Water Analysis or
- CEE 5319 - Soil Chemistry and Mineralogy
- CEE 4418 - Engineering Microbiology
- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory
- CEE 2321 - Aquatic Chemistry
- CEE 2121 - Aquatic Chemistry Laboratory
- PHYS 1303 - Introductory Mechanics
- PHYS 1105 - Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory


## Environmental Engineering and Design (49 Credit Hours)

- CEE 1302 - Introduction to Civil and Environmental Engineering
- CEE 2304 - Fundamentals of Environmental Engineering
- CEE 2310 - Statics
- CEE 2331 - Fundamentals of Thermal Science (Thermodynamics)
- CEE 2342 - Fluid Mechanics
- CEE 2142 - Fluid Mechanics Laboratory
- CEE 2372 - Introduction to CAD
- CEE 3310-Computational Methods for Civil and Environmental Engineering Applications
- CEE 3323 - Water Resources Engineering
- CEE 3331 - Fundamentals of Air Quality I
- CEE 3341 - Introduction to Solid and Hazardous Waste Management
- CEE 3351 - Industrial Hygiene and Occupational Health
- CEE 4380 - Civil and Environmental Engineering Design I
- CEE 4381 - Civil and Environmental Engineering Design II
- CEE 5317 - Environmental Organic Chemistry
- CEE 5354 - Environmental Engineering Principles and Processes
- KNW 2300 - Introduction to Engineering Design


## Elective (3 Credit Hours)

CEE 3000+ selected with adviser's approval

## Advanced Environmental/Mathematics Electives (6 Credit Hours)

Two from

- CEE 5331-Air Pollution Management and Engineering
- CEE 5332 - Groundwater Hydrology and Contamination
- CEE 5334 - Fate and Transport of Contaminants
- ME 5336 - Intermediate Fluid Dynamics


## Total: 108 Credit Hours

## Civil Engineering Minor

For approval of a minor in civil engineering, the student should consult the Civil and Environmental Engineering Department. A minimum of 15 credit hours in civil engineering courses are required. The following is an example of an approved set of courses, totaling 16 credit hours, that provides an emphasis on structural analysis and design: CEE 2310, CEE 2340/CEE 2140, CEE 3350, CEE 3385, CEE 4350. Based on the student's interests and background, other sets of civil engineering courses may be substituted with the approval of the Civil and Environmental Engineering Department.

## Environmental Engineering Minor

For approval of a minor in environmental engineering, the student should consult the Civil and Environmental Engineering Department. A minimum of 15 credit hours in environmental engineering courses are required. The following is an example of an approved set of courses that provides a broad introduction to environmental engineering: CEE 2304, CEE 2321/CEE 2121, CEE 3323, CEE 3331, CEE 5354. Based on the student's interests
and background, other sets of environmental engineering courses may be substituted with the approval of the Civil and Environmental Engineering Department.

## Global Development Minor

Students may earn a minor in global development through the Civil and Environmental Engineering Department, supported by the Hunter and Stephanie Hunt Institute for Engineering and Humanity. A total of 18 credit hours are required, with a minimum of six credit hours at or above the 3000 level. All students are required to complete the introductory course CEE 1326.

## Requirements for the Minor

## Concentration Requirement

A depth component of six credit hours must be completed in one of the following concentration areas:

## Environmental Resources

- CEE 2304 - Fundamentals of Environmental Engineering
- CEE 3323 - Water Resources Engineering
- CEE 3341 - Introduction to Solid and Hazardous Waste Management
- CEE 3353 - Introduction to Environmental Toxicology
- CEE 5321 - Physical and Chemical Waste Treatment
- CEE 5322 - Biological Waste Treatment

Political, Cultural and Economic Issues

- EMIS 3309 - Information Engineering
- CEE 3355 - Environmental Impact Evaluation, Policy, and Regulation
- CEE 5311 - Environmental and Hazardous Waste Laws
- CEE 5325 - Disaster Management
- CEE 5328 - Introduction to Sustainability


## Technology and Innovation

- CEE 1302 - Introduction to Civil and Environmental Engineering
- ME 1303 - Energy, Technology, and the Environment
- CEE 5327-Optimization and Reliability for Infrastructure and Environmental Systems
- CEE 5329 - Methods and Technology for Sustainability
- CEE 5330 - Design for Sustainability
- CEE 5378 - Transportation Planning and Traffic Engineering
- CEE 5384 - Energy Management For Buildings


## Additional Requirements

An additional six hours of breadth are required, satisfied by taking one course from each of the two remaining concentrations. Students complete the capstone experience requirement by taking CEE 5391. The primary intent of the capstone experience is to incorporate site-based service learning opportunities for students through internships arranged by the Hunter and Stephanie Hunt Institute for Engineering and Humanity at the Lyle School of Engineering. Other opportunities, such as research, may also be accommodated based on individual student interests and career goals.

## Total: 18 Credit Hours

## Courses:

## CEE 1301 - Environment and Technology: Ecology and Ethics

## Credits: 3

Introduces the economic, engineering, ethical, political, scientific, and social considerations of environmental decisionmaking and management. Examines local, regional, and global topics. Students take off-campus field trips.

## CEE 1302 - Introduction to Civil and Environmental Engineering

## Credits: 3

Introductory course that emphasizes fundamental science, engineering, and ecological principles. Students develop their analytical and critical thinking skills with real-world problem-solving. Many of the hallmarks of modern society (e.g., highrise office buildings, increased life span, the virtual elimination of numerous diseases, and reliable long-distance and public transportation systems) are the result of work by environmental and civil engineers. Likewise, environmental and civil engineers are at work on the many problems currently confronting developing nations: housing supply, food production, air and water pollution, spread of disease, traffic congestion, and flood control.

## CEE 1326 - Introduction to Global Development

## Credits: 3

An interdisciplinary approach in addressing issues of international development. Explores the role and impact of economic, sociopolitical, and scientific principles on issues of the developing world. Lectures focus on the historical underpinning of current trends, theory, and practice of multidisciplinary development, modern issues facing the developing world, and potential courses of action.

## CEE 1331 - Meteorology

## Credits: 3

Meteorology is the science and study of the earth's atmosphere and its interaction with the earth and all forms of life. Meteorology seeks to understand and predict the properties of the atmosphere, weather, and climate from the surface of the planet to the edge of space. Appropriate for all interested undergraduates.

## CEE 1378 - Transportation Infrastructure

## Credits: 3

An overview and definitions of infrastructure elements, with a focus on transportation. Also, principals of infrastructure planning and management, and congestion and performance measures. Includes relationships with the economy, the environment, safety, homeland security, and technology.

## CEE 2121 - Aquatic Chemistry Laboratory

## Credits: 1

Examines aspects of chemistry that are particularly valuable to the practice of environmental engineering. Provides basic groundwork for the quantitative analysis of water and wastewater systems, and covers fundamental methods of instrumental analysis. Presents elements of thermodynamics, acid-base, redox, and colloidal chemistry as appropriate. Laboratory sessions emphasize design, hands-on conduct of experimental procedures, and interpretation and statistical analysis of derived data. Prerequisite: CHEM 1303. Pre-requisite or Co-requisite: CEE 2321.

## CEE 2140 - Mechanics of Materials Laboratory

## Credits: 1

Experiments in mechanics of deformable bodies, to complement CEE 2340. Simple tension tests on structural materials, simple shear tests on riveted joints, stress and strain measurements, engineering and true stress, engineering and true strain, torsion testing of cylinders, bending of simple supported beams, deflection of simply supported beams, buckling of columns, strain measurements of pressure vessels, Charpy impact tests, and the effect of stress concentrators. Corequisite: CEE/ME 2340.

## CEE 2142 - Fluid Mechanics Laboratory

## Credits: 1

One 3-hour laboratory session per week. Experiments in fluid friction, pumps, boundary layers, and other flow devices to complement lecture material of CEE 2342. Prerequisite or corequisite: CEE 2342/ME 2342.

## CEE 2302 - Authentic Leadership

Credits: 3
Building key traits of authentic leadership and emotional intelligence that are critical to leadership success. Cultivating systems thinking about inter-dependencies between human and natural systems. Includes wilderness leadership trip. Prerequisites: DISC 1312 and DISC 1313, or equivalent.

## CEE 2304 - Fundamentals of Environmental Engineering

Credits: 3
Introduction to a scientific and engineering basis for identifying, formulating, analyzing, and understanding various environmental problems, with a focus on material and energy balances for modeling environmental systems and processes. Examines traditional materials in air and water pollution, and emphasizes contemporary topics such as hazardous waste, risk assessment, groundwater contamination, global climate change, stratospheric ozone depletion, and acid deposition. Where appropriate, describes pertinent environmental legislation, derives and applies engineering models, and introduces treatment technologies. Prerequisites: CHEM 1303, MATH 1338.

## CEE 2310 - Statics

Credits: 3
Equilibrium of force systems, computations of reactions and internal forces, determinations of centroids and moments of inertia, and introduction to vector mechanics. Prerequisite: MATH 1337 or equivalent.

## CEE 2320 - Dynamics

Credits: 3
Introduction to kinematics and dynamics of particles and rigid bodies; Newton's laws; kinetic and potential energy; linear and angular momentum; and work, impulse, and inertia properties. Prerequisite: C or better in CEE 2310/ME 2310.

## CEE 2321 - Aquatic Chemistry

## Credits: 3

Examines aspects of chemistry that are particularly valuable to the practice of environmental engineering. Provides basic groundwork for the quantitative analysis of water and wastewater systems, and covers fundamental methods of instrumental analysis. Presents elements of thermodynamics, acid-base, redox, and colloidal chemistry as appropriate. Prerequisite: CHEM 1303.

## CEE 2322 - Field Methods for Soil and Water Analysis

## Credits: 3

Covers topics related to environmentally relevant fieldwork and field data analysis, with emphasis on field and lab practical experiences that are supplemented with necessary lecture. Addresses surface water and groundwater collection as well as the analysis of coliform bacteria, basic water quality parameters, and inorganic contaminants. Topics also include soil collection and analysis, sanitation and water systems in the field, mapping, basic GIS, and systems planning. Prerequisite: Sophomore or above standing.

## CEE 2331 - Fundamentals of Thermal Science (Thermodynamics)

## Credits: 3

The first and second laws of thermodynamics and thermodynamic properties of ideal gases, pure substances, and gaseous mixtures are applied to power production and refrigeration cycles. Prerequisites: MATH 3302, CHEM 1303, PHYS 1303, and C or better in CEE 2310/ME 2310.

## CEE 2340 - Mechanics of Deformable Bodies

## Credits: 3

Introduction to analysis of deformable bodies, including stress, strain, stress-strain relations, torsion, beam bending and shearing stresses, stress transformations, beam deflections, statically indeterminate problems, energy methods, and column buckling. Prerequisites: C or better in CEE 2310/ME 2310. Corequisite: CEE 2140/ME 2140.

## CEE 2342 - Fluid Mechanics

## Credits: 3

Fluid statics, fluid motion, systems and control volumes, basic laws, irrotational flow, similitude and dimensional analysis, incompressible viscous flow, boundary layer theory, and an introduction to compressible flow. Prerequisites: CEE/ME 2310, MATH 3302, PHYS 1303. Prerequisite or corequisite: MATH 3313.

## CEE 2372 - Introduction to CAD

## Credits: 3

Provides hands-on, state-of-the-art experience with computer-aided drafting using AutoCAD to produce drawings used for engineering presentations and construction. Students draw lines and curvilinear lines, use blocks and external references, write text, create plot files, and apply many other commands necessary to produce engineering drawings as used to construct environmental, civil, and structural engineering projects.

## CEE 3302 - Engineering Communications

## Credits: 3

Both oral and written communications skills for engineers: engineering documents, writing standards, and presentations.

Includes audience analysis, graphics, collaborative skills, and ethical issues. Students prepare several documents and presentations common in engineering practice. Prerequisite: Junior or senior standing in engineering.

## CEE 3310 - Computational Methods for Civil and Environmental Engineering Applications

## Credits: 3

Applications of numerical analysis and computer programming techniques to civil and environmental engineering problems. Review of mathematical background is presented with emphasis on numerical modeling and computer-oriented solutions for engineering applications. Topics covered include precision and accuracy, errors, roots of equations, solution of linear algebraic equations, statistics and curve fittings, and numerical integration and differentiation. Also reviews examples from different areas of practice in civil and environmental engineering, including stress transformation, numerical integration to obtain beam deflection, numerical solution of Euler's buckling equation, roots of the equation for fluid flow in frictional pipe, optimization techniques applied to minimum potential energy, and solutions to the system of equations representing force-displacement relationship of a structure or the concentration of carbon monoxide in a space. Corequisite: MATH 3313.

## CEE 3323 - Water Resources Engineering

## Credits: 3

Introduces the hydrologic cycle and associated atmospheric processes through derivation and practical application of the hydrologic budget equation, encompassing precipitation, evaporation, transpiration, groundwater flow, and surface water runoff. Examines unit hydrographs and flood hydrograph routing through application of hydrologic simulation models. Exposes students to probabilistic analysis and extreme value theory for determination of flood and drought hazard. Interpretation and statistical analysis of climatologic, hydrologic, and other environmental data are emphasized. Introduces concepts of professional engineering practice, with emphasis on the need for professional licensing and project management through all phases of a typical project, including conception, planning, preparation of design drawings and specifications for bidding and procurement purposes, the interaction of design and construction professionals, and water resource systems operation. Prerequisite: CEE 2304. Prerequisite or corequisite: CEE 2342/ME 2342.

## CEE 3325-Groundwater Hydrology

## Credits: 3

Introduces the hydrologic cycle and the subjects of porosity and permeability. Examines flow theory and its applications, storage properties, the Darcy equation, flow nets, mass conservation, the aquifer flow equation, heterogeneity and anisotropy, regional vertical circulation, unsaturated flow, and recharge. Considers well hydraulics, stream-aquifer interaction, and distributed- and lumped-parameter numerical models, as well as groundwater quality, mixing cell models, contaminant transport processes, dispersion, decay and adsorption, and pollution sources. Prerequisites: MATH 3313, CEE/ME 2342.

## CEE 3327 - Principles of Surface Water Hydrology and Water Quality Modeling

Credits: 3
Examines the theory and applications of the physical processes of the hydrologic cycle. Reviews different types of water bodies (streams, rivers, estuaries, bays, harbors, and lakes). Examines the principal quality problems associated with bacteria, pathogens, viruses, dissolved oxygen and eutrophication, toxic substances, and temperature. Emphasizes theoretical model approaches. Prerequisites: CEE 2321, MATH 3313.

## CEE 3331 - Fundamentals of Air Quality I

Credits: 3
Covers the science of air quality and its engineering, public health, and economic aspects. Topics include the sources of air
pollutants, transport of pollutants in the environment, and atmospheric chemistry. Reviews the important properties and behavior of airborne particles and gases. Also, the science and national and international policies relating to greenhouse gas emissions, global climate change, and stratospheric ozone depletion. Prerequisites: CHEM 1303, MATH 1337 or equivalent, and PHYS 1303 or equivalent.

## CEE 3341 - Introduction to Solid and Hazardous Waste Management

## Credits: 3

Examines technology, health, and policy issues associated with solid waste and hazardous materials. Introduces methods of managing solid and hazardous waste and presents regulations where appropriate. Also, the definition and characteristics of hazardous and solid waste materials, health frameworks, and the distribution of contaminants in the environment.
Prerequisites: CEE 2304, CEE 2321.

## CEE 3350 - Structural Analysis

Credits: 3
Emphasis on the classical methods of analysis of statically determinate and indeterminate structural systems. Also, computation of reactions, shears, moments, and deflections of beams, trusses, and frames. Students use computers as an analytical tool. Prerequisites: ME 2140/CEE 2140, C or better in ME 2340/CEE 2340.

## CEE 3351 - Industrial Hygiene and Occupational Health

## Credits: 3

Presents the recognition, evaluation, and control of health hazards in the working environment. Examines principles of industrial toxicology, risk assessment and/or management, occupational diseases, and occupational health standards. Also, the application of industrial hygiene principles and practice and the measurement and control of atmospheric contaminants. Introduces the design and evaluation of occupational exposure controls. Lecture and 3 hours of laboratory. Prerequisite: CEE 2321.

## CEE 3353 - Introduction to Environmental Toxicology

Credits: 3
The physiological and biochemical effects of physical, chemical, and biological processes are linked to factors present in the environment. Describes natural phenomena in terms of the carbon, oxygen, sulfur, phosphorus, and heavy metal cycles. Examines the processes by which anthropogenic chemicals enter the environment and their complex effects on living organisms. Prerequisite: BIOL 1401. Prerequisite or corequisite: CHEM 3371.

## CEE 3355 - Environmental Impact Evaluation, Policy, and Regulation

## Credits: 3

Reviews methods for evaluating engineering projects on environmental quality. Also, environmental legislation, environmental quality indices, and the strengths and weaknesses of government methodologies to protect the environment. Considers pollution standards, marketable rights, taxes, citizen empowerment, and economic analysis and other policy perspectives. Prerequisite: CEE 2304.

## CEE 3385-Soil Mechanics and Foundations

## Credits: 3

Introduction to the basic principles governing the behavior of soils, foundations, and other geotechnical engineering works. Central concepts include the index properties and classification of soils, soil permeability and pore water movement, stress distribution in soil and the effective stress concept, bearing capacity, compressibility, consolidation, settlement, shear
strength, and soil engineering properties and their measurement. Geotechnical facilities introduced include foundations, retaining walls, tunnels, excavations, earth-fill dams, pavements, stable earth slopes, sanitary landfills, and environmental remediation projects. Prerequisite: CEE 2340/ME 2340. Prerequisite or corequisite: CEE 2342/ME 2342.

## CEE 4329 - Design of Water and Wastewater Systems

## Credits: 3

Covers physical, chemical, and biological concepts and processes that are specific to public water supplies and municipal wastewater management. Reviews fluid mechanics, and introduces hydraulic modeling for the design of water distribution networks and wastewater collection networks. Also, covers the design and operation of treatment systems for drinking water and for municipal wastewater pollution control. Students visit a public water supply treatment plant and a municipal wastewater treatment plant, and they employ process modeling to complete a design project for each type of plant.
Prerequisites: CHEM 1303, CEE 2304, CEE 2342/ME 2342.

## CEE 4333 - Fundamentals of Air Quality II

## Credits: 3

Covers fundamental and advanced topics in air quality, building upon CEE 3431. Examines atmospheric dispersion of pollutants and uses modern computer models to predict transport. Presents a thorough review of energy technology and energy policy, focusing on the economics and environmental impacts of conventional and alternative methods of energy generation. Discusses the importance of indoor air quality, including the risks from radon and biological aerosols. Presents additional topics of current interest. Each student prepares a term paper related to energy policy and the environment. Prerequisites: CEE 2331/ME 2331 or equivalent, CEE 3431.

## CEE 4350 - Design of Steel Structures

## Credits: 3

Study of strength, behavior, and design of metal structures; flexural and axial members; bolted and welded connections; and composite beams. Prerequisite: CEE 3350/ME 3350.

## CEE 4351 - Design of Concrete Structures

## Credits: 3

Study of strength, behavior, and design of reinforced concrete structures; members subjected to flexure; shear and axial loads; and design of one-way slabs. Prerequisite: CEE 3350/ME 3350.

## CEE 4380-Civil and Environmental Engineering Design I

## Credits: 3

Students complete a term-long environmental or civil engineering project for an industrial or regulatory client, and they examine the nature of design problems, constraints, and analytical tools in an applied setting. Employs an integrated design process that includes problem identification and formulation, project planning, the evaluation of alternatives, internal peer review and design iterations, the preparation of design drawings and specifications for bidding and procurement purposes, the interaction of design and construction professionals, and the implementation of the completed project. Prerequisites: Senior standing and CEE 3302.

## CEE 4381 - Civil and Environmental Engineering Design II

## Credits: 3

Students complete a term-long environmental or civil engineering project for an industrial or regulatory client. The client and faculty assess the completed design project. Multidisciplinary design teams stress the need for personal and written communication skills, leadership, effective group participation, and creative problem-solving. Reinforces concepts of
professional engineering practice through student participation in applied design problems. Also, the need for professional licensing, the ethical responsibilities of licensed engineers, and the need for lifelong learning to stay abreast of changing technology and public policy through active participation in professional societies, self-study, and continuing education. Students prepare and present periodic progress reports, reviews, and a final report. Prerequisite: CEE 4380.

## CEE 4418 - Engineering Microbiology

Credits: 4
Examines aspects of microbiology that are particularly valuable to the practice of environmental engineering. Specific areas of focus include enzyme and growth kinetics, cell structure and physiology, process of biotransformation, microbial and/or environmental interactions, and biogeochemical cycles. Elements of molecular biology and biotechnology are also presented as appropriate. Students gain a basic understanding and appreciation of microbial processes that are applicable in the field of environmental engineering. Prerequisites: CHEM 1303 and CEE 2321, or equivalent.

## CEE 5050 - Undergraduate Internship

Credits: 0
This course represents a term of industrial work experience for noncooperative education students. The course designates a student as full time for the term, but it carries no academic credit. Registration for the course is the same as for other SMU courses except that no tuition is charged. The course grade is determined by a written report submitted by the student at the end of the term and graded by the student's adviser.

## CEE 5090-CEE Seminar

## Credits: 0

Lectures by invited speakers from industry and academia, including SMU faculty and students, dealing with engineering practice and research topics of current interest in environmental and civil engineering. All students, staff, and faculty are invited.

## CEE 5191 - Special Projects

Credits: 1
Intensive study of a particular subject or design project, not available in regular course offerings, under the supervision of a faculty member approved by the department chair.

## CEE 5192 - Special Projects

Credits: 1
Intensive study of a particular subject or design project, not available in regular course offerings, under the supervision of a faculty member approved by the department chair.

## CEE 5291 - Special Projects

## Credits: 2

Intensive study of a particular subject or design project, not available in regular course offerings, under the supervision of a faculty member approved by the department chair.

## CEE 5292 - Special Projects

## Credits: 2

Intensive study of a particular subject or design project, not available in regular course offerings, under the supervision of a faculty member approved by the department chair.

## CEE 5303 - Leadership Innovation Hub

## Credits: 3

Leading change in disruptive times using systems-level innovation and data-driven analysis. Experiential and project-based learning about social and environmental justice with community partners. Addressing challenges with curiosity and compassion. Prerequisites: DISC 1312 and DISC 1313, or equivalent, and instructor approval.

## CEE 5311 - Environmental and Hazardous Waste Laws

## Credits: 3

Federal environmental laws, with emphasis on laws dealing with hazardous substances, such as the Comprehensive Environmental Response, Compensation, and Liability Act and the Resource Conservation and Recovery Act. Also, regulations and the regulatory framework, definitions and substantive requirements, roles of the states and the federal Environmental Protection Agency, compliance and enforcement, and case studies.

## CEE 5312 - Risk Assessment and Health Effects

## Credits: 3

Introduction to toxicology as it relates to environmental and health effects of hazardous materials. Covers risk management factors, including the legal aspects. Also, toxicology methodology, human health and ecological risk assessment, risk communication, emergency response, and computer databases.

## CEE 5313 - Environmental Chemistry and Biology

## Credits: 3

Covers chemical and biochemical processes, chemical thermodynamics, acid-base equilibria, precipitation and dissolution, oxidation-reduction processes, environmental transformations of organic materials, introductory taxonomy, microbial growth and kinetics, energy transfer, and microbial ecosystems. Also, controlling fate and transport of hazardous materials, with emphasis on chemical equilibria.

## CEE 5314 - Environmental Regulations and Compliance

## Credits: 3

Provides practical knowledge of federal and state environmental permitting processes and procedures. Reviews regulatory requirements, with emphasis on the 40 CFR regulations for water, air, and solid hazardous waste. Explores air, water, stormwater, and waste permits, as well as permits-by-rule and the consequences of noncompliance with regulations by presenting enforcement options available to government agencies.

## CEE 5315 - Integrated Waste Management

## Credits: 3

Comprehensive introduction to the fundamentals of the complex interdisciplinary field of hazardous waste management. Covers current management practices, treatment and disposal methods, and site remediation. Includes detailed case studies and design examples to evaluate the effectiveness of different treatment and containment technologies in addressing today's hazardous waste situations.

## CEE 5317 - Environmental Organic Chemistry

## Credits: 3

Examines the fundamental processes that govern the transformation of organic chemicals in natural and engineering systems. Includes an overview of organic chemistry, with a focus on the basic properties of organic compounds, such as
nomenclature and structures. Covers the physical transformations of organic compounds to provide an understanding of processes (e.g., sorption and volatilization) that control the distribution of organic chemicals between different phases such as air, water, and soil. Also, organic chemical reactions in the environment, with an emphasis on environmentally mediated reactions (e.g., hydrolysis and photolysis) that control the breakdown of organic chemicals.

## CEE 5318 - Bioremediation of Inorganic Contaminants

## Credits: 3

Focuses on bioremediation techniques and applications for removing inorganic contaminants (nitrogen, sulfur and phosphorus compounds, iron, heavy metals, metalloids and radionuclides) through the metabolic activities of microorganisms. Explores fundamental chemical and biological processes as well as engineering aspects. Prerequisites: CEE 2321 and instructor approval.

## CEE 5319 - Soil Chemistry and Mineralogy

Credits: 3
Examines soil solution chemistry and reactivity. Covers distribution and significance of common soil minerals, weathering, and general solid phase reactivity. Lab covers mineral structures, techniques of mineral identification, and solution-solid phase partitioning. Prerequisite: CEE 2321 or permission of instructor.

## CEE 5320 - Biodegradation of Hazardous Organic Pollutants

## Credits: 3

Students learn and integrate the basic principles of biochemistry required for understanding the biodegradation of hazardous and toxic organic compounds. Students become familiar with current biological remediation techniques and molecular microbiology and solve problems often encountered in application of bioremediation. Prerequisites: CEE 2321, prior course experience with biochemistry, and instructor approval.

## CEE 5321 - Physical and Chemical Waste Treatment

## Credits: 3

Introduces waste minimization techniques and objectives, and thoroughly reviews chemical equilibrium and chemical reaction kinetics. Design and analysis equations and procedures are rigorously derived for chemical reactors and physical unit operations. The treatment objectives examined include 1) solids-liquid separation accomplished by coagulation and flocculation, sedimentation, filtration, flotation, and solids handling processes; 2) immiscible liquid separation brought about by emulsion-breaking chemicals and gravity and flotation oil-water separators; 3) phase and species transformations through pH neutralization, chemical precipitation, chemical oxidation and/or reduction, air stripping, and solidification and/or stabilization; and 4) solute separation and concentration achieved with activated carbon absorption, synthetic ion exchange resins, and membrane separation techniques.

## CEE 5322 - Biological Waste Treatment

## Credits: 3

Topics include an overview of microbiology and microbial metabolism, the kinetics of biological growth, and aerobic suspended growth processes, including the various modifications of the activated sludge process, aerated lagoons, and sequencing batch reactors. Also, aerobic attached growth processes such as trickling filters, biofilter towers, and rotating biological contactors. Covers anaerobic processes, including sludge digestion and liquid waste treatment with the anaerobic contact process and anaerobic filters. Examines biosolids handling and disposal, composting, land treatment, in situ biotreatment, and biotreatment of contaminated soils.

## CEE 5323 - Project Management

## Credits: 3

Covers the role of the project officer, and the systems and techniques for planning, scheduling, monitoring, reporting, and completing environmental projects. Also, total quality management, project team management and development of winning proposals, and contract management and logistics. Includes case study application of project management to all environmental media and programs, community relations, risk communication, crisis management, consensus building, media, and public policy.

## CEE 5324 - Geographical Information Systems and Mapping

## Credits: 3

Introduces modern GIS software and tools, including map design, geodatabases, geospatial and attribute data, geocoding, and simple spatial analysis. Students use research-based projects to explore GIS as a tool for innovative spatial thinking and as a catalyst for sustainable strategies.

## CEE 5325 - Disaster Management

## Credits: 3

Introduction to basic concepts in disaster management and to key methods in the field, including simulation modeling, consequence analysis tools, design criteria, statistical and case study methods (lessons learned), and risk analysis. Students draw on a range of sources (the textbook, the U.S. National Response Plan, research papers, etc.) to explore the fundamentals of preparedness, mitigation, response, and recovery. An all-hazards approach is taken, providing analysis of natural, technological, and man-made disasters.

## CEE 5326 - Sustainable Transportation

## Credits: 3

Covers planning and operations management of sustainable transportation systems with a focus on energy efficiency. Provides an integrated overview of main concepts and issues related to developing sustainable transportation systems for urban areas, freight transportation, and aviation. Also, advanced topics related to vehicle technologies, alternative energy, and smart cities. Presents findings from national and international case studies. Prerequisite: Senior standing or permission of instructor.

## CEE 5327-Optimization and Reliability for Infrastructure and Environmental Systems

## Credits: 3

Introduces the concepts of engineering systems optimization, reliability, and risk assessment and applies them to civil and environmental engineering systems. Topics include an introduction to engineering systems definition, classical methods of optimization, linear programming, integer programming, dynamic programming, nonlinear optimization, and reliability and risk concepts in engineering planning and design. Engineering applications include transportation networks, fleet assignment, supply chain management, environmental engineering systems, fluid transport and water reservoir operation, and structural engineering systems. Advanced topics include an introduction to chance-constrained optimization and basic decomposition approaches

## CEE 5328 - Introduction to Sustainability

## Credits: 3

Introduces basic concepts in sustainability. Students draw on a range of sources, including selected books and readings, to explore the idea of total connectedness of resource use globally, with particular emphasis on the situation in North Texas. Addresses the issues of air quality and energy supply, sustainable construction, water use, transit and other related areas of
resource use, and waste generation. Guest lecturers provide a series of multiple viewpoints and areas of specific expertise. Prerequisite: Graduate standing or permission of instructor.

## CEE 5329 - Methods and Technology for Sustainability

## Credits: 3

Covers technologies and methods used in sustainable design and analysis. Topics include the scientific understanding of alternative energy systems, water reuse and supply, and state-of-the-art materials created for sustainability. Also, methods for assessing sustainability, including life cycle assessment and the development of sustainable indicators. Prerequisite: Graduate standing or permission of instructor.

## CEE 5330 - Design for Sustainability

## Credits: 3

Introduces the issues involved in creating a sustainable built environment. Addresses issues of resource use at the regional and project-specific level, specific techniques for designing and constructing sustainable buildings, and the USGBC's LEED system. Students discuss systems of measurement for sustainable properties on a comparative level. Prerequisite: Graduate standing or permission of instructor.

## CEE 5331 - Air Pollution Management and Engineering

## Credits: 3

Covers the science, engineering, public health, and economic aspects of air quality. Students develop an in-depth understanding and broad knowledge of the sources and properties of air pollutants, air quality management, fate and transport of pollutants in the environment, regulations of air quality, and the operation and design of air pollution control systems. Reviews the status of science, policy, and regulations on several selected topics such as urban smog, regional haze, greenhouse gas and global climate change, stratospheric ozone depletion, and mercury emissions and control. Prerequisites: CEE 2321 or equivalent, MATH 1337 or equivalent, and PHYS 1303 or equivalent.

## CEE 5332 - Groundwater Hydrology and Contamination

## Credits: 3

Groundwater hydrology, aquifer and well hydraulics, flow equations and models, implications for landfill design, sources and nature of groundwater contaminants, monitoring and analysis, contaminant fate and transport, transport model for hazardous substances, groundwater pollution control measures, containment and treatment, and groundwater quality management. Prerequisite: MATH 3313.

## CEE 5333 - Laboratory Methods in Environmental Engineering

## Credits: 3

Provides hands-on, state-of-the-art experience with important experimental methods in environmental systems, evaluating the reliability and significance of parameter determinations. Covers instrumental and statistical methods used for characterization of water, air, and soil quality. Also, introduces treatability studies, including reactor dynamics. Provides 2 hours of lecture and 3 hours of laboratory component. Prerequisite: CEE 5313 or two terms of undergraduate chemistry.

## CEE 5334 - Fate and Transport of Contaminants

## Credits: 3

Covers the development and application of fate and transport models for waterborne contaminants, with a focus on the material balance principle. Includes mass transport and transformation processes, lake and reservoir modeling, stream modeling, general flow case, groundwater models, multiphase and integrated modeling approaches, and case studies. Also, water-sediment, water-soil, and water-air interfaces.

## CEE 5335 - Aerosol Mechanics

## Credits: 3

Fundamental and advanced principles of airborne particles, including their physical properties; aerodynamic behavior; and collection, measurement, and analysis. Emphasizes the origins and properties of atmospheric aerosols and the design of air pollution control equipment. Prerequisite: CEE 3431, CEE 2342/ME 2342, or equivalent.

## CEE 5340 - Introduction to Solid Mechanics

## Credits: 3

Three-dimensional stress and strain, failure theories, introduction to two-dimensional elasticity, torsion of prismatic members, beams on elastic foundation, introduction to plates and shells, and energy methods. Prerequisites: CEE /ME 2340, MATH 3313.

## CEE 5350 - Introduction to Environmental Management Systems

## Credits: 3

An in-depth introduction to environmental management systems. Includes systems such as EMAS, Responsible Care, OHSAS 18000, ISO 14000, and the Texas EMS program. Takes a step-by-step look at the ISO 14002 standard, from the policy statement to the management review, and allows students to fully understand the plan, do, check, act approach of the system. Also introduces management system auditing, the requirements of a system auditor, and the certification process.

## CEE 5351 - Introduction to Environmental Toxicology

## Credits: 3

Presents toxicology as it relates to environmental and health effects of hazardous materials. Examines toxicological methodologies, pharmacokinetics, mechanisms of action to toxicants, origin response to toxic substances, and relevant aspects of the occupational and regulatory environment. Topics include toxicology of metals, radiation, industrial solvents and vapors, pesticides, teratogens, mutagens, and carcinogens. Also, risk communication and risk assessment as they relate to toxic substance exposure.

## CEE 5352 - Management of Radioactive Hazards

## Credits: 3

Presents principles of radioactive material production, uses, and hazards, with emphasis on their safe control and management. Examines topics in health physics and radiation protection related to the commercial nuclear industry, including uranium fuel production, light water reactor technologies, and industrial and medical uses of radioactive byproduct materials. Develops risk assessment methods and hazard management connected to the fuel cycles. Studies the regulation of radioactive materials, with a focus on the licensing of regulated industries, radioactive material transportation, radioactive waste management and disposal, radiological emergency preparedness, and decommissioning. Prerequisite: CEE 5313.

## CEE 5353 - Environmental Epidemiology

## Credits: 3

Introduction to the science of epidemiology. Covers the design and conduct of studies examining the health effects of environmental exposures, and the strengths and limitations of research strategies and interpretation of study results. Includes air and water pollution, lead, and biological marker outcomes.

## CEE 5354 - Environmental Engineering Principles and Processes

## Credits: 3

Introduces waste minimization and pollution prevention techniques and objectives. Includes a comprehensive study of biological, chemical, and physical principles and treatment strategies for controlling pollutant emissions, with equal emphasis on underlying theory and practical engineering application of both common and innovative water and wastewater treatment processes. Includes rigorous derivation of design equations, procedures, and process models for chemical and/or biological reactors and physical unit operations. Places emphasis on engineering analysis and application of process modeling techniques for design of unit processes to achieve specific treatment objectives. Prerequisites: CHEM 1303, CEE 2304, CEE 2342, and MATH 3313.

## CEE 5361 - Matrix Structural Analysis and Introduction to Finite Element Methods

## Credits: 3

A systematic approach to the formulation of force and displacement method of analysis, the representation of structures as assemblages of elements, and computer solution of structural systems. Prerequisite: CEE 3350/ME 3350 or permission of instructor.

## CEE 5362 - Engineering Analysis with Numerical Methods

## Credits: 3

Applications of numerical and approximate methods in solving a variety of engineering problems. Examples include equilibrium, buckling, vibration, fluid mechanics, thermal science, and other engineering applications. Prerequisite: Permission of instructor.

## CEE 5363-Architectural and Structural Engineering

## Credits: 3

Introduces the basic principles of structural analysis and mechanics of deformable bodies. Presents structural systems and principles, with an emphasis on architectural design. Provides students with a conceptual introduction to structures, emphasizing the integration of structural and architectural design. Discusses case studies of buildings. Prerequisites: CEE 2310/ME 2310, CEE 2320/ME 2320.

## CEE 5364 - Introduction to Structural Dynamics

## Credits: 3

Covers the dynamic responses of structures and the behavior of structural components to dynamic loads and foundation excitations. Also, single- and multidegree-of-freedom systems response and applications to analysis of framed structures. Introduces systems with distributed mass and flexibility. Prerequisites: MATH 3313 and CEE /ME 3350 or CEE /ME 5361.

## CEE 5365 - Introduction to Construction Management

## Credits: 3

Examines construction practice techniques, current technological tools, and building codes and regulations. Includes cost estimating, bidding, contracts and contract bonds, risk and umbrella excess insurance, labor law, and labor relations. Addresses business methods with respect to managing project time and cost, including the typical forms used in construction.

## CEE 5366 - Introduction to Facilities Engineering Systems

Credits: 3
Examines the interrelationships of fire protection, HVAC, electrical, plumbing, lighting, telecommunications, and energy
management systems for buildings. Uses a life cycle approach to examine the cost durability, maintainability, operability, and safety of each system. Also, facility operations, facility maintenance and testing, and assessments.

## CEE 5367 - Telecommunications in Facility Planning

## Credits: 3

Presents a thorough description of telecommunications technology, and provides the student with a working knowledge of its fundamental concepts for voice and data. Topics include digital communications, standards and protocols, Ethernets, local area networks, fiber optics, and voice technologies.

## CEE 5368 - Facilities Contract Management

## Credits: 3

Provides a critical foundation and understanding of the terminology, arts, and skills of contracts and contract negotiation, review, and preparation, as well as insurance and risk management. Also, lease analysis, licensing and permits, when and how bidding contracts are warranted, how to prepare specifications and their role in contract creation, and supplier and vendor management in the postcontractual process.

## CEE 5369 - Electrical, Mechanical, and Piping Systems for Buildings

## Credits: 3

Examines mechanical and electrical systems for buildings, with emphasis on practical aspects of the subjects. Presents space planning and architectural considerations, including cost and environmental impact of the mechanical and electrical systems. Prerequisites: Undergraduate introduction to electrical circuits, classical mechanics, and fluid dynamics or instructor approval.

## CEE 5370 - Facility Planning

## Credits: 3

Covers the overall planning process for construction projects and presents the three divisions of planning (program planning, project planning, and activity planning) in an integrated manner. Includes different modeling approaches for the planning process.

CEE 5371 - Facility Financial and Asset Management

## Credits: 3

Examines financial analysis and reporting, concepts and methods of accounting, budgeting, and evaluation of projects.
Presents the role of facility managers in affecting corporate earnings and valuations. Includes the management of the facility over its entire life cycle, extending from planning and budgeting to the management of its assets and construction projects.

CEE 5373 - Prestressed Concrete

Credits: 3
Theory and application of prestressed concrete members' time-dependent deflections. Also, continuous prestressed beams.
Prerequisite: CEE 4350/ME 4350.

## CEE 5375 - Advanced Concrete Design

## Credits: 3

Behavior, analysis, and design of concrete slender columns, two-way slab systems, and deep beams; yield line analysis for slabs; and design and behavior of shear walls, retaining walls, and foundation systems. Prerequisite: CEE 4350/ME 4350.

## CEE 5377 - Advanced Steel Design

## Credits: 3

The behavior and design of steel structures, including general methods of plastic analysis, plastic moment distribution, steel frames, unbraced and braced frames, and composite construction. Prerequisite: CEE 4350/ME 4350.

## CEE 5378 - Transportation Planning and Traffic Engineering

## Credits: 3

Focuses on the analysis and modeling of urban transportation systems. Includes an overview of main definitions and terminologies involved in the planning and modeling of urban transportation systems. Introduces the concept of urban transportation planning systems along with an overview of various models used in travel demand forecasting. Describes the principles of traffic operations, analysis, and control. Prerequisite: Knowledge of the principles of probability and statistics.

## CEE 5379 - Highways Design and Safety

## Credits: 3

Provides an overview of the principals of highways design and traffic safety. Topics include highways functional classification, design control and criteria, driver performance, sight distance, horizontal and vertical alignments, cross section elements, design of freeways, intersections and interchanges, traffic safety, and environmental impact assessment.

## CEE 5380 - Management of Industrial and Mission-Critical Facilities

## Credits: 3

Efficient industrial centers require balanced consideration with respect to facility design and function. Mission-critical component management and information technology systems are designed for exceptionally reliable performance and efficient operation. This course emphasizes the component systems that are designed to maintain a high level of function. Covers electrical and mechanical reliability, efficiency, readiness, robustness, and flexibility, and the management of the information technology systems. Explores strategies designed to eliminate costly downtimes, with emphasis on standby generators; automatic transfer switches; uninterruptable power supplies; fuel, fire, and battery systems; energy security; and environmental and cooling technologies. Presents the implementation of sustainable technology, green certifications, and alternative energy strategies that are compatible with the mission-critical requirements of the facility. Includes operational approaches to reduce energy requirements for power and cooling, mandated safety standards, and environmental codes

## CEE 5381 - Site Selection for Industrial and Mission-Critical Facilities

## Credits: 3

Efficient industrial centers and facilities with mission-critical subsystems such as datacenters require balanced considerations with respect to facility design and site location. Site location plays an integral role in creating successful projects that especially support high reliability and promote sustainable design. While the important factors may vary from site to site, in any given instance a single factor can undermine the success of an otherwise excellent project. Ready availability and proper site selection that minimizes risk of disruption are particularly important factors for successful operation. Covers siting considerations, including power needs, electrical mix, weather patterns, building codes, proximity to the workforce and transportation, and other topics that bear on reliable operation. Emphasizes strategies of site selection to adequately safeguard hardware and mission-critical data.

## CEE 5383 - Heating, Ventilating, and Air Conditioning

## Credits: 3

Examines the science and practice of controlling environmental conditions through the use of thermal processes and systems. Specific applications include refrigeration, psychometrics, solar radiation, heating and cooling loads in buildings,
and design of duct and piping systems. Emphasizes theory and analysis. Prerequisites: CEE 2331/ME 2331, CEE 2342/ME 2342; ME 3332.

## CEE 5384 - Energy Management for Buildings

## Credits: 3

Examines procedures to select energy savings options for buildings, with emphasis on the practical aspects of the subject. Considers space planning, architectural considerations, cost, and environmental impact of the mechanical and electrical systems along with optimizing the life cycle cost of the proposed alternative. Software for life cycle cost and energy analysis is used to calculate energy consumption and compare energy features of proposed, audit-determined feasible changes to a building.

## CEE 5385 - Advanced Soil Mechanics

Credits: 3
Physicochemical properties of soil and soil stabilization, advanced theories of soil deformation and failure as applied to slope stability and lateral loads, and soil and water interaction in earthen dams. Prerequisite: CEE 3385.

## CEE 5386 - Foundation Engineering

## Credits: 3

Covers the application of soil mechanics principles to the design and construction of shallow and deep foundations. Topics include subsurface investigation procedures to obtain soil parameters for design and construction of structure foundations, bearing capacity and settlement analyses, construction procedures, and soil improvement techniques. Prerequisite: CEE 3385.

## CEE 5387 - Geotechnical Earthquake Engineering

## Credits: 3

Provides fundamental knowledge and practical application of soil dynamics and geotechnical earthquake engineering. Includes an overview of seismic hazards, the fundamentals of vibration, wave propagation in an elastic medium, the properties of dynamically loaded soils, earthquake-induced ground motion, ground response analysis, lateral earth pressure on retaining walls, the liquefaction of soils, and seismic stability of earth embankments. Prerequisite: CEE 5364 or approval of instructor.

## CEE 5388 - Groundwater and Seepage

## Credits: 3

Examines fundamental principles of flow through porous media and related engineering problems. Topics include the saturated seepage theory and flow nets, the unsaturated flow theory, suction-saturation and saturation-hydraulic conductivity relationships, the principle of effective stress, laboratory and field testing methods for determining material characteristics, and numerical models for flow-related engineering problems. Prerequisite: CEE 3385 or equivalent.

## CEE 5391 - Special Projects

Credits: 3
Intensive study of a particular subject or design project, not available in regular course offerings, under the supervision of a faculty member approved by the department chair. Prerequisite: Junior or senior standing required.

## CEE 5392 - Special Projects

Credits: 3
Intensive study of a particular subject or design project, not available in regular course offerings, under the supervision of a faculty member approved by the department chair. Prerequisite: Junior or senior standing required.

## CEE 5491 - Special Projects

## Credits: 4

Intensive study of a particular subject or design project, not available in regular course offerings, under the supervision of a faculty member approved by the department chair.

## CEE 5492 - Special Projects

## Credits: 4

Intensive study of a particular subject or design project, not available in regular course offerings, under the supervision of a faculty member approved by the department chair.

# Computer Science and Engineering 

Professor Mitchell A. Thornton, Chair

Professors: Frederick R. Chang, Ira Greenberg, David W. Matula, Sukumaran V.S. Nair, Mitchell A. Thornton, Jeff Tian
Associate Professors: Jennifer L. Dworak, LiGuo Huang
Assistant Professor: Eric C. Larson
Senior Lecturer: Frank P. Coyle
Lecturer: Donald E. Evans
Clinical Professors: Mark E. Fontenot, Theodore W. Manikas
Adjunct Faculty: Ben A. Calloni, Hakki C. Cankaya, John P. Carbone, Christian P. Christensen, Maya El Dayeh, Aaron L. Estes, Dennis J. Frailey, Manal Houri, Kenneth R. Howard, Mihaela Iridon, Bhanu Kapoor, Karl C. Lewis, D. Kall Loper, Matthew R. McBride, Lee D. McFearin, Freeman L. Moore, Padmaraj M.V. Nair, Luis G. Resendis, Gheorghe M. Spiride, Raymond E. Van Dyke

## General Information

The Department of Computer Science and Engineering at SMU offers academic programs in computer engineering and computer science. Faculty specializations include computer architecture, data mining, knowledge engineering, software engineering, design and analysis of algorithms, parallel processing, database management, very large-scale integration computer-aided design methods, bioinformatics, computer networks, data and network security, mobile computing, theory of computation, and computer arithmetic. The educational objectives of the undergraduate programs in the CSE Department are to produce graduates who become productive professionals in an information technology discipline, pursue graduate or professional degrees, are successful entrepreneurs and managers, have a broad knowledge and wide range of interests, are valuable members of their general community and take a leadership role in their chosen field. As such, the programs are designed to ensure that graduates have the following abilities:

## For graduates with degrees in computer science

a. The ability to apply knowledge of computing and mathematics to software design and computing problems.
b. The ability to analyze a problem, and identify and define the computing requirements appropriate to its solution.
c. The ability to design, implement and evaluate a computer-based system, process, component or program to meet desired needs.
d. The ability to function effectively on teams to accomplish a common goal.
e. An understanding of professional, ethical, legal, security and social issues and responsibilities.
f. The ability to communicate effectively with a range of audiences both in an oral and written form.
g. The broad liberal arts education necessary to analyze the local and global impact of computing on individuals, organizations and society.
h. The recognition of the need for and the ability to engage in continuing professional development and lifelong learning.
i. The ability to use the techniques, skills and modern computing and software engineering tools necessary for computing practice.
For graduates with degrees in computer engineering
a. The ability to apply knowledge of mathematics, science and engineering to software and hardware design problems.
b. The ability to design and conduct experiments and to analyze and interpret data related to software and hardware design solutions.
c. The ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. The ability to function on multidisciplinary teams using current computer engineering tools and technologies.
e. The ability to identify, formulate and solve engineering problems based on a fundamental understanding of concepts of computer engineering topics.
f. An understanding of personal, professional and ethical responsibility.
g. The ability to communicate effectively both in an oral and written form.
h. The broad liberal arts education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context.
i. The recognition of the need for and the ability to engage in lifelong learning.
j. A knowledge of contemporary issues in computer engineering.
k. The ability to use the techniques, skills and modern engineering tools necessary for computer engineering practice.
The CSE Department is engaged in an ongoing assessment process that evaluates the success in meeting these outcomes and enhances the development of the program.

## Degrees

The CSE Department offers undergraduate degrees as follows:
Bachelor of Science With a Major in Computer Science
Bachelor of Science With a Major in Computer Engineering
Bachelor of Arts With a Major in Computer Science
The undergraduate program in computer engineering is accredited by the Engineering Accreditation Commission of ABET, www.abet.org. The undergraduate computer science program that awards the degree Bachelor of Science is accredited by the Computing Accreditation Commission of ABET. The undergraduate computer science program that awards the degree Bachelor of Arts is not accredited by a Commission of ABET.

## Combined Degree Program

The Lyle School of Engineering offers a combined degree with the Meadows School of the Arts that leads to the degrees of B.A. in music and B.A. in computer science. Students should contact the department for additional details. Other combined majors can be arranged in consultation with an adviser.

## 4+1 Master's Degree Program

The 4+1 Program allows students to complete both B.S. and M.S. degrees in five years. In the CSE Department, students may participate in the $4+1$ Program in either the computer science or computer engineering area. Up to nine total credit hours of graduate courses may be applied toward fulfilling the student's undergraduate program requirements in the final year of the baccalaureate degree. For additional information, students should contact the undergraduate program director.

## Teaching Certification

Computer science majors interested in earning a teaching certificate should contact the Simmons School of Education for information on additional course and student teaching requirements.

## Computer Facilities

Students in the CSE Department have access to a wide range of facilities and equipment. The department's computing environment has evolved into an Ethernet-based network of personal computers and servers. General-use UNIX servers that run OSF1 and Linux are available. A wireless network is also available throughout the CSE facilities. Windows-based PC labs are used during the first two years of coursework.

## Curriculum in Computer Science

Computers play an ever-increasing role in society. Their use permeates all other academic disciplines and industrial arenas. Computer science is the study of the concepts and theory surrounding computer design and software construction. The SMU undergraduate program in computer science is designed to give students a solid understanding of these concepts, providing them with the technical knowledge needed to pursue either an advanced degree or a challenging career in the computer industry. The diversity of the Lyle School of Engineering computer environment exposes undergraduate computer science students to many different hardware and software systems.

To study and use computers, one must communicate with them through a variety of software interfaces, including programming languages. At SMU, the student will study several high-level languages - such as C++ and Java - that simplify the use of computers. In addition, students are exposed to a variety of computer-aided software engineering tools. Assembly languages and operating systems (such as Linux/UNIX) for microcomputers, mainframes and supercomputers are studied to provide an understanding of the architecture and organization of a digital computer. Mathematical topics such as discrete mathematics, graph theory, and Boolean and linear algebra are included in required undergraduate classes so that students may better understand the internal structure of the computer and the effective utilization of its languages.

Knowledge of the computer's internal structure is important to understanding its capabilities. Thus, computer science students take courses in assembly language, computer logic and computer organization. Courses in systems programming and operating systems extend this structural study into the "software" of the computer. A required sequence of software engineering courses prepares students for advanced systems and software applications.

Many of the computer science core courses (CSE 2341, CSE 3345, CSE 3353, CSE 4345, CSE 4351 and CSE 4352) contain major project-oriented components to prepare students for applying their theoretical knowledge in teams.

The free electives in the B.A. in computer science program can be used to individually tailor a student's study plan. For example, students who want a program even more intensive than the computer science major could satisfy their free electives with more computer science courses. Students interested in a broader education could satisfy these electives with courses offered by any department in the University.

The B.S. degree allows students to major in any of five concentration tracks or to pursue a general program where they can choose nine hours of computer science electives. The research track allows students to participate in an undergraduate research project of their choice. Like graduate students, undergraduate students majoring in research are required to perform independent research in an area of their choice (with a tenure-track faculty member as an adviser), document the research results and present the results of the research in a presentation open to the entire University community. The security track facilitates a more in-depth study of software security issues. The data-intensive computing track introduces concepts of data storage and analysis necessary for many modern applications. The software engineering track focuses on software design and testing. The game development track is provided in collaboration with SMU Guildhall.

## Curriculum in Computer Engineering

Computer engineering deals with computers and computing systems. Computer engineers must be capable of addressing problems in hardware, software and algorithms, especially those problems whose solutions depend upon the interaction of these elements. Career opportunities for computer engineers require a broad range of knowledge. The design and analysis of logical and arithmetic processes that are the basis of computer science provide basic knowledge. Computer engineering courses are concentrated on the interacting nature of hardware and software. Basic electrical engineering is a clear foundation for computer engineers.

## Computer Engineering, B.S.Cp.E.

Curriculum Notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within this curriculum are distributed as follows:

## Requirements for the Degree

## Mathematics and Science (34 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations
- CSE 2353 - Discrete Computational Structures
- CSE 3365/MATH 3315 - Introduction to Scientific Computing
or
- MATH 3316 - Introduction to High-Performance Scientific Computing
- CSE 4340 - Statistical Methods for Engineers and Applied Scientists (Students may fulfill the CSE 4340 requirement by taking any one of CSE 4340/STAT 4340, or EMIS 3340)
- CHEM 1303-General Chemistry
- PHYS 1303 - Introductory Mechanics
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory

3 credit hours from the following:

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- GEOL 1315 - Introduction to Environmental Science
- PHYS 3305 - Introduction to Modern Physics


## Computer Engineering Core (49 Credit Hours)

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- CSE 2240 - Assembly Language Programming and Machine Organization
- CSE 2341 - Data Structures
- CSE 3339 - Information Assurance and Security
- CSE 3353 - Fundamentals of Algorithms
- CSE 3381 - Digital Logic Design
- CSE 4344 - Computer Networks and Distributed Systems
- CSE 4351 - Senior Design I
- CSE 4352 - Senior Design II
- CSE 4381 - Digital Computer Design
- CSE 5343 - Operating Systems and Systems Software
- CSE 5387 - Digital Systems Design
- EE 2322 - Electronic Circuits I
- EE 2122 - EE Laboratory: Electronic Circuits I
- EE 2350-Circuit Analysis I
- EE 2370 - Design and Analysis of Signals and Systems
- EE 2170 - EE Laboratory: Design and Analysis of Signals and Systems


## Tracks (9 Credit Hours)

## Hardware

(three of the following)

- CSE 5380 - VLSI Algorithms
- CSE 5381-Computer Architecture
- CSE 5385 - Microcontroller Architecture and Interfacing or
- EE 5385-Microcontroller Architecture and Interfacing
- CSE 5356 - VLSI Design and Laboratory or
- EE 5356 - VLSI Design and Laboratory


## Software Engineering

(three of the following)

- CSE 3345 - Graphical User Interface Design and Implementation
- CSE 4345 - Software Engineering Principles
- CSE 5314 - Software Testing and Quality Assurance or
- CSE 5316 - Software Requirements or
- CSE 5319 - Software Architecture and Design


## Networking

(three of the following)

- CSE 5344 - Computer Networks and Distributed Systems II
- CSE 5348 - Internetworking Protocols and Programming
- CSE 5349 - Data and Network Security
- EE 5376 - Introduction to Computer Networks


## Security

- CSE 5339 - Computer System Security
- CSE 5349 - Data and Network Security
- 3 credit hours of track electives approved by adviser


## General

Three 3-hour, 4000-level or above CSE courses approved by adviser

## Engineering Leadership (6 Credit Hours)

- CEE 3302 - Engineering Communications
- EMIS 3308 - Engineering Management or
- CSE 5317 - Leadership for Architecting Software Systems
- CSE 4360 - Technical Entrepreneurship


## Electives (6 Credit Hours)

Advanced electives in the Lyle School of Engineering.

## Total: 104 Credit Hours

Note: All computer engineering majors must earn a grade of $C$ - or better in the computer engineering CSE core courses and CSE 2353 in fulfillment of the requirements for the major.

## Computer Science, B.A.

Curriculum Notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within this curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (18 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- CSE 2353 - Discrete Computational Structures
- PHYS 1301 - The Ideas of Modern Physics or
- PHYS 1303 - Introductory Mechanics
- STAT 2331 - Introduction to Statistical Methods

3 credit hours from the following:

- ANTH 2415 - Human Evolution: Biological and Social Beginnings of Humankind
- ANTH 2463 - The Science of Our Past: An Introduction to Archaeology
- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 1303 - Essentials of Biology
- BIOL 1308 - Plant Biology
- CHEM 1301-Chemistry for Liberal Arts
- CHEM 1303-General Chemistry
- CHEM 1304-General Chemistry
- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- PHYS 1303 - Introductory Mechanics
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 3305 - Introduction to Modern Physics


## Computer Science (47 Credit Hours)

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- CSE 2240 - Assembly Language Programming and Machine Organization
- CSE 2341 - Data Structures
- CSE 3330 - Database Concepts
- CSE 3342 - Programming Languages
- CSE 3345 - Graphical User Interface Design and Implementation
- CSE 3353 - Fundamentals of Algorithms
- CSE 3381 - Digital Logic Design
- CSE 4344 - Computer Networks and Distributed Systems
- CSE 4345 - Software Engineering Principles
- CSE 4351 - Senior Design I
- CSE 4352 - Senior Design II
- CSE 4381 - Digital Computer Design
- CSE 5343 - Operating Systems and Systems Software

3 credit hours from the following:

- CSE 5314 - Software Testing and Quality Assurance
- CSE 5320-Artificial Intelligence
- CSE 5330 - File Organization and Database Management
- CSE 5339 - Computer System Security
- CSE 5341 - Compiler Construction
- CSE 5342 - Concepts of Language Theory and Their Applications
- CSE 5344 - Computer Networks and Distributed Systems II
- CSE 5345 - Advanced Application Programming
- CSE 5348 - Internetworking Protocols and Programming
- CSE 5349 - Data and Network Security
- CSE 5350-Algorithm Engineering
- CSE 5359 - Software Security
- CSE 5376 - Introduction to Telecommunications
- CSE 5380 - VLSI Algorithms
- CSE 5381 - Computer Architecture
- CSE 5382 - Computer Graphics
- CSE 5385 - Microcontroller Architecture and Interfacing
- CSE 5387 - Digital Systems Design


## Engineering Leadership (9 Credit Hours)

- CEE 3302 - Engineering Communications
- CSE 4360-Technical Entrepreneurship
- EMIS 3308 - Engineering Management or
- CSE 5317 - Leadership for Architecting Software Systems


## Free Electives (19 Credit Hours)

Must be approved by adviser.

## Total: 93 Credit Hours

## Computer Science, B.S.

Curriculum Notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, credit hours within this curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (32 Credit Hours)

Courses with a lab must be taken together.

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3304 - Introduction to Linear Algebra
- CSE 2353 - Discrete Computational Structures
- CSE 3365/MATH 3315 - Introduction to Scientific Computing
or
- MATH 3316 - Introduction to High-Performance Scientific Computing
- CSE 4340 - Statistical Methods for Engineers and Applied Scientists (Students may fulfill the CSE 4340 requirement by taking any one of CSE 4340/STAT 4340, or EMIS 3340.)
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory

6 credit hours from the following:

- ANTH 2415 - Human Evolution: Biological and Social Beginnings of Humankind
- ANTH 2463 - The Science of Our Past: An Introduction to Archaeology
- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- GEOL 1315 - Introduction to Environmental Science
- PHYS 3305 - Introduction to Modern Physics


## Computer Science Core (47 Credit Hours)

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- CSE 2240 - Assembly Language Programming and Machine Organization
- CSE 2341 - Data Structures
- CSE 3330 - Database Concepts
- CSE 3339 - Information Assurance and Security
- CSE 3342 - Programming Languages
- CSE 3345 - Graphical User Interface Design and Implementation
- CSE 3353 - Fundamentals of Algorithms
- CSE 3381 - Digital Logic Design
- CSE 4344 - Computer Networks and Distributed Systems
- CSE 4345 - Software Engineering Principles
- CSE 4351 - Senior Design I
- CSE 4352 - Senior Design II
- CSE 4381 - Digital Computer Design
- CSE 5343 - Operating Systems and Systems Software

Tracks and Electives (9-18 Credit Hours)

## Research (9 credit hours)

- CSE 4397 - Research Experience for Undergraduates
- CSE 5350-Algorithm Engineering
- 3 credit hours of track electives approved by adviser


## Data-Intensive Computing (9 credit hours)

- CSE 5330 - File Organization and Database Management
- CSE 5331 - An Introduction to Data Mining and Related Topics
- 3 credit hours of track electives approved by adviser


## Software Engineering (9 credit hours)

- CSE 5314 - Software Testing and Quality Assurance
- CSE 5319 - Software Architecture and Design
- 3 credit hours of track electives approved by adviser


## Game Development (18 credit hours)

Note: At the time of publication, this curriculum was under review. Please see the catalog addendum for any updates.
(Must be admitted to Guildhall Professional Certificate program and attend class at SMU Guildhall.)

- HGAM 5200
- HGAM 5201
- HGAM 5202
- HGAM 5221
- HGAM 5222
- HGAM 5292
- HGAM 5311
- HGAM 5312
- CSE 4051 - Gaming Design Project (but not CSE 4351, 4352 from the list above)

Security (9 credit hours)

- CSE 5339 - Computer System Security
- CSE 5349 - Data and Network Security
- 3 credit hours of track electives approved by adviser


## General (9 credit hours)

Three 3-hour, 4000-level or above CSE courses approved by adviser.

## Engineering Leadership (6 Credit Hours)

- CSE 4360 - Technical Entrepreneurship
- CEE 3302 - Engineering Communications
- EMIS 3308 - Engineering Management or
- CSE 5317 - Leadership for Architecting Software Systems


## Electives (6 Credit Hours)

Advanced electives in the Lyle School of Engineering.

## Total: 100-103 Credit Hours

Note: All computer science majors must earn a grade of $C$ - or better in the computer science core courses and CSE 2353 in fulfillment of the requirements for the major. Students choosing the game development track do not take CSE 4351 and CSE 4352 and have a total degree requirement of 103 hours.

## Computer Science, B.S., Premedical Specialization

Curriculum Notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within this curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (56 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3304 - Introduction to Linear Algebra
- CSE 2353 - Discrete Computational Structures
- CSE 3365 /MATH 3315 - Introduction to Scientific Computing or
- MATH 3316 - Introduction to High-Performance Scientific Computing
- CSE 4340 - Statistical Methods for Engineers and Applied Scientists (Students may fulfill the CSE 4340 requirement by taking any one of CSE 4340/STAT 4340, or EMIS 3340.)
- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304 - Genetics
- BIOL 3350 - Cell Biology
- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3371-Organic Chemistry
- CHEM 3117 - Organic Chemistry Laboratory
- CHEM 3372 - Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory


## Computer Science (44 Credit Hours)

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- CSE 2240 - Assembly Language Programming and Machine Organization
- CSE 2341 - Data Structures
- CSE 3330 - Database Concepts
- CSE 3342 - Programming Languages
- CSE 3345 - Graphical User Interface Design and Implementation
- CSE 3353 - Fundamentals of Algorithms
- CSE 3381 - Digital Logic Design
- CSE 4344 - Computer Networks and Distributed Systems
- CSE 4345 - Software Engineering Principles
- CSE 4351 - Senior Design I
- CSE 4352 - Senior Design II
- CSE 4381 - Digital Computer Design
- CSE 5343 - Operating Systems and Systems Software


## Engineering Leadership (6 Credit Hours)

- CEE 3302 - Engineering Communications
- CSE 4360 - Technical Entrepreneurship


## Total: 106 Credit Hours

## Computer Engineering Minor

A student majoring in computer science may not minor in computer engineering.

## Required Courses

The following computer engineering courses are required:

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- CSE 2240 - Assembly Language Programming and Machine Organization
- CSE 2341 - Data Structures
- CSE 2353 - Discrete Computational Structures
- CSE 3381 - Digital Logic Design

Total: 17 Credit Hours

## Computer Science Minor

A student majoring in computer engineering may not minor in computer science.

## Required Courses

The following computer science courses are required:

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- CSE 2341 - Data Structures
- CSE 2353 - Discrete Computational Structures


## Elective Courses

Elective courses can be any six hours of CSE courses numbered 3000 or above as approved by the computer science minor adviser.

## Total: 18 Credit Hours

## Courses:

## CSE 1340 - Introduction to Computing Concepts

Credits: 3
Introduction to computer concepts, program structures, object-oriented programming, and interactive application development. Extensive programming projects emphasizing logical control structures and the use of libraries.

## CSE 1341 - Principles of Computer Science

Credits: 3
Introduces the fundamental concepts of computer science and object-oriented design of reusable modules. Covers basic object-oriented concepts of composition, inheritance, polymorphism, and containers. First course for computer science and computer engineering majors and minors.

## CSE 1342 - Programming Concepts

## Credits: 3

Introduces the constructs provided in the $\mathrm{C} / \mathrm{C}++$ programming language for procedural and object-oriented programming. Computation, input and output, flow of control, functions, arrays and pointers, linked structures, use of dynamic storage, and implementation of abstract data types. Prerequisite: C- or better in CSE 1341 or equivalent, a grade of at least 4 on the AP Computer Science A Exam, or departmental consent.

CSE 2240 - Assembly Language Programming and Machine Organization

## Credits: 2

Computer-related number systems, machine arithmetic, computer instruction set, low-level programming, addressing modes, and internal data representation. Prerequisite or corequisite: $\mathrm{C}-$ or better in CSE 1341.

## CSE 2341 - Data Structures

## Credits: 3

Emphasizes the object-oriented implementation of data structures and associated algorithms, including sorting algorithms, linked lists, stacks, queues, binary trees, and priority queues. Introduces graphs and algorithm analysis, and covers objectoriented software engineering strategies and approaches to programming. Prerequisite: C- or better in CSE 1342 or equivalent.

## CSE 2353 - Discrete Computational Structures

## Credits: 3

Logic, proofs, partially ordered sets, and algebraic structures; introduction to graph theory and combinatorics; and applications of these structures to various areas of computer science. Prerequisite: C- or better in CSE 1341.

## CSE 3330 - Database Concepts

## Credits: 3

Covers fundamental information management and database systems concepts, including information models and systems, data modeling, relational database design, query languages, and various language APIs for accessing database systems. Contains a major design and implementation project. May include topics from information privacy and security, information retrieval, data mining, and multimedia information systems. Prerequisites: C- or better in CSE 2341, CSE 2353.

## CSE 3339 - Information Assurance and Security

## Credits: 3

Provides a broad introduction to information assurance and security. Students gain a foundational understanding of the protection of information assets and explore a broad spectrum of topics in the field. Covers a range of technical topics (e.g., network security, systems security, access control, cryptography) as well as nontechnical topics (e.g., management, legal issues, policy, ethics, history). Prerequisite: C- or better in CSE 2341 or equivalent.

## CSE 3342 - Programming Languages

## Credits: 3

Provides an understanding of how advances in hardware and networks have influenced the design and capabilities of programming languages from the 1950s to the present. Covers major programming paradigms (procedural, declarative, object-oriented, and functional) and requires problem-solving using a variety of languages. Topics include the history of programming languages, the Chomsky language hierarchy, the development of formal models for specifying languages, data structures for programming language implementation, and the ways different languages deal with problem of concurrency in a world of multicore and distributed computing. Prerequisite: C- or better in CSE 2341.

## CSE 3345 - Graphical User Interface Design and Implementation

## Credits: 3

Introduction to the concepts underlying the design and implementation of graphical user interfaces, with emphasis on the psychological aspects of human-computer interaction. Structured around lectures, case studies, and student projects. Introduces web programming concepts including HTML, CSS, JavaScript and Single Page Application (SPA) development. Prerequisites: C- or better in CSE 2341 or equivalent.

## CSE 3353 - Fundamentals of Algorithms

## Credits: 3

Introduces algorithm analysis; big-Oh, omega, and theta notation; and algorithm classification by efficiency. Also, basic algorithm design strategies and approaches to problem-solving (e.g., greedy, divide and conquer, and dynamic programming), an introduction to graph algorithms, and intractability. Prerequisites: C- or better in CSE 2341, CSE 2353.

## CSE 3365 - Introduction to Scientific Computing

## Credits: 3

An elementary survey course that includes techniques for root-finding, interpolation, functional approximation, linear equations, and numerical integration. Gives special attention to MATLAB programming, algorithm implementations, and library codes. Students registering for this course must also register for an associated computer laboratory. Prerequisites: Cor better in MATH 1338 or MATH 1340, and in CSE 1341 or CSE 1342. Corequisite: MATH 3304.

## CSE 3381 - Digital Logic Design

## Credits: 3

Covers the history of logic and its application to digital switching circuitry. Topics include algebraic, combinational, and sequential circuitry. Emphasizes programmable logic and hardware description languages for modeling, synthesis, and simulation. Introduces the controller plus datapath architecture present in the majority of modern information processing circuits. Requires a weekly corequisite laboratory. Prerequisites: C- or better in CSE 2240, CSE 2353 or permission of instructor.

## CSE 4051 - Gaming Design Project

## Credits: 0

Requires students enrolled in HGAM 5292 to produce appropriate reports and other design documentation material resulting from their HGAM 5292 design experience, including design requirements, specifications, test plans, and other relevant documentation as required for assessing the design experience. Corequisite: HGAM 5292.

## CSE 4090 - Senior Project

Credits: 0

## CSE 4190 - Undergraduate Project

## Credits: 1

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4191 - Undergraduate Project

## Credits: 1

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4192 - Undergraduate Project

## Credits: 1

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4193 - Undergraduate Project

Credits: 1
An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4194 - Undergraduate Project

Credits: 1
An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4197 - Research Experience for Undergraduates

Credits: 1
Provides research experience for junior/senior undergraduate students. Permission from the advising CSE faculty member is required before registration. Prerequisites: Junior/senior standing; computer science or computer engineering major with GPA above 3.000.

## CSE 4290 - Undergraduate Project

## Credits: 2

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4291 - Undergraduate Seminar

## Credits: 2

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4292 - Undergraduate Seminar

## Credits: 2

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4293 - Undergraduate Seminar

## Credits: 2

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4294 - Undergraduate Seminar

## Credits: 2

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4297 - Research Experience for Undergraduates

## Credits: 2

Provides research experience for junior/senior undergraduate students. Permission from the advising CSE faculty member is required before registration. Prerequisites: Junior/senior standing; computer science or computer engineering major with GPA above 3.000.

## CSE 4340 - Statistical Methods for Engineers and Applied Scientists

## Credits: 3

Basic concepts of probability and statistics useful in the solution of engineering and applied science problems. Topics include probability, probability distributions, data analysis, sampling distributions, estimation, and simple tests of hypothesis. Prerequisites: C- or better in MATH 1337, MATH 1338.

## CSE 4344 - Computer Networks and Distributed Systems

## Credits: 3

Introduces network protocols, layered communication architecture, wired and wireless data transmission, data link protocols, network routing, TCP/IP and UDP, email and the World Wide Web, distributed computing, mutual exclusion, linearizability, locks, and multithreaded computing. Prerequisite: C- or better in CSE 2341.

## CSE 4345 - Software Engineering Principles

## Credits: 3

Introduction to software system development and an overview of development models and their stages. Also, system feasibility and requirements engineering, architecture and design, validation and verification, maintenance, and evolution. Includes project management and a review of current software engineering literature. Student teams design and implement small-scale software systems. Contains class presentations and a major design experience. Prerequisite: C- or better in CSE 2341.

## CSE 4351 - Senior Design I

## Credits: 3

First part of a project course, with a major design component. Students participate in a multidisciplinary group project team. Topical, project-related discussions include project team organization, project planning and scheduling, management, testing and validation methods, and the importance of lifelong learning. Prerequisite: Senior standing in Computer Science (BS or BA) or Computer Engineering.

## CSE 4352 - Senior Design II

## Credits: 3

Second part of a project course, with a major design component. Students participate in a multidisciplinary group project team. Topical, project-related discussions include project team organization, project planning and scheduling, management, testing and validation methods, and the importance of lifelong learning. Prerequisite: CSE 4351.

## CSE 4360 - Technical Entrepreneurship

## Credits: 3

Demonstrates the concepts involved in the management and evolution of rapidly growing technical endeavors. As part of a team, the student participates in active learning by doing, by making mistakes and developing solutions, and by observing mistakes and approaches made by other teams. Credit will not be given for both CSE 4360 and EMIS 8358. Prerequisite: Senior standing or permission of instructor.

## CSE 4381 - Digital Computer Design

Credits: 3
Machine organization, instruction set architecture design, memory design, control design: hardwired control and microprogrammed control, algorithms for computer arithmetic, microprocessors, and pipelining. Prerequisite: C- or better in CSE 3381.

## CSE 4386 - Hardware Design Project

## Credits: 3

A project course with a major design component. Students participate in a multidisciplinary group project team. Topical, project-related discussions include the hardware design and manufacturing process, hardware description languages, modular design principles, quantitative analysis, industrial standards and interfaces, and the importance of lifelong learning. The group project provides the major design experience for students in the hardware track of the computer engineering program. Prerequisite: C- or better in CSE 4381.

## CSE 4391 - Undergraduate Project

Credits: 3
An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4392 - Undergraduate Project

Credits: 3
An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4393 - Undergraduate Project

Credits: 3
An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4394 - Undergraduate Project

## Credits: 3

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4397 - Research Experience for Undergraduates

## Credits: 3

Provides research experience for junior/senior undergraduate students. Permission from the advising CSE faculty member is required before registration. Prerequisites: Junior/senior standing; computer science or computer engineering major with GPA above 3.000.

## CSE 4490 - Undergraduate Project

## Credits: 4

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4491 - Undergraduate Project

## Credits: 4

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4492 - Undergraduate Project

## Credits: 4

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4493 - Undergraduate Project

## Credits: 4

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 4494 - Undergraduate Project

Credits: 4
An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## CSE 5050 - Undergraduate Internship

Credits: 0

## CSE 5096 - Senior Thesis

## Credits: 0

Prerequisite: Admission to the departmental distinction program.

## CSE 5111 - Intellectual Property and Information Technology

## Credits: 1

Presents fundamentals in the nature, protection, and fair use of intellectual property, including patent, copyright, trademark, trade secret, and antitrust principles, with an emphasis on Internet, software, databases, and digital transmission technologies. Investigates the open source and creative commons alternatives for disseminating intellectual property. Examines the professional and ethical responsibilities of the engineer, scientist, manager, and creative artist, and their opportunities regarding intellectual property. Also, investigates the rapid change in types and uses of intellectual property spawned by computers, digital media, e commerce, and biotechnology.

## CSE 5190 - Special Topics

## Credits: 1

Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5191 - Special Topics

Credits: 1
Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5192 - Special Topics

Credits: 1
Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5193 - Special Topics

Credits: 1
Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5194 - Special Topics

Credits: 1
Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

CSE 5196 - Senior Thesis

Credits: 1
Prerequisite: Admission to the departmental distinction program.

## CSE 5290 - Special Topics

## Credits: 2

Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5291 - Special Topics

## Credits: 2

Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5292 - Special Topics

## Credits: 2

Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5293 - Special Topics

Credits: 2
Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5294 - Special Topics

## Credits: 2

Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5296 - Senior Thesis

## Credits: 2

Prerequisite: Admission to the departmental distinction program.

## CSE 5311 - Fundamentals of Computer Science

## Credits: 3

A comprehensive foundation course covering the major aspects of computer science. Covers hardware and software fundamentals, operating systems concepts, data structures, discrete structures, algorithms, and programming languages. Also, addresses issues related to software engineering and object-oriented programming. Prepares students without a computer science background for the master's program in software engineering at SMU.

## CSE 5313 - Software Configuration Management

## Credits: 3

Successful software development and maintenance requires an understanding and application of many activities and functions throughout the software engineering process. One of the key areas is software configuration management. Students explore the principles and practices of the software configuration management function and mandatory role, including how CM is defined, planned, implemented, and measured over the life cycle of any development or maintenance project. Focuses on understanding specific roles of project team members and the tasks they plan and execute: managers who must support the CM efforts; project managers who must plan and design the CM system for their projects; those who implement the system; those who manage and administer the system; and the testers, engineers, and quality assurance personnel who are affected by the system. Prerequisites: CSE major and junior, senior, or graduate-level standing.

## CSE 5314 - Software Testing and Quality Assurance

## Credits: 3

Examines the relationship of software testing to quality, with an emphasis on testing techniques and the role of testing in the validation of system requirements. Topics include module and unit testing, integration, code inspection, peer reviews, verification and validation, statistical testing methods, error prevention and detection, project metrics selection and implementation, testing principles, formal models of testing, and performance monitoring, and measurement. Also, defining test plans and strategies that map to system requirements. Prerequisites: C- or better in all previous CSE courses and senior standing. It is strongly recommended that students have software engineering experience.

## CSE 5316 - Software Requirements

## Credits: 3

Focuses on defining and specifying software requirements that can be used as the basis for designing and testing software. Topics include use cases for describing system behavior, formal methods, specifying functional versus nonfunctional requirements, and the relationship of requirements to software testing. Prerequisites: C- or better in all previous CSE courses and senior standing.

## CSE 5317 - Leadership for Architecting Software Systems

## Credits: 3

Principles of leadership and software architecture in building large software systems or leading large teams. Involves a mix of personal assessment, reflection, and the development of leadership and influence skills and concepts unique to each student. Examines the process of developing large software systems in a constantly changing commercial environment. Prerequisite: Junior standing or higher.

## CSE 5319 - Software Architecture and Design

## Credits: 3

Software development requires both an understanding of software design principles and a broader understanding of software architectures that provide a framework for design. The course explores the role of design in the software life cycle, including different approaches to design, design trade-offs, and the use of design patterns in modeling object-oriented solutions. It also focuses on important aspects of a system's architecture, including the division of functions among system modules, synchronization, asynchronous and synchronous messaging, interfaces, and the representation of shared information. Prerequisites: C- or better in all CSE courses and senior standing.

## CSE 5320 - Artificial Intelligence

## Credits: 3

Introduces basic principles and current research topics in artificial intelligence. Formal representation of real-world problems; search of problem spaces for solutions; and deduction of knowledge in terms of predicate logic, nonmonotonic reasoning, and fuzzy sets. Application of these methods to important areas of artificial intelligence, including expert systems, planning, language understanding, machine learning, neural networks, computer vision, and robotics. Prerequisites: C- or better in CSE 3342, CSE 3353.

## CSE 5323 - Mobile Applications for Sensing and Learning

## Credits: 3

Equips students with the practical skills necessary to develop mobile applications that take advantage of the myriad sensing and control capabilities of modern smartphones. Focuses on interfacing with phone hardware, efficient computing on the phone and in the cloud using virtualized servers, and efficient analysis of the peripheral sensor streams of today's
smartphones. Students integrate real-time control and/or automation using a third-party hardware platform to interface with the mobile platform. Prerequisite: CSE 1342.

## CSE 5324 - Machine Learning in Python

## Credits: 3

Introduces the processes of learning from data. Provides an overview of a number of machine learning techniques, including pre-processing, visualization, classification, and regression, used in analytics. Covers classic and contemporary learning techniques, with emphasis on artificial neural networks and deep learning methods. Material covered will be reinforced through hands-on experience using state-of-the art tools. Class examples and assignments will come from the programming language Python. Knowledge of linear algebra, calculus, introductory algorithm analysis, statistics/probability, and an introduction to python programming is suggested. Prerequisites: C- or better in CSE 2341 and CSE 3365/MATH 3315

## CSE 5330 - File Organization and Database Management

## Credits: 3

Surveys current database approaches and systems, principles of design, and use of these systems. Includes query language design, implementation constraints, applications of large databases, survey of file structures and access techniques, and use of a relational DBMS to implement a database design project. Prerequisite: C- or better in CSE 3330 .

## CSE 5331 - An Introduction to Data Mining and Related Topics

## Credits: 3

Introduces various data mining and related concepts. Reinforces all material covered through hands-on implementation exercises and uses a high-level, applied study of data mining techniques. Prerequisite: C- or better in CSE 3330 .

## CSE 5333-Quantifying the World

## Credits: 3

In the global information age, data can be leveraged to rapidly answer previously unanswerable questions. Students explore how to make sense of the large amounts of data frequently available, from hypothesis formation and data collection to methods of analysis and visualization. Includes ways to set up Internet-level measurements and formulate testable hypotheses; ways to automatically gather, store, and query large datasets; and ways to apply statistical methods (descriptive and predictive) and information visualization to collected datasets. Students learn to use Python and R programming languages to carry out data collection, analysis, and visualization. Culminates in a final project using real data of the students' choosing.

## CSE 5337 - Information Retrieval and Web Search

## Credits: 3

Introduces the field of information retrieval, with an emphasis on its application in Web search, and the basic concepts of stemming, tokenizing and inverted indices, text similarity metrics, and the vector-space model. Students study popular Web search engines and apply the concepts in several Java-based programs. Prerequisite: CSE 3353.

## CSE 5338 - Security Economics

## Credits: 3

Introduces 1) economics as a tool for understanding and managing information security and 2) the techniques of analytic and empirical modeling. Students review key information security challenges and technologies in order to reason about the topics economically, and they explore economic concepts such as rationality, markets, and information. Presents models and metrics of security investment, cost-benefit analysis techniques, and techniques for empirical investigation and measurement of cybercrime. Students design security games to capture the strategic interaction between defenders and between attackers
and defenders. Includes the implications for public policy. Prerequisite: CSE 3353 or junior standing if not a declared CSE major.

## CSE 5339-Computer System Security

## Credits: 3

Students investigate a broad selection of contemporary issues in computer security, including an assessment of state-of-theart technology used to address security problems. Topics include sources for computer security threats and appropriate reactions, basic encryption and decryption, secure encryption systems, program security, trusted operating systems, database security, network and distributed systems security, administering security, and legal and ethical issues. Prerequisite: CSE 5343.

CSE 5340 - Service-Oriented Computing

Credits: 3
Service-oriented computing is the computing paradigm that utilizes services as fundamental elements for developing applications. Service providers expose capabilities through interfaces. Service-oriented architecture maps these capabilities and interfaces so they can be orchestrated into processes. Fundamental to the service model is the separation between the interface and the implementation, such that the invoker of a service need only (and should only) understand the interface; the implementation can evolve over time, without disturbing the clients of the service. Prerequisites: Senior or graduate standing. Programming experience is required.

## CSE 5341 - Compiler Construction

## Credits: 3

Reviews programming language structures, loading, execution, and storage allocation; compilation of simple expressions and statements; organization of a compiler, including compile- and run-time symbol tables, lexical analysis, syntax analysis, code generation, error diagnostics, and simple code optimization techniques; and use of a recursive high-level language to implement a complete compiler. Prerequisites: C- or better in CSE 3342, CSE 3353.

## CSE 5342 - Concepts of Language Theory and Their Applications

## Credits: 3

Formal languages and their relation to automata; introduction to finite-state automata, context-free languages, and Turing machines; theoretical capabilities of each model; applications in terms of grammars, parsing, and operational semantics; and decidable and undecidable problems about computation. Prerequisite: C- or better in CSE 3342 or permission of instructor.

## CSE 5343 - Operating Systems and Systems Software

## Credits: 3

Theoretical and practical aspects of operating systems: overview of system software, timesharing and multiprogramming operating systems, network operating systems and the Internet, virtual memory management, interprocess communication and synchronization, file organization, and case studies. Prerequisites: C- or better in CSE 2240, CSE 3353.

## CSE 5344 - Computer Networks and Distributed Systems II

## Credits: 3

Introduces network protocols, layered communication architecture, multimedia applications and protocols, quality of service, congestion control, optical networks, DWDM, network survivability and provisioning, and wireless networks. An interdisciplinary project requires the use of currently available network design and simulation tools. Prerequisite: C- or better in CSE 4344.

## CSE 5345 - Advanced Application Programming

## Credits: 3

Advanced programming techniques that span a range of programming languages and technologies. Includes server-side application development, client GUI implementation, application frameworks, design patterns, model-based development, and multithreading. The specific programming language or languages covered may vary from term to term. Prerequisite: CSE 3345 or consent of instructor.

## CSE 5346-Cloud Computing

## Credits: 3

Explores architectures for cloud computing, and provides hands-on experience with virtualization technologies. Topics include cloud computing architectures such as infrastructure as a service, platform as a service, and software as a service. Covers programming models for cloud computing, the fundamentals of virtualization technologies that enable scalability, and an introduction to the security and energy efficiency challenges of cloud computing. Prerequisite: CSE 4381.

## CSE 5347 - XML and the Enterprise

## Credits: 3

XML, the Extensible Markup Language, is used to define vocabularies for a wide range of applications such as software configuration, data exchange, and Web-based protocols. Provides a detailed examination of XML as an enterprise technology, with a focus on APIs, interfaces, and the standards that drive this technology, including DTDs and XML Schema to structure XML data, XSLT to transform XML, XML protocols for distributed computing, and XML security initiatives. Students gain a broad understanding of XML and the technical issues and trade-offs among different alternatives for processing XML. Prerequisites: An understanding of object-oriented concepts and familiarity with Java and/or C++.

## CSE 5348 - Internetworking Protocols and Programming

## Credits: 3

Processing and interprocess communications, UNIX domain sockets, fundamentals of TCP/IP, Internet domain sockets, packet routing and filtering and firewall, SNMP and network management, client-server model and software design, remote procedure call (XDR, RPC, DCE), design of servers and clients, networking protocols for the World Wide Web, and internetworking over new networking technologies. Prerequisites: C- or better in CSE 4344, CSE 5343 and C programming.

## CSE 5349 - Data and Network Security

## Credits: 3

Covers conventional and state-of-the-art methods for achieving data and network security. Private key and public key encryption approaches are discussed in detail, with coverage of popular algorithms such as DES, Blowfish, and RSA. In the network security area, the course covers authentication protocols, IP security, Web security, and system-level security. Prerequisite: C- or better in CSE 4344.

## CSE 5350 - Algorithm Engineering

## Credits: 3

Algorithm design techniques; methods for evaluating algorithm efficiency; data structure specification and implementation; applications to fundamental computational problems in sorting and selection, graphs and networks, scheduling and combinatorial optimization, computational geometry, and arithmetic and matrix computation; introduction to parallel algorithms and to computational complexity; and a survey of NP-complete problems. Emphasizes developing the student's facility to design efficient algorithms. Prerequisite: C- or better in CSE 3353.

## CSE 5356 - VLSI Design and Laboratory

## Credits: 3

Explores the design aspects involved in the realization of CMOS integrated circuits from device up to the register subsystem level. Addresses major design methodologies, with emphasis on structured, full-custom design. Also, the MOS device, CMOS inverter static characteristics, CMOS inverter dynamic characteristics, CMOS transistor fabrication technology, combination logic circuit, alternative static logic circuit, sequential logic circuit, dynamic logic circuit, propagation delay and interconnect, power dissipation and design for low power, memory device (DRAM, SRAM, ROM), ESD protection, packaging, testing, and VLSI design flow. Students use state-of-the-art CAD tools to verify designs and develop efficient circuit layouts. Prerequisites: C- or better in EE 2181, EE 2381, EE 3311.

CSE 5359 - Software Security

## Credits: 3

As software is delivered across networks and Web-based environments, security is critical to successful software deployment. This course focuses on software security issues that pertain to the network application layer in the classic OSI model. At the network application layer, issues related to encryption, validation, and authentication are handled programmatically rather than at the network level. Students work with APIs for cryptography, digital signatures, and thirdparty certificate authorities. The course also explores issues related to XML and Web services security by examining standards and technologies for securing data and programs across collaborative networks. Prerequisite: Programming experience in Java and/or C++.

## CSE 5360 - Introduction to 3-D Animation

## Credits: 3

Introduces computer graphics, with an emphasis on the popular software package Maya. Focuses on the user interface, creation of 3-D geometry using polygonal techniques, materials and textures, kinematics, animation, and camera and lighting techniques. Explores the various aspects and fundamentals of computer graphics. Students gain a core understanding of the workflow necessary to create 3-D imagery. Assignments require students to combine a variety of techniques to become familiar with the computer animation production process. Prerequisite: Junior standing or higher. May not be used for credit in a graduate degree program in CSE without adviser's approval.

## CSE 5369 - Hardware Security and Trojan Detection

## Credits: 3

Introduces several contemporary topics in hardware security, with a particular emphasis on hardware Trojans. Other topics include physically unclonable functions, the problem of counterfeiting, security implications of design for testability in hardware, intellectual property protection, and secure coprocessors and smart cards. Prerequisite: C or better in CSE 3381 or equivalent.

## CSE 5376 - Introduction to Telecommunications

## Credits: 3

Overview of public and private telecommunications systems; traffic engineering; switching; transmission; signaling; channel capacity; media characteristics; Fourier analysis and harmonics; modulation; electromagnetic wave propagation and antennae, modems, and interfaces; digital transmission systems; T1 carriers; digital microwave; satellites; fiber optics and synchronous optical networking; and integrated services digital networks.

## CSE 5380 - VLSI Algorithms

Credits: 3
Introduces problems, algorithms, and optimization techniques used in the design of high-performance VLSI design. Emphasis on algorithms for partitioning, placement, floor planning, wire routing, and layout compaction. Prerequisites: Cor better in CSE 3353, CSE 3381.

## CSE 5381-Computer Architecture

## Credits: 3

Introduces the state of the art in uniprocessor computer architecture, with a focus on the quantitative analysis and costperformance trade-offs in instruction set, pipeline, and memory design. Topics include quantitative analysis of performance and hardware costs, instruction set design, pipeline, delayed branch, memory organization, and advanced instruction-level parallelism. Prerequisite: C- or better in CSE 4381.

CSE 5382 - Computer Graphics

## Credits: 3

Hardware and software components of computer graphics systems: display files, 2-D and 3-D transformations, clipping and windowing, perspective, hidden-line elimination and shaping, interactive graphics, and applications. Prerequisite: C- or better in CSE 3353.

CSE 5385 - Microcontroller Architecture and Interfacing

## Credits: 3

Emphasizes the design of embedded systems using microcontrollers. Briefly reviews microcontroller architecture. Includes hierarchical memory systems and interfacing of memory and peripherals, industry standard bus interfaces and other applicable standards, and topics in real-time operating systems and system-level design considerations. The corequisite laboratory requires students to develop software using assembler and high-level languages. Prerequisite: CSE 3381 or EE 3181, EE 3381.

## CSE 5387 - Digital Systems Design

Credits: 3
Modern topics in digital systems design, including the use of HDLs for circuit specification and automated synthesis tools for realization. Programmable logic devices are emphasized and used throughout the course. Includes heavy laboratory assignment content and a design project. Prerequisite: C- or better in CSE 3381 or in EE 2381.

## CSE 5390 - Special Topics

Credits: 3
Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5391 - Special Topics

Credits: 3
Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5392 - Special Topics

Credits: 3
Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5393 - Special Topics

## Credits: 3

Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5394 - Special Topics

Credits: 3
Individual or group study of selected topics in computer science. Prerequisite: Permission of instructor.

## CSE 5396 - Senior Thesis

Credits: 3
Prerequisite: Admission to the departmental distinction program.

# Electrical Engineering 

Professor Dinesh Rajan, Chair

Professors: Jerome K. Butler, Marc P. Christensen, Scott C. Douglas, Gary A. Evans, W. Milton Gosney, Ping
Gui, Duncan L. MacFarlane, Panos E. Papamichalis, Behrouz Peikari, Dinesh Rajan, Mitchell A. Thornton
Associate Professors: Joseph D. Camp, Carlos E. Davila, James G. Dunham, Choon S. Lee, Jianhui Wang
Assistant Professors: Mohammad Khodayar, Dario J. Villarreal Suarez
Senior Lecturer: M. Scott Kingsley
Adjunct Faculty: Sudipto Chakraborty, Joseph R. Cleveland, John Fattaruso, Hossam H. H'mimy, Clark D. Kinnaird, Kamakshi Sridhar

## General Information

The discipline of electrical engineering is at the core of today's technology-driven society. Personal computers, computer-communications networks, integrated circuits, optical technologies, digital signal processors and wireless communications systems have revolutionized the way people live and work, and extraordinary advances in these fields are announced every day. Because today's society truly is a technological one, a degree in electrical engineering offers exceptional opportunities for financial security, personal satisfaction and an expansion of the frontiers of technology. The Department of Electrical Engineering at SMU offers a full complement of courses at the bachelor's degree level in communications, networks, digital signal processing, optoelectronics, electromagnetics, microelectronics, and systems and control.

## The mission of the department is as follows:

Through quality instruction and scholarly research, to engage each student in a challenging electrical engineering education that prepares graduates for the full range of career opportunities in the high-technology marketplace and enables them to reach their fullest potential as a professional and as a member of society.

## Departmental goals include the following:

- Becoming one of the nation's leading electrical engineering departments by building peaks of excellence in the fields of communications/signal processing and micro/optoelectronics and by being a leader in innovative educational programs.
- Offering undergraduate curricula that equips graduates for careers that require ingenuity, integrity, logical thinking, and the ability to work and communicate in teams, and for the pursuit of graduate degrees in engineering or other fields such as business, dicine and law.
- Offering world-class Ph.D. programs that prepare graduates for academic careers, for research careers in the high-technology industry or for technical entrepreneurship.
- Promoting lifelong learning animated by a passion for the never-ending advance of technology.


## The educational objectives of the Electrical Engineering Department undergraduate program are to enable graduates to do the following:

- Be successful in understanding, formulating, analyzing and solving a variety of electrical engineering problems.
- Be successful in designing a variety of engineering systems, products or experiments.
- Be successful in careers and/or graduate study in engineering or other areas such as business, medicine and law.
- Have the ability to assume leadership and entrepreneurial positions.
- Successfully function and effectively communicate both individually and in multidisciplinary teams.
- Understand the importance of lifelong learning, ethics and professional accountability.


## The Electrical Engineering Department undergraduate student outcomes as related to the above educational objectives are as follows:

All graduates of the electrical engineering program are expected to have the following:

- The ability to apply knowledge of mathematics, science and engineering.
- The ability to design and conduct experiments, as well as to analyze and interpret data.
- The ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
- The ability to function on multidisciplinary teams.
- The ability to identify, formulate and solve engineering problems.
- An understanding of professional and ethical responsibility.
- The ability to communicate effectively.
- The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context.
- The recognition of the need for and the ability to engage in lifelong learning.
- A knowledge of contemporary issues.
- The ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

The Electrical Engineering Department is engaged in an ongoing assessment process that evaluates the success in meeting the educational objectives and outcomes and enhances the development of the program.

The undergraduate program in electrical engineering is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

The Electrical Engineering Department emphasizes the following major areas of research interest:

- Biomedical Engineering. Overview of biomedical engineering, biomedical devices and instrumentation, biomedical signal capture, processing, and modeling.
- Communications and Information Technology. Detection and estimation theory, digital communications, computer networks, spread spectrum, cellular communications, coding, encryption, compression, and wireless and optical communications.
- Control Systems. Linear and nonlinear systems control, robotics, and computer and robot vision.
- Digital Signal Processing. Digital filter design, system identification, spectral estimation, adaptive filters, neural networks and DSP implementations.
- Image Processing and Computer Vision. Digital image processing, computer vision and pattern recognition.
- Lasers, Optoelectronics, Electromagnetic Theory and Microwave Electronics. Classical optics, fiber optics, laser recording, integrated optics, dielectric waveguides, antennas, transmission lines, laser diodes and signal processors, and superconductive microwave and optoelectronic devices.
- Solid State Circuits, Computer-Aided Circuit Design and VLSI Design. Electronic circuits, computer-aided design, very large-scale integration design and memory interfaces.
- Electronic Materials and Solid State Devices. Fabrication and characterization of devices and materials, device physics, noise in solid state devices, infrared detectors, AlGaAs and GaAs devices and materials, superconductivity, superconductive devices and electronics, thin films, hybrid
superconductor-semiconductor devices, ultrafast electronics, and applications of a scanning tunneling microscope.
- Telecommunications. Overview of modern telecommunications components and systems, data communications, digital telephony, and digital switching.
- Power Engineering. Power system operation and planning, renewable energy integration, smart grid, transportation electrification, and resilient energy networks.


## Department Facilities

The department has access to the Lyle School of Engineering academic computing resources, consisting of shared-use computer servers and desktop client systems connected to a network backbone. All of the servers in the Lyle School of Engineering are running some variant of UNIX or Microsoft Windows. There is one primary file server that exports files using FNS or CIFS protocols. Each user, whether faculty, staff or student, has a "home" directory on the central file server. This directory is exported to other servers or desktop computers, regardless of operating systems, as needed. There are more than 40 servers whose purposes include the following: file service, UNIX mail, Exchange mail, firewall, UNIX authentication, NT authentication, printer management, lab image download, classroom-specific software, X windows service, news, domain name service, computational resources, and general use. This primary file server allows a user's files to be used as a resource in both the UNIX and Microsoft PC environments. Almost all computing equipment within the Lyle School of Engineering is connected to the engineering network at 100 megabits and higher. The network backbone is running at a gigabit per second over fiber. Most servers and all engineering buildings are connected to this gigabit backbone network. The backbone within the Engineering School is connected to both the Internet 2 and the campus network that is then connected to the Internet at large. In addition to servers and shared computational resources, the Lyle School of Engineering maintains a number of individual computing laboratories associated with the departments. Specific department laboratory facilities for instruction and research include the following:

Antenna Laboratory. This laboratory consists of two facilities for fabrication and testing. Most of the antennas fabricated at the SMU antenna lab are microstrip antennas. Small and less complex antennas are made with milling machines, and a photolithic/chemical etching method is used to make more complex and large antennas. Fabricated antennas are characterized with a Hewlett-Packard 5810 B network analyzer. Workstations are available for antenna design and theoretical computation. Radiation characteristics are measured at the DallasSMU Antenna Characterization Lab located in Richardson, Texas.

Biomedical Engineering Laboratory. This laboratory contains instrumentation for carrying out research in electrophysiology, psychophysics and medical ultrasound. Four Grass physiographs permit the measurement of electroencephalograms as well as visual and auditory evoked brain potentials. The lab also contains a state-of-the-art dual Purkinje eye tracker and image stabilizer made by Fourward Technologies Inc., a Vision Research Graphics 21-inch Digital Multisync Monitor for displaying visual stimuli, and a Cambridge Research Systems visual stimulus generator capable of generating a variety of stimuli for use in psychophysical and electrophysiological experiments. Ultrasound data can also measure with a Physical Acoustics apparatus consisting of a water tank, radio frequency pulser/receiver and radio frequency data acquisition system. Several PCs are also available for instrumentation control and data acquisition.

Multimedia Systems Laboratory. This facility includes an acoustic chamber with adjoining recording studio to allow high-quality sound recordings to be made. The chamber is sound isolating with double- or triple-wall Sheetrock on all four sides, as well as an isolating ceiling barrier above the drop ceiling. The walls of the chamber have been constructed to be nonparallel to avoid flutter echo and dominant frequency modes. Acoustic paneling on the walls of the chamber are removable and allow the acoustic reverberation time to be adjusted to simulate different room acoustics. The control room next to the acoustic chamber includes a large, 4 -foot-by- 8 -foot acoustic window and an inert acoustic door facing the acoustic chamber. Up to 16 channels of audio can be carried in or out of the chamber to the control room. Experiments conducted in the Multimedia Systems Laboratory include blind source separation, deconvolution and dereverberation. Several of the undergraduate courses in electrical engineering use sound and music to motivate system-level design and signal processing
applications. The Multimedia Systems Laboratory can be used in these activities to develop data sets for use in classroom experiments and laboratory projects for students to complete.

Wireless Systems Laboratory. This laboratory contains an array of infrastructure for experimentation across a number of wireless frequency bands, platforms and environments for research and instruction in lab-based courses on wireless communications and networking. The infrastructure includes 1) state-of-the-art test equipment for repeatability, control and observability of wireless channels, including complex channel emulators, fixed and mobile spectrum analyzers, wide-band oscilloscopes, and signal generators; 2) a wide range of reprogrammable wireless testbeds that operate from 400 MHz to 6 GHz for IEEE 802.11, cellular, and Bluetooth network and protocol development; and 3) diverse mobile phones and tablets that enable participatory sensing, context-aware applications and large-scale deployment in the field. The in-lab infrastructure is also enhanced by multiple outdoor antennas deployed on campus buildings and buses for understanding real wireless channels.

Semiconductor Processing Cleanroom. The 2,800 square-foot cleanroom, consisting of a 2,400 squarefoot, class 10,000 room and a class 1,000 lithography area of 400 square feet, is located in the Jerry R. Junkins Engineering Building. A partial list of equipment in this laboratory includes acid and solvent hoods, photoresist spinners, two contact mask aligners, a thermal evaporator, a plasma asher, a plasma etcher, a turbo-pumped methane hydrogen reactive ion etcher, a four-target sputtering system, a plasma-enhanced chemical vapor deposition reactor, a diffusion-pumped four pocket e-beam evaporator, an ellipsometer, and profilometers. Other equipment includes a boron-trichloride reactive ion etcher, a chemical-assisted ion-beam etcher and a four-tube diffusion furnace. The cleanroom is capable of processing silicon, compound semiconductors and piezo materials for microelectronic, photonic and nanotechnology devices.

Submicron Grating Laboratory. This laboratory is dedicated to holographic grating fabrication and has the capability of sub 10th-micron lines and spaces. Equipment includes a floating air table, an argon ion laser (ultraviolet lines) and an Atomic Force Microscope. This laboratory is used to make photonic devices with periodic features, such as distributed feedback, distributed Bragg reflector, grating-outcoupled and photonic crystal semiconductor lasers.

Photonic Devices Laboratory. This laboratory is dedicated to characterizing the optical and electrical properties of photonic devices. Equipment includes an optical spectrum analyzer, an optical multimeter, visible and infrared cameras, an automated laser characterization system for edge-emitting lasers, a manual probe test system for surface-emitting lasers, a manual probe test system for edge-emitting laser die and bars, and a nearand far-field measurement system.

Photonics Simulation Laboratory. This laboratory has specific computer programs that have been developed and continue to be developed for modeling and designing semiconductor lasers and optical waveguides, couplers and switches. These programs include WAVEGUIDE (calculates near-field, far-field, and effective indices of dielectric waveguides and semiconductor lasers with up to 500 layers, and each layer can contain gain or loss), GAIN (calculates the gain as a function of energy, carrier density and current density for strained and unstrained quantum wells for a variety of material systems), GRATING (uses the Floquet Bloch approach and the boundary element method to calculate reflection, transmission and outcoupling of dielectric waveguides and laser structures with any number of layers), and FIBER (calculates the fields, effective index, group velocity and dispersion for fibers with a circularly symmetric index of refraction profiles). Additional software is under development to model the modulation characteristics of photonic devices.

Photonic Architectures Laboratory. This laboratory is a fully equipped opto-mechanical and electrical prototyping facility, supporting the activities of faculty and graduate students in experimental and analytical tasks. The lab is ideally suited for the packaging, integration and testing of devices, modules and prototypes of optical systems. It has three large vibration isolated tables, a variety of visible and infrared lasers, single element 1-D and 2-D detector arrays, and a large complement of optical and optomechanical components and mounting devices. In addition, the laboratory has extensive data acquisition and analysis equipment, including an IEEE 1394 FireWire-capable image capture and processing workstation, specifically designed to evaluate the electrical and optical characteristics of smart pixel devices and FSOI fiber-optic modules. Support electronics hardware
includes various test instrumentation, such as arbitrary waveform generators and a variety of CAD tools for optical and electronic design, including optical ray trace and finite difference time domain software.

## Curriculum in Electrical Engineering

The undergraduate curriculum in electrical engineering provides the student with basic principles through required courses, and specialization through a guided choice of elective courses.

## Areas of Specialization

Due to the extensive latitude in course selection and to the wide variety of courses available within the Department of Electrical Engineering and within the University as a whole, it is possible for the electrical engineering student to concentrate his or her studies in a specific professional area such as biomedical, computer engineering, engineering leadership, or smart wireless and embedded systems.

Each student may select one specialization or may personalize his or her degree by a particular choice of advanced major electives. Students should choose a specialization as soon as possible; however, for many students, this process continues from term to term as the individual becomes better acquainted with the discipline of electrical engineering and with the choices available.

## Electrical Engineering, B.S.E.E.

The electrical engineering curriculum is administered by the Department of Electrical Engineering.
Curriculum Notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within the electrical engineering curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (28 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3313 - Ordinary Differential Equations
- CHEM 1303-General Chemistry
- PHYS 1303-Introductory Mechanics
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1105-Mechanics Laboratory
or
- PHYS 1106 - Electricity and Magnetism Laboratory

One of

- CSE 2353 - Discrete Computational Structures
- MATH 3304 - Introduction to Linear Algebra
- MATH 3311 - Introduction to Proof and Analysis
- MATH 3315 - Introduction to Scientific Computing or
- CSE 3365 - Introduction to Scientific Computing
- MATH 4337 - Boundary Value Problems and Partial Differential Equations

One elective from

- PHYS 3305 - Introduction to Modern Physics
- PHYS 3344-Classical Mechanics
- PHYS 3374-Thermodynamics and Statistical Mechanics
- CHEM 1304-General Chemistry


## Core Electrical Engineering (21 Credit Hours)

- EE 1350 - Introduction to Electrical Engineering
- EE 2322 - Electronic Circuits I
- EE 2122 - EE Laboratory: Electronic Circuits I
- EE 2350 - Circuit Analysis I
- EE 2370 - Design and Analysis of Signals and Systems
- EE 2170 - EE Laboratory: Design and Analysis of Signals and Systems
- EE 2381 - Digital Computer Logic
- EE 2181 - Laboratory: Digital Computer Logic
- EE 3360 - Statistical Methods in Electrical Engineering


## Junior Electrical Engineering Courses ( 20 Credit Hours)

- EE 3322 - Electronic Circuits II
- EE 3122 - EE Laboratory: Electronic Circuits II
- EE 3381 - Microcontrollers and Embedded Systems
- EE 3181 - EE Laboratory: Microcontrollers and Embedded Systems
- EE 3311 - Solid-State Devices
- EE 3330 - Electromagnetic Fields and Waves
- EE 3352 - Fundamentals of Electric Power Engineering
- EE 3372 - Introduction to Signal Processing


## Senior Design Sequence (6 Credit Hours)

- EE 4311 - Senior Design I
- EE 4312 - Senior Design II


## General Sequence or Specialization (27 Credit Hours)

## General Sequence:

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- 6 hours from any EE 5000-level course listed below

One of

- EMIS 2375-Cultural and Ethical Implications of Technology
- EMIS 3308 - Engineering Management
- CEE 3302 - Engineering Communications
- CSE 4360-Technical Entrepreneurship

One of

- ME 2310 - Statics
- ME 2320 - Dynamics
- ME 2331 - Thermodynamics
- ME 2342 - Fluid Mechanics
- CSE 2341 - Data Structures
- CSE 2353 - Discrete Computational Structures
- any 5000 -level EE course approved by adviser

One of

- EE 5356 - VLSI Design and Laboratory
- EE 5357-CAE Tools For Structured Digital Design
- EE 5381 - Digital Computer Design
- EE 5385-Microcontroller Architecture and Interfacing
- EE 5387 - Digital Systems Design

One of

- EE 5310 - Introduction to Semiconductors
- EE 5312 - Compound Semiconductor Devices and Processing
- EE 5313 - Solar Cells and Applications
- EE 5314 - Introduction to Microelectromechanical Systems
- EE 5321 - Semiconductor Devices and Circuits
- EE 5330 - Electromagnetics: Guided Waves
- EE 5332 - Electromagnetics: Radiation and Antennas
- EE 5333 - Antennas and Radio Wave Propagation for Personal Communication
- EE 5336 - Introduction to Integrated Photonics

One of

- EE 5351 - Power System Operation and Electricity Markets
- EE 5352 - Power Systems Analysis
- EE 5353 - Power System Planning
- EE 5360-Analog and Digital Control Systems
- EE 5370-Communication and Information Systems
- EE 5371 - Analog and Digital Filter Design
- EE 5372 - Topics in Digital Signal Processing
- EE 5373 - DSP Programming Laboratory
- EE 5374 - Digital Image Processing
- EE 5375 - Random Processes in Engineering
- EE 5376 - Introduction to Computer Networks
- EE 5377 - Embedded Wireless Design Laboratory
- EE 5378 - Mobile Phone Embedded Design
- EE 5379 - Optimization in Wireless Networks


## Engineering Leadership Specialization:

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- 3 hours from any EE 5000-level course listed below

Three of

- EMIS 2375-Cultural and Ethical Implications of Technology
- EMIS 3308 - Engineering Management
- CEE 3302 - Engineering Communications
- CSE 4360 - Technical Entrepreneurship

One of

- EE 5356 - VLSI Design and Laboratory
- EE 5357-CAE Tools For Structured Digital Design
- EE 5381 - Digital Computer Design
- EE 5385 - Microcontroller Architecture and Interfacing
- EE 5387 - Digital Systems Design

One of

- EE 5310 - Introduction to Semiconductors
- EE 5312 - Compound Semiconductor Devices and Processing
- EE 5313 - Solar Cells and Applications
- EE 5314 - Introduction to Microelectromechanical Systems
- EE 5321 - Semiconductor Devices and Circuits
- EE 5330 - Electromagnetics: Guided Waves
- EE 5332 - Electromagnetics: Radiation and Antennas
- EE 5333 - Antennas and Radio Wave Propagation for Personal Communication
- EE 5336 - Introduction to Integrated Photonics

One of

- EE 5351 - Power System Operation and Electricity Markets
- EE 5352 - Power Systems Analysis
- EE 5353 - Power System Planning
- EE 5360 - Analog and Digital Control Systems
- EE 5370-Communication and Information Systems
- EE 5371 - Analog and Digital Filter Design
- EE 5372 - Topics in Digital Signal Processing
- EE 5373 - DSP Programming Laboratory
- EE 5374 - Digital Image Processing
- EE 5375 - Random Processes in Engineering
- EE 5376 - Introduction to Computer Networks
- EE 5377 - Embedded Wireless Design Laboratory
- EE 5378 - Mobile Phone Embedded Design
- EE 5379 - Optimization in Wireless Networks


## Computer Engineering Specialization:

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- CSE 2341 - Data Structures
- CSE 2353 - Discrete Computational Structures
- CSE 3353 - Fundamentals of Algorithms
- EE 5381 - Digital Computer Design
- EE 5385 - Microcontroller Architecture and Interfacing
- 3 hours from EE 5000-level courses chosen with adviser's approval

One of

- EE 5357-CAE Tools For Structured Digital Design
- EE 5387 - Digital Systems Design
- CSE 5343 - Operating Systems and Systems Software


## Smart Wireless and Embedded Systems Specialization:

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- CSE 2341 - Data Structures
- CSE 2353 - Discrete Computational Structures
- EE 5377 - Embedded Wireless Design Laboratory
- EE 5385-Microcontroller Architecture and Interfacing or
- CSE 5385 - Microcontroller Architecture and Interfacing
- 3 hours from EE 5000-level courses chosen with adviser's approval

Two of

- EE 5330 - Electromagnetics: Guided Waves
- EE 5333 - Antennas and Radio Wave Propagation for Personal Communication
- EE 5357-CAE Tools For Structured Digital Design
- EE 5378 - Mobile Phone Embedded Design
- EE 5379 - Optimization in Wireless Networks
- EE 5381 - Digital Computer Design
- EE 5387 - Digital Systems Design


## Total: 102 Credit Hours

Note: EE 8000-level courses are primarily for graduate students but may be taken by highly qualified undergraduates with the approval of the adviser and the instructor. Special topics courses also are available.

Each student is expected to complete and file a plan of study with his or her academic adviser. The plan should state specific choices to meet the foregoing requirements and develop an area of specialization when specialization is desired.

## Electrical Engineering, B.S.E.E., Biomedical Specialization

The Department of Electrical Engineering offers a B.S.E. degree with a specialization in biomedical engineering. This program enables students to satisfy requirements for admission to medical school.

Curriculum Notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within this curriculum are distributed as follows:

## Requirements for the Specialization

## Mathematics and Science (53 Credit Hours)

- MATH 1337-Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3313 - Ordinary Differential Equations
- 3-hour elective MATH course at the 3000 level or above
- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304 - Genetics
- BIOL 3350 - Cell Biology
- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3371-Organic Chemistry
- CHEM 3117 - Organic Chemistry Laboratory
- CHEM 3372 - Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory


## Computer Science (3 Credit Hours)

- CSE 1341 - Principles of Computer Science or
- CSE 1342 - Programming Concepts


## Core Electrical Engineering (28 Credit Hours)

- EE 1350 - Introduction to Electrical Engineering
- EE 2322 - Electronic Circuits I
- EE 2122 - EE Laboratory: Electronic Circuits I
- EE 2350 - Circuit Analysis I
- EE 2370 - Design and Analysis of Signals and Systems
- EE 2170 - EE Laboratory: Design and Analysis of Signals and Systems
- EE 2381 - Digital Computer Logic
- EE 2181 - Laboratory: Digital Computer Logic
- EE 3360 - Statistical Methods in Electrical Engineering
- EE 3372 - Introduction to Signal Processing
- EE 3381 - Microcontrollers and Embedded Systems
- EE 3181 - EE Laboratory: Microcontrollers and Embedded Systems


## Junior Electrical Engineering Courses (9-10 Credit Hours)

Three from

- EE 3311 - Solid-State Devices
- EE 3322 - Electronic Circuits II
- EE 3122 - EE Laboratory: Electronic Circuits II
- EE 3330 - Electromagnetic Fields and Waves
- EE 3352 - Fundamentals of Electric Power Engineering

Advanced Electrical Engineering Electives (3 Credit Hours)

Any EE 5000-level course approved by adviser

## Biomedical Engineering (6 Credit Hours)

- EE 5340-Biomedical Instrumentation
- EE 5345-Medical Signal Analysis


## Senior Design Sequence (6 Credit Hours)

- EE 4311 - Senior Design I
- EE 4312 - Senior Design II


## Total: 108-109 Credit Hours

## Electrical Engineering, B.S.E.E./Mathematics B.S.

The Electrical Engineering Department and the Mathematics Department offer an integrated curriculum that enables a student to obtain both a B.S.E. degree and a B.S. degree with a major in mathematics.

Curriculum Notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within this curriculum are distributed as follows:

## Requirements for the Major

Mathematics and Science (34 Credit Hours)

- MATH 1337-Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations
- MATH 3315 - Introduction to Scientific Computing
- MATH 4337 - Boundary Value Problems and Partial Differential Equations
- CHEM 1303-General Chemistry
- PHYS 1303 - Introductory Mechanics
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1105 - Mechanics Laboratory
or
- PHYS 1106 - Electricity and Magnetism Laboratory

One of

- MATH 5315 - Introduction to Numerical Analysis
- MATH 5331 - Functions of a Complex Variable
- MATH 5334 - Introduction to Partial Differential Equations


## Computer Science (6 Credit Hours)

- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts


## Core Electrical Engineering (21 Credit Hours)

- EE 1350 - Introduction to Electrical Engineering
- EE 2322 - Electronic Circuits I
- EE 2122 - EE Laboratory: Electronic Circuits I
- EE 2350 - Circuit Analysis I
- EE 2370 - Design and Analysis of Signals and Systems
- EE 2170 - EE Laboratory: Design and Analysis of Signals and Systems
- EE 2381 - Digital Computer Logic
- EE 2181 - Laboratory: Digital Computer Logic
- EE 3360 - Statistical Methods in Electrical Engineering


## Junior Electrical Engineering Courses (20 Credit Hours)

- EE 3311 - Solid-State Devices
- EE 3322 - Electronic Circuits II
- EE 3122 - EE Laboratory: Electronic Circuits II
- EE 3330 - Electromagnetic Fields and Waves
- EE 3352 - Fundamentals of Electric Power Engineering
- EE 3372 - Introduction to Signal Processing
- EE 3381 - Microcontrollers and Embedded Systems
- EE 3181 - EE Laboratory: Microcontrollers and Embedded Systems


## Advanced Electives (15 Credit Hours)

- 6 hours from any EE 5000-level course listed below

One of

- EE 5351 - Power System Operation and Electricity Markets
- EE 5352 - Power Systems Analysis
- EE 5353 - Power System Planning
- EE 5360 - Analog and Digital Control Systems
- EE 5370-Communication and Information Systems
- EE 5371 - Analog and Digital Filter Design
- EE 5372 - Topics in Digital Signal Processing
- EE 5373 - DSP Programming Laboratory
- EE 5374 - Digital Image Processing
- EE 5375 - Random Processes in Engineering
- EE 5376 - Introduction to Computer Networks
- EE 5377 - Embedded Wireless Design Laboratory
- EE 5378 - Mobile Phone Embedded Design
- EE 5379 - Optimization in Wireless Networks

One of

- EE 5356 - VLSI Design and Laboratory
- EE 5357 - CAE Tools For Structured Digital Design
- EE 5381 - Digital Computer Design
- EE 5385 - Microcontroller Architecture and Interfacing
- EE 5387 - Digital Systems Design

One of

- EE 5310 - Introduction to Semiconductors
- EE 5312-Compound Semiconductor Devices and Processing
- EE 5313 - Solar Cells and Applications
- EE 5314 - Introduction to Microelectromechanical Systems
- EE 5321 - Semiconductor Devices and Circuits
- EE 5330 - Electromagnetics: Guided Waves
- EE 5332 - Electromagnetics: Radiation and Antennas
- EE 5333 - Antennas and Radio Wave Propagation for Personal Communication
- EE 5336 - Introduction to Integrated Photonics


## Senior Design Sequence (6 Credit Hours)

- EE 4311 - Senior Design I
- EE 4312 - Senior Design II


## Total: 102 Credit Hours

## Electrical Engineering, B.S.E.E./Physics, B.S.

The Electrical Engineering Department and the Physics Department offer an integrated curriculum that enables a student to obtain both a B.S.E. degree and a B.S. degree with a major in physics.

Curriculum Notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within this curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (48 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations
- CHEM 1303-General Chemistry
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 3305 - Introduction to Modern Physics
- PHYS 3344-Classical Mechanics
- PHYS 3374-Thermodynamics and Statistical Mechanics
- PHYS 4211 - Laboratory Physics I
- PHYS 4321 - Methods of Theoretical Physics
- PHYS 5337 - Introduction to Solid State Physics
- PHYS 5382 - Introduction to Quantum Mechanics
- PHYS 5383 - Advanced Quantum Mechanics

Computer Science (3 Credit Hours)

- CSE 1341 - Principles of Computer Science
or
- CSE 1342 - Programming Concepts


## Core Electrical Engineering (24 Credit Hours)

- EE 1350 - Introduction to Electrical Engineering
- EE 2322 - Electronic Circuits I
- EE 2122 - EE Laboratory: Electronic Circuits I
- EE 2350 - Circuit Analysis I
- EE 2370 - Design and Analysis of Signals and Systems
- EE 2170 - EE Laboratory: Design and Analysis of Signals and Systems
- EE 2381 - Digital Computer Logic
- EE 2181 - Laboratory: Digital Computer Logic
- EE 3360-Statistical Methods in Electrical Engineering
- EE 3372 - Introduction to Signal Processing


## Junior Electrical Engineering Courses (17 Credit Hours)

- EE 3311-Solid-State Devices
- EE 3322 - Electronic Circuits II
- EE 3122 - EE Laboratory: Electronic Circuits II
- EE 3381 - Microcontrollers and Embedded Systems
- EE 3181 - EE Laboratory: Microcontrollers and Embedded Systems
- EE 3330 - Electromagnetic Fields and Waves
or
- PHYS 4392 - Introduction to Electromagnetic Theory
- EE 3352 - Fundamentals of Electric Power Engineering


## Advanced Electrical Engineering Electives (9 Credit Hours)

Three of

- EE 5310 - Introduction to Semiconductors
- EE 5312-Compound Semiconductor Devices and Processing
- EE 5313- Solar Cells and Applications
- EE 5314 - Introduction to Microelectromechanical Systems
- EE 5321 - Semiconductor Devices and Circuits
- EE 5330 - Electromagnetics: Guided Waves
- EE 5332 - Electromagnetics: Radiation and Antennas
- EE 5333 - Antennas and Radio Wave Propagation for Personal Communication
- EE 5336 - Introduction to Integrated Photonics
- EE 5351 - Power System Operation and Electricity Markets
- EE 5353 - Power System Planning
- EE 5356 - VLSI Design and Laboratory
- EE 5357 - CAE Tools For Structured Digital Design
- EE 5360 - Analog and Digital Control Systems
- EE 5370-Communication and Information Systems
- EE 5371 - Analog and Digital Filter Design
- EE 5372 - Topics in Digital Signal Processing
- EE 5373 - DSP Programming Laboratory
- EE 5374 - Digital Image Processing
- EE 5376 - Introduction to Computer Networks
- EE 5377 - Embedded Wireless Design Laboratory
- EE 5378 - Mobile Phone Embedded Design
- EE 5381 - Digital Computer Design
- EE 5385 - Microcontroller Architecture and Interfacing
- EE 5387 - Digital Systems Design


## Senior Design Sequence (6 Credit Hours)

- EE 4311 - Senior Design I
- EE 4312 - Senior Design II


## Total: 107 Credit Hours

## Electrical Engineering Minor

For information on a minor in electrical engineering, the student should consult the department.

## Required Courses

- EE 2322 - Electronic Circuits I
- EE 3322 - Electronic Circuits II
- EE 2350 - Circuit Analysis I
- EE 2370 - Design and Analysis of Signals and Systems
- Six credit hours of elective electrical engineering courses at the 3000 level or above


## Total: 18 Credit Hours

## Courses:

The third digit in a course number designator represents the subject area of the course. The following designators are used:
XX1X Electronic Materials
XX2X Electronic Devices
XX3X Quantum Electronics and Electromagnetic Theory
XX4X Biomedical Science
XX5X Network Theory and Circuits
XX6X Systems

XX7X Information Science and Communication Theory
XX8X Computers and Digital Systems
XX9X Individual Instruction, Research, Seminar and Special Project

## EE 1301 - Modern Electronic Technology

## Credits: 3

A lecture and laboratory course examining a number of topics of general interest, including the fundamentals of electricity, household electricity and electrical safety, an overview of microelectronics, concepts of frequency and spectrum, the phonograph and the compact disc, bar codes, and communication by radio and TV. Designed for nontechnical students who want to be more knowledgeable. Not open to EE majors.

## EE 1350 - Introduction to Electrical Engineering

## Credits: 3

Introduces contemporary electrical and electronic devices, concepts, and systems. Includes principles of engineering design; electrical components and systems such as generators, motors, relays, transistors, and integrated circuits; physical laws; signals and systems for audio and images; signal conversion and manipulation; digital logic; binary representation and coding; radio transmission; and electrical power.

## EE 2122 - EE Laboratory: Electronic Circuits I

## Credits: 1

Experimental study of basic MOS and bipolar transistors in analog and digital applications. Logic gates and linear and nonlinear applications of operational amplifiers. Prerequisite: C- or better in EE 2350. Corequisite: EE 2322.

## EE 2170 - EE Laboratory: Design and Analysis of Signals and Systems

## Credits: 1

Introduces various techniques for analyzing real signals and designing various linear time-invariant systems. Incorporates software-based simulations and actual circuit implementations, and uses Web authoring tools for the production of multimedia lab reports. Prerequisite: CSE 1341. Corequisite: EE 2370.

## EE 2181 - Laboratory: Digital Computer Logic

## Credits: 1

Analysis and synthesis of combinational and sequential digital circuits. Basic digital computer logic circuits are designed, simulated using Verilog HDL, and implemented using DigiDesigner kit and integrated circuits. Corequisite: EE 2381.

## EE 2190 - Sophomore Project

## Credits: 1

## EE 2290 - Sophomore Project

## Credits: 2

## EE 2322 - Electronic Circuits I

Credits: 3
Introduces nonlinear devices used in electronic circuits. Covers the DC and AC analysis of circuits employing diodes,
bipolar junction transistors, and MOSFETs. Topics include device I-V characteristics, biasing, transfer characteristic, gain, power dissipation, and the design of amplifier circuits and logic circuits. Also, introduces SPICE simulation for DC and transient simulations. Prerequisite: C- or better in EE 2350. Corequisite: EE 2122.

## EE 2350 - Circuit Analysis I

## Credits: 3

Analysis of resistive electrical circuits, basic theorems governing electrical circuits, power consideration, analysis of circuits with energy storage elements, and transient and sinusoidal steady-state analysis of circuits with inductors and capacitors.
Corequisites: MATH 3313, PHYS 1304.

## EE 2370 - Design and Analysis of Signals and Systems

## Credits: 3

Introduces standard mathematical tools for analyzing and designing various continuous-time signals and systems. Studies frequency domain design and analysis techniques, the Fourier and Laplace transforms, and applications such as modulation and demodulation in communications and processing of audio signals. Prerequisites: MATH 3313, C- or better in EE 2350. Corequisite: EE 2170.

## EE 2381 - Digital Computer Logic

## Credits: 3

Covers digital computers and information, combinational logic circuits, combinational logic design, sequential circuits (e.g., finite-state machines), registers and counters, and memory and programmed logic design. Studies design and simulation of digital computer logic circuits. Corequisite: EE 2181.

## EE 2390 - Sophomore Project

Credits: 3

## EE 2490 - Sophomore Project

Credits: 4

## EE 3122 - EE Laboratory: Electronic Circuits II

Credits: 1
Experiments in analog electronic circuit design. Prerequisites: C- or better in EE 2122, EE 2322. Corequisite: EE 3322.

## EE 3181 - EE Laboratory: Microcontrollers and Embedded Systems

Credits: 1
Fundamentals of microprocessor design, assembly language programming, and embedded system implementation. Students study a widely used family of microprocessors for microcontroller-based system design, assembly-level programming, and hardware interfacing. Prerequisites: C- or better in EE 2181, EE 2381. Corequisite: EE 3381.

## EE 3190 - Junior Project

Credits: 1

EE 3290 - Junior Project

## Credits: 2

## EE 3311 - Solid-State Devices

Credits: 3
A laboratory-oriented elective course that introduces the working principles of semiconductor devices by fabricating and testing silicon MOSFET transistors and III-V based semiconductor lasers in the SMU cleanroom. Lectures explain the basic operation of diodes, bipolar transistors, field effect transistors, light-emitting diodes, semiconductor lasers, and other photonic devices. Additional lectures discuss the basics of device processing, which include photolithography, oxidation, diffusion, ion-implantation, metalization, and etching. Laboratory reports describing the fabrication and testing of devices account for a major portion of the course grade. Prerequisites: CHEM 1303, C- or better in EE 2350.

## EE 3322 - Electronic Circuits II

## Credits: 3

Introduction to MOSFET analog electronic circuits. Provides a background for understanding modern electronic circuits such as digital-to-analog and analog-to-digital converters, active filters, switched-capacitor circuits, and phase-locked loops. Topics include MOSFET SPICE models, basic MOSFET, single-stage amplifiers, current-mirrors, differential amplifier stages, source-follower buffer stages, high-gain common-source stages, operational amplifier, frequency response, and negative feedback. Prerequisites: C- or better in EE 2122, EE 2322, and EE 2350. Corequisite: EE 3122.

## EE 3330 - Electromagnetic Fields and Waves

## Credits: 3

Vector analysis applied to static electric and magnetic fields, development of Maxwell's equations, elementary boundaryvalue problems, and determination of capacity and inductance. Introduction to time-varying fields, plane waves, and transmission lines. Prerequisites: EE 2350, MATH 3302.

## EE 3352 - Fundamentals of Electric Power Engineering

## Credits: 3

Introduction to electric power generation and distribution. Topics include energy resources such as fossil, hydraulic, wind, solar, and nuclear energies. Also, three-phase power generators and transformers, and electric machines such as induction motors, synchronous generators, DC and stepper motors, and power converters. Prerequisite: EE 2350 or permission of instructor.

## EE 3360 - Statistical Methods in Electrical Engineering

## Credits: 3

An introduction to probability, elementary statistics, and random processes. Topics include fundamental concepts of probability, random variables, probability distributions, sampling, estimation, elementary hypothesis testing, basic random processes, stationarity, correlation functions, power-spectral-density functions, and the effect of linear systems on such processes. Prerequisites: C- or better in EE 2170, EE 2370.

## EE 3372 - Introduction to Signal Processing

## Credits: 3

Gives juniors a thorough understanding of the techniques needed for the analysis of discrete-time systems. Topics include Fourier methods and Z transform techniques, discrete Fourier transform, fast Fourier transform and applications, and digital filters. Prerequisites: C- or better in EE 2170, EE 2370.

## EE 3381 - Microcontrollers and Embedded Systems

## Credits: 3

An introduction to microcontrollers and embedded systems. Students study a widely used family of microprocessors as an introduction to architecture, software, and interfacing concepts. Topics include number systems and arithmetic operations for computers, assembly and C language programming, microprocessor organization and operation, memory and I/O port interfacing, and microprocessor-based controller design. Students write, assemble, and execute embedded programs designed for various applications. Prerequisites: C- or better in EE 2381. Corequisite: EE 3181.

## EE 3390 - Junior Project

Credits: 3

## EE 3490 - Junior Project

Credits: 4

## EE 4090 - Senior Project

Credits: 0

## EE 4096 - Senior Thesis

Credits: 0
Prerequisite: Admission to the departmental distinction program.

## EE 4196 - Senior Thesis

Credits: 1
Prerequisite: Admission to the departmental distinction program.

## EE 4296 - Senior Thesis

## Credits: 2

Prerequisite: Admission to the departmental distinction program.

## EE 4311 - Senior Design I

## Credits: 3

Areas covered are tailored to the student's area of specialization. The student chooses a specific senior design project in electrical engineering from the available projects proposed by the faculty. Depending upon the specifics of the project, each student designs, constructs, and tests a solution and then submits a formal report to the faculty in charge of the project. Prerequisites: EE 2322, EE 3381 and EE senior standing.

## EE 4312 - Senior Design II

## Credits: 3

Areas covered are tailored to the student's area of specialization. The design project selected may be a continuation of the project undertaken in EE 4311, a new project selected from the list of available projects offered by the faculty, or a project proposed by the student and approved by the faculty. Depending upon the specifics of the project, a team designs, constructs, and tests a solution and then submits a formal report to the faculty in charge of the project. Prerequisite: EE 4311.

## EE 4396 - Senior Thesis

## Credits: 3

Prerequisite: Admission to the departmental distinction program.

## EE 4490-Senior Project

## Credits: 4

## EE 5050 - Undergraduate Industrial Internship

## Credits: 0

Represents a term of industrial work experience for noncooperative education students. Designates a student as full time for the term but carries no academic credit. Students register for the course in the same manner as for other SMU courses except that no tuition is charged. The course grade is determined by the grading of a written report by the student's adviser at the end of the term.

## EE 5176 - Network Simulation Laboratory

## Credits: 1

An introductory, hands-on course in simulations of computer networks intended to be taken simultaneously with EE 5376 or other networks courses. Lab exercises use OPNET and other simulation software to visualize network protocols and performance. Students run a number of simulation exercises, which are designed to complement classroom instruction, to set up various network models, specify protocols, and collect statistics on network performance. General familiarity with PCs is recommended. Corequisites: EE 5376 and senior standing.

## EE 5190-Special Topics

## Credits: 1

This special topics course must have a section number associated with a faculty member. The department offers special topics courses with a range of credit hours; the last digit in the course number represents courses with different topics.

## EE 5290 - Special Topics

## Credits: 2

This special topics course must have a section number associated with a faculty member. The department offers special topics courses with a range of credit hours; the last digit in the course number represents courses with different topics.

## EE 5310 - Introduction to Semiconductors

## Credits: 3

Studies the basic principles in physics and chemistry of semiconductors that have direct applications on device operation and fabrication. Topics include basic semiconductor properties, elements of quantum mechanics, energy band theory, equilibrium carrier statistics, carrier transport, and generation-recombination processes. Applies these physical principles to semiconductor devices. Devices studied include metal-semiconductor junctions, p n junctions, LEDs, semiconductor lasers, bipolar junction transistor, field-effect transistors, and integrated circuits. Emphasizes obtaining the governing equations of device operation based on physical properties. Prerequisite: EE 3311.

## EE 5312 - Compound Semiconductor Devices and Processing

## Credits: 3

This laboratory-oriented elective course for upper-level undergraduates and graduate students provides in-depth coverage of processing of InP- and GaAs-based devices in addition to silicon integrated circuit processing. Students without fabrication experience fabricate and characterize MOSFETs and semiconductor lasers. Students with some previous fabrication experience (such as EE 3311) fabricate and test an advanced device mutually agreed upon by the student(s) and instructor. Examples of such devices include high electron mobility transistors, heterojunction bipolar transistors, phase shifters, distributed Bragg reflector lasers, grating-assisted directional couplers, and semiconductor lasers from developing materials such as GaInNAs. The governing equations of photolithography, oxidation, diffusion, ion-implantation, metallization, and etching are derived from fundamental concepts. Silicon process modeling uses the CAD tool SUPREM. Optical components modeling uses the SMU-developed software WAVEGUIDE, GAIN, and GRATING. Includes peer review before final submission of a laboratory report describing the projects. Prerequisite: EE 3311 or equivalent.

## EE 5313 - Solar Cells and Applications

## Credits: 3

This laboratory-oriented course explores the sun's energy as a source of electrical power and the working principles of silicon and III-V solar cells. Covers characteristics of the sun, semiconductor properties, p n junctions, solar cell fabrication, and photovoltaic system design. Students fabricate and test silicon solar cells in the SMU cleanroom. Lectures and class discussions explain the basic operation of $\mathrm{p}-\mathrm{n}$ junction diodes and solar cells along with the basics of device processing, including photolithography, oxidation, diffusion, ion implantation, metallization, and etching. Prerequisite: EE 3311 or permission of instructor.

## EE 5314 - Introduction to Microelectromechanical Systems

## Credits: 3

Develops the basics for MEMS, including microactuators, microsensors, and micromotors; principles of operation; micromachining techniques (surface and bulk micromachining), IC-derived microfabrication techniques; and thin 1 m technologies as they apply to MEMS. Prerequisite: EE 3311.

## EE 5321 - Semiconductor Devices and Circuits

## Credits: 3

A study of the basics of CMOS integrated analog circuits design. Topics include MOSFET transistor characteristics, DC biasing, small-signal models, different amplifiers, current mirrors, single- and multi-stage electronic amplifiers, frequency response of electronic amplifiers, amplifiers with negative feedback, and stability of amplifiers. Each student completes one or more design projects by the end of the course. Prerequisites: EE 3122, EE 3322.

## EE 5330 - Electromagnetics: Guided Waves

Credits: 3
Application of Maxwell's equations to guided waves. Transmission lines, plane wave propagation and reflection, hollow waveguides, dielectric waveguides, fiber optics, and cavity and dielectric resonators. Prerequisite: EE 3330.

## EE 5332 - Electromagnetics: Radiation and Antennas

## Credits: 3

Covers polarization, reflection, refraction, and diffraction of EM waves; dipole, loop, slot and reflector antennas; array analysis and synthesis; self and mutual impedance; and radiation resistance. Prerequisite: EE 3330.

## EE 5333 - Antennas and Radio Wave Propagation for Personal Communication

## Credits: 3

Covers three important aspects of telecommunications: fixed site antennas, radio wave propagation, and small antennas proximate to the body. Topics include electromagnetics fundamentals; general definitions of antenna characteristics; electromagnetic theorems for antenna applications; various antennas for cellular communications, including loop, dipole, and patch antennas; wave propagation characteristics as in earth satellite communications, radio test sites, urban and suburban paths, and multipath propagation; and radio communication systems. Prerequisite: EE 3330.

## EE 5336 - Introduction to Integrated Photonics

## Credits: 3

Covers the issues of integrated photonics, fundamental principles of electromagnetic theory, waveguides, simulation of waveguide modes, and photonic structures, with a focus on optical waveguides and numerical simulation techniques because advances in optical communications will be based on nanostructure waveguides coupled with new materials. Topics include Maxwell's equations; slab, step index, and rectangular and graded index wave guides. Also, dispersion, attenuations, nonlinear effects, numerical methods, coupled mode theory, and extensive use of mathematical packages such as MATLAB and Mathematica. Prerequisites: C- or better in EE 3311, EE 3330 or permission of instructor.

## EE 5340-Biomedical Instrumentation

## Credits: 3

Application of engineering principles to solving problems encountered in biomedical research. Topics include transducer principles, electrophysiology, and cardiopulmonary measurement systems. Prerequisites: C- or better in EE 2122, EE 2322 and junior standing.

## EE 5345 - Medical Signal Analysis

Credits: 3
Looks at the analysis of discrete-time medical signals and images. Topics include the design of discrete-time filters, medical imaging and tomography, signal and image compression, and spectrum estimation. The course project explores the application of these techniques to actual medical data. Prerequisite: EE 3372.

## EE 5351 - Power System Operation and Electricity Markets

## Credits: 3

An overview of power generation systems, economic operation of power systems, and electricity market operation. Introduces mathematical optimization methods used to solve practical problems in power system operation addressing economic and technical aspects of power generation and transmission. Topics include power generation characteristics; economic dispatch; unit commitment and proposed solution methodologies; the effect of transmission systems on unit
commitment and economic dispatch of power systems; restructuring in power systems; power pools and bilateral contracts; pricing in electricity markets; day-ahead, real-time, and ancillary service markets; financial transmission rights; competition between market participants; congestion management; and demand response.

## EE 5352 - Power Systems Analysis

## Credits: 3

Provides an overview of the power systems, including complex power calculation; theory of balanced three-phase circuits; per-unit system; transmission line characteristics for short, medium, and long lines; power flow analysis; three-phase balance fault; unbalanced fault and sequence impendences; and transient stability analysis in power systems. Prerequisites: Basic knowledge of electric power systems, fundamentals of electric power engineering (EE 3352) or equivalent.

## EE 5353 - Power System Planning

## Credits: 3

Overview of power system planning, including basics of restructuring in power systems, reliability analysis in power systems, long-term demand forecast, power system production simulation, introduction to stochastic programming, midterm maintenance scheduling, mathematical model for generation expansion planning, transmission expansion planning, coordinated expansion planning, and other practices, such as transmission switching and demand response, which affect the expansion planning. Prerequisite: EE 5352/EE 7352, EE 3352, or permission of instructor.

## EE 5356 - VLSI Design and Laboratory

## Credits: 3

Explores the design aspects involved in the realization of CMOS integrated circuits from device up to the register subsystem level. Addresses major design methodologies, with emphasis placed on structured, full-custom design. Also, the MOS device, CMOS inverter static characteristics, CMOS inverter dynamic characteristics, CMOS transistor fabrication technology, combination logic circuit, alternative static logic circuit, sequential logic circuit, dynamic logic circuit, propagation delay and interconnect, power dissipation and design for low power, memory device (DRAM, SRAM, ROM), electrostatic discharge protection, packaging, testing, and VLSI design flow. Students use state-of-the-art CAD tools to verify designs and develop efficient circuit layouts. Prerequisites: C- or better in EE 2181, EE 2322, EE 2381.

## EE 5357 - CAE Tools For Structured Digital Design

## Credits: 3

Concentrates on the use of CAE tools for the design and simulation of complex digital systems. Discusses and uses Verilog hardware description language for behavioral and structural hardware modeling. Emphasizes structured modeling and design. Design case studies include a pipelined processor, cache memory, UART, and a floppy disk controller. Prerequisites: C- or better in EE 2381 and junior standing, or permission of instructor.

## EE 5360 - Analog and Digital Control Systems

## Credits: 3

Feedback control of linear continuous and digital systems in the time and frequency domain. Topics include plant representation, frequency response, stability, root locus, linear state variable feedback, and design of compensators. Prerequisite: EE 3372.

## EE 5370 - Communication and Information Systems

## Credits: 3

An introduction to communication in modulation systems in discrete and continuous time, information content of signals,
and the transition of signals in the presence of noise. Also, amplitude, frequency, phase and pulse modulation, and time and frequency division multiplexing. Prerequisites: EE 3360 and EE 3372.

## EE 5371 - Analog and Digital Filter Design

## Credits: 3

Covers approximation and analog design of Butterworth, Chebyshev, and Bessel filters; basic frequency transformations for designing low-pass, band-pass, band-reject, and high-pass filters; concept of IIR digital filters using impulse-invariant and bilinear transformations; design of FIR digital filters using frequency sampling and window methods; canonical realization of IIR and FIR digital filters; wave digital filters; and an introduction to two-dimensional filters. Prerequisite: EE 3372.

## EE 5372 - Topics in Digital Signal Processing

## Credits: 3

Provides an extended coverage of processing of discrete-time signals. Reviews discrete-time signals and the analysis of systems in both the time and frequency domains. Topics include multirate signal processing, digital filter structures, filter design, and power spectral estimation. Prerequisite: EE 3372.

## EE 5373 - DSP Programming Laboratory

## Credits: 3

Utilizes a hands-on approach that focuses on the essentials of programming digital signal processors (programmable semiconductor devices used extensively in digital cellular phones, high-density disk drives, and high-speed modems) while minimizing signal processing theory. Focuses on programming the Texas Instruments TMS320C50, a fixed-point processor. Emphasizes assembly language programming, and Topics include implementation of FIR and IIR filters, the FFT, and a real-time spectrum analyzer. Recommended: Basic knowledge of discrete-time signals and digital logic systems. Prerequisite: EE 3372.

## EE 5374 - Digital Image Processing

Credits: 3
Introduces the basic concepts and techniques of digital image processing. Topics include characterization and representation of images, image enhancement, image restoration, image analysis, image coding, and reconstruction. Prerequisite: EE 5372.

## EE 5375 - Random Processes in Engineering

## Credits: 3

An introduction to probability and stochastic processes as used in communication and control. Topics include probability theory, random variables, expected values and moments, multivariate Gaussian distributions, stochastic processes, autocorrelation and power spectral densities, and an introduction to estimation and queuing theory. Prerequisite: EE 3360 .

## EE 5376 - Introduction to Computer Networks

## Credits: 3

Surveys basic topics in communication networks, with an emphasis on layered protocols and their design. Topics include OSI protocol reference model, data link protocols, local area networks, routing, congestion control, network management, security, and transport layer protocols. Network technologies include telephony, cellular, Ethernet, Internet protocol, TCP, and ATM. Assignments may include lab exercises involving computer simulations. Corequisites: EE 5176 and senior standing.

## EE 5377 - Embedded Wireless Design Laboratory

## Credits: 3

A wide variety of real-world experiences in wireless communications and networking using FPGAs equipped with embedded microprocessors. Covers basic wireless concepts of scheduled and random access as well as modulation and power control via labs that enable implementation of cellular and 802.11-based wireless protocols such as TDMA, Aloha, CSMA, and CSMA/CA. Also, broader topics such as embedded programming, interrupt-driven operation, and FPGA-based design. In a course project, student teams design novel wireless protocols and carry out experiments to measure the performance. Prerequisite: C- or better in EE 3360 or equivalent, or permission of instructor.

## EE 5378 - Mobile Phone Embedded Design

## Credits: 3

Students learn to develop embedded software for the most widely used smartphone platforms, with emphasis on wireless and sensing applications. Topics include user interface design such as multitouch and basic HCI design tenets, storing and fetching data with local networked systems and databases, localization via GPS and wireless signal triangulation, sensing environmental and user characteristics, networking with various wireless protocols, graphics rendering, multimedia streaming, and designing for performance (e.g., controlling memory leaks, object allocation, and multithreading). Draws from various fields, including wireless communications and networking, embedded programming, and computer architecture.

## EE 5379-Optimization in Wireless Networks

## Credits: 3

Covers a wide variety of optimization problems in the design and operation of wireless networks. Introduces basic linear programming and integer linear programming concepts and explains these concepts using examples from wired and wireless networks. Also, the basic structure and design of various wireless networks, including cellular networks (such as GSM) and wireless LANs (e.g., those based on $802.11 \mathrm{~g} / \mathrm{n}$ ). Prerequisite: EE 2170 or equivalent, or permission of instructor.

## EE 5381 - Digital Computer Design

## Credits: 3

Emphasizes design of digital systems and register transfer. Design conventions, addressing modes, interrupts, input-output, channel organization, high-speed arithmetic, and hardwired and microprogrammed control. Also, central processor organization design and memory organization. Each student completes one or more laboratory projects. Prerequisites: C- or better in EE 2181, EE 2381 and junior standing.

## EE 5385 - Microcontroller Architecture and Interfacing

## Credits: 3

Emphasizes the design of embedded systems using microcontrollers. Briefly reviews microcontroller architecture. Includes hierarchical memory systems and interfacing of memory and peripherals, industry standard bus interfaces and other applicable standards, and topics in real-time operating systems and system-level design considerations. The corequisite laboratory requires students to develop software using assembler and high-level languages. Prerequisite: CSE 3381 or EE 3181, EE 3381.

## EE 5387 - Digital Systems Design

## Credits: 3

Modern topics in digital systems design, including the use of HDLs for circuit specification and automated synthesis tools for realization. Programmable logic devices are emphasized and used throughout the course. Includes heavy laboratory assignment content and a design project. Prerequisite: C- or better in EE 2381 or in CSE 3381.

## EE 5390-Special Topics

## Credits: 3

This special topics course must have a section number associated with a faculty member. The department offers special topics courses with a range of credit hours; the last digit in the course number represents courses with different topics.

## EE 5391 - Special Topics

## Credits: 3

This special topics course must have a section number associated with a faculty member. The department offers special topics courses with a range of credit hours; the last digit in the course number represents courses with different topics.

## EE 5392 - Special Topics

## Credits: 3

This special topics course must have a section number associated with a faculty member. The department offers special topics courses with a range of credit hours; the last digit in the course number represents courses with different topics.

## EE 5393-Special Topics

Credits: 3
This special topics course must have a section number associated with a faculty member. The department offers special topics courses with a range of credit hours; the last digit in the course number represents courses with different topics.

## EE 5395 - Special Topics

Credits: 3
This special topics course must have a section number associated with a faculty member. The department offers special topics courses with a range of credit hours; the last digit in the course number represents courses with different topics.

## EE 5490 - Special Topics

Credits: 4
This special topics course must have a section number associated with a faculty member. The department offers special topics courses with a range of credit hours; the last digit in the course number represents courses with different topics.

# Engineering Management, Information and Systems 

Professor Sila Çetinkaya, Chair<br>Professors: Sila Çetinkaya, Halit Üster<br>Associate Professors: Richard S. Barr, Eli V. Olinick, Aurelie Thiele<br>Professor of Practice: Jerrell T. Stracener<br>Assistant Professors: Harsha Gangammanavar, Michael Hahsler, Alba Rojas-Cordova<br>Senior Lecturer: Thomas F. Siems<br>Lecturers: Gretchen H. Coleman, Rachel P. Goodman<br>Adjunct Faculty: Karl J. Arunski, Charles W. Beall, Robert L. Bell, William D. Bell, Andrew F. Bouma, Hakki Cankaya, Jagadeesh Chandramohan, George W. Chollar, Randall Clendening, Steven C. Currall, Matthew L. Durchholz, John R. Graham, III, Michael E. Hopper, Robert H. Jones, John I. Lipp, James K. McCloud, William P. Nanry, Oscar K. Pickels, Mark E. Sampson, Nandlal M. Singh, Stephen C. Skinner, Gheorghe M. Spiride, Xinyu (Edward) Wang, Timothy D. Woods

## General Information

The EMIS Department brings together the school's technical management and operations areas to offer a Bachelor of Science with a major in management science. This program focuses on computer models for decision-making and the application of engineering principles and techniques to enhance organizational performance. Faculty specializations include optimization, advanced analytics, telecommunications network design and management, supply-chain systems, systems engineering, logistics, quality control, reliability engineering, data science, information engineering, benchmarking, operations planning and management, network optimization, and mathematical programming.

The same systems-oriented, mathematical-model-based approach that is the cornerstone of engineering also has powerful application within organizations and their operations. This is the field of management science - also termed "the science of better" - the discipline of applying advanced analytical methods to help make better decisions.

## Additional Majors and the 4+1 Program

Because of the flexibility of the curriculum, the majority of management science majors choose to receive a second major or one or more minors from a wide range of other disciplines. Examples include a Bachelor of Science, a major in management science or a second bachelor's degree in economics, mathematics, business, computer science, history, psychology, Spanish or French.

Other management science majors continue their studies to obtain a Master of Science in Engineering Management, systems engineering, information engineering or operations research. The 4+1 Program allows students to accelerate progress toward completion of a graduate degree.

More information on these and other options available to management science majors is available at www.smu.edu/Lyle/Departments/EMIS. EMIS faculty and advisers are also available to answer questions about the program.

## Computing Facilities

Students in the EMIS Department have access to a wide range of computing facilities and networking equipment. The department manages three PC-based computing labs, including the Enterprise Systems Design Laboratory
created for students in the senior design course. General-use UNIX and Linux machines (including eightprocessor 64-bit Xeon workstations) provide advanced computing, analytical software and Web hosting to all engineering students. Windows- and Linux-based PCs and workstations are the primary desktop equipment. All computing facilities are networked via high-speed Ethernet, with Gigabit Ethernet connections to Internet 1, Internet 2 and the National Lambda Rail research network. Open computing labs and wireless services provide additional facilities access points for students.

## Curriculum in Management Science

Management science deals with the development of mathematically based models for planning, managing, operating and decision-making. In the EMIS curriculum, these methods are also applied to the design and management of efficient systems for producing goods and delivering services.

A management scientist at a major airline would be concerned with building mathematical models to decide the best flight schedules, plane routes, and assignments of pilots and crews to specific flights and of flights to specific gates, as well as the best number of planes to own and operate, cities to fly to, cities to use as major hubs, layout for an airport terminal, overbooking policy and location to refuel aircraft. Optimal and good usable solutions for such issues can be uncovered through analysis with computer-based mathematical models. The management scientist develops an understanding of a practical decision problem, then designs and constructs a model that incorporates data from the MIS department and produces a high-quality solution.

Because of its generality, management science has broad applications in all engineering disciplines and in the fields of computer science, economics, finance, marketing, medicine, logistics, production, information engineering and statistics. Management science methods are used extensively in industry and government, and SMU's EMIS program prepares the technically oriented student to excel in today's competitive business environment. ABET, www.abet.org, does not provide accreditation for the discipline of management science.

## Management Science, B.S.

Curriculum notes. In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hours within this curriculum are distributed as follows:

## Requirements for the Major

## Mathematics (12 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3304 - Introduction to Linear Algebra
- MATH 3315 - Introduction to Scientific Computing
or
- MATH 3316 - Introduction to High-Performance Scientific Computing


## Science/Social Science (15 Credit Hours)

- ECO 1311 - Principles of Microeconomics: Consumers, Firms, and Markets
- ECO 1312 - Principles of Macroeconomics: Inflation, Recession, and Unemployment
- 3 hours in natural science from group 1
- 3 hours in natural science or technology from groups 1 and 2
- 3 hours from groups 1, 2 and 3


## Group 1:

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- GEOL 1315 - Introduction to Environmental Science
- PHYS 1303-Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory
- PHYS 1307-General Physics I
- PHYS 1105-Mechanics Laboratory
- PHYS 1308 - General Physics II
- PHYS 1106 - Electricity and Magnetism Laboratory
- PHYS 1320-Musical Acoustics


## Group 2:

- ANTH 2415 - Human Evolution: Biological and Social Beginnings of Humankind
- ANTH 2463 - The Science of Our Past: An Introduction to Archaeology
- CEE 1301 - Environment and Technology: Ecology and Ethics
- CEE 1331 - Meteorology
- CEE 1378 - Transportation Infrastructure
- EE 1301 - Modern Electronic Technology
- EE 1350 - Introduction to Electrical Engineering
- ME 1301 - Machines and Society
- ME 1302 - Introduction to Mechanical Engineering
- ME 1303 - Energy, Technology, and the Environment


## Group 3:

Other courses in ANTH, ECO, PSYC, or SOCI

## Major Concentration (45 Credit Hours)

- EMIS 1360 - Introduction to Management Science
- EMIS 2360 - Engineering Economy
- EMIS 3308 - Engineering Management or
- MNO 3370 - Management (for Cox B.B.A. majors and business administration minors only)
- EMIS 3309 - Information Engineering
- EMIS 3340-Statistical Methods for Engineering and Applied Scientists
- EMIS 3360 - Operations Research
- EMIS 3361 - Stochastic Models in Operations Research
- EMIS 4395 - Senior Design
- EMIS 5362 - Production Systems Engineering
- CEE 3302 - Engineering Communications
- CSE 1341 - Principles of Computer Science
- CSE 1342 - Programming Concepts
- CSE 4360 - Technical Entrepreneurship
- 6 hours from EMIS courses at the 5000 level or above


## Business (6 Credit Hours)

- ACCT 2301 - Introduction to Financial Accounting
- MKTG 3340 - Fundamentals of Marketing


## Electives (15 Credit Hours)

Adviser must approve electives.

## Total: 93 Credit Hours

Note: All management science majors must earn a grade of at least $C$ - in all courses taken in fulfillment of the requirements for the major; however, a grade of $C$ or better is required in all subset classes. All courses must be taken for a grade (not pass/fail), with the exception of those courses for which the student has received test credit.

## Management Science Minor

For information on a minor in management science, the student should consult the department. The minor in management science operates concurrently with the B.S. degree. Students seeking a minor in management science must meet the same admission and subset requirements as students seeking a B.S. degree as described in the Admission to Advanced Standing section of this catalog, and they will be enrolled in the same sections of courses as B.S. management science majors.

## Required Courses

A total of 15 credit hours (in addition to the required subset courses) are required for the minor in management science:

- EMIS 1360 - Introduction to Management Science
- EMIS 2360 - Engineering Economy
- EMIS 3340 - Statistical Methods for Engineering and Applied Scientists
- EMIS 3360- Operations Research
- MATH 3304 - Introduction to Linear Algebra


## Total: 15 Credit Hours

## Courses:

## EMIS 1305-Computing Technology: Historical and Ethical Perspectives

## Credits: 3

Introduces historical and ethical implications of computer architecture, software, hardware, telecommunications, and artificial intelligence. Develops business software skills and Internet concepts for research and communication applications. Credit is not allowed for a computer science, computer engineering, or management science major or minor.

## EMIS 1307 - Information Technology for Business

## Credits: 3

Focuses on the use of information technology in business; explains computer systems and component parts, terms used by technologists, and use of business software packages. No credit for EMIS majors or minors.

## EMIS 1360 - Introduction to Management Science

## Credits: 3

Management science is the application of mathematical modeling and scientific principles to solve problems and improve life in society. Students learn to develop plans, manage operations, and solve problems encountered in business and government. Prerequisite: Knowledge of college-level algebra. Corequisites: MATH 1337, CSE 1341. Students are limited to a maximum of two enrollments in the course; medical withdrawals will be reviewed on a case by case basis.

## EMIS 2360 - Engineering Economy

## Credits: 3

Evaluation of engineering alternatives by equivalent uniform annual cost, present worth, and rate-of-return analysis. Use of a computerized financial planning system. Credit not allowed for both EMIS 2360 and EMIS 8361. Prerequisites: C- or
better in MATH 1337 and knowledge of introductory probability and statistics. Corequisites: MATH 1338 and CSE 1342 (must enroll in lab).

## EMIS 2375-Cultural and Ethical Implications of Technology

## Credits: 3

Explores the pervasive use of technology in today's society, the impact of technology on daily life, and the tie between technology and ethical responsibility. Students learn how their lives are being shaped by technology and how they in turn help shape technology.

## EMIS 3150 - Ethics in Computing

## Credits: 1

Computer professionals have a special responsibility to ensure ethical behavior in the design, development, and use of computers and computer networks. This course focuses on the education of the undergraduate through the study of ethical concepts and the social, legal, and ethical implications involved in computing. Issues to be studied include computer crimes, software theft, hacking and viruses, intellectual property, unreliable computers, technology issues in the workplace, and professional codes of ethics. Prerequisite: Junior standing.

## EMIS 3308 - Engineering Management

## Credits: 3

Examines planning, financial analysis, organizational structures, management of the corporation (including its products, services, and people), transfer of ideas to the marketplace, and leadership skills. Credit is not allowed for both EMIS 3308 and the same course offered by another department; credit is not allowed for both EMIS 3308 and EMIS 7351. Prerequisite: Junior standing. Lyle undergraduate majors only.

## EMIS 3309-Information Engineering

## Credits: 3

Emphasizes working with data, databases, and performing and interpreting descriptive analytics in the context of contemporary, data-rich decision making environments including various engineering and management applications. Introduces the use of databases (database management systems and SQL) and discusses the functions of practical (e.g., corporate or public) data warehouses while placing a strong emphasis on formal methods of descriptive analytics including data preparation, visualization, and interpretation. Prerequisites: Junior standing; Lyle majors only; CSE 1341, EMIS 3340/CSE 4340/STAT 4340.

## EMIS 3340 - Statistical Methods for Engineering and Applied Scientists

## Credits: 3

Basic concepts of probability and statistics useful in the solution of engineering and applied science problems. Topics include probability, probability distributions, data analysis, sampling distributions, estimations, and simple tests of hypothesis. Credit is not allowed for both EMIS 3340/STAT 4340/CSE 4340 and EMIS 5370. Prerequisite: C- or better in MATH 1338 or equivalent.

## EMIS 3360-Operations Research

Credits: 3
A survey of models and methods of operations research. Covers deterministic and stochastic models in a variety of areas. Credit is not allowed for both EMIS 3360 and EMIS 8360. Must enroll in lab. Prerequisite: C- or better in EMIS 1360. Management science majors, management science minors, or math operations research specialization majors only.

## EMIS 3361 - Stochastic Models in Operations Research

## Credits: 3

Covers the formulation, solution, and application of models for decision-making under uncertainty. Probabilistic and statistical methodologies (e.g., decision analysis, queuing theory, stochastic process, Markov chains, and simulation models) address problems in the design, management, and usage of efficient systems for producing goods and delivering services. Students use specialized software and spreadsheet add-ins for model-building and problem-solving. Weekly 1-hour, 20minute laboratory. Prerequisite: C- or better in EMIS 3340. Corequisite: MATH 3304. Management science majors only.

## EMIS 4390 - Undergraduate Project

## Credits: 3

An opportunity for the advanced undergraduate student to undertake independent investigation, design, or development. Written permission of the supervising faculty member is required before registration.

## EMIS 4395-Senior Design

## Credits: 3

Consists of a large project involving the design of a management system, model building, data collection and analysis, and evaluation of alternatives. Prerequisites: C- or better in EMIS 5362 and senior standing.

## EMIS 5050 - Undergraduate Internship

Credits: 0

## EMIS 5190 - Special Topics

Credits: 1
Individual or group study of selected topics in management science. Prerequisite: Permission of instructor.

## EMIS 5290 - Special Topics

Credits: 2
Individual or group study of selected topics in management science. Prerequisite: Permission of instructor.

## EMIS 5300 - Systems Analysis Methods

## Credits: 3

Introduction to modeling and analysis concepts, methods and techniques used in systems engineering, design of products and associated production, and logistics systems and analysis of operational system performance. Specific topics include probabilistic and statistical methods, Monte Carlo simulation, optimization techniques, applications of utility and game theory, and decision analysis. Reserved for Lyle majors. EMIS 5300 cannot be used to fulfill degree requirements for the Bachelor of Science in Management Science.

## EMIS 5301 - Systems Engineering Process

Credits: 3
Examines the discipline, theory, economics, and methodology of systems engineering. Reviews the historical evolution of the practice of systems engineering and the principles that underpin modern systems methods. Emphasizes the economic
benefits of investment in systems engineering and the risks of failure to adhere to sound principles. Develops an overview perspective distinct from the traditional design- and analytical-specific disciplines. Reserved for Lyle majors.

## EMIS 5303 - Integrated Risk Management

## Credits: 3

Introduction to risk management based upon integrated trade studies of program performance, cost, and schedule requirements. Topics include risk planning, risk identification and assessment, risk handling and abatement techniques, risk impact analysis, management of risk handling and abatement, and subcontractor risk management. Examines integrated risk management methods, procedures, and tools. Prerequisite: EMIS 5301.

## EMIS 5305 - Systems Reliability and Availability Analysis

## Credits: 3

Reliability and availability modeling and analysis methods are applied to perform cost-effectiveness analysis during development of aerospace and defense systems, as well other types of systems. Topics include systems reliability and availability models and analysis methods; requirements analysis to determine fleet size; system effectiveness and life cycle cost analysis methods; and analysis of systems mission reliability, sustainment reliability and systems availability, both inherent and operational, during design and development of a product and associated support system. Prerequisite: EMIS 3361 or EMIS 5300.

## EMIS 5307 - Systems Integration and Test

## Credits: 3

Examines the process of successively synthesizing and validating larger and larger segments of a partitioned system within a controlled and instrumented framework. System integration and test is the structured process of building a complete system from its individual elements and is the final step in the development of a fully functional system. Stresses the significance of structuring and controlling integration and test activities. Presents formal methodologies for describing and measuring test coverage, as well as sufficiency and logical closure for test completeness. Discusses interactions with system modeling techniques and risk management techniques. Based upon principles of specific engineering disciplines and best practices, which form a comprehensive basis for organizing, analyzing, and conducting integration and test activities. Prerequisite: EMIS 5301.

## EMIS 5309 - Systems Reliability Engineering

## Credits: 3

An in-depth coverage of processes, tasks, methods, and techniques for achieving and maintaining the required level of system reliability considering operational performance, customer needs, and affordability. Topics include establishing systems reliability requirements; reliability program planning; system reliability modeling and analysis; system reliability design guidelines and analysis; system reliability test and evaluation; and maintaining inherent system reliability during production and operation. Prerequisite: EMIS 5305.

## EMIS 5311 - Systems Engineering Design

## Credits: 3

An introduction to system design of complex hardware and software systems. Includes design concept, design characterization, design elements, reviews, verification and validation, threads and incremental design, unknowns, performance, management of design, design metrics, and teams. Centers on the development of real-world examples. Prerequisite: EMIS 5301.

## EMIS 5313 - Integrated Logistics Support

## Credits: 3

Integrated Logistics Support is an integrated and iterative process to influence product design for supportability and design and develop the support (logistics) system concurrently with design and development of the product as an integral element of the systems engineering process. Topics include product design interface for reliability, maintainability and maintenance (such as preventive, predictive and corrective) planning and support system development consisting of supply support; support and test equipment; manpower and personnel; training and training support; technical data/publications; computer resources support; facilities; and packaging, handling, storage, and transportation (PHS\&T). Prerequisites: EMIS 5305 and EMIS 5311.

## EMIS 5315 - Systems Quality Engineering

## Credits: 3

An introduction to concepts, activities, processes, and methods as an integral part of the systems engineering process for developing, producing, and sustaining products that meet customer quality needs. Topics include establishing program and product quality requirements and methods for achieving product quality requirements during design, development and production, voice of the customer analysis, analysis of product design tolerances, six-sigma techniques, statistical analysis of process capability, statistical process control using control charts, acceptance sampling, and quality improvement. Prerequisite: EMIS 5301.

## EMIS 5317 - Systems Engineering Leadership

## Credits: 3

Augments the management principles embedded in the systems engineering process with process design and leadership principles and practices. Places emphasis on leadership principles by introducing the underlying behavioral science components, theories, and models. Demonstrates how the elements of systems engineering, project management, process design, and leadership integrate into an effective leadership system. Prerequisite: EMIS 5301.

## EMIS 5331 - Data Mining for Analytics

## Credits: 3

Introduces data mining techniques (classification, association analysis, and cluster analysis) used in analytics. All material covered is reinforced through hands-on experience using state-of-the art tools to design and execute data mining processes. Prerequisites: CSE 1342, CSE 4340/EMIS 3340/STAT 4340, and EMIS 3309 or CSE 3330.

## EMIS 5352 - Information System Architecture

## Credits: 3

The architecture of an information system (IS) defines that system in terms of components and interactions among those components. This course addresses IS hardware and communications elements for information engineers, including computer networking and distributed computing. It addresses the principles, foundation technologies, standards, trends, and current practices in developing an appropriate architecture for Web-based and non-Internet information systems. Reserved for Lyle majors.

## EMIS 5353 - Information System Design Strategies

## Credits: 3

Surveys the fundamentals of software engineering and database management systems for information engineers. Covers the principles, foundation technologies, standards, trends, and current practices in data-centric software engineering and systems design, including object-oriented approaches and relational DBMS. Focuses on system design, development, and implementation aspects, and not the implementation in code. Prerequisite: Reserved for Lyle majors.

## EMIS 5357 - Analytics for Decision Support

## Credits: 3

In a rapidly changing, complex environment, successful enterprises make mission-critical choices using decision-support systems, which apply analytical methods to massive organizational data sets to evaluate options, give insight to likely outcomes, and make recommendations of the "best" decisions to pursue. Course topics include 1) framing and understanding decision-making needs and processes to define, evaluate, and identify appropriate strategic, operational, or execution-level decisions; 2) identifying, collecting, and managing large-scale data needed for decision support; and 3) employing decisionsupport software in areas such as optimization and data mining. Prerequisite: Reserved for Lyle majors.

## EMIS 5360 - Management of Information Technologies

## Credits: 3

Defines the management activities of the overall computer resources within an organization or government entity. Consists of current topics in strategic planning of computer resources, budgeting and fiscal controls, design and development of information systems, personnel management, project management, rapid prototyping, and system life cycles. Reserved for Lyle majors.

## EMIS 5361 - Computer Simulation Techniques

## Credits: 3

Introduction to the design and analysis of discrete probabilistic systems using simulation. Emphasizes model construction and a simulation language. Prerequisites: Programming ability and knowledge of introductory probability or statistics; $\mathrm{C}-$ or better in EMIS 3340 (STAT/CSE 4340).

## EMIS 5362 - Production Systems Engineering

## Credits: 3

Applies the principles of engineering, or "design under constraint," to modern production systems. Topics include production systems analysis and design considerations, system design and optimization models and methods, pull- and pushbased production systems, quality engineering, and process improvement. Also, techniques for engineering and managing systems with specific architectures: batch-oriented, continuous-flow, projects, and just-in-time. Prerequisite: C- or better in EMIS 3360. Management science or math operations research specialization majors only.

## EMIS 5365-Program and Project Management

Credits: 3
Development of principles and practical strategies for managing projects and programs of related projects for achieving broad goals. Topics include planning, organizing, scheduling, resource allocation, strategies, risk management, quality, communications, tools, and leadership for projects and programs.

## EMIS 5366 - Marketing Engineering

Credits: 3
Marketing engineering moves beyond traditional conceptual approaches to embrace the use of analytics, data, information technology, and decision models to help organizations effectively reach customers and make marketing decisions. Designed for technical individuals, the course applies engineering problem-solving approaches and computer tools to solve marketing problems from today's competitive work environment. Prerequisites: C- or better in EMIS 3360 (or equivalent) and EMIS 3340 (STAT /CSE 4340).

## EMIS 5377 - Statistical Design and Analysis of Experiments

Credits: 3
Introduces statistical principles in the design and analysis of industrial experiments. Covers completely randomized, randomized complete and incomplete block, Latin square, and Plackett-Burman screening designs; complete and fractional factorial experiments; descriptive and inferential statistics; analysis of variance models; and mean comparisons.
Prerequisites: C- or better in EMIS 3340 (STAT 4340 / CSE 4340) and senior standing with a science or engineering major, or permission of instructor.

## EMIS 5390 - Special Topics

Credits: 3
Individual or group study of selected topics in management science. Prerequisite: Permission of instructor.

# Mechanical Engineering 

Professor Ali Beskok, Chair<br>Professors: Ali Beskok, Xin-Lin Gao, Yildirim Hürmüzlü, MinJun Kim, Radovan B. Kovacevic, Paul S. Krueger, José L. Lage, M. Volkan Otugen, Peter E. Raad, Wei Tong<br>Associate Professors: Charles M. Lovas, Edmond Richer, David A. Willis<br>Assistant Professors: Ali Heydari, Tindaro Ioppolo, Xu Nie<br>Senior Lecturers: Elena V. Borzova, Dona T. Mularkey<br>Clinical Associate Professor: Adam L. Cohen<br>Clinical Assistant Professor: Ahmet Can Sanbuncu<br>Professor of Practice: James R. Webb<br>Adjunct Faculty: Bogdan V. Antohe, Eric B. Cluff, Levent Kaan, M. Wade Meaders, David J. Nowacki, Greg<br>Radighieri. Allen D. Tilley, Andrew K. Weaver

## General Information

Mechanical engineering is a diverse, dynamic and exciting field. Mechanical engineers have wide-ranging technical backgrounds and a high potential for employment with mobility and professional growth. They apply creative knowledge to solve critical problems in many areas, including bioengineering (e.g., drug delivery and artificial organs), construction, design and manufacturing, electronics, energy (e.g., production, distribution and conservation), maintenance (individual machinery and complex installations), materials processing, medicine (diagnosis and therapy), national security and defense, packaging, pollution mitigation and control, robotics and automation, sensors, small-scale devices, and all aspects of transportation, (e.g., space travel and exploration).

The Mechanical Engineering Department at SMU has a long tradition of offering a superb engineering education within an environment fostering creativity and innovation. Small classes not only provide for strong mentoring but also help achieve academic excellence through cooperation and teamwork. Leading by example, through encouragement and dedication, the faculty is committed to the success of every student. In addition to offering introductory and advanced courses in their areas of specialization, faculty members teach courses that address the critical issues of technology and society.

The program prepares students by providing a solid background in fundamentals of science and engineering without compromising the practical aspects of mechanical engineering. Essential entrepreneurial know-how, interpersonal skills and the importance of lifelong learning complement the educational experience of students. The department stimulates professional and social leadership by providing, among others, opportunities for students to participate in the SMU Student Section of the American Society of Mechanical Engineers and in the SMU Tau-Sigma Chapter of Pi-Tau-Sigma, the National Honorary Mechanical Engineering Fraternity.

The curriculum consists of three major areas: thermofluids; dynamics and controls; and solid mechanics, materials and manufacturing. Practical mechanical engineering design is interlaced throughout the curriculum. In the senior year, student teams are guided through a complete design project, from concept to construction to testing, with support from industries, foundations and volunteer professionals. State-of-the-art software, computers and laboratory equipment support the high-quality education provided to students. Undergraduate students are encouraged to participate in research projects conducted by faculty and to consider extending their studies to include graduate work in mechanical engineering at SMU or elsewhere.

In combination with a solid liberal arts foundation, the program prepares students for graduate studies not only in engineering but also in other professional fields such as business, medicine and law. SMU mechanical engineering graduates have found success in graduate school and in employment, and regularly attain graduate degrees in engineering, medicine, business and law. Graduates are employed as engineers or consulting engineers for major engineering, pharmaceutical, environmental, financial, banking and real estate companies.

The undergraduate program in mechanical engineering is accredited by the Engineering Accreditation Commission of ABET, www.abet.org.

The program's mission is to educate mechanical engineers who are innovative, entrepreneurial and equipped to become global leaders in research and technology. Specific educational objectives of the mechanical engineering undergraduate program are to produce graduates who meet the following:

1. The ability to be innovative problem solvers and critical thinkers addressing technical and societal issues.
2. The ability to embrace professional development and lifelong learning relevant to their careers.
3. The ability to have entrepreneurial and leadership roles in industry, government and academia.

The Mechanical Engineering Undergraduate Program Outcomes and their relationships to the discipline-specific criteria are as follows:
a. The ability to apply knowledge of mathematics, science and engineering.
b. The ability to design and conduct experiments, as well as analyze and interpret data.
c. The ability to design a system, component or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.
d. The ability to function on multidisciplinary teams.
e. The ability to identify, formulate and solve engineering problems.
f. An understanding of professional and ethical responsibility.
g. The ability to communicate effectively.
h. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental and societal context.
i. The recognition of the need for and the ability to engage in lifelong learning
j. A knowledge of contemporary issues.
k. The ability to use the techniques, skills and modern engineering tools necessary for engineering practice.
An outstanding cooperative education program is also available for students. For further information on the SMU Co-op Program, students should see Cooperative Education at the beginning of the Lyle School of Engineering section.

The Mechanical Engineering Department offers the following undergraduate degree with three available specializations:

Bachelor of Science With a Major in Mechanical Engineering
Bachelor of Science With a Major in Mechanical Engineering (with a minor in business administration) Bachelor of Science With a Major in Mechanical Engineering (with a premedical/biomedical specialization) Bachelor of Science With a Major in Mechanical Engineering (with an engineering management and entrepreneurship specialization)

Students may pursue combined degree programs offered in conjunction with Dedman College. The combined degree programs include a B.S. in Mechanical Engineering and a B.S. with a major in Math and a B.S. in Mechanical Engineering and a B.S. with a major in Physics.

In addition, a minor in mechanical engineering is available to interested students.

## Departmental Facilities

In support of the teaching and research endeavors of the department, several research laboratories are available.
Laboratory for Porous Materials Applications. This laboratory is concerned with modeling; numerical simulation; and experimental testing of mass, energy and momentum transport in heterogeneous and porous media.

Nanoscale Electro-Thermal Sciences Laboratory. This facility focuses on non-invasive characterization of the thermal properties of thin-film materials.

Laser Micromachining Laboratory. This laboratory conducts fundamental studies of thermal processes during short-pulse laser-material interactions and applied studies of laser-assisted microfabrication, including high-power laser ablation, laser micromachining, and laser-induced forward transfer. Current research applies these techniques to the fabrication of microfluidic devices and superhydrophobic surfaces.

Experimental Fluid Mechanics Laboratory. This facility focuses on pulsed jet micropropulsion and flowthrough porous media.

Micro, Nano and Biomechanics of Materials Laboratory. This laboratory supports research primarily in the area of solid mechanics and materials engineering, with a focus on the combined experimental characterization as well as the computational analysis of mechanical properties, stress/strain, and microstructure of engineering and biological materials. Applications in advancing manufacturing and materials processing technologies, engineering design analyses, and biomedical sciences and engineering are also studied in this facility.

Systems, Measurement and Control Laboratory. This facility is equipped for instruction in the design and analysis of analog and digital instrumentation and control systems. Modern measurement and instrumentation equipment is used for experimental control engineering, system identification, harmonic analysis, simulation and real-time control applications. Equipment also exists or microprocessor interfacing for control and instrumentation.

Micro-Sensor Laboratory. This laboratory focuses on research in the development of micro-optical sensors for a wide range of aerospace and mechanical engineering applications, including temperature, pressure, force, acceleration and concentration. A major research component in this lab is concentrated on the study of the optical phenomenon called the "whispering gallery modes" and its exploitation for sensor development in the microsize level with a nanolevel measurement sensitivity.

Systems Laboratory. This facility is dedicated to analysis and modeling of bipedal gait dynamics, rigid body impact mechanics and the pneumatically operated haptic interface system.

Research Center for Advanced Manufacturing. The RCAM center supports research and development activities in areas of rapid prototyping and manufacturing (laser-based and welding-based deposition), laser materials processing (welding, forming, surface modification), welding (including electrical arc welding, variable polarity plasma arc welding, friction stir welding, and micro plasma arc welding), waterjet/abrasive waterjet materials processing, sensing and control of manufacturing processes, and numerical modeling of manufacturing processes.

Center for Laser Aided Manufacturing. This facility, which is housed in the Research Center for Advanced Manufacturing facility, collaborates with RCAM.

Biomedical Instrumentation and Robotics Laboratory. This laboratory's research activities promote strong interdisciplinary collaboration between several branches of engineering and biomedical sciences. The research interests are centered on two areas:

- Medical robotics, especially novel robotic applications in minimally invasive, natural orifice, and imageguided and haptic-assisted surgery.
- In vivo measurement of mechanical properties of biological tissue.

These areas of concentration touch upon fundamentals in analytical dynamics, nonlinear control of mechanical systems, computer-aided design and virtual prototyping, applied mathematics, data acquisition, signal processing, and high-performance actuators.

Microsystems Research Laboratory. The research carried out in this laboratory focuses in the area of optical actuators and sensors, micro-optofluidics, energy conversion, and smart materials.

Multiscale Modeling and Simulations Laboratory. This research group performs modeling and simulations of materials and structures.

BioMicrofluidics Laboratory. In this laboratory, students design, build and test lab-on-a-chip devices for biomedical, environmental monitoring, and food and water safety applications and perform numerical simulations of mass momentum and energy transport in micro- and nano-scales, using continuum-based and atomistic methods.

Laboratory for Additive Manufacturing, Robotics and Automation. This laboratory is engaged in research sponsored by the National Science Foundation's National Robotics Initiative. It is dedicated to the development of advanced, multi-material 3-D printing technology as applied to the manufacturing of soft robotic components. Other future research areas include robotic technologies for minimally invasive medical procedures and automated construction systems.

Biological Actuation, Sensing, and Transport Laboratory. This research lab is dedicated to experimentally investigating small scale devices and materials for medical applications. The ongoing projects focus on interrelated research in microbiorobotics, single molecule / single cell biophysics, and biomaterials that have the potential to revolutionize medicine and biomedical engineering.

Impact Mechanics Laboratory. The objective of the Impact Mechanics Laboratory at SMU is to explore the mechanics and physics in dynamic response and failure of advanced materials. The lab is currently equipped with Kolsky compression/tension bar facilities of different sizes for high-rate characterization of materials and structures. A high-resolution Kirana high-speed camera is implemented with the Kolsky bar systems to observe the dynamic deformation and failure process of materials. The lab also has A Skyscan 1172 Micro-CT for nondestructive evaluation of materials microstructure.

Cyber Physical Systems Laboratory. This laboratory investigates novel algorithms for control, automation, fault detection, and security of systems involving cybernetics and dynamics. Theoretical development as well as applied research on applications of the theory in robotics, aerospace, manufacturing, and healthcare are main missions of this laboratory. We utilize traditional and intelligent/bioinspired control schemes for accomplishing these goals.

## Instructional Laboratories \& Facilities

In support of the teaching and research endeavors of the department, several instructional laboratories are available. They include the following:

Mechanics of Materials (Structures) Laboratory. This laboratory is equipped for instruction and research on the behavior of materials under various loading conditions such as fatigue, impact, hardness, creep, tension, compression and flexure.

Systems, Measurement and Control Laboratory. This facility is equipped for instruction in the design and analysis of analog and digital instrumentation and control systems. Modern measurement and instrumentation equipment is used for experimental control engineering, system identification, harmonic analysis, simulation and real-time control applications. Equipment also is used for microprocessor interfacing for control and instrumentation.

Thermal and Fluids Laboratory. Equipment in this laboratory is used for instruction in experimental heat transfer, thermodynamics and fluid mechanics. Modern equipment is available for conducting experiments on energy conservation; aerodynamics; internal combustion engines; heating, ventilation and air conditioning systems; convective cooling of electronics; heat exchangers; and interferometric visualization. State-of-the-art systems support automatic control and data acquisition. A partial list of the equipment in this lab includes a refrigeration training unit, heat transfer test unit with water boiler, airflow bench, kinematic viscosity bath, forced convection heat transfer experiment bench, low-pressure board, dead weight tester, vortex tube, free and forced heat transfer unit, hydraulic trainer and pneumatic trainer.

Mechanical Engineering Machine Shop. This facility offers a state of the art CNC machine, milling machines, lathes and 3D printers used for student instruction and research.

Mechanical Engineering Computer Laboratory. This laboratory is equipped with computer work stations supported by educational software including MATLAB, ANSYS, COMSOL, SOLIDWORKS and others. Access to SMU's state of the art HPC facilities is also available.

## Shared Laboratory Space

Laboratories shared with the Civil and Environmental Engineering Department include the following:

Hydraulics/Hydrology, Thermal and Fluids Laboratory
CAD Computer Laboratory
Structural and Mechanics of Materials Laboratory
Project construction area

## Curriculum in Mechanical Engineering

Mechanical engineering offers the broadest curriculum in engineering to reflect the wide range of mechanical engineering job opportunities in government and industry. The mechanical engineer is concerned with creation, research, design, analysis, production and marketing of devices for providing and using energy and materials. The major concentration areas of the program include the following:

Solid and Structural Mechanics. Concerned with the behavior of solid bodies under the action of applied forces. The solid body may be a simple mechanical linkage, an aerodynamic control surface, an airplane or space vehicle, or a component of a nuclear reactor. The applied forces may have a variety of origins, such as mechanical, aerodynamic, gravitational, electromotive and magnetic. Solid mechanics provides one element of the complete design process and interacts with all other subjects in the synthesis of a design.

Fluid Mechanics. Deals with the behavior of fluid under the action of forces applied to it. The subject proceeds from a study of basic fundamentals to a variety of applications, such as flow-through compressors, turbines and pumps, around an airplane or missile. Fluid mechanics interacts with solid mechanics in the practice of mechanical engineering because the fluid flow is generally bounded by solid surfaces. Fluid mechanics is also an element in the synthesis of a design.

Thermal Sciences. Concerned with the thermal behavior of all materials - solid, liquid and gaseous. The subject is divided into three important branches, namely, thermodynamics, energy conversion and heat transfer. Thermodynamics is the study of the interaction between a material and its environment when heat and/or work are involved. Energy conversion is a study of the transformation of one form of energy to another, such as the conversion of solar energy to electrical energy in a solar cell. Heat transfer is a study of the processes by which thermal energy is transferred from one body of material to another. Since energy is required to drive any apparatus and since some of the energy is thermal energy, the thermal sciences interact with all other areas of study as an integral part of the design process.

Materials Science and Engineering. Pertains to the properties of all materials - solid, liquid and gaseous. It deals with mechanical, fluid, thermal, electrical and other properties. Properties of interest include modulus of elasticity, compressibility, viscosity, thermal conductivity, electrical conductivity and many others. The study of materials proceeds from the characteristics of individual atoms of a material, through the cooperative behavior of small groups of atoms, up to the behavior and properties of the bulk material. Because all mechanical equipment is composed of materials, works in a material environment and is controlled by other material devices, it is clear that the materials sciences lie at the heart of the design synthesis process.

Control Systems. Provides necessary background for engineers in the dynamics of systems. In the study of controls, both the transient and steady-state behaviors of the system are of interest. The transient behavior is particularly important in the starting and stopping of propulsion systems and in maneuvering flight, whereas the steady-state behavior describes the normal operating state. Some familiar examples of control systems include the flight controls of an airplane or space vehicle and the thermostat on a heating or cooling system.

Design Synthesis. The process by which practical engineering solutions are created to satisfy a need of society in an efficient, economical and practical way. This synthesis process is the culmination of the study of mechanical engineering and deals with all elements of science, mathematics and engineering.

## Areas of Specialization

Mechanical engineering is a diverse field, and advanced major electives may be selected from a variety of advanced courses in mechanical engineering. In addition, specializations are offered in premedical/biomedical and engineering management and entrepreneurship, which includes required courses in engineering management, information engineering and global perspectives, technical entrepreneurship, and technical communications.

A student may also personalize his or her degree with the addition of a minor in business administration within the Bachelor of Science in Mechanical Engineering. In addition to satisfying the required core mathematics, science and engineering courses, students must satisfy the minor in business administration requirements (listed in the Cox School of Business section of this catalog); three hours of ME courses at the 3000 level or higher approved by the student's adviser are also required. Admission requirements to the Cox School must also be satisfied and may include additional coursework.

## Mechanical Engineering, B.S.M.E.

In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hour requirements within the mechanical engineering curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (32 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists
or
- equivalent
- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Laboritory
- PHYS 1303 - Introductory Mechanics
- PHYS 1105 - Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism

One from the following:

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- CHEM 1304-General Chemistry
- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- PHYS 3305 - Introduction to Modern Physics
- PHYS 3340-Computational Physics
- PHYS 4321 - Methods of Theoretical Physics
- Math course, 3000 level or higher, approved by adviser


## Engineering (51 Credit Hours)

- ME 1302 - Introduction to Mechanical Engineering
- ME 2310 - Statics
- ME 2320 - Dynamics
- ME 2331 - Thermodynamics
- ME 2131 - Thermodynamics Laboratory
- ME 2340 - Mechanics of Deformable Bodies
- ME 2140-Mechanics of Materials Laboratory
- ME 2342 - Fluid Mechanics
- ME 2142 - Fluid Mechanics Laboratory
- ME 2372 - Introduction to CAD
- ME 3332 - Heat and Mass Transfer
- ME 3132 - Heat Transfer Laboratory
- ME 3340 - Engineering Materials
- ME 3370 - Manufacturing Processes
- ME 4152 - Professional Development
- ME 4340 - Elements of Mechanical Engineering Measurements
- ME 4360 - Design and Control of Mechanical Systems
- ME 4160 - Control Laboratory
- ME 4370 - Elements of Mechanical Design
- EE 2350 - Circuit Analysis I

One from the following

- CEE 3302 - Engineering Communications
- EMIS 2375-Cultural and Ethical Implications of Technology
- EMIS 3308 - Engineering Management
- CSE 4360 - Technical Entrepreneurship


## Advanced Major Elective (3 Credit Hours)

Any mechanical engineering course, 3000 level or higher, with approval of adviser

## Tracks (18 Credit Hours)

(choose one)

## Distributed Track

- ME 4380 - Mechanical Engineering Design I
- One from thermofluids required courses below
- One from dynamics and controls required courses below
- One from solid mechanics, materials, and manufacturing required courses below
- Two additional ME courses from any track's required or elective courses


## Thermofluids Track

- One from dynamics and controls required or elective courses
- One from solid mechanics, materials, and manufacturing required or elective courses


## Required Courses

- ME 3341 - Intermediate Thermal Sciences
- ME 4338 - Thermal Systems Design


## Electives

Two from

- ME 4380 - Mechanical Engineering Design I
- ME 4381 - Mechanical Engineering Design II
- ME 5325-Computational Thermal Sciences and Engineering
- ME 5332 - Heat Transfer in Biomedical Sciences
- ME 5333-Transport Phenomena in Porous Media
- ME 5362 - Engineering Analysis with Numerical Methods
- ME 5365 - Fluid Power Systems
- ME 5371 - Introduction to Gas Dynamics and Analysis of Propulsion Systems
- ME 5390 - Undergraduate Seminar


## Dynamics and Controls Track

- One from thermofluids required or elective courses
- One from solid mechanics, materials, and manufacturing required or elective courses


## Required Courses

- ME 4322 - Vibrations
- ME 5374 - Advanced CAD/CAE


## Electives

Two from

- ME 4380 - Mechanical Engineering Design I
- ME 4381 - Mechanical Engineering Design II
- ME 5302 - Linear System Analysis
- ME 5320 - Intermediate Dynamics
- ME 5326 - Vehicle Dynamics
- ME 5347 - Frequency Domain Methods in Linear Control Systems
- ME 5362 - Engineering Analysis with Numerical Methods
- ME 5365 - Fluid Power Systems
- ME 5390 - Undergraduate Seminar


## Solid Mechanics, Materials, and Manufacturing Track

- One from thermofluids required or elective courses
- One from dynamics and controls required or elective courses


## Required Courses

- ME 5338 - Nontraditional Manufacturing Processes
- ME 5374 - Advanced CAD/CAE


## Electives

Two from

- ME 4380 - Mechanical Engineering Design I
- ME 4381 - Mechanical Engineering Design II
- ME 5361 - Matrix Structure Analysis
- ME 5362 - Engineering Analysis with Numerical Methods
- ME 5364 - Introduction to Structural Dynamics
- ME 5390 - Undergraduate Seminar


## Total: 104 Credit Hours

Any deviation from the mechanical engineering curriculum requires approval of a petition submitted by the student to the Mechanical Engineering Department faculty prior to the beginning of the term during which the student expects to complete the requirements for graduation.

## Mechanical Engineering, B.S.M.E., Engineering Management and Entrepreneurship Specialization

In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hour requirements within the mechanical engineering curriculum are distributed as follows:

## Requirements for the Specialization

## Mathematics and Science (31 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists or
- equivalent
- CHEM 1303-General Chemistry
- CHEM 1113 - General Chemistry Lab
- PHYS 1303 - Introductory Mechanics
- PHYS 1105 - Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism

One from the following:

- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- CHEM 1304-General Chemistry
- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- PHYS 3305 - Introduction to Modern Physics
- PHYS 3340-Computational Physics
- PHYS 4321 - Methods of Theoretical Physics
- Math course, 3000 level or higher, approved by adviser


## Engineering (51 Credit Hours)

- EE 2350 - Circuit Analysis I
- ME 1302 - Introduction to Mechanical Engineering
- ME 2310 - Statics
- ME 2320 - Dynamics
- ME 2331 - Thermodynamics
- ME 2131 - Thermodynamics Laboratory
- ME 2340 - Mechanics of Deformable Bodies
- ME 2140 - Mechanics of Materials Laboratory
- ME 2342 - Fluid Mechanics
- ME 2142 - Fluid Mechanics Laboratory
- ME 2372 - Introduction to CAD
- ME 3332 - Heat and Mass Transfer
- ME 3132 - Heat Transfer Laboratory
- ME 3340 - Engineering Materials
- ME 3370 - Manufacturing Processes
- ME 4152 - Professional Development
- ME 4340 - Elements of Mechanical Engineering Measurements
- ME 4360 - Design and Control of Mechanical Systems
- ME 4160 - Control Laboratory
- ME 4370 - Elements of Mechanical Design

One from the following:

- ME 4338 - Thermal Systems Design
- ME 4380 - Mechanical Engineering Design I or
- ME 5374-Advanced CAD/CAE


## Engineering Leadership (12 Credit Hours)

- CEE 3302 - Engineering Communications
- CSE 4360 - Technical Entrepreneurship
- EMIS 2375-Cultural and Ethical Implications of Technology
- EMIS 3308 - Engineering Management


## Advanced Major Electives (9 Credit Hours)

ME courses, 3000 level or higher, from the thermofluids; dynamics and controls; and solid mechanics, materials, and manufacturing tracks in the B.S. in mechanical engineering degree plan

## Total: 104 Credit Hours

Any deviation from the mechanical engineering curriculum requires approval of a petition submitted by the student to the Mechanical Engineering Department faculty prior to the beginning of the term during which the student expects to complete the requirements for graduation.

## Mechanical Engineering, B.S.M.E., Premedical/Biomedical Specialization

The Mechanical Engineering Department offers a B.S.M. degree with a premedical/biomedical specialization. This program enables students to satisfy the premedical or predental requirements for admission to medical or dental school, while at the same time satisfying the requirements for an accredited degree in mechanical engineering.

In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hour requirements within this curriculum are distributed as follows:

## Requirements for the Specialization

## Mathematics and Science (56 Credit Hours)

- MATH 1337 - Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists or
- equivalent
- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 3304 - Genetics
- BIOL 3350 - Cell Biology
- CHEM 1303-General Chemistry
- CHEM 1113-General Chemistry Laboratory
- CHEM 1304-General Chemistry
- CHEM 1114 - General Chemistry Laboratory
- CHEM 3371-Organic Chemistry
- CHEM 3117 - Organic Chemistry Laboratory
- CHEM 3372- Organic Chemistry
- CHEM 3118 - Organic Chemistry Laboratory
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory


## Engineering (50 Credit Hours)

- EE 2350 - Circuit Analysis I
- ME 1302 - Introduction to Mechanical Engineering
- ME 2310 - Statics
- ME 2320 - Dynamics
- ME 2331 - Thermodynamics
- ME 2131 - Thermodynamics Laboratory
- ME 2340 - Mechanics of Deformable Bodies
- ME 2140 - Mechanics of Materials Laboratory
- ME 2342 - Fluid Mechanics
- ME 2142 - Fluid Mechanics Laboratory
- ME 2372 - Introduction to CAD
- ME 3332 - Heat and Mass Transfer
- ME 3132 - Heat Transfer Laboratory
- ME 3340 - Engineering Materials
- ME 3370 - Manufacturing Processes
- ME 4152 - Professional Development
- ME 4340 - Elements of Mechanical Engineering Measurements
- ME 4360 - Design and Control of Mechanical Systems
- ME 4370 - Elements of Mechanical Design

One from the following:

- ME 4338 - Thermal Systems Design
- ME 4380 - Mechanical Engineering Design I
- ME 5374 - Advanced CAD/CAE


## Advanced Major Elective (3 Credit Hours)

ME course, 3000 level or higher, from the thermofluids; dynamics and controls; and solid mechanics, materials, and manufacturing tracks in the B.S. in mechanical engineering degree plan
or

- ME 4381 - Mechanical Engineering Design II
- ME 5390 - Undergraduate Seminar


## Total: 109 Credit Hours

Any deviation from the mechanical engineering curriculum requires approval of a petition submitted by the student to the Mechanical Engineering Department faculty prior to the beginning of the term during which the student expects to complete the requirements for graduation.

## Mechanical Engineering, B.S.M.E./Mathematics, B.S.

The Mechanical Engineering Department and the Mathematics Department offer a curriculum that enables a student to obtain both a B.S.M. degree and B.S. with a major in mathematics.

In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hour requirements within this curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (37 Credit Hours)

- MATH 1337-Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations
- MATH 3315 - Introduction to Scientific Computing
- MATH 4337 - Boundary Value Problems and Partial Differential Equations
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists
or
- equivalent
- One advanced elective as defined in the description of the mathematics major
- CHEM 1303-General Chemistry
- PHYS 1303 - Introductory Mechanics
- PHYS 1105 - Mechanics Laboratory
- PHYS 1304-Introductory Electricity and Magnetism


## Engineering (54 Credit Hours)

- CSE 1341 - Principles of Computer Science
- EE 2350 - Circuit Analysis I
- ME 1302 - Introduction to Mechanical Engineering
- ME 2310 - Statics
- ME 2320 - Dynamics
- ME 2331 - Thermodynamics
- ME 2131 - Thermodynamics Laboratory
- ME 2340 - Mechanics of Deformable Bodies
- ME 2140 - Mechanics of Materials Laboratory
- ME 2342 - Fluid Mechanics
- ME 2142 - Fluid Mechanics Laboratory
- ME 2372 - Introduction to CAD
- ME 3332 - Heat and Mass Transfer
- ME 3132 - Heat Transfer Laboratory
- ME 3340 - Engineering Materials
- ME 3370 - Manufacturing Processes
- ME 4152 - Professional Development
- ME 4340 - Elements of Mechanical Engineering Measurements
- ME 4360 - Design and Control of Mechanical Systems
- ME 4160 - Control Laboratory
- ME 4370 - Elements of Mechanical Design

One from the following:

- ME 4338 - Thermal Systems Design
- ME 4380 - Mechanical Engineering Design I
or
- ME 5374 - Advanced CAD/CAE


## Advanced Major Electives (9 Credit Hours)

ME courses, 3000 level or higher, from the thermofluids; dynamics and controls; and solid mechanics, materials, and manufacturing tracks in the B.S. in mechanical engineering degree plan

## Engineering Leadership (3 Credit Hours)

One from the following:

- CEE 3302 - Engineering Communications
- CSE 4360 - Technical Entrepreneurship
- EMIS 2375-Cultural and Ethical Implications of Technology or
- EMIS 3308 - Engineering Management


## Total: 103 Credit Hours

Any deviation from the mechanical engineering curriculum requires approval of a petition submitted by the student to the Mechanical Engineering Department faculty prior to the beginning of the term during which the student expects to complete the requirements for graduation.

## Mechanical Engineering, B.S.M.E./Physics, B.S.

The Mechanical Engineering Department and the Physics Department offer a curriculum that enables a student to obtain both a B.S.M. degree and a B.S. degree with a major in physics.

In addition to the University-wide requirements, which include the completion of a minimum of 120 academic credit hours for any degree, the credit hour requirements within this curriculum are distributed as follows:

## Requirements for the Major

## Mathematics and Science (58 Credit Hours)

- MATH 1337-Calculus I
- MATH 1338 - Calculus II
- MATH 3302 - Calculus III: Multi-Variable and Vector Calculus
- MATH 3304 - Introduction to Linear Algebra
- MATH 3313 - Ordinary Differential Equations
- STAT 4340 - Statistical Methods for Engineers and Applied Scientists or
- equivalent
- CHEM 1303-General Chemistry
- PHYS 1303 - Introductory Mechanics
- PHYS 1105-Mechanics Laboratory
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 1106 - Electricity and Magnetism Laboratory
- PHYS 3305 - Introduction to Modern Physics
- PHYS 3344 - Classical Mechanics
- PHYS 3374-Thermodynamics and Statistical Mechanics
- PHYS 4211 - Laboratory Physics I
- PHYS 4321 - Methods of Theoretical Physics
- PHYS 4392 - Introduction to Electromagnetic Theory
- PHYS 5382 - Introduction to Quantum Mechanics
- PHYS 5383 - Advanced Quantum Mechanics
- Two advanced physics electives


## Engineering (48 Credit Hours)

- EE 2350 - Circuit Analysis I
- ME 1302 - Introduction to Mechanical Engineering
- ME 2310 - Statics
- ME 2331 - Thermodynamics
- ME 2131 - Thermodynamics Laboratory
- ME 2340 - Mechanics of Deformable Bodies
- ME 2140 - Mechanics of Materials Laboratory
- ME 2342 - Fluid Mechanics
- ME 2142 - Fluid Mechanics Laboratory
- ME 2372 - Introduction to CAD
- ME 3332 - Heat and Mass Transfer
- ME 3132 - Heat Transfer Laboratory
- ME 3340 - Engineering Materials
- ME 3370 - Manufacturing Processes
- ME 4152 - Professional Development
- ME 4340 - Elements of Mechanical Engineering Measurements
- ME 4360 - Design and Control of Mechanical Systems
- ME 4160 - Control Laboratory
- ME 4370 - Elements of Mechanical Design

One of

- ME 4338 - Thermal Systems Design
- ME 4380 - Mechanical Engineering Design I
or
- ME 5374-Advanced CAD/CAE


## Advanced Major Electives (3 Credit Hours)

ME course, 3000 level or higher, from the thermofluids; dynamics and controls; and solid mechanics, materials, and manufacturing tracks in the B.S. in mechanical engineering degree plan

## Total: 109 Credit Hours

Note: The B.S. in physics requires CSE 1341 or CSE 1342.
Any deviation from the mechanical engineering and/or physics curricula requires approval of a petition submitted by the student to the appropriate faculty prior to the beginning of the term during which the student expects to complete the requirements for graduation.

## Mechanical Engineering Minor

For approval of a minor in mechanical engineering, the student should consult the department. The five courses represent a minor that provides a broad introduction to mechanical engineering. Based on the student's interests and background, other sets of mechanical engineering courses may be substituted with the department's approval.

## Requirements for the Minor

## Four from (12 Credit Hours)

- ME 2310 - Statics
- ME 2320 - Dynamics
- ME 2331 - Thermodynamics
- ME 2340 - Mechanics of Deformable Bodies
- ME 2342 - Fluid Mechanics


## One from (3 Credit Hours)

- ME 3340 - Engineering Materials
- ME 3370 - Manufacturing Processes


## Total: 15 Credit Hours

## Courses:

## ME 1301 - Machines and Society

Credits: 3
Introduces engineering systems to nonengineering students. Defines engineering, what engineers do, and what mechanical engineers do. Topics include the historical perspective on engineering design, principles of design engineering, energy conversion processes, engineered products, what mechanical engineers produce, the basic principles of converting science to technology, and the development of technology for society and humanity. Also, the laboratory and workshop experience, including computer animation and simulation.

## ME 1302 - Introduction to Mechanical Engineering

## Credits: 3

Introduction to mechanical engineering and the engineering profession. Topics include forces in structures and fluids, conservation laws and thermal systems, motion of machinery, engineering design, and basic concepts in intellectual property for mechanical engineers. Also, topics in mechanical engineering as appropriate for current events. Prerequisite or corequisite: MATH 1337.

## ME 1303 - Energy, Technology, and the Environment

## Credits: 3

An elementary introduction to the ways energy is produced and distributed, energy resources, electrical power, heating and cooling, solar energy applications, and other topics related to people and the environment.

## ME 1304-Green Engineering: Designing Tomorrow Today

## Credits: 3

Presents how design choices for materials, manufacturing processes, energy usage, and end-of-life disposal affect economic and natural environments. Also, case studies in design for the environment for various industries. In lab, students use computer modeling to create designs and then analyze and compare the designs' total life cycle impact through eco-audits of energy and carbon footprints. Students also use software to compare and select materials best suited for a particular design and its constraints.

## ME 1305-Information Technology and Society

## Credits: 3

A comprehensive survey of information technologies and the growing interconnectivity between them as currently utilized throughout society. Students acquire portable IT skills in the use of word processing, spreadsheets, presentation tools, graphics applications, and the Internet that will prepare them for success in the workplace and beyond. Discusses issues surrounding IT, including history, ethics, legal questions, use in producing and maintaining a competitive advantage, effects on society, and associated costs and benefits.

## ME 2131 - Thermodynamics Laboratory

## Credits: 1

One 3-hour laboratory session per week. Basic thermal-property and power-device measurements to complement lecture material of ME 2331. Corequisite: ME 2331.

## ME 2140 - Mechanics of Materials Laboratory

## Credits: 1

Experiments in mechanics of deformable bodies, to complement ME 2340. Simple tension tests on structural materials, simple shear tests on riveted joints, stress and strain measurements, engineering and true stress, engineering and true strain, torsion testing of cylinders, bending of simple supported beams, deflection of simply supported beams, buckling of columns, strain measurements of pressure vessels, Charpy impact tests, and the effect of stress concentrators. Corequisite: ME/CEE 2340.

## ME 2142 - Fluid Mechanics Laboratory

Credits: 1
One 3-hour laboratory session per week. Experiments in fluid friction, pumps, boundary layers, and other flow devices to complement lecture material of ME 2342. Corequisite: ME 2342.

## ME 2310 - Statics

## Credits: 3

Equilibrium of force systems, computations of reactions and internal forces, and determinations of centroids and moments of inertia. Also, introduction to vector mechanics. Prerequisite: MATH 1337. Prerequisite or corequisite: PHYS 1303.

## ME 2320 - Dynamics

## Credits: 3

Introduction to kinematics and dynamics of particles and rigid bodies. Also, Newton's laws, kinetic and potential energy, linear and angular momentum, work, impulse, and inertia properties. Prerequisite: C or better in ME 2310/CEE 2310.

## ME 2331 - Thermodynamics

## Credits: 3

The first and second laws of thermodynamics and thermodynamic properties of ideal gases, pure substances, and gaseous mixtures are applied to power production and refrigeration cycles. Prerequisites: MATH 1338 or 1340, and a C or better in ME /CEE 2310. Corequisite: ME 2131.

## ME 2340 - Mechanics of Deformable Bodies

## Credits: 3

Introduction to analysis of deformable bodies, including stress, strain, stress-strain relations, torsion, beam bending and shearing stresses, stress transformations, beam deflections, statically indeterminate problems, energy methods, and column buckling. Prerequisite: C or better in CEE/ME 2310. Corequisite: ME/CEE 2140.

## ME 2342 - Fluid Mechanics

## Credits: 3

Fluid statics, fluid control volume, and applications; irrotational flow; Bernoulli's and Euler's equations; similitude and dimensional analysis; differential analysis of fluid flow; incompressible viscous flow; and boundary layer theory. Prerequisites: MATH 3302, ME 2320 and C or better in ME 2331. Corequisites: ME 2142 and MATH 3313.

## ME 2372 - Introduction to CAD

## Credits: 3

Introduces mechanical computer-aided design. Surveys technical topics related to CAD and computer-aided manufacturing, with emphasis on the hands-on use of interactive computer graphics in modeling, drafting, assembly, and analysis using a state-of-the-art CAD system.

## ME 3132-Heat Transfer Laboratory

## Credits: 1

One 3-hour laboratory session per week. Experiments in conduction, convection, and radiation to complement lecture material of ME 3332. Corequisite: ME 3332.

## ME 3332 - Heat and Mass Transfer

## Credits: 3

Fundamental principles of heat transmission by conduction, convection, and radiation; mass transfer; and application of these principles to the solution of engineering problems. Prerequisite: ME 2342. Corequisite: ME 3132.

## ME 3340 - Engineering Materials

## Credits: 3

A study of the fundamental factors influencing the structure and properties of structural materials, including metals, polymers, and ceramic. Covers phase diagrams, heat treatment, metallography, mechanical behavior, atomic bonding, and corrosion. Prerequisites: CHEM 1303 and a C or better in ME 2310 and ME 2340.

## ME 3341 - Intermediate Thermal Sciences

## Credits: 3

Application of the laws of thermodynamics, availability, irreversibility, real gases and mixtures, generalized thermodynamics relations and charts, and chemical equilibrium. Prerequisite: C or better in ME 2331/CEE 2331.

## ME 3350 - Structural Analysis

## Credits: 3

Emphasis on the classical methods of analysis of statically determinate and indeterminate structural systems. Also, computation of reactions, shears, moments, and deflections of beams, trusses, and frames. Students use computers as an analytical tool. Prerequisites: ME 2140/CEE 2140, C or better in ME 2340/CEE 2340.

## ME 3370 - Manufacturing Processes

## Credits: 3

Comprehensive, balanced, and up-to-date coverage of the relevant fundamentals and real-world applications of manufacturing processes (e.g., casting, forming, machining, high-power laser beam materials processing, electrical discharge machining, abrasive water-jet machining). Also, rapid prototyping and manufacturing. A set of laboratories introduces students to the basics of manufacturing processes and reinforces lecture material. Prerequisite: ME 3340.

## ME 3390-German Technoculture

Credits: 3
Fundamentals of German contemporary culture within the context of technology and study abroad experience. Emphasis is placed on reading and communication (writing and oral) skills. Field trips are an integral part of the course.

## ME 4090 - Senior Project

Credits: 0

## ME 4152 - Professional Development

## Credits: 1

Introduces engineering students to elements of the engineering design culture within the professional work experience, to the role of engineers within the public and private sectors, to the collaborative experience of working in professional teams,
and to the results as they apply to society and the economy. Threads of ethics and professional development are interwoven throughout. Prerequisite or corequisite: ME 4338, ME 5374, or ME 4380.

## ME 4160 - Control Laboratory

## Credits: 1

Experiments in control engineering, digital and analog simulation of feedback control systems, actuator saturation, and design and implementation of simple control systems on various laboratory equipment. Corequisite: ME 4360.

## ME 4322 - Vibrations

## Credits: 3

Review of fundamentals of vibrations with application of simple machine and structural members. Topics include harmonic motion, free and forced vibration, resonance, damping, isolation, and transmissibility. Single, multiple, and infinite degree-of-freedom systems are also examined. Prerequisites: ME 2320/CEE 2320, MATH 3313, and MATH 3304.

## ME 4338 - Thermal Systems Design

## Credits: 3

Prepares, presents, and critiques thermal systems designs. Solves associated problems of simulation, optimization, and economics. Includes solving problems and design with a thermal network analyzer. Prerequisite: ME 3332.

## ME 4340 - Elements of Mechanical Engineering Measurements

## Credits: 3

Introduces basic engineering experimentation and measurements, including techniques for measurement and experimentation; data acquisition; signal processing; and analysis, interpretation, and reporting of results. Prerequisites: Senior standing and a minimum 30 credits in ME.

## ME 4350 - Design of Steel Structures

## Credits: 3

Study of strength, behavior, and design of metal structures; flexural and axial members, bolted and welded connections, and composite beams. Prerequisite: ME 3350/CEE 3350.

## ME 4351 - Ethical Decision-Making in Applied Science and Engineering and Technology

## Credits: 3

The ethical issues, hard choices, and human failures in notorious, historical cases such as the Space Shuttle Challenger, Grand Teton Dam, and Union Carbide Bhopal disasters. Principles, methods, and bases for ethical decision-making and action. Application of classical ethical philosophy to hypothetical, modern problems and dilemmas in the business of control and implementation of technology.

## ME 4360 - Design and Control of Mechanical Systems

## Credits: 3

Covers block modeling of mechanical systems, mathematical models of linear systems, and solution of differential equations by use of Laplace transforms. Also, feedback control systems, time domain analysis, stability, frequency response, and root
locus plots. Includes Bode diagrams, performance criteria, system compensation, and design of control systems for mechanical systems. Prerequisites: ME 2320/CEE 2320, MATH 3313, and MATH 3304. Corequisite: ME 4160.

## ME 4370 - Elements of Mechanical Design

## Credits: 3

Application of the principles of mechanics and physical properties of materials to the proportioning of machine elements, including consideration of fatigue, functioning, productivity, and economic factors. Also, computer applications.
Prerequisites: ME 3370 and C or better in ME 2340/CEE 2340.

## ME 4380 - Mechanical Engineering Design I

## Credits: 3

A study of design methodology and development of professional project-oriented skills, including communication, team management, creative problem-solving, interpersonal management, and leadership skills. Uses team-project activities to apply project-oriented skills to solution of design problems. Investigates nontechnical considerations in design, including patents, ethics, aesthetics, safety, and economics. Prerequisite or corequisites: 30 credit hours in ME and senior standing.

## ME 4381 - Mechanical Engineering Design II

## Credits: 3

Student design teams have full responsibility for conducting a full-term design project for an industrial client. Periodic design reports and design reviews are presented to and critiqued by the industrial client, the faculty, and the design team. Prerequisite: ME 4380, ME 4338, or ME 5374.

## ME 5050 - Undergraduate Internship

## Credits: 0

## ME 5190 - Undergraduate Seminar: Ethics in Engineering and Technology

## Credits: 1

Covers ethical issues, hard choices, and human failures in life. Discusses practical, ethical issues with examples from everyday life. Presents ethical issues encountered in copyright law and intellectual property, along with issues involved in telephone communications and email. Discusses principles, methods, and bases for ethical decision-making and action.

## ME 5191 - Special Projects

## Credits: 1

Intensive study of a particular subject or design project not available in regular course offerings and under the supervision of a faculty member approved by the department chair.

## ME 5290 - Undergraduate Seminar

## Credits: 2

An opportunity for the advanced undergraduate student to undertake independent investigation, design, and development. The project and the supervising faculty must be approved by the chair of the department in which the student expects to receive the degree.

## ME 5302 - Linear System Analysis

Credits: 3
Introduces topics within the domain of modern control theory, with emphasis on the application of the developed concepts in designing linear systems and casting their responses in prescribed forms. Includes state representation of linear systems, controllability, observability, minimal representation, linear state variable feedback, observers, and quadratic regulator theory.

## ME 5303-Organizational Leadership

## Credits: 3

This course in personnel and organizational leadership covers the scientific structure of organizations and methods used to improve the productivity and quality of life of people working in the organization. Introduces industrial organizational psychology as applied to the manufacturing organization, with a focus on understanding individual behavior and experiences in industrial and organizational settings. Also introduces industrial psychology as it addresses the human resource functions of analyzing jobs and appraising, selecting, placing, and training people. Addresses the psychology of work, including employee attitudes, behavior, emotions, health, motivation, and well-being, as well as the social aspects of the workplace.

## ME 5314 - Introduction to Microelectromechanical Systems and Devices

Credits: 3
Develops the basics for MEMS and devices, including microactuators, microsensors, and micromotors; principles of operation; micromachining techniques (surface and bulk micromachining); IC-derived microfabrication techniques; and thin lm technologies as they apply to MEMS.

## ME 5319 - Advanced Mechanical Behavior of Materials

## Credits: 3

A senior-graduate course that relates mechanical behavior on a macroscopic and microscopic level to design. Topics include macroscopic elasticity and plasticity, viscoelasticity, yielding, yield surfaces, work hardening, geometric dislocation theory, creep, and temperature- and environment-dependent mechanical properties. Prerequisites: ME 3340 and C or better in ME 2340/CEE 2340.

## ME 5320 - Intermediate Dynamics

## Credits: 3

Emphasizes methods of formulation and solution of the kinematical, dynamical, and motion constraint equations for threedimensional, lumped-parameter, dynamical systems. Detailed discussions on differentiation of vectors, kinematics, inertia properties, momentum and energy principles, generalized forces, holonomic and nonholonomic constraints, constrained generalized coordinates, and Newton-Euler and Lagrange formulations of the equations of motion. The symbolic software Mathematica is used to reduce the time and effort required to derive the kinematical and dynamical equations. Practical examples of detailed motion analysis of mechanisms using CAD software to augment the theoretical formulations.
Prerequisites: ME 2320/CEE 2320 and MATH 3302, MATH 3313.

## ME 5321 - Failure Analysis and Prevention

## Credits: 3

A senior or graduate course in the evaluation of the failure of structural materials and components. Topics include site examination, macroscopic examination, optical microscopy, transmission electron and SEM interpretation, examination and interpretation of failure surfaces, failure modes, and causes of failure. Prerequisite: ME 3340.

## ME 5323 - Introduction to Fracture Mechanics

## Credits: 3

Explores linear elastic fracture mechanics and application of theory to design and evaluation of critical components: elastic stress intensity calculations, plane strain fracture toughness, plane stress and transitional behavior, crack opening displacements, fracture resistance, fatigue crack propagation, transition temperature approach to fracture control, microstructure of fracture, and fracture control programs. Prerequisite: C or better in ME 2340/CEE 2340.

## ME 5324 - Fatigue Theory and Design

## Credits: 3

A senior or graduate course that includes continuum, statistical, and fracture mechanics treatments of fatigue, stress concentrators, planning and analysis of probit, SNP and response tests, mechanisms of fatigue design, fail-safe versus safelife design, and crack propagation. Emphasizes engineering design aspects of fatigue rather than theoretical mechanisms.
Prerequisite: ME 3340.

## ME 5325-Computational Thermal Sciences and Engineering

Credits: 3
Fundamentals of computational fluid dynamics for engineers. Review of numerical solutions of partial differential equations; use of commercial codes, applicability, and pitfalls; and geometry and grid generation, convergence, and accuracy. Understanding of CFD principles through example problems solved by students with commercial CFD software. Prerequisite: MATH 3313. Restricted to ME majors.

## ME 5326 - Vehicle Dynamics

Credits: 3
Covers modeling of wheeled vehicles to predict performance, handling, and ride. Explores the effects of vehicle center of mass, tire characteristic traction and slip, engine characteristics, and gear ratios of performance. Includes suspension design and steady-state handling models of four-wheeled vehicles and car trailer systems to determine oversteer and understeer characteristics, critical speeds, and stability. Also, multidegree-of-freedom ride models (including tire and suspension compliance) and computer animation and simulations. Prerequisite: ME 2320/CEE 2320 or permission of instructor.

## ME 5329 - Fluid Power Systems

Credits: 3
Develops the fundamentals of a fluid power system design by introducing the basic building blocks such as pumps, motors, hydraulic cylinders, accumulators, multiposition directional valves, and other related components. Studies properties of the common hydraulic fluids to ascertain their influence on the behavior of typical fluid power system. Includes mathematical models of the individual components to aid in the simulation of a hydraulic system for a desired function. Also, introduces commercially available software for system simulation. The 1-hour lab allows students to gain hands-on experience with hydraulic systems.

## ME 5330 - Heat Transfer

## Credits: 3

Application of the principles of conduction, convection, and radiation heat transfer. Topics include steady and unsteady state, special configurations, numerical and analytical solutions, and design. Prerequisite: ME 3332 or equivalent.

## ME 5331 - Advanced Thermodynamics

## Credits: 3

Laws of thermodynamics, availability, irreversibility, real gases and mixtures, thermodynamic relations and generalized charts, combustion, chemical and phase equilibrium, and computational combustion. Prerequisites: ME 2342 and C or better in CEE 2331/ME 2331.

## ME 5332 - Heat Transfer in Biomedical Sciences

## Credits: 3

Fundamentals of heat transfer in medicine and biology, biothermal properties, thermal regulation processes, and biomedical heat transfer processes with applications in tissue laser radiation, freezing and thawing of biological materials, cryosurgery, and others. Prerequisites: ME 2342/CEE 2342 and ME 3332, or consent of instructor.

## ME 5333-Transport Phenomena in Porous Media

## Credits: 3

Covers fractals and their role in characterizing complex structures and the fundamental concepts of momentum, heat, and mass transport through heterogeneous (e.g., composite, porous) materials, with emphasis on the mathematical modeling of heat and mass transfer in heterogeneous and fully saturated systems. Presents relevant industrial and natural applications throughout the course. Prerequisites: ME 2342/CEE 2342 and ME 3332, or consent of instructor.

## ME 5336 - Intermediate Fluid Dynamics

## Credits: 3

Reviews fundamental concepts of undergraduate fluid mechanics and introduces advanced fluid dynamics, including irrotational flow, tensor notation, and the Navier-Stokes equations. Prerequisite: ME 2342/CEE 2342 or equivalent.

## ME 5337 - Introduction to Computational Fluid Dynamics

## Credits: 3

Concepts of stability, convergence, accuracy, and consistency; applications to linear and nonlinear model partial differential equations; curvilinear grid generation; and advanced topics in grid generation. Also, the Beam-Warming factored implicit technique; MacCormack techniques; and solution methods for the Reynolds equation of lubrication, the boundary layer equations, and the Navier-Stokes equations. Prerequisites: ME 2342 or equivalent, MATH 3313 or equivalent, or permission of instructor.

## ME 5338 - Nontraditional Manufacturing Processes

## Credits: 3

Explores difficult-to-machine materials and the increased geometrical complexity of components that have resulted in the development of nontraditional manufacturing processes based on the application of electrical, chemical, ultrasonic, magnetic, and photonic sources of energy. Introduces fundamentals of materials processing by laser beam, electron beam, ion beam, abrasive waterjet, ultrasonic machining, electro-discharge machining, chemical and electrochemical machining, and hybrid machining (laser beam, plasma arc, and waterjet assisted machining). Emphasizes the additive manufacturing processes as one of the fastest developing disciplines in materials processing. Covers theoretical problems and practical considerations related to the nontraditional manufacturing processes. Prerequisites: ME 3340, ME 3370; a basic understanding of manufacturing processes, mechanical and physical properties of materials, and physics.

## ME 5340 - Introduction to Solid Mechanics

## Credits: 3

Three-dimensional stress and strain, failure theories, introduction to two-dimensional elasticity, torsion of prismatic members, beams on elastic foundation, introduction to plates and shells, and energy methods. Prerequisites: MATH 3313 and C or better in ME 2340/CEE 2340

## ME 5341 - Structural Properties of Solids

## Credits: 3

Develops an understanding of the structural aspect of solids and their relationship to properties and applications. Topics include structural defects, bonding and crystal structure, solid-state reactions and phase transformations, degradation, and deformation. Prerequisite: ME 3340 or permission of instructor.

## ME 5347 - Frequency Domain Methods in Linear Control Systems

## Credits: 3

Includes analysis and design of automatic control systems for linear problems using frequency domain methods. Topics include performance analysis using Bode plots, stability analysis using Nyquist criterion, robustness analysis using gain margin, phase margin, and delay margin, controller design through loop shaping for meeting performance specifications, and an introduction to robust control. Prerequisite: ME 4360.

## ME 5355 - Integrated Design and Manufacturing

## Credits: 3

Industrial performance is strongly correlated to success in integrating design and manufacturing. Examines the interrelationships between the total product realization cycle, product generation, and manufacturing, with the objective of improving industrial performance.

## ME 5356 - Human Factors in Design and Manufacturing

## Credits: 3

Deals with human factors or ergonomics relating to designing for human use. Covers the empirical and analytic aspects of design and manufacturing as affected by the need to accommodate human use and abilities. Topics include visual displays of static and dynamic information, text, graphics, symbols, and codes. Also, auditory, tactual, and olfactory displays, as well as speech and nonverbal communications, physical work and materials handling, motor skills, and hand tool devices and controls. Explores workplace design, anthropometry, component arrangement in space, lighting, sound, climate, and motion. Recommended: Knowledge of simple statistical analysis. Prerequisite: Senior or graduate standing, or permission of instructor.

## ME 5357-Optimized Mechanical Design

## Credits: 3

Covers principles and methods for optimal design of machine elements (e.g., springs, shafts, gears, weldments of joints), mechanical systems (e.g., transmissions, cam systems, inertia loads and balancing), and computer applications. Prerequisite: ME 4370 or equivalent.

## ME 5359-Analysis and Design of Optoelectronic Packaging

## Credits: 3

Provides an overview of optical fiber interconnections in telephone networks, packaging for high-density optical back planes, and selection of fiber technologies. Also, semiconductor laser and optical amplifier packaging, optical characteristics
and requirements, electrical properties, mechanical properties, waveguide technologies, optical alignment and packaging approaches, passive device fabrication and packaging, array device packaging, hybrid technology for optoelectronic packaging, and flip-chip assembly for smart pixel arrays.

## ME 5360 - Electronic Product Design and Reliability

## Credits: 3

Investigates the failures, failure modes, and failure mechanisms in electronic systems. Covers failure detection, electrical simulation, and environmental stress tests. Also, failure analysis, including the use of X rays, thermal imaging and infrared microscopy, acoustical imaging, scanning laser acoustic microscopy, infrared spectroscopy, differential scanning calorimeter, thermomechanical analyzer, and other testing procedures. Discusses solder joint reliability of ball grid array assemblies, plastic ball grid array assemblies, flip chip assemblies, and chip scale package assemblies, as well as fine pitch, surface mount technology assemblies. Explores temperature as a reliability factor, an overview of high-temperature electronics, the use of silicon devices at high temperatures, and the selection of passive devices for use at high temperatures. Prerequisite: ME 3340 or graduate student standing.

## ME 5361 - Matrix Structure Analysis

## Credits: 3

A systematic approach to the formulation of force and displacement method of analysis, the representation of structures as assemblages of elements, and computer solution of structural systems. Prerequisite: ME 3350/CEE 3350 or permission of instructor.

## ME 5362 - Engineering Analysis with Numerical Methods

## Credits: 3

Application of numerical and approximate methods in solving a variety of engineering problems. Examples include equilibrium, buckling, vibration, fluid mechanics, thermal science, and surveying problems. Prerequisite: Senior standing.

## ME 5363 - Electronic Manufacturing Technology

## Credits: 3

Covers the complete field of electronics manufacturing. Topics include an introduction to the electronics industry; electronic components; the theory and methods of manufacture of solid-state devices; packaging techniques such as wire bonding, flip chip, and TAB; printed wiring board; soldering and solderability; leaded and surface-mounted components; electromagnetic interference; electrostatic discharge prevention; testability; and electronic stress screening. In each area, current technology as well as leading-edge tools are discussed.

## ME 5364 - Introduction to Structural Dynamics

## Credits: 3

Covers the dynamic responses of structures and the behavior of structural components to dynamic loads and foundation excitations. Also, single- and multidegree-of-freedom systems response and applications to analysis of framed structures. Introduces systems with distributed mass and flexibility. Prerequisites: MATH 3313 and ME 3350/CEE 3350 or ME 5361/CEE 5361.

## ME 5365 - Fluid Power Systems

## Credits: 3

Principles of operations; design criteria; and performance characteristics of fluid power systems' components such as pumps, motors, valves, and cylinders. Also, goals-oriented circuit design and analysis, industrial standards, and circuit
representation and maintenance. Includes practical and/or demo lectures, a design project based on specialized software, industry speakers, and site visits. Prerequisites: ME 2342 and ME 2320.

## ME 5368 - Project and Risk Management

## Credits: 3

Focuses on specific concepts, techniques, and tools for managing projects successfully, including network planning techniques, resource allocation, models for multiproject scheduling, methods of controlling costs, determining schedules, and performance parameters. Covers the basics of risk management, including hard analysis, risk analysis, risk control, and risk financing. Focuses on integrating risk assessment with managerial decision-making. Emphasizes examples and case studies.

## ME 5371 - Introduction to Gas Dynamics and Analysis of Propulsion Systems

## Credits: 3

Introduction to the mechanics and thermodynamics of high-speed compressible flows with application to the design of propulsion systems. Focus is on one-dimensional and quasi one-dimensional compressible flow, normal shocks, oblique shocks, and two-dimensional flow method of characteristics. Also includes analysis of air-breathing propulsion systems and design of air-breathing propulsion systems components such as inlets and nozzles. Prerequisites: ME 2342 and C or better in ME 2331/CEE 2331.

## ME 5372 - Introduction to CAD

## Credits: 3

Introduces mechanical computer-aided design. Surveys technical topics related to CAD and computer-aided manufacturing, with emphasis on the hands-on use of interactive computer graphics in modeling, drafting, assembly, and analysis using a state-of-the-art CAD system. Prerequisite: Junior standing or consent of instructor.

## ME 5374 - Advanced CAD/CAE

## Credits: 3

Focuses on advanced modeling techniques, structural analysis and optimization, kinematical and dynamical analysis, mechanism design and virtual prototyping, and thermal analysis and flow simulation. Emphasis on hands-on use of state-of-the-art CAD/CAE systems. Prerequisite: ME 2372 or consent of instructor.

## ME 5376 - Robotics: Introduction to Computer-Aided Manufacturing

Credits: 3
Introduction to industrial robotics and numerically controlled machines, economics of CAM, applications of robotics in industry, robot safety, addition of senses and intelligence, and research in CAM flexible manufacturing cells and systems. Hands-on laboratory work with industrial robots and NC machines. Independent study and report on a specific robot application. Prerequisites: CSE 1341, PHYS 1403, and MATH 3313 or equivalent.

## ME 5377-Advanced Steel Design

Credits: 3
The behavior and design of steel structures, including general methods of plastic analysis, plastic moment distribution, steel frames, unbraced and braced frames, and composite construction. Prerequisite: ME 4350/CEE 4350.

## ME 5383 - Heating, Ventilating, and Air Conditioning

## Credits: 3

Covers the selection and design of basic refrigeration, air conditioning, and heating systems. Includes load calculations, psychometrics, cooling coils, cooling towers, cryogenics, solar energy applications, and special topics. Prerequisites: ME 3332 and C or better in ME 2331/CEE 2331.

## ME 5386 - Convection Heat Transfer

Credits: 3
Advanced topics in forced convection heat transfer using analytical methods and boundary-layer analysis. Also, laminar and turbulent flow inside smooth tubes and over external surfaces, convection processes in high-speed flows. Prerequisite: ME 3332 or equivalent.

## ME 5390 - Undergraduate Seminar

## Credits: 3

An opportunity for the advanced undergraduate student to undertake independent investigation, design, and development. The project and the supervising faculty must be approved by the chair of the department in which the student expects to receive the degree.

## ME 5391 - Special Projects

## Credits: 3

Intensive study of a particular subject or design project not available in regular course offerings and under the supervision of a faculty member approved by the department chair.

## ME 5392 - Special Projects

## Credits: 3

Intensive study of a particular subject or design project not available in regular course offerings and under the supervision of a faculty member approved by the department chair.

## ME 5393-Special Projects

## Credits: 3

Intensive study of a particular subject or design project not available in regular course offerings and under the supervision of a faculty member approved by the department chair.

## ME 5394-Special Projects

## Credits: 3

Intensive study of a particular subject or design project not available in regular course offerings and under the supervision of a faculty member approved by the department chair.

## ME 5395-Special Projects

Credits: 3
Intensive study of a particular subject or design project not available in regular course offerings and under the supervision of a faculty member approved by the department chair.

## ME 5490 - Undergraduate Seminar

## Credits: 4

An opportunity for the advanced undergraduate student to undertake independent investigation, design, and development. The project and the supervising faculty must be approved by the chair of the department in which the student expects to receive the degree.

## ME 5491 - Special Projects

## Credits: 4

Intensive study of a particular subject or design project not available in regular course offerings and under the supervision of a faculty member approved by the department chair.

## Multidisciplinary Studies

## General Information

The multidisciplinary studies designation accommodates academic programs and courses that do not typically fit within the departments of the Lyle School of Engineering. Included in this area are courses designed for the Engineering Cooperative Education Program, Curricular Practical Training, engineering special topics and firstyear students exploring engineering degree programs.

## Courses:

## DESIGN AND INNOVATION

DSIN 5301 - The Context and Impact of Design

## Credits: 3

Focuses on a series of broad cultural topics through a design lens. Includes discussion and exploration of design topics that cut across eras, mediums, and scales. Emphasizes the idea of the intentionality of a design, as situated in its original context, as well as a design's continuing relevance to modern life.

## DSIN 5302 - Form and Composition

## Credits: 3

Introduces 2-D and 3-D design through assignments focused on the process of creating design work and receiving criticism. Includes overall design principles, 2-D graphic design, 3-D form making, and a culminating final assignment to utilize a full repertoire of design skills. Concentrates on design production with brief training on various digital and analog tools. Students do not need to have a design production background to complete the assigned projects.

## DSIN 5303 - Human-Centered Design

## Credits: 3

A fast-paced, project-based examination of human-centered design, which is a well-established process and set of methods aimed at devising solutions based on people's needs. Explores HCD's foundation in design research that emphasizes primary, contextual research such as interviews, observations, and adapted ethnographic methods, with a focus on empathy for the user and rapid prototyping to quickly express possible solutions. Prerequisite: Sophomore standing or above.

## DSIN 5304 - Building Creative Confidence

## Credits: 3

Focuses on traditional and nontraditional strategies, tools, and mind-shifts required for creativity. Students develop tactical skills to generate, express, and develop their ideas. Investigates the essential components of successful innovation and ways to overcome cultural and personal blocks against creativity. Work is individually produced. Prerequisite: Sophomore standing or above.

## DSIN 5390 - Special Topics

Credits: 3
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## DSIN 5391 - Special Topics

## Credits: 3

Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGINEERING

ENGR 1099 - Engineering Internship

## Credits: 0

Represents a term of industrial work activity in connection with the Engineering Cooperative Program. Internship courses are taken in numerical sequence. Students register for this course in the same manner as for other SMU courses except that no tuition is charged. Each course grade is determined by the student's written report and from the scoring of the employer's evaluation form.

## ENGR 1101 - Engineering and Beyond

## Credits: 1

Explores the five engineering departments at SMU and how the areas work together. Includes case studies, departmental presentations, industry panels, and industry tours.

## ENGR 1199 - Engineering Internship

## Credits: 1

Represents a term of practicum experience in the student's field of study. For students taking more than one internship course, internship courses are taken in numerical sequence. Tuition is charged for the course. The course grade is based on the student's written report due within 2 weeks of the final day of employment.

## ENGR 2099 - Engineering Internship

## Credits: 0

Represents a term of industrial work activity in connection with the Engineering Cooperative Program. Internship courses are taken in numerical sequence. Students register for this course in the same manner as for other SMU courses except that no tuition is charged. Each course grade is determined by the student's written report and from the scoring of the employer's evaluation form.

## ENGR 2199-Engineering Internship

## Credits: 1

Represents a term of practicum experience in the student's field of study. For students taking more than one internship course, internship courses are taken in numerical sequence. Tuition is charged for the course. The course grade is based on the student's written report due within 2 weeks of the final day of employment.

ENGR 2315 - Engineering and Design for the Developing World

## Credits: 3

Engineering design in the developed world takes for granted the availability of several key resources such as construction material, water, and electricity. This course examines engineering design in the absence of these resources, with a focus on the development of shelter and sanitation in an efficient manner. Emphasis on understanding the total energy cycle of a structure and multiple alternative energy solutions. Additional topics include developing solutions for extreme low-cost, high-population densities and ecological sustainability. Students work in interdisciplinary teams to design and build energy-
efficient homes and sustainable sanitation options and to investigate alternative energy systems. Prerequisite: PHYS 1303. Corequisites: ENGR 2320 and sophomore or above standing.

## ENGR 3099 - Engineering Internship

## Credits: 0

Represents a term of industrial work activity in connection with the Engineering Cooperative Program. Internship courses are taken in numerical sequence. Students register for this course in the same manner as for other SMU courses except that no tuition is charged. Each course grade is determined by the student's written report and from the scoring of the employer's evaluation form.

## ENGR 3199 - Engineering Internship

## Credits: 1

Represents a term of practicum experience in the student's field of study. For students taking more than one internship course, internship courses are taken in numerical sequence. Tuition is charged for the course. The course grade is based on the student's written report due within 2 weeks of the final day of employment.

## ENGR 4099 - Engineering Internship

## Credits: 0

Represents a term of industrial work activity in connection with the Engineering Cooperative Program. Internship courses are taken in numerical sequence. Students register for this course in the same manner as for other SMU courses except that no tuition is charged. Each course grade is determined by the student's written report and from the scoring of the employer's evaluation form.

## ENGR 4199-Engineering Internship

## Credits: 1

Represents a term of practicum experience in the student's field of study. For students taking more than one internship course, internship courses are taken in numerical sequence. Tuition is charged for the course. The course grade is based on the student's written report due within 2 weeks of the final day of employment.

## ENGR 5090 - Special Topics

Credits: 0
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5091 - Special Topics

Credits: 0
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5092 - Special Topics

Credits: 0
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5093 - Special Topics

Credits: 0
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5094 - Special Topics

Credits: 0
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5095 - Special Topics

Credits: 0
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5096 - Special Topics

Credits: 0
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5097 - Special Topics

Credits: 0
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5098 - Special Topics

Credits: 0
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5099-Engineering Internship

Credits: 0
Represents a term of industrial work activity in connection with the Engineering Cooperative Program. Internship courses are taken in numerical sequence. Students register for this course in the same manner as for other SMU courses except that no tuition is charged. Each course grade is determined by the student's written report and from the scoring of the employer's evaluation form.

## ENGR 5190 - Special Topics

Credits: 1
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5191 - Special Topics

Credits: 1
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5192 - Special Topics

Credits: 1
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5193 - Special Topics

Credits: 1
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5194 - Special Topics

Credits: 1
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5195 - Special Topics

Credits: 1
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5196 - Special Topics

Credits: 1
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5197 - Special Topics

Credits: 1
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5198 - Special Topics

Credits: 1
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5199 - Special Topics

Credits: 1
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5290 - Special Topics

Credits: 2
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5291 - Special Topics

Credits: 2
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5292 - Special Topics

Credits: 2
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5293 - Special Topics

## Credits: 2

Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5294 - Special Topics

Credits: 2
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5295 - Special Topics

Credits: 2
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5296 - Special Topics

Credits: 2
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5297 - Special Topics

Credits: 2
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5298 - Special Topics

## Credits: 2

Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5299 - Special Topics

Credits: 2
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5390 - Special Topics

Credits: 3
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5391 - Special Topics

Credits: 3
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5392 - Special Topics

Credits: 3
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5393 - Special Topics

Credits: 3
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5394 - Special Topics

Credits: 3
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5395 - Special Topics

Credits: 3
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5396 - Special Topics

Credits: 3
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5397-Special Topics

Credits: 3
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5398 - Special Topics

## Credits: 3

Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## ENGR 5399 - Special Topics

Credits: 3
Individual or group study of selected topics in engineering. Prerequisite: Permission of instructor.

## WAYS OF KNOWING

## KNW 2300 - Introduction to Engineering Design

## Credits: 3

Introduces engineering design methodologies and basic teaming skills. Students participate on a team in a term-long, multidisciplinary design experience in which each student provides basic engineering capabilities in mechanical, software, electronic, civil, and/or environmental systems. Each team designs a robot that achieves stated design objectives while operating autonomously, with as little human interaction as possible. Teams submit group design memos documenting the evolution of the design. Each team makes a preliminary design presentation and report and a final design presentation and
report. A competition is held at the end of the term. Prerequisite or corequisites: MATH 1337 and one of CEE 1302, CSE 1341, EE 1322, EE 1382, EMIS 1360, or ME 1302.

# Meadows School of the Arts 

## General Information


#### Abstract

The Meadows School of the Arts educates visionary artists, scholars, and arts and communication professionals so that they may have a sustainable, transformative impact on both local and global society.

Founded through the generosity of Algur H. Meadows, his family and the Meadows Foundation, the Meadows School is recognized as one of the nation's premier arts schools. It offers intense, specialized education in the communication, performing and visual arts to arts majors, and provides a rich variety of coursework for students from other disciplines exploring the arts as part of their liberal arts education.

In addition to working closely with a nationally renowned faculty, Meadows students have access to many eminent visiting professors, artists and scholars, as well as the annual winners of the Meadows Prize. The Meadows School also offers one of the nation's finest university complexes for instruction, performance and exhibition in advertising, art, art history, arts management and arts entrepreneurship, communications, creative computation, dance, film and media arts, journalism, music, and theatre.


## Facilities

## Academic, Performance and Exhibition Spaces

The Owen Arts Center houses the Greer Garson Theatre (a classical thrust stage), the Bob Hope Theatre (a proscenium theatre), the Margo Jones Theatre (a black box theatre), Caruth Auditorium (which includes a 51 -stop, 3,681-pipe Fisk organ), the Charles S. Sharp Performing Arts Studio, the O'Donnell Lecture-Recital Hall and several smaller performance spaces, as well as classrooms, studios and rehearsal areas. The Doolin Gallery in the Owen Arts Center and the Pollock Gallery, housed in the Hughes-Trigg Student Center, are the art exhibition spaces of the Division of Art. Student work is exhibited and critiqued in the Doolin Gallery. Exhibitions organized in the Pollock Gallery provide students, faculty, staff and the community with opportunities to experience a thoughtful and wide array of exhibitions representing diverse artists, time periods and cultures.

The Meadows Museum exhibits one of the finest and most comprehensive collections of Spanish art outside of Spain, including works of such masters as El Greco, Velázquez, Ribera, Montañes, Murillo, Goya, Sorolla, Picasso, Gris, Miró and Tápies. The Elizabeth Meadows Sculpture Collection includes important works by such modern sculptors as Rodin, Maillol, Lipchitz, Henry Moore, Marini, Giacometti, Noguchi, David Smith and Claes Oldenburg.

The Umphrey Lee Center serves as home to several of the communication arts areas, including a journalism complex that houses a high-definition television studio, a control room, computer labs and editing suites.

The four-story Jake and Nancy Hamon Arts Library is adjacent to the Owen Arts Center and houses all arts library collections, a slide library, an audio/visual center and the Mildred Hawn Exhibition Gallery. The G. William Jones Film and Video Collection, a part of the library's holdings, is housed in the Greer Garson Theatre's 3,800-square-foot refrigerated storage vault, with screening rooms also in the building. The Bywaters Special Collections hold works on paper and archival materials illuminating the cultural history of the Southwest.

## Center of Creative Computation

The Center of Creative Computation is an interdisciplinary research and teaching center exploring computation as a universal, generative medium that integrates creative development, quantitative analysis and interdisciplinary
synthesis. The center offers a major and minor in creative computing, combining core coursework from the Meadows School of the Arts and the Lyle School of Engineering. The center sponsors student and faculty fellowships, workshops and lectures, and facilitates interdisciplinary creative development and research. Examples of projects include hardware and software development, digital media/arts production, visualization, interactive performance, intermedia practice, digital humanities, and pedagogical development.

## Ignite/Arts Dallas

Ignite/Arts Dallas aims to engage the Meadows School in deep relationships with the Dallas community, using the arts to foster connections among diverse groups, and to introduce its students to the arts' critical role in social engagement.

## National Center for Arts Research

SMU's National Center for Arts Research, the first of its kind in the nation, acts as a catalyst for the transformation and sustainability of the national arts and cultural community. The center analyzes the largest database of arts research ever assembled and makes its findings available free of charge to arts leaders, funders, policymakers, researchers, students and the general public.

NCAR's mission is to be the leading provider of evidence-based insights that enable arts and cultural leaders to overcome challenges and increase impact. The scope of this work requires the collaboration of multiple national organizations such as the Cultural Data Project, the National Center for Charitable Statistics, the National Endowment for the Arts, the National Assembly of State Arts Agencies, the Theatre Communications Group, TRG Arts, IBM, the Nonprofit Finance Fund and the Boston Consulting Group. More information is available at www.smu.edu/artsresearch.

## Meadows School of the Arts and the Liberal Arts Education

All first-year undergraduates spend at least one year as SMU Pre-Majors before transferring officially to Meadows. Students are assigned an academic adviser in the University Advising Center based on their intended majors. Arts students have advisers who specialize in those disciplines. In the first year, students combine liberal arts courses with the introductory course requirements of their intended major. After entering Meadows, normally in the sophomore year, students continue to combine courses in the major with University Curriculum requirements.

## Meadows Divisions

The Meadows School consists of 10 undergraduate and graduate divisions. Each is outlined in detail in individual sections of this publication. They are as follows:

Temerlin Advertising Institute for Education and Research Dance
Art
Art History
Film and Media Arts

Arts Management and Arts Entrepreneurship
Journalism

Corporate Communication and Public Affairs
Music
Theatre

## Programs of Study

Bachelor of Arts<br>Bachelor of Fine Arts<br>-Advertising<br>-Art<br>-Art<br>-Art History<br>-Corporate Communication and Public Affairs<br>-Creative Computing<br>-Fashion Media<br>-Film and Media Arts<br>-Interdisciplinary Studies in the Arts<br>-Dance<br>-Film and Media Arts<br>-Theatre<br>-Journalism<br>Bachelor of Music<br>-Music Composition<br>-Music Education (includes Texas teacher certification)<br>-Music Performance<br>-Music Therapy (approved by the Amer. Music Therapy<br>Association; leads to eligibility to sit for Music Therapy Board<br>-Public Relations and Strategic Communication Certification exam)<br>\section*{Academic Minors}

University students may complete a minor in various divisions within Meadows School of the Arts. The minor will be noted on the student's transcript. Interested students should contact the office of the academic dean of their school of record for procedures concerning minor declaration. The minors are as follows:

| Advertising | Graphic Design |
| :--- | :--- |
| Art | History of the Visual and Performing Arts |
| Art History | Journalism |
| Arts Entrepreneurship | Music |
| Arts Management | Musical Theatre |
| Corporate Communication and Public Affairs | Photography |
| Creative Computing | Songwriting |
| Dance Performance |  |

## Admission

Various divisions in Meadows School of the Arts have special admissions criteria such as auditions, portfolio reviews and specified coursework that are in addition to meeting general University admission criteria. Admissions criteria pertinent to each instructional unit are stated in the section of this publication devoted to that unit.

## Admission Procedures

Prospective students interested in undergraduate degrees in Meadows School of the Arts apply for undergraduate admission to SMU as first-year students or transfer students through the SMU Division of Enrollment Services, Office of Undergraduate Admission, PO Box 750181, Dallas TX 75275-0181. Application deadlines and information on performing and visual arts consideration are in the Admission to the University section in the front of this catalog.

# Test Optional Policy for Dual Admit Applicants to SMU Meadows School of the Arts: 


#### Abstract

An SAT or ACT score report is not required for admission consideration from applicants who are seeking admission to Dual Admit programs in the Meadows School of the Arts (Music, Theatre, Dance, Art, Film-B.F.A.). Applicants should only submit an SAT or ACT score report for academic merit scholarship consideration. The recommended combined score to be considered for academic merit scholarships is 1320 on the old SAT (critical reading and math sections only), 1380 on the new SAT, or 29 on the ACT.

Note that students who do not submit test scores will be considered only for artistic scholarship and need-based aid; they will not be considered for scholarships based on academic merit.

Students who do not submit test scores should list their Meadows major first on their application for admission. Students not admitted to Meadows via their portfolio or audition, but who still wish to be considered for admission to SMU, will be required to submit test scores at that time.


## Admission as an SMU Interschool Transfer Student

SMU students enter as pre-majors and then transfer to Meadows School of the Arts when they complete requirements for the major declaration. A student transferring to the Meadows School from Dedman College (or other schools of the University) must secure a Student Change of Degree Program form from the academic records office of the student's current school to present to the Student Academic Services Office of Meadows School of the Arts.

Students must have completed a minimum of 24 credit hours of study, including successful completion of the DISC sequence through DISC 1312 (or its equivalent), with a minimum cumulative GPA of 2.000. Students in various divisions also must receive formal recognition of suitable scholarly or creative ability and talent in the performing arts.

Advertising, communication studies, film and media arts (B.A. only), and journalism students must successfully complete the prerequisite subset of courses with the appropriate GPA to be admitted to their degree programs. Advertising students must additionally complete a written on-site application to the program.

Art students who were not dually admitted prior to matriculation must take three 1300-level courses and then meet with their pre-major advisor in order to declare the B.A. in Art. Art students who were not dually admitted prior to matriculation must take four 1300-level courses and then meet with their pre-major advisor in order to declare the B.F.A. in Art.

Art history students are strongly encouraged to contact the chair of the Art History Division for a conference.
Students interested in pursuing the B.F.A. in film and media arts must submit a portfolio to SlideRoom (www.smu.slideroom.com), the online digital portfolio system. The portfolio must include at least one film/video sample in which the student was a primary creative voice (such as writer or director), and no more than five works.

All students in dance, music and theatre will have auditioned/interviewed prior to entering SMU.

## Admission as an External Transfer Student

Students applying for admission to Meadows School of the Arts by transfer from another accredited educational institution should request a transfer application from the Division of Enrollment Services. Transfer applicants who have completed 30 transferable hours with a GPA of 2.700 or better are often successful in gaining admission to the University. Once admitted, a transfer student must be prepared to earn at least 60 hours of credit through enrollment at SMU. That is, 60 hours of credit must be earned in SMU courses or SMU-approved international programs.

Transfer credit is not given for work completed at a non-accredited school. Only grades of C- or better in comparable courses are transferable to SMU.

Transfer into Meadows School of the Arts is not automatic. Consideration is also given to creative or scholarly potential for the program to be undertaken and to particular talent in performing areas. Admissions criteria pertinent to each instructional unit also must be satisfied.

## Readmission

Students should contact the Division of Enrollment Services, Office of Undergraduate Admission regarding readmission. A student who has been readmitted after an absence of more than three years will be expected to meet all current requirements for graduation. Dance, music or theatre students may also be required to re-audition. Official transcripts from each college or university attended since last enrolled at SMU must also be forwarded to the Division of Enrollment Services. If five years have lapsed since the last term of enrollment at SMU, official transcripts from each college or university attended prior to SMU must also be forwarded to the Division of Enrollment Services. All documentation is due no later than the last business day prior to the first day of classes of the term of re-entry. Detailed information is in the Admission to the University, Readmission of Students section of this catalog.

## Undergraduate Student Financial Aid

For many SMU students, scholarships and other aid make the cost of attending a distinguished university no more, and often less, taxing on their families' financial resources than attending a public university. More than 75 percent of SMU students receive some type of financial aid. More information is available in the Student Financial Aid section of this catalog or through the Division of Enrollment Services, Office of Financial Aid: www.smu.edu/financial_aid, phone 214-768-3417.

SMU has a generous program of merit scholarships, grants, loans and part-time jobs to recognize academic achievement and talent in specific fields and to meet financial need.

## Meadows Undergraduate Artistic Scholarships

The divisions and centers comprising Meadows School of the Arts annually award scholarships for outstanding achievement in a particular discipline. Candidacy for scholarship considerations may require an audition, review and/or interview. No student with ability should hesitate to apply to SMU and Meadows because of financial need.

For information regarding artistic scholarships, students should contact the director of financial aid and scholarships at Meadows School of the Arts, Southern Methodist University, PO Box 750356, Dallas TX 75275-0356; phone 214-768-3314.

To receive primary consideration for all SMU merit scholarships and other aid, students should comply with the following schedule:

## By January 15

- Complete the SMU Application for Admission.
- Submit the Free Application for Federal Student Aid at www.fafsa.ed.gov and the CSS/Financial Aid Profile at www.collegeboard.org.


## By March 1

- Complete auditions and/or interviews.


## Degree Requirements

## Requirements for Graduation

Students who are candidates for a degree in Meadows School of the Arts must submit a formal application for graduation to the Student Academic Services Office by the end of the first week of class for December and May graduation, and by the second day of summer school for August graduation. In addition to University-wide requirements and requirements for the major, candidates for graduation must also fulfill the following requirements:

1. Credits

A minimum total of 122 credit hours. Additional credit hours are required by some programs as needed to fulfill University-wide requirements. No more than two credit hours from Personal Responsibility and Wellness courses count toward degree completion.
2. Grades
a. A minimum cumulative GPA of 2.000 on all attempted SMU work and a minimum 2.000 GPA in the major area of study.
b. A maximum of 12 credit hours at the student's election with a grade of P (Pass).
3. Credit Requirements:
a. A minimum total of 60 credit hours through enrollment at SMU.
b. A maximum of 30 credit hours of transfer work after matriculation.

A degree from Meadows School of the Arts is awarded by the faculty only in recognition of developed abilities, demonstrated knowledge of the student's particular field of study and the capacity to express an understanding of the art medium. Merely passing all courses is not necessarily sufficient.

## Requirements for the Major

Candidates for undergraduate degrees must complete the requirements for an academic major in one of the divisions in Meadows. Students usually declare a major at the end of the first year. Students may major in more than one program within Meadows or combine a major in Meadows with one in a different school. All course-work counting toward a major must be taken for a letter grade, except for those courses that are routinely designated as pass/fail. Students must process appropriate forms in the Student Academic Services Office to change majors or declare a second major.

## University-wide Requirements

University-wide requirements (University Curriculum) must be met by all undergraduate students, regardless of degree program or major. All courses used to meet University-wide requirements must be taken for a letter grade, unless the course is offered only on a pass/fail basis. Questions concerning University Curriculum requirements may be directed to the Student Academic Services Office.

## Double Majors

A student who wishes to double major (majors in two departmental areas or in two schools) must satisfy the requirements of each department or school.

## Graduation Honors

There are three classes of graduation Latin honors: summa cum laude, magna cum laude and cum laude. Eligibility for graduation honors will be based upon a student's total academic program. All academic work attempted at other colleges or universities equivalent to SMU work will be included in the calculation of the GPA. For students who have transferred to SMU or who have transferred coursework following matriculation at SMU, two GPAs will be calculated: that for all work attempted and that for work completed through enrollment at SMU. Latin honors will be based on the lower of the two averages.

## Commencement Activities Prior to Completion of Degree Requirements

Participation in May graduation activities is allowed for students who are within six hours of completing graduation requirements and are enrolled to complete all degree requirements during the summer following graduation activities. Students who meet the above requirements may petition to participate in commencement activities.

## Advertising

# Temerlin Advertising Institute for Education and Research 

Professor Steven Edwards, Director<br>Professors: Patricia Alvey, Willie Baronet, Steven Edwards, Alice Kendrick, Carrie La Ferle, Hye Jin Yoon<br>Assistant Professors: Eunjin Kim, Sidharth Muralidharan<br>Lecturers: Mark Allen, Cheryl Mendenhall<br>Professor of Practice: Peter Noble<br>Adjunct Lecturers: Belinda Baldwin, Amber Benson, David Hadeler, John Hall, Suzanne Larkin, Gordon Law, Alan Lidji, Bruce Orr, Jason Shipp, Marc Valerin, Alexandra Watson

## General Information

The Temerlin Advertising Institute was endowed by the Dallas advertising community through a pledge to augment scholarships, faculty salaries and public programs that enrich student learning and practical experience in advertising. Established in 2001, it is one of the nation's only endowed advertising institutes. The institute enjoys a strong relationship with the industry, as it is situated in a top media and advertising market - the Dallas/Fort Worth Metroplex. This location affords access to professionals of the highest caliber who serve as class clients, guest lecturers, executives-in-residence, adjunct faculty and internship sponsors. Students have access to high-profile internships at national and global agencies as well as client and media corporations. All undergraduate students admitted to the institute work toward a B.A. degree in advertising. Students wishing to pursue a master's degree in advertising may apply to the graduate program. Additional information is available online at www.smu.edu/temerlin ("Graduate Studies" link) or in the Meadows School of the Arts graduate catalog.

## Admission Requirements

For students wishing to pursue a B.A. in advertising at SMU, admission into the Temerlin Advertising Institute is a two-step process.

STEP ONE: Students must complete ADV 1300 and at least one specialization introductory course (ADV 1321, ADV 1331 or ADV 1341). Students must also be in good academic standing with the University with a minimum cumulative GPA of $\mathbf{2 . 0 0 0}$. Students transferring from other universities must have completed equivalent courses before they can progress to step two.

STEP TWO: Advertising major candidates who have fulfilled or are fulfilling step one also must complete an application for the specialization area(s) in which they are interested. The application is offered during the spring term only. Students who are not admitted during an application process may reapply during the next application period. Dates, times and location are posted at www.smu.edu/temerlin.

## Advertising, B.A., Creative Specialization

The Temerlin Advertising Institute offers students pursuing a B.A. in advertising the opportunity to focus their studies in one of three areas: creative, digital media strategy or strategic brand management. Students must apply to both the major and a specialization concurrently. Students may apply to more than one area of specialization but will be admitted to only one. All SMU advertising students are required to take a core set of advertising courses that includes survey, society and ethics, consumer behavior, research, media, business communication, professional seminar, and campaigns. In addition, advertising majors must declare and
complete a second major or a minor outside of advertising. Because SMU is in the center of a dynamic U.S. advertising market, many students participate in internships for course credit.

The creative program prepares students to enter the world of advertising and marketing as art directors and copywriters. The curriculum covers all aspects of content creation for communicating a brand's identity to consumers. Courses focus on conceptual thinking, approaches to ideation, the creative process, discovery and execution of the big idea, and communicating information in an effective way across a variety of traditional and digital media. Students will learn to create compelling work, present and justify their ideas, and develop a personal aesthetic. The creative specialization courses must be taken in sequence.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Required Advertising Courses (22 Credit Hours)

- ADV 1300 - Survey of Advertising
- ADV 2301 - Consumer Behavior
or
- MKTG 3343 - Consumer Behavior
- ADV 2302 - Advertising, Society, and Ethics
- ADV 3303-Advertising Media
- ADV 3304 - Advertising Research
- ADV 3305 - Business Communication
- ADV 4106 - Professional Seminars
- ADV 4399 - Advertising Campaigns


## Advertising Specialization Courses (6 Credit Hours)

- ADV 1321 - Introduction to Creativity
- ADV 1331 - Digital Media Landscapes
or
- ADV 1341- Marketing Principles of Advertising or
- MKTG 3340 - Fundamentals of Marketing


## Creative Specialization Courses (18 Credit Hours)

- ADV 1360 - Creative Production
- ADV 2322 - Concepting
- ADV 3322 - Portfolio
- ADV 3323 - Introduction to Graphic Design
- ADV 4322 - Advanced Portfolio
- ADV 4323 - Copywriting


## Second Major or Minor Choice

Hours vary according to choice.

## Free Electives

Hours vary as needed to meet University residency and degree requirements.

Total: 122 Credit Hours

## Advertising, B.A., Digital Media Strategy Specialization

The Temerlin Advertising Institute offers students pursuing a B.A. in advertising the opportunity to focus their studies in one of three areas: creative, digital media strategy or strategic brand management. Students must apply to both the major and a specialization concurrently. Students may apply to more than one area of specialization but will be admitted to only one. All SMU advertising students are required to take a core set of advertising courses that includes survey, society and ethics, consumer behavior, research, media, business communication, professional seminar, and campaigns. In addition, advertising majors must declare and complete a second major or a minor outside of advertising. Because SMU is in the center of a dynamic U.S. advertising market, many students participate in internships for course credit.

The digital media strategy specialization prepares students to enter the world of advertising and marketing as digital producers, digital strategists, content managers and media specialists. Marketing in the digital age means understanding when and where to communicate to consumers when they are most receptive to receiving and sharing messages. Students admitted to the specialization will learn to maximize consumers' engagement with marketing messages using paid, owned and earned media to achieve this goal. The digital media strategy specialization courses must be taken in sequence.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Required Advertising Courses (22 Credit Hours)

- ADV 1300 - Survey of Advertising
- ADV 2301 - Consumer Behavior
or
- MKTG 3343 - Consumer Behavior
- ADV 2302 - Advertising, Society, and Ethics
- ADV 3303 - Advertising Media
- ADV 3304 - Advertising Research
- ADV 3305 - Business Communication
- ADV 4106 - Professional Seminars
- ADV 4399 - Advertising Campaigns


## Advertising Specialization Courses (6 Credit Hours)

- ADV 1331 - Digital Media Landscapes
- ADV 1321 - Introduction to Creativity
or
- ADV 1341-Marketing Principles of Advertising or
- MKTG 3340 - Fundamentals of Marketing


## Digital Media Strategy Specialization Courses (18 Credit Hours)

- ADV 2332 - Digital Media Strategy 1
- ADV 2333 - Internet and Mobile Advertising
- ADV 3332 - Digital Media Strategy 2
- ADV 3333 - Media Measurement and Metrics
- ADV 4332 - Digital Media Strategy 3: Digital Media Practicum
- ADV 4333 - Topics in Digital Media Marketing


## Second Major or Minor Choice

Hours vary according to choice.

## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Advertising, B.A., Strategic Brand Management Specialization

The Temerlin Advertising Institute offers students pursuing a B.A. in advertising the opportunity to focus their studies in one of three areas: creative, digital media strategy or strategic brand management. Students must apply to both the major and a specialization concurrently. Students may apply to more than one area of specialization but will be admitted to only one. All SMU advertising students are required to take a core set of advertising courses that includes survey, society and ethics, consumer behavior, research, media, business communication, professional seminar, and campaigns. In addition, advertising majors must declare and complete a second major or a minor outside of advertising. Because SMU is in the center of a dynamic U.S. advertising market, many students participate in internships for course credit.

The strategic brand management specialization prepares students to enter the world of advertising and marketing as account or brand managers, project managers, planners/strategists, consumer insight experts, event and promotion specialists, and new business developers. This specialization examines the approaches to management in advertising agencies and on the client side. Topics include strategies for the identification of marketing-related problems and the processes needed to find solutions through messaging, promotions and other forms of consumer engagement to build brand equity and market share. Students learn how to think critically, work collaboratively in an interdisciplinary environment, develop strategy, hone their communication skills, assess the metrics of their work and present concepts in an engaging way. The strategic brand management specialization courses must be taken in sequence.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Required Advertising Courses (22 Credit Hours)

- ADV 1300-Survey of Advertising
- ADV 2301-Consumer Behavior
or
- MKTG 3343 - Consumer Behavior
- ADV 2302 - Advertising, Society, and Ethics
- ADV 3303 - Advertising Media
- ADV 3304 - Advertising Research
- ADV 3305 - Business Communication
- ADV 4106 - Professional Seminars
- ADV 4399 - Advertising Campaigns


## Advertising Specialization Courses (6 Credit Hours)

- ADV 1341-Marketing Principles of Advertising or
- MKTG 3340 - Fundamentals of Marketing
- ADV 1321 - Introduction to Creativity or
- ADV 1331 - Digital Media Landscapes


## Strategic Brand Management Specialization Courses (18 Credit Hours)

- ADV 2342-Strategic Brand Management 1
- ADV 2343 - International Advertising
- ADV 3342 - Strategic Brand Management 2
- ADV 3343-Advertising Account Planning
- ADV 4342 - Strategic Brand Management 3: Applied Brand Strategies
- ADV 4343 - Strategic Promotion Management


## Second Major or Minor Choice

Hours vary according to choice.

## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Advertising Minor

The minor in advertising offers an overview of the social, economic, legal and marketing environments in which advertising functions. Students wishing to pursue a minor in advertising must first complete ADV 1300, plus at least two of ADV 1321, 1331, or 1341 (or MKTG 3340) with a minimum cumulative GPA of 2.000 in these three courses. Students must be in good academic standing with the university and have a declared major before they can declare a minor in advertising. Students that have met these requirements should contact the Temerlin Advertising Institute.

## Requirements for the Minor

## Required Advertising Courses (18 Credit Hours)

- ADV 1300 - Survey of Advertising
- ADV 1321 - Introduction to Creativity
- ADV 1331 - Digital Media Landscapes
- ADV 1341- Marketing Principles of Advertising
or
- MKTG 3340 - Fundamentals of Marketing
- ADV 2301 - Consumer Behavior
or
- MKTG 3343-Consumer Behavior
- ADV 2302 - Advertising, Society, and Ethics


## Total: 18 Credit Hours

## Courses:

## ADV 1300 - Survey of Advertising

Credits: 3
Introductory course for majors and nonmajors that surveys the field of advertising and explores how it fits into society. Topics include history, law, ethics, social dynamics, economic implications, and the advertising campaign planning process. Examines the process of advertising from the perspectives of art, business, and science. Required for all majors and minors.

## ADV 1321 - Introduction to Creativity

## Credits: 3

A survey of the theoretical, practical, and ethical issues associated with creative thinking. Examines individual and organizational strategies for promoting creativity and the creative thinker's role in shaping the culture. Also, highlights the intellectual connections between the scholarship in creativity and advertising industry practice. Students who complete this course may apply for admission to the Temerlin Advertising Institute's creative program. Students must earn a B or better in ADV 1321 to be eligible for admission to the creative program. Prerequisite or corequisite: ADV 1300.

## ADV 1331 - Digital Media Landscapes

## Credits: 3

Introduces the technologies and processes associated with mobile, Web, and other interactive experiences. Topics include how the Internet works, interaction design, information architecture, visual design, and the development process. Students must earn a B or better in ADV 1331 to be eligible for admission to the interactive media strategy program. Prerequisite or corequisite: ADV 1300.

## ADV 1341 - Marketing Principles of Advertising

## Credits: 3

Students learn the basic principles of consumer marketing and the role of advertising in the marketing mix. Emphasizes marketing and advertising strategy and planning processes through case studies in which students develop advertising answers to marketing problems and opportunities. Students must earn a B or better in ADV 1341 to be eligible for admission to the strategic brand management program. Prerequisite or corequisite: ADV 1300.

## ADV 1360-Creative Production

## Credits: 3

Students learn the basic principles of advertising design and production in tandem with the use of industry-standard hardware and software programs, including the Adobe Creative Suite.

## ADV 2301-Consumer Behavior

## Credits: 3

Covers theories from psychology, social psychology, sociology, anthropology, economics, marketing, and communications to explore the consumer decision-making process. Includes theories of motivation, attitudes, beliefs, and learning, with a direct application to advertising. Prerequisites: ADV 1300 and ADV 1321, ADV 1331, or ADV 1341. Restricted to advertising majors and minors.

## ADV 2302 - Advertising, Society, and Ethics

## Credits: 3

Broad overview of the interaction of advertising with society. Examines economic, social, and ethical issues as well as legal and regulatory constraints. Prerequisites: ADV 1300 and ADV 1321, ADV 1331, or ADV 1341. Restricted to advertising majors and minors.

## ADV 2322 - Concepting

## Credits: 3

A workshop for developing ideation skills and helping students self-identify as art directors or writers. Students acquire techniques and develop personal discipline inherent to the generation of novel, sophisticated creative work based on a solid
concept: the distinctive, guiding idea that drives campaign messages. Assignments are evaluated in group critiques, and each student completes a final portfolio by term's end. Prerequisites: ADV 1300, ADV 1321. Restricted to advertising majors.

## ADV 2323 - Word and Image, Art and Design: 1900-Present

## Credits: 3

Contemporary designers and artists create meaningful, persuasive, and expressive works through a combination of images and text. These works of graphic design and art shape the visual culture of every aspect of life, from the look of media and information networks to people's experience of the cities in which they live. This course surveys the modern and contemporary history of works of art and design that demand to be read as much as seen, from the industrial age to the knowledge economy.

## ADV 2332 - Digital Media Strategy 1

## Credits: 3

Focuses on strategies used by marketers and advertisers to engage fragmented audiences using paid media (television, radio, print, online display, mobile, or paid search), owned media (websites, Facebook pages, retail environments, and special events), and earned media (word-of-mouth and social media channels). Covers strategies for engagement (i.e., fostering direct relationships with prospects and customers through dialogue). Prerequisites: ADV 1300, ADV 1331. Restricted to advertising majors.

## ADV 2333 - Internet and Mobile Advertising

## Credits: 3

Focuses on the tactical side of purchasing, placing, and improving interactive media marketing. Topics include paid search, paid social media placement, and display advertising. Explores the burgeoning world of mobile advertising, location-based advertising, and second-screen interaction. Restricted to advertising majors.

## ADV 2342 - Strategic Brand Management 1

## Credits: 3

Provides the basic concepts, duties, skills, problem-solving techniques, and processes of an account brand manager. Covers industry trends, agency structure, and the tools to be a leader in advertising who uplifts brands, engages consumers, and moves market share. Prerequisites: ADV 1300, ADV 1341. Restricted to advertising majors.

## ADV 2343 - International Advertising

## Credits: 3

Explores the rapidly changing global environment that influences marketing and advertising, including research, management, strategy, media, and execution. Students learn to recognize similarities and differences between countries and consumers based on tangible cultural indicators, and they develop the necessary leadership and problem-solving tools to effectively communicate and advertise products in a global marketplace. Restricted to advertising majors.

## ADV 3050 - Internship

## Credits: 0

Off-campus opportunity in a professional setting where students apply principles learned in various advertising courses. Students may be placed for the fall, spring, or summer terms. Departmental consent required.

## ADV 3150 - Internship

## Credits: I

Off-campus opportunity in a professional setting where students apply principles learned in various advertising courses. Students may be placed for the fall, spring, or summer terms. Through weekly, midterm, and final reports; the completion of an essay; and the satisfactory accomplishment of 50,100 , or 150 hours of work, a student may earn one, two, or three academic credit hours respectively. Only three total credit hours may be earned through internships. Departmental consent required.

## ADV 3250 - Internship

## Credits: 2

Off-campus opportunity in a professional setting where students apply principles learned in various advertising courses.
Students may be placed for the fall, spring, or summer terms. Through weekly, midterm, and final reports; the completion of an essay; and the satisfactory accomplishment of 50,100 , or 150 hours of work, a student may earn one, two, or three academic credit hours respectively. Only three total credit hours may be earned through internships. Departmental consent required.

## ADV 3303-Advertising Media

## Credits: 3

Covers principles essential to media planners, buyers, and sellers. Includes media audience analysis, media vehicle comparisons, and budgeting. Students master the elements of media plans used in major advertising agencies. Restricted to advertising majors.

## ADV 3304-Advertising Research

## Credits: 3

Explores a variety of research methods, sources, and issues, with a focus on the proper role of research in advertising planning. Students design, execute, analyze, and present primary and secondary research projects. Restricted to advertising majors.

## ADV 3305-Business Communication

## Credits: 3

Provides the framework and tools for successful communication in business environments. Focuses on the written, oral, and interpersonal communication skills that are needed in planned and impromptu situations to effectively and efficiently convey information and deliver messages that meet professional standards. Restricted to advertising majors.

## ADV 3322 - Portfolio

## Credits: 3

A workshop course devoted to the continued development and professional-level execution of an advertising portfolio reflecting mastery of strategic and conceptual thinking. Work is prepared and evaluated to satisfy highest industry standards for placement. A jury of creative professionals reviews portfolios at an end-of-term critique. Prerequisite: ADV 2322.

## ADV 3323 - Introduction to Graphic Design

## Credits: 3

An introduction to graphic design as a form of visual communication through the use of type, image, form, and color. Projects explore principles of perception, visual identity and communication, thematic structure and hierarchy, creative problem-solving, and basic design practices of critique and discussion. Prerequisite: ADV 1360 or ADV 2322.

## ADV 3332-Digital Media Strategy 2

## Credits: 3

Utilizes a series of marketing and advertising cases to explore the successes and failures of companies applying the principles learned in ADV 2332. Socratic in nature, with little lecture; instead, students are expected to participate in class discussions and presentations. Prerequisites: ADV 2332.

## ADV 3333 - Media Measurement and Metrics

## Credits: 3

Focuses on the tools, methods, and new metrics advertisers use to glean deeper consumer insights and more accurately measure the relative success of marketing campaigns. Topics include media segmentation, assessing audience exposure, ROI, Web analytics, big data, and quantitative and qualitative research methodologies. Prerequisite: ADV 2333.

## ADV 3342 - Strategic Brand Management 2

## Credits: 3

Provides the basic concepts, duties, skills, problem-solving techniques, and processes of an account brand manager. Covers industry trends, agency structure, and the tools to be a leader in advertising who uplifts brands, engages consumers, and moves market share. Prerequisite: ADV 2342.

## ADV 3343 - Advertising Account Planning

## Credits: 3

Focuses on account planning, which is a research-based and consumer-centered approach to the strategic development of advertising. Students review qualitative and quantitative research practices used in advertising as well as the planning techniques used by account planners. Includes the creation of strategic briefs, primary research among consumers, and reports that contribute to the creative and media elements of an advertising campaign. Prerequisite: ADV 2343.

## ADV 3350 - Internship

## Credits: 3

Off-campus opportunity in a professional setting where students apply principles learned in various advertising courses. Students may be placed for the fall, spring, or summer terms. Through weekly, midterm, and final reports; the completion of an essay; and the satisfactory accomplishment of 50,100 , or 150 hours of work, a student may earn one, two, or three academic credit hours respectively. Only three total credit hours may be earned through internships. Departmental consent required.

## ADV 3361 - Typography

## Credits: 3

Introduces the fundamentals of typography. Explores the history of typographic forms, typographic anatomy, vocabulary, principles of composition, the expressive potential of type, the intricacies of spacing between individual letterforms and lines of type, and legibility across a variety of media and across varying distances and speeds of delivery. Prerequisites: ADV 1360, ADV 3323, and ASAG 1310 or ADV 2323.

## ADV 4106 - Professional Seminars

## Credits: 1

Short courses that allow students to explore aspects of the field of advertising not covered by formal classes. Restricted to advertising majors.

## ADV 4322 - Advanced Portfolio

## Credits: 3

A workshop course devoted to the continued development and professional-level execution of an advertising portfolio reflecting mastery of strategic and conceptual thinking. Work is prepared and evaluated to satisfy highest industry standards for placement. A jury of creative professionals reviews portfolios at an end-of-term critique. Prerequisite: ADV 3322.

## ADV 4323-Copywriting

## Credits: 3

This workshop covers how to write for radio, television, cable/satellite, and Web-based advertising. Correct grammar, structure, and style are important factors in student success. Explores the blending of visual and verbal elements in the writing of television and radio advertising and promotional material. Prerequisite: ADV 3322. Restricted to advertising majors.

## ADV 4332 - Digital Media Strategy 3: Digital Media Practicum

## Credits: 3

Students solve real-world digital media problems using lessons and tools learned in previous courses. Problems may come from clients and/or the instructor. Prerequisite: ADV 3332.

## ADV 4333 - Topics in Digital Media Marketing

## Credits: 3

Covers the process of concepting, designing, and building interactive experiences that engage customers but do not feel like ads. Prerequisite: ADV 3333.

## ADV 4342 - Strategic Brand Management 3: Applied Brand Strategies

## Credits: 3

Students apply management concepts, theories, and processes studied and practiced in prior courses to provide strategic and business solutions appropriate for advertising problems. Problems may come from clients and/or the instructor. Prerequisite: ADV 3342.

## ADV 4343 - Strategic Promotion Management

## Credits: 3

Focuses on the selection and management of specialized forms of promotion, including in-store marketing, price promotion, direct marketing, event sponsorship, product placement, branded entertainment, public relations, viral marketing, and other tools available to the marketing communications practitioner. Prerequisite: ADV 3343.

## ADV 4363 - Logo and Trademark Design

## Credits: 3

Explores the theory and practice of personal and corporate identity systems, including symbol and logotype design and their application to various media such as stationery systems, signage, websites, displays, and packaging. Also, issues of legibility, cross-cultural understanding, and the integrity of representation across a variety of media. Prerequisites: ADV 1360, ADV 2322 or ADV 3323, and ASAG 1310 or ADV 2323.

## ADV 4364 - Publication Design

## Credits: 3

Examines the graphic designer's role in the layout and design of publications. Lectures and studio work cover historical and current practices and technologies used to produce multipage publications. Also, issues of legibility and enhanced storytelling. Students produce visualizations for several publications using the elements of layout with typography and art. Prerequisites: ADV 1360, ADV 2322 or ADV 3323, and ASAG 1310 or ADV 2323.

## ADV 4366 - Visualization of Information

## Credits: 3

Addresses visual problem-solving and emphasizes methods of translating complex data into clear, visually dynamic solutions. Topics include corporate communication systems, publication, way-finding, interaction design, and explanatory and interactive graphics for use in print and digital media. Prerequisites: ADV 1360, ADV 2361 or ADV 3323, and ASAG 1310.

## ADV 4399 - Advertising Campaigns

## Credits: 3

Integrating the major advertising principles, students develop and present an advertising campaign. Includes research, creative strategy, media plan, and presentation of the campaign to a client. Prerequisites: ADV 3303, ADV 3304. Restricted to advertising majors.

## ADV 5110 - Directed Study

## Credits: 1

Independent study under the direction and supervision of a full-time faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. The student must secure written permission from the instructor and return a completed Directed Studies Approval Form to the Temerlin Advertising Institute before the start of the term. Instructor and departmental consent required. Prerequisite: Junior standing. Restricted to advertising majors.

## ADV 5210 - Directed Study

## Credits: 2

Independent study under the direction and supervision of a full-time faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. The student must secure written permission from the instructor and return a completed Directed Studies Approval Form to the Temerlin Advertising Institute before the start of the term. Instructor and departmental consent required. Prerequisite: Junior standing. Restricted to advertising majors.

## ADV 5301-Topics in Advertising

## Credits: 3

Focuses on special topics in advertising such as timely, evolving, ethical, and/or international issues immediately relevant to the advertising industry. Prerequisite: ADV 1300. Restricted to advertising majors.

## ADV 5302-Topics in Advertising

## Credits: 3

Focuses on special topics in advertising such as timely, evolving, ethical, and/or international issues immediately relevant to the advertising industry. Prerequisite: ADV 1300. Restricted to advertising majors.

## ADV 5310 - Directed Study

## Credits: 3

Independent study under the direction and supervision of a full-time faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. The student must secure written permission from the instructor and return a completed Directed Studies Approval Form to the Temerlin Advertising Institute before the start of the term. Instructor and departmental consent required. Prerequisite: Junior standing. Restricted to advertising majors.

## Art

Associate Professor Noah Simblist, Division Chair<br>Professors: Michael Corris, Barnaby Fitzgerald, James W. Sullivan, Philip Van Keuren, Mary Vernon<br>Associate Professor: Noah Simblist<br>Assistant Professor: Brian Molanphy<br>Senior Lecturer: Eileen Maxson<br>Adjunct Professor: Susan Kress

## General Information

The study and practice of art offers a unique experience for the exercise of imaginative freedom, the opportunity for the independent organization of work, and the promise of self-knowledge and personal satisfaction. Contemporary art is also increasingly a source of knowledge about the world and, for many, an active agent in the transformation of social life. The Division of Art embraces these values in its art courses leading to the B.A., B.F.A. and M.F.A. degrees.

At the heart of the student's experience is the acquisition of skills, concepts and strategies relevant to an expanded notion of studio culture in contemporary art. Students are encouraged to explore and develop art in a challenging environment that rewards experimentation and risk-taking. The Division of Art offers a program of study that prepares students for the successful continuation of professional practice as an artist, the pursuit of graduate study in art or the application of visual art to other fields of study.

The program is marked by its wide range of supporting resources: studio courses that offer grounding in techniques and concepts; courses in the critical and historical study of art; well-equipped workshops, galleries and exhibition areas that provide ample opportunities for the public presentation of student work; field trips to public and private collections of art and to artists' studios; and a lively series of lectures and seminars by distinguished contemporary practitioners, critics and curators. Small class size coupled with an approach that takes full advantage of the division's setting within a distinguished school of the arts of a major university offers a transdisciplinary educational experience that few, if any, specialist colleges of art can match. More information is available at www.meadows.smu.edu/art.

## Instructional Facilities

Facilities for the study of art include well-lighted studios, individual work spaces and excellent equipment to support all media taught, as well as individual experimentation. Facilities span both new and traditional approaches to studio art, including digitally based studios for photography, video, computer-generated imaging, 3 -D imaging and rapid prototyping (3-D printing), and physical computing (microcontrollers/Arduino boards and sensors). Art students work as broadly and as experimentally as they wish within an environment of open artistic exchange, surrounded by artists in dance, music, theatre, film and communications. Additional facilities comprise a variety of spaces for the installation of artwork, including the Pollock Gallery - the art exhibition space of the Division of Art located in Hughes-Trigg Student Center. The Pollock Gallery provides students, faculty, staff and the surrounding community with opportunities to experience a wide and thought-provoking array of exhibitions representing diverse artists, time periods and cultures, as well as the B.F.A. and M.F.A. qualifying exhibitions. The Meadows School and SMU offer excellent library and technological resources, including the Hamon Arts Library (incorporating the Meadows computer center), the Center of Creative Computation (an interdisciplinary research center open to all Meadows' undergraduate and graduate students), as well as specific facilities within the Division of Art.

The division runs an extensive visiting artist program, ranging from visiting artist lectures and workshops to the Meadows distinguished visiting professor. Through these programs, artists, critics and curators of note are brought to campus to teach, lecture and conduct upper-level undergraduate and graduate critiques.

The division also offers two special programs of importance to graduate and undergraduate students: the New York Colloquium (a winter interterm program in New York) and SMU-in-Taos, a summer program at SMU's campus near Taos, New Mexico. During the New York Colloquium, students visit a range of museums, galleries, artists' studios and other venues appropriate to the development of their critical and professional studies in art. The program at Fort Burgwin, Taos, offers coursework as well as independent and directed study each summer in a wide range of studio and external exhibition projects. The University offers a range of programs for study abroad during all phases of study.

The Dallas/Fort Worth area has a large artistic community with rich and varied resources. These include many internationally and nationally significant museums and contemporary exhibition spaces: the Dallas Museum of Art, SMU's Meadows Museum, the Nasher Sculpture Center, the Dallas Contemporary, the Crow Collection of Asian Art, the Latino Cultural Center of Dallas, the Kimbell Museum, the Fort Worth Museum of Modern Art and the Amon Carter Museum. There are also vibrant, artist-run alternative and cooperative galleries, and a growing commercial gallery system.

## Admission and Financial Aid

In addition to meeting University admission criteria, students wishing to pursue the B.A. in art or B.F.A. in art degrees must submit a portfolio for admission to the degree program.

All students admitted to the University and to the B.A. in art or B.F.A. degree program are considered for artistic scholarships based on artistic merit as they enter the University. The deadline for incoming portfolios to be reviewed for artistic scholarships is February 1 of every year for scholarships beginning in the fall term, and November 15 for early admission/early action candidates. Portfolios must be submitted through SlideRoom (www.smu.slideroom.com), the online digital portfolio system, for full consideration. A guide to aid the student in the preparation of the portfolio of images is available through the Division of Art and on the division website. In addition, the Division of Art hosts regularly scheduled portfolio review days for prospective students where faculty critique and discuss student work in an open review. More information is available at www.meadows.smu.edu/art.

In addition to meeting University transfer admission criteria, students wishing to transfer to the B.A. or B.F.A. degree program from another university must be accepted by portfolio review prior to admission to study. For more information, students should contact the Division of Art.

Financial aid from the Division of Art for entering and continuing students is based upon artistic accomplishment. Continuing scholarships are reviewed each year based on satisfactory progress toward the degree. To receive an award for artistic merit, students must submit either a Free Application for Federal Student Aid (www.fafsa.ed.gov) or a waiver, and a CSS/Profile (www.collegeboard.com).

## Programs of Study

The Division of Art offers two undergraduate degrees - the B.F.A. in art and the B.A. in art - and minors in art and photography. In addition, the Division of Art contributes to the continuous development and delivery of interdisciplinary courses throughout the Meadows School of the Arts.

## Art, B.A.

The B.A. in art is designed to offer students a degree in art that allows time for significant study in another discipline as well. This makes room for double majors and extensive study in the humanities, sciences or other degree programs. The B.A. degree gives students with varied interests in university study a sound footing in the visual, tactile and conceptual capabilities, as well as historical and cultural knowledge and a range of theoretical and analytical bases, for making art. To earn a B.A., the student is required to take a minimum of 48 hours in the Division of Art and nine to 12 hours in the Division of Art History.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Foundations (9 Credit Hours)

- ASAG 1300- Observation
- ASAG 1304 - Spaces and
- ASAG 1308 - Narrative
or
- ASAG 1312 - Systems


## Required Art Courses (9 Credit Hours)

- ASAG 3310 - Art in the World
- ASAG 3380 - Critical Issues
- ASAG 5315 - Advanced Studio II


## Advanced Art Studies (12 Credit Hours)

Division of Art courses at the 3000 level or higher

## Additional Art Studies (9 Credit Hours)

Division of Art courses at any level

## Art History (9 Credit Hours)

Art History courses at any level. Approved courses in visual culture studies from other divisions may substitute.

## Free Electives

Hours vary as needed to meet University residency and degree requirements.

Total: 122 Credit Hours

## Art, B.F.A.

The B.F.A. degree prepares students to become professional artists, engage in professions in the arts or continue studies at the graduate level. The division offers instruction in an integrated studio environment in the following media: ceramics, digital/hybrid media, drawing, painting, photography, printmaking and sculpture. There is also scope for the study of performance in art and for work in courses that focus on art and engagement with the city. Cross-disciplinary interaction is encouraged at every level. Students may declare the B.F.A. degree in art upon the completion of ASAG 1300, ASAG 1304 in fall and ASAG 1308, ASAG 1312 in spring.

To earn a B.F.A., the student is required to take a minimum of 66 hours in the Division of Art and nine to 12 hours in the Division of Art History.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Foundations (12 Credit Hours)

- ASAG 1300-Observation
- ASAG 1304 - Spaces
- ASAG 1308 - Narrative
- ASAG 1312 - Systems


## Required Art Courses (15 Credit Hours)

- ASAG 3310 - Art in the World
- ASAG 3380 - Critical Issues
- ASAG 3390 - Advanced Studio I
- ASAG 5310 - Professional Practice in Art
- ASAG 5315 - Advanced Studio II


## Advanced Art Studies (24 Credit Hours)

Division of Art courses at the 3000 level or higher

## Additional Art Studies (15 Credit Hours)

Division of Art courses at any level

## Art History (12 Credit Hours)

No more than 6 hours at the 1000 level. ASAG 3350 may substitute for one 3000 -level ARHS course. Approved courses in visual culture studies from other divisions may substitute.

## Community Experience (0-1 Credit Hours)

- MSA 1101 - Face: First-Year Arts Community Experience or
- MSA 1001 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Digital Game Development, B.F.A./M.I.T.

SMU Guildhall provides an in-depth master's degree and graduate certificate in digital game development tailored to students who wish to become actively involved in the game development industry as designers or artists.

In conjunction with the Guildhall, the Division of Art offers a B.F.A. degree in art that coordinates with the art creation and design specializations in game development in the master's degree program at the Guildhall. This program provides the breadth and rigor of a B.F.A. degree while simultaneously providing an in-depth investigation of digital game development fundamentals through the curriculum of the Master of Interactive Technology.

The B.F.A./M.I.T. program is designed to furnish students with significant studio art training and a clear curriculum to prepare them for specialized graduate-level study of art creation, game creation and simulation at SMU Guildhall.

Students apply for admission to the Guildhall in the fall of the senior year. Students admitted to this program spend seven terms at the Meadows School and the last term at the Guildhall, located at SMU's Plano campus. The first two modules of Guildhall courses ( 18 credit hours) complete the B.F.A. by substituting for ASAG 5310, ASAG 5315 , and up to 12 credit hours of Advanced Art Studies. The student can then apply to the master's program, which requires three additional terms and one summer term to complete the M.I.T. degree. More information about the B.F.A./M.I.T. program is available online at www.smu.edu/guildhall.

## Art Minor

The minor in art is designed to give a coherent structure to a brief but serious investigation of studio art. In this minor, students should grow to understand the formation of visual imagery and gain confidence in studio practice. The minor is designed for students who wish to incorporate more intensive visual studio training with studies in other areas, such as art history or advertising, or for those who want a basic studio curriculum.

## Requirements for the Minor

- Any three courses at the 1300 level or above in ASAG, ASCE, ASDR, ASIM, ASPH, ASPR, ASPT, and ASSC
- Any three art courses at the 3000 level or higher (Note: Certain 3000-level courses will have 1000 -level pre requisites.)


## Total: 18 Credit Hours

## Photography Minor

Students completing 18 hours in photographic study can expect to obtain a sophisticated understanding of the photographically derived image and the technical and creative skills necessary for its production. Classes in photography offered by the Division of Art integrate the technical aspects of the medium with the aesthetic concerns appropriate to art. Through the use of photography, students learn to think and express themselves visually. A minor in photography prepares one for further work in fine arts or commercial photography and other areas where knowledge of photography is helpful. Beyond vocational applications, a minor in photography creates a firm foundation for future creative development.

## Requirements for the Minor

- ASPH 1300-The Basics of Photography
- Four of any ASPH 3000 level courses
- ARHS 3355 - History of Photography II: 1940-Present or
- ARHS 3367 - History of Photography I: Origins-1940 or
- an approved substitution


## Total: 18 Credit Hours

## Courses:

## FOUNDATIONS AND ART, GENERAL STUDIO

Studio courses generally require six hours per week of in-class work and critical discussion. Students should enroll with a firm commitment to regular attendance and should expect to spend an additional four to six hours per week, per class, to complete their coursework.

Prerequisites and Course Fees. In enrolling for courses in art, it is necessary that the course number be preceded by the appropriate subject code prefix for credit to be properly recorded. Many courses at the 3000 level and all courses at the 5000 level have prerequisite coursework required. All directed studies courses require instructor approval before enrollment. All courses in studio art, except lectures and seminars, have a laboratory fee of $\$ 30$ per credit hour, which is added to the tuition and fees assigned at the time of enrollment. Certain courses in art require an additional material or tool expense in addition to fees.

## Foundations and Art, General Studio

Foundations courses are ASAG 1300, ASAG 1304, ASAG 1308 and ASAG 1312. This sequence of courses is for art majors or any student who seeks an intensive study of the visual arts. The remaining ASAG courses are organized thematically to explore a range of assumptions and practices - from the historical to the contemporary - that inform the making and display of art; these general studio courses have been designed to provide students with intensive training in studio practice, exposure to a range of materials, processes and research methods, and an introduction to the theoretical issues that frame contemporary art.

## ASAG 1300-Observation

## Credits: 3

Seeing is not as simple as it looks. What people see, how they see, and how and why they chose to represent their experience of the world in a particular form and through a particular medium are fundamental questions for the artist. Students experiment with various media while exploring the history, theory, and application of these resources of representation in visual art; they learn the differences among looking, scanning, and seeing; and they encounter a range of resources, from theories of perspective in drawing and painting through 3-D modeling and digital simulations of reality. Corequisite: ASAG 1304.

## ASAG 1304 - Spaces

Credits: 3
The apprehension of space is tied to the fact that each person occupies space and invests various kinds of spaces with meaning. The expression of spaces through art may include a range of media and situations, from sculpted forms, constructions, architecture, and installations to two-dimensional renderings and virtual representations of space.

Students explore this multivalent conception of space to understand how one's embodied conception of the world is made manifest through visual art. Corequisite: ASAG 1300.

## ASAG 1308 - Narrative

## Credits: 3

Narrative is the simple act of recounting a story. The ability to depict and connect events in an aesthetic and persuasive manner is at the heart of some of the most compelling visual art. Students explore a wide variety of media and issues that relate to art that includes the dimension of time, explicitly or implicitly, which can be the literal time of a moving image (film, video, animation), the duration of a performance, the time required for the reading of a text, the depiction of an event through a single image, or a sequence of still images as found in the illustrated novel or comic strip. Prerequisites: ASAG 1300, ASAG 1304. Corequisite: ASAG 1312.

## ASAG 1310 - Word and Image, Art and Design: 1900-Present

## Credits: 3

Contemporary designers and artists create meaningful, persuasive, and expressive works through a combination of images and text. These works of graphic design and art shape the visual culture of every aspect of life, from the look of media and information networks to people's experience of the cities in which they live. This course surveys the modern and contemporary history of works of art and design that demand to be read as much as seen, from the industrial age to the knowledge economy.

## ASAG 1312-Systems

## Credits: 3

In the course of modern and contemporary art, many artists have chosen to take a systematic approach toward making their art. Systems in art are a set of rules or constraints that function as a machine for making art. Students encounter a wide range of systematic art practices, from the elegant serial works of impressionism to art that incorporates models taken from communication theory and linguistics. Explores the concept of systems in art drawn from the realm of social and political theory, where the artist's work may be done in collaboration with others in order to understand and possibly change social relations that characterize everyday life. Corequisite: ASAG 1308.

## ASAG 1375 - Introduction to Social Practice

## Credits: 3

Explores the relationship between cultural production and social change and traces both the institutionalization of socially engaged art in the form of "social practice" and movements in U.S. social history that fall outside the purview of formal "social practice." Students visit Dallas-based socially engaged projects, drawing upon these exchanges to develop socially engaged project proposals. Students from all levels and disciplines are welcome in this highly interdisciplinary class.

## ASAG 3305-Art, Word, and Image in Contemporary Art

## Credits: 3

Contemporary artists create meaningful and expressive art through the combination of images and text: artwork that demands to be read as much as seen. Students learn about the recent history of language in art and create of works of art for a variety of sites of display - real and virtual - such as the gallery, social media, printed ephemera, the fabric of the campus, and the city at large. Prerequisite: One 1300-level studio art course.

## ASAG 3310 - Art in the World

## Credits: 3

Works are made in the world of art and in the world of history, not in the world of school. Students study the world of art by visiting museums, galleries, notable architecture, public lectures, installations, symposia, etc. All student work is written or made in relation to the experiences in these venues.

## ASAG 3315-Community Engaged Practice

## Credits: 3

Explores how visual and performing arts play a vital role in community transformation and social change and identifies the skills that artists need in order to successfully enter, collaborate with, and exit a community. Combines theory, history, and fieldwork to develop cross-disciplinary skills for artists desiring to work in communities. In addition to classroom sessions, students conduct site visits and meet with artists and organizers that focus on socially engaged practices. Students initiate community-engaged projects and institutional collaborations while receiving feedback and mentorship. Students create their own timeline, deliverables, and accountability measures and complete written assignments and readings relevant to their project. Culminates in a public presentation of student projects. Prerequisite: ASAG 1375 or permission from instructor.

## ASAG 3325-Studio Workshop

## Credits: 3

An intensive investigation in arts by students engaged in independent work, group collaboration, and analytical study.
Prerequisite: 15 credit hours in art or permission of instructor.

## ASAG 3350-Art Colloquium: New York

## Credits: 3

Involves intensive analysis, discussion, and writing concerning works of art in museum collections and exhibitions, and in alternative exhibition spaces. Students study the philosophical as well as the practical to define and understand the nature of the art society produces and values. The colloquium meets in New York City for 2 weeks in January.

## ASAG 3360 - Color and the Visual Image

Credits: 3
Color systems of Munsell, Itten, Photoshop palettes, etc. are studied in the light of contemporary neurobiology and the
capabilities of media. Klee, Albers, Matisse, and other masters of color focus the course on color modes. Prerequisite: 24 credit hours in art or permission of instructor.

## ASAG 3370 - Special Topics in Studio Art

## Credits: 3

To be announced by the Division of Art. Prerequisite: Permission of instructor.

## ASAG 3380 - Critical Issues

## Credits: 3

A seminar for art majors in their 3rd year of studies. This course investigates topics in current critical theory in the arts as well as the historical context of their development. Readings are taken from philosophy, literary criticism, art theory, and art criticism. Prerequisite: 24 credit hours in art.

## ASAG 3390 - Advanced Studio I

## Credits: 3

A forum for art majors in the third year of studies that facilitates the students' ability to articulate their work as artists and to defend and present it in a peer-group setting. Prerequisite: ASAG 3380.

## ASAG 5001 - B.F.A. Qualifying Exhibition

Credits: 0 (for students who entered prior to fall 2010)
Participation in the qualifying exhibition is required for all candidates for the degree of B.F.A. in art.

## ASAG 5100 - Internship in Studio Art

## Credits: 1

Students work in internship positions that relate to their individual studio studies, including internships in teaching, in galleries, as assistants to established artists, or with businesses in the arts. Students should sign up for 1, 2, or 3 credit hours for internships of 3,6 , or 10 hours per week. Internships are supervised and evaluated by a member of the Division of Art faculty. Prerequisite: Approval of departmental chair or adviser.

## ASAG 5200 - Internship in Studio Art

## Credits: 2

Students work in internship positions that relate to their individual studio studies, including internships in teaching, in galleries, as assistants to established artists, or with businesses in the arts. Students should sign up for 1,2, or 3 credit hours for internships of 3,6 , or 10 hours per week. Internships are supervised and evaluated by a member of the Division of Art faculty. Prerequisite: Approval of departmental chair or adviser.

## ASAG 5300 - Internship in Studio Art

## Credits: 3

Students work in internship positions that relate to their individual studio studies, including internships in teaching, in galleries, as assistants to established artists, or with businesses in the arts. Students should sign up for 1, 2, or 3 credit hours for internships of 3,6 , or 10 hours per week. Internships are supervised and evaluated by a member of the Division of Art faculty. Prerequisite: Approval of departmental chair or adviser.

## ASAG 5310 - Professional Practice in Art

## Credits: 3

For art majors in their final year of studies. A practical and informed approach to understanding the competencies that are required to sustain practice as an artist beyond the undergraduate experience. Students learn how to negotiate the professional aspects of art and to identify and take advantage of a host of opportunities. Topics include establishing a studio; applying for residencies and grants; exhibiting work; intellectual property law; the contemporary art market; and alternative models of production, distribution, and exchange of art. Prerequisite: ASAG 3390.

## ASAG 5315-Advanced Studio II

## Credits: 3

A forum for art majors in the fourth year of studies that facilitates the students' ability to articulate their work as artists and to defend and present it in a peer-group setting. Serves as a culmination of the study of art through the production of a body of work for exhibition. Required for the B.A. in art and the B.F.A. in art. Prerequisite: ASAG 3380.

## ASAG 5325 - Studio Workshop

## Credits: 3

An intensive investigation in arts by students engaged in independent work, group collaboration, and analytical study.
Prerequisite: 15 credit hours in art or permission of instructor.

## ASAG 5350-Art Colloquium: New York

## Credits: 3

Involves intensive analysis, discussion, and writing concerning works of art in museum collections and exhibitions, and in alternative exhibition spaces. Students study the philosophical as well as the practical to define and understand the nature of the art society produces and values. The colloquium meets in New York City for 2 weeks in January.

## CERAMICS

## ASCE 1300-Introduction to Ceramics

## Credits: 3

Introduces the discipline of ceramics through projects, readings, and field trips. The motto of the ceramics area is "panta rhei" (everything flows) because the deformation of matter and the flowing across disciplines determine what one makes in ceramics. Students engage the Dallas community by making pots for the annual Empty Bowls food bank benefit, and they learn to use ceramic materials to analyze the ceramics they produce and to judge them critically.

## ASCE 1310-Ceramic Technology

## Credits: 3

Explores the principles of formation, transformation, and deformation regarding refractory, glass-former, and flux. From the sources of raw materials, to their mechanical behaviors, to multiple-fired products, students discover relationships between chemistry, structure, properties, and performance in the manufacture of artworks.

## ASCE 3300 - Intermediate Ceramics

## Credits: 3

Further engages the discipline of ceramics through projects, readings, and field trips. Students form independent projects in which they may pursue a particular interest of their own (e.g., to depict the human figure in ceramic, to copy in clay an object that exists in another material, to create a set of tableware in a particular style, to use ceramic as a complement to
artwork being made concurrently in other disciplines such as painting, or to employ ceramics as a part of an installation). Prerequisite: ASCE 1300 or permission of instructor.

## ASCE 3310 - Special Topics in Ceramics

## Credits: 3

To be announced by the Division of Art. Prerequisite: ASCE 1300 or permission of instructor.

## ASCE 3320 - Sex, Drugs, and Rocks

## Credits: 3

Beyond their more common uses, pots have traditionally been used ritually and socially in conjunction with powerful substances and forces, which are often depicted in a pot's form or surface decoration. Such practices continue today. Traditional and current uses of pots include Greek wares for gymnasia and bacchanalia, Chinese tea ware, Central American chocolate ware, North American dinnerware, and South African brewery ware, as well as pots that celebrate bodily functions such as giving birth and pots that depict parts of the body gendered, sexualized, or related to reproduction. After studying these pots and their contexts, the ceramics of living artists particularly concerned with topics such as sex and drugs, and texts about various pots and their contents, students make their own interpretations by undertaking the ceramic process as an artificial geological process.

## ASCE 3330 - Death Pots

## Credits: 3

A fundamental motive in ceramics is to preserve - though paradoxically, a pot's destruction may be inherent in its making. Some ceramics are made to navigate their bearers away from the world of the living, while others are deliberately destroyed in accordance with death rites, in anticipation of death, or as a replacement for death. Death pots may define relationships with otherworldly luminaries, serve as milestones for the event of death, or mark cyclical reunions with the dead. As well as examining these pots that bridge two worlds, students study the ceramics of memorialization, transformation, regeneration, decadence, violence, and obsolescence.

## ASCE 5100 - Directed Studies in Ceramics

Credits: 1
Students may take one course per term only. Prerequisite: ASCE 3300.

## ASCE 5200 - Directed Studies in Ceramics

Credits: 2
Students may take one course per term only. Prerequisite: ASCE 3300.

## ASCE 5300-Advanced Ceramics

## Credits: 3

Students refine their understanding of the discipline of ceramics based on their grasp of techniques and principles from the first two courses. Employing the fluid nature of ceramics to flow across disciplines, students select a common ground (for example, architecture, food service, or the human figure) and identify specific techniques (for example, printing, throwing, or painting) to accomplish primarily self-initiated projects of research and making. Prerequisite: ASCE 3300 or permission of instructor.

## ASCE 5302 - Directed Studies in Ceramics

Credits: 3
Students may take one course per term only. Prerequisite: ASCE 3300.

## ASCE 5310 - Special Topics in Ceramics

## Credits: 3

To be announced by the Division of Art. Prerequisite: ASCE 1300 or permission of instructor.

## DRAWING

## ASDR 1300 - Introduction to Drawing

Credits: 3
Drawing from life objects and concepts. Work in class is supplemented by outside assignments and readings. Emphasis placed on space, materials, analysis of form, and critical judgment.

## ASDR 1310 - Drawing in Italy

Credits: 3
This course introduces students to plein-air drawing of the ruins, monuments, and landscape of central Italy, with an emphasis on development of light, space, and compositional structure. Offered at SMU-in-Italy.

## ASDR 3300 - Drawing: Intermediate Level

Credits: 3
Studio and outside work in drawing that further develops vision and individual approaches to drawing. Prerequisite: ASDR 1300.

## ASDR 3305 - Drawing as Concept and Performance

## Credits: 3

This course begins with the premise that the contemporary artist conceives of drawing as an expanded field of expressive and conceptual possibilities. Drawing understood as concept or performance is neither solely preparatory nor descriptive. Rather, drawing is constructed using a variety of means, including imaginative systems of notation, graphic conventions drawn from visual culture at large, and scripted physical actions. Prerequisite: ASAG 1300 or ASDR 1300.

## ASDR 3320 - Material Studies: The Book Art

Credits: 3
An interdisciplinary course for creating artworks based on the form of the book. Considers the relationships among materiality, time, and an extended field of image making. Students are encouraged to utilize constructed and found materials in their exploration of concepts and processes central to contemporary book works, including sequence, repetition, and viewer participation; the embodiment of ideas through the book; book as tool and as art object; and the variety of formats clustered around the scroll and the codex. Prerequisite: ASAG 1300 or ASDR 1300.

## ASDR 3330 - The Mirroring Line: Interdisciplinary Mark Making

Credits: 3
Interdisciplinary mark making (be it movement, sculpture, sound, drawing, or text) enables research on what might be
termed the "mirroring line." By locating and engaging a series of borders (legal, social, physical, psychic, sonic, environmental, theoretical, and imaginary) that striate Dallas, its environs, and the multiple communities that intersect within the city, students expand the concepts of what it means to make a line (using graphite, blood, router, string, etc.) and of the kinds of substrate that take a line (be it paper, street, water, or human beings).

## ASDR 5100 - Directed Studies in Drawing

Credits: 1
Students may take one course per term only. Prerequisite: ASDR 3300.

## ASDR 5200 - Directed Studies in Drawing

## Credits: 2

Students may take one course per term only. Prerequisite: ASDR 3300.

## ASDR 5300 - Drawing Advanced

## Credits: 3

Drawing at the senior level exemplifying independent development in drawing. Prerequisite: ASDR 3300 or permission of instructor.

## ASDR 5302 - Directed Studies in Drawing

Credits: 3
Students may take one course per term only. Prerequisite: ASDR 3300.

## ASDR 5303 - Directed Studies in Italy: Advanced Students

## Credits: 3

Offers senior-level development in drawing and individual responses to the ruins, monuments, and landscape of Italy, which are themselves the subjects of many masterpieces encountered in churches, museums, and archaeological sites. Students are allowed the freedom to explore formal issues and expressive means in response to these subjects, producing a visual record of their perceptions and thoughts in representational, abstract, or conceptual modes. Critiques allow students to demonstrate skills in formal analysis and interpretation. Enrollment is limited. Prerequisite: ASDR 3300.

## ASDR 5305 - Drawing as Concept and Performance

## Credits: 3

This course begins with the premise that the contemporary artist conceives of drawing as an expanded field of expressive and conceptual possibilities. Drawing understood as concept or performance is neither solely preparatory nor descriptive. Rather, drawing is constructed using a variety of means, including imaginative systems of notation, graphic conventions drawn from visual culture at large, and scripted physical actions. Prerequisite: ASDR 3305.

## DIGITAL AND HYBRID MEDIA

## ASIM 1300 - Introduction to Digital Hybrid Media

Credits: 3
Introduces computational media and digital processes as the basis of creative practice. Students gain proficiency in digital imaging, computer-generated animation, and digital video using popular graphics software such as Adobe Creative Suite.

Includes an overview of the history of digital and hybrid art from the mid-20th century onward, including Internet art, mobile and ubiquitous computing, sonic art, virtual worlds, interactive installation, and augmented performance.

## ASIM 1310-Creative Coding I

## Credits: 3

Explores computation as a powerful generative medium. Working with the open-source processing development environment and Java programming language, students learn the fundamentals of creative coding and computational thinking, including object-oriented programming. Hands-on topics include algorithmic drawing, procedural imaging, 2-D and 3-D animation, visualization, interactivity, and gaming.

## ASIM 1330 - Responsive Arts

## Credits: 3

Students use advanced processing tools to experiment and generate interactive pieces, art robots, and works that respond to stimuli. This studio class introduces students to nonscreen-based digital art that exists in real space. For students interested in installation, sculpture, performance, robotics, and electronics in art. Prerequisite: Meadows student or permission of instructor.

## ASIM 1340-Computational Sculpture

## Credits: 3

An introduction to 3-D modeling, with a focus on modeling and physical object output using sophisticated 3-D software and rapid prototype production using a 3-D printer. For students interested in sculpture, design, architecture, computer science, and biovisualization. Students develop a multidisciplinary skill set and learn to model objects and environments and to apply surface texturing, lighting, rapid prototyping, rigging, and rendering. Includes lectures, field trips, in-class studio time, and assignments. Prerequisite: Meadows student or permission of instructor.

## ASIM 3305 - Creative Coding II

## Credits: 3

Introduces advanced creative coding principles using the C++ programming language and OpenGL and openFrameworks graphics libraries. Students learn how to design software systems for real-time performance, 3-D virtual environments, interactive applications, mobile games, and augmented installations. Prerequisite: ASIM 1310, or CSE 1341, or permission of instructor.

## ASIM 3310 - Computational Media Workshop

Credits: 3
An intensive study designed to further integrate computational media and digital processes into creative practice. The focus is on developing independent work, group collaboration, and analytical study. Depending on the topic and work completed, study may be applied to different media concentrations. Prerequisite: ASIM 1310, CSE 1341, or CSE 1342.

## ASIM 3315 - Special Topics in Digital and Hybrid Media

## Credits: 3

Intermediate to advanced research in a variety of areas that support digital and hybrid media practice and research. Uses focused research topics, studio projects, seminar discussions, and an introduction to various computational tools as vehicles for personal aesthetic expression. Prerequisites: ASIM 1310, ASIM 3320 or permission of instructor.

## ASIM 3320 - Responsive Arts II

## Credits: 3

Introduces advanced physical computing principles using microcontrollers, custom circuit design, and advanced code to generate interactive art pieces that respond to stimuli. Students further their mastery of nonscreen-based digital art that exists in real space. For students interested in installation, sculpture, performance, robotics, and electronic art. Prerequisite: ASIM 1330.

## ASIM 3325 - Special Projects in Digital and Hybrid Media

## Credits: 3

Intensive study of a particular subject or design project.

## ASIM 3340 - Introduction to Interactive Graphical Programming

## Credits: 3

Using the graphical programming languages Pd/GEM and Max/MSP/Jitter and object-oriented programming software, students explore sound and video and strategies for creating generative creative art while connecting computation to the physical world. Also, the ways in which data from external input sources can be used to create interactive projects, algorithmic compositions, screen-based work, installations, and objects and experiences in real space. Prerequisite: Completion of any ASIM course.

## ASIM 3350 - Technology and the Body: Exploration in Wearables and E-Textiles

## Credits: 3

Introduces wearable art and wearable-based performance art through survey lectures, video documentation, reading, technical instruction, and off-campus research trips. Students explore the intersection of material, interactivity, technology, the body (human and nonhuman), and the conceptual potentials within the context of wearable art. Includes programming at the introductory level through LilyPad and other Arduino microcontrollers as well as basic electronics. Students produce their own wearable prototypes both individually and collaboratively, working up to one final completed piece. Prerequisite: ASIM 1330.

## ASIM 3370 - Bioart Seminar: Nature as Material

## Credits: 3

A combined seminar and studio course introducing artists and collaborative groups working with nature, science, and alternative organic methods as material to produce sculpture, installations, and performance-based work. Students explore nature as material and research-based art practices that engage in biology; the environment; genetics; technoscience; and the use of and collaboration with plants, animals, and organic and synthetically organic materials. Includes visits to various laboratories and exhibitions as well as lectures from visiting guest speakers.

## ASIM 3382 - Introduction to Graphics Programming

Credits: 3
Using modern C++ and OpenGL, students learn the basics of graphics programming, including hardware rendering using GLSL. Projects developed in the course include 2D imaging, vector graphics, animations, and games. Prerequisite: CRCP 3305, CSE 1342, or ASIM 3305.

## ASIM 5302 - Intermedia Directed Studies

Credits: 3
Students may take one course per term only. Prerequisite: Permission of instructor.

## ASIM 5320-Aesthetics and Computation

## Credits: 3

In this studio based course students explore code and computation as primary generative media, developing original works of art, leading to the creation of an online portfolio. Screen based, printed, mobile, Web, physical, and performative applications may be explored. Prerequisite: ASIM 3305, CRCP 3305, or CSE 1342.

## ASIM 5325 - Special Projects in Digital and Hybrid Media

## Credits: 3

Intensive study of a particular subject or design project.

## ASIM 5326 - History and Theory of Creative Computation

## Credits: 3

How have computers and information networks been used to create art? What ideas and practices have contributed to the development of creative computing? What does making art using code, algorithms, and the Internet say about the nature of art today? The identity of the artist? How do we assess the quality of the art produced by computers or responsive systems? Students explore the rich history and theory of creative computation, from the earliest experiments in machine art of the 20th century to the most advanced concepts of the present, from Artificial Intelligence to Virtual Reality. Prerequisites: A second-level coding course (CSE 1342 or ASIM 3305 or CRCP 3305), or 9 credits in any 3000-level courses designated ARHS, ASAG, ASIM, CRCP, or CSE.

## PHOTOGRAPHY

## ASPH 1300 - The Basics of Photography

## Credits: 3

Thorough discussion of camera operation and the elements of visual design (space, composition, color, and light). Emphasis is placed upon the creative application of aperture, shutter speed, framing, and lighting. Students must supply their own digital single-lens reflex cameras or advanced compact digital cameras that allow for manual exposure control. Assignments submitted digitally. Written examination. No darkroom or computer lab.

## ASPH 1310 - Introduction to Video

## Credits: 3

Provides an opportunity to understand and master the craft of video production in the context of art. Using Final Cut Pro and higher-end cameras with full manual controls, students experiment with the many ways to generate moving images. Covers methods and concepts derived from film and video: point of view, shot composition, spatial and time continuity, lighting, and superimposition. Encourages the comparison of narrative and non-narrative formal systems. Also, the most important practitioners of video as art and the intersection of video with film, theatre, installation art, and architecture.

## ASPH 3300 - Black-And-White Photography I

## Credits: 3

Exploration of the creative possibilities of silver-based photographic materials in the darkroom. Special attention is given to black-and-white film development, negative enlarging, and a variety of manipulative techniques. Students provide their own film camera in any format. Prerequisite: ASPH 1300 or permission of instructor.

## ASPH 3302 - Black-And-White Photography II

Credits: 3
Continuation of ASPH 3300, with emphasis on the zone system, film manipulation, chemical printing, and matting techniques. Includes the possibility of working in medium-to-large film formats, zone system, and bifilter printing. Prerequisite: ASPH 3300 or permission of instructor.

## ASPH 3303-Color Photography

## Credits: 3

Exploration of the aesthetic issues and technical concerns of digital color photography. Students use Adobe Photoshop to produce fine-quality inkjet prints and supply their own digital single-lens reflex cameras. Prerequisite: ASPH 1300 or permission of instructor.

## ASPH 3304 - Digital Tools

## Credits: 3

Exploration of the experimental use of image-capture devices, software manipulation, output material, and presentation. Topics can include flatbed scanners, large-format inkjet printing, and text and collage techniques. Students provide their own single-lens reflex digital cameras. Prerequisite: ASPH 1300 or permission of instructor.

## ASPH 3306 - Photography in Taos

## Credits: 3

Intermediate and advanced study of photography in the physical and cultural environment of the Fort Burgwin Research Center. Prerequisite: ASPH 1300 or permission of instructor.

## ASPH 3310 - Large-Format Photography

Credits: 3 Explores the mechanics, creative possibilities, and aesthetics of silver-based photographs made with the $4 \times 5$ view camera. Fully examines adjustments unique to the view camera allowing for maximum image control. Topics include still life, landscape, portraiture, and architecture. View cameras are available for student use. Prerequisite: ASPH 1300 or permission of instructor.

## ASPH 3315 - Intermediate Video

## Credits: 3

Studio class for the creation of video art. Students complete guided and independent projects with a focus on the application of more advanced postproduction techniques. For students interested in using video as their primary expressive medium for incorporating video into their studio practice or for exploring the transmedia potential of video. Students attain technical proficiency and develop individual ideas and personal concepts within each video project. Prerequisite: ASPH 1310.

## ASPH 3320 - The Documentary Impulse

## Credits: 3

Exploration of traditional and contemporary approaches to documentary photography through shooting assignments, lectures, and readings. Utilizing print-on-demand technology, each student produces a book of images and text on a selfdefined project. Students work with digital cameras. Prerequisite: ASPH 1300 or permission of instructor.

## ASPH 3325 - The Photographic Portrait

## Credits: 3

Explores traditional and contemporary approaches to the photographic portrait through shooting assignments, lectures, and readings. Students work in available light on location and with SMU's electronic strobe equipment in the studio. Includes work with digital cameras. Prerequisite: ASPH 1300 or permission of instructor.

## ASPH 3330 - Fashion Photography

## Credits: 3

Students photograph on location and in the studio. Includes on- and off-camera lighting techniques, concept development, art direction, work with talent, shot styling, fees, publication rights, model releases, editing, portfolio presentation, and the history of fashion photography. Students work with digital cameras. Prerequisite: ASPH 1300 or permission of instructor.

## ASPH 3340 - Altered and Alternative Photographic Images

## Credits: 3

Exploration of the specialized chemical techniques that alter the gelatin silver print, including line drop, Sabattier effect, and hand coloring. Also, alternative nonsilver-based printmaking methods, including cyanotype, Van Dyke brown, gum bichromate, and platinum and palladium. Prerequisite: Any studio art 1000-level course or instructor consent.

## ASPH 3350 - The Photographic Book

## Credits: 3

Exploration of the creative presentation of photographs in traditional and contemporary book form using conventional and alternative bookbinding techniques. Field trips to local rare book collections supplement the student's understanding of the nature of the photographic book. Students may work with film and/or digital cameras. Prerequisite: ASPH 3300, ASPH 3303 , or ASPH 3304 or permission of instructor.

## ASPH 3360 - Special Topics in Photography

## Credits: 3

Topics to be announced by the Division of Art. Prerequisite: Permission of instructor.

## ASPH 3390 - Experimental Camera

## Credits: 3

Pushing the technical boundaries of cameras as capture devices, students experiment with the creative aesthetic possibilities therein (still and/or motion) and then draw from a variety of genres to create short, experimental films. Students explore diverse concepts such as storytelling, portraiture, documentary, poetry, and abstraction, and they combine elements such as still photography, animation, graphics, narration, sound effects, and original music to create motion picture media. Prerequisites: FILM 1304, or ASPH 1300 and ASPH 1310 (or instructor permission is available for students with a working knowledge of the camera, including aperture, shutter speed, and focal length), and a basic understanding of video editing. Students are required to have access to at least a digital still camera.

## ASPH 5100 - Directed Studies in Photography

Credits: 1
Students may take one course per term only. Prerequisite: Permission of instructor.

## ASPH 5101 - Directed Studies in Video

Credits: 1
Students may take one course per term only. Prerequisite: Permission of instructor.

## ASPH 5200 - Directed Studies in Photography

## Credits: 2

Students may take one course per term only. Prerequisite: Permission of instructor.

## ASPH 5201 - Directed Studies in Video

## Credits: 2

Students may take one course per term only. Prerequisite: Permission of instructor.

## ASPH 5302 - Directed Studies in Photography

Credits: 3
Students may take one course per term only. Prerequisite: Permission of instructor.

## ASPH 5303 - Directed Studies in Video

Credits: 3
Students may take one course per term only. Prerequisite: Permission of instructor.

## PRINTMAKING

## ASPR 1300 - Introduction to Printmaking

## Credits: 3

Introduction to historical and contemporary printmaking in a wide variety of media, including intaglio printing, etching, engraving, drypoint, aquatint, monotype, silkscreen, woodcut, and numerous digital possibilities presented by the medium.

## ASPR 1321 - Printmaking: Woodcut

Credits: 3
Introduces the process of relief printing.

## ASPR 3300 - Printmaking Workshop

Credits: 3
Intermediate- and advanced-level exploration of the printing medium as an expressive tool. The ambience of the workshop, with no fixed structure, offers freedom to experiment in all directions (emotionally, intellectually, and technically) and to seek inspiration from any source. Students gain the self-discipline necessary for coherent results and mastery of the craft of printing. Prerequisite: ASPR 1300 or instructor consent.

## ASPR 5100 - Directed Studies in Printmaking

Credits: 1
Prerequisite: Permission of instructor.

## ASPR 5200 - Directed Studies in Printmaking

Credits: 2
Prerequisite: Permission of instructor.

## ASPR 5300 - Printmaking Workshop

## Credits: 3

Further intermediate- and advanced-level exploration of the possibilities of the printing medium as an expressive tool. The ambience of the workshop, with no fixed structure, offers freedom to experiment in all directions (emotionally, intellectually, and technically) and to seek inspiration from any source. Students gain the self-discipline necessary for coherent results and mastery of the craft of printing. Prerequisite: ASPR 3300 or permission of instructor.

## ASPR 5302 - Directed Studies in Printmaking

## Credits: 3

Prerequisite: Permission of instructor.

## PAINTING

## ASPT 1300 - Introduction to Painting

## Credits: 3

A first course in painting from life, objects, and concepts. Emphasis is placed on space, materials, color, analysis of form, and critical judgment.

## ASPT 3300-Painting Intermediate

## Credits: 3

Includes study of the materials, capabilities, processes, and essential meaning of painting, as well as the qualities of color, vision, and composition. Subjects are drawn from life, objects, and concepts. Extensive studio and outside work is required. Prerequisite: ASPT 1300 or permission of instructor.

## ASPT 3305 - Studio Workshop: Color and Meaning

Credits: 3
A painting workshop in which theoretical works on color are discussed and employed, but the central concern remains the development of color relationships within each student's work. Extensive reading and written presentations are required. Prerequisite: ASPT 3300.

## ASPT 3306 - Painting in Taos I

Credits: 3
An intermediate study of painting in the physical and cultural environment of the Fort Burgwin Research Center. Prerequisite: ASPT 1300 or permission of instructor.

## ASPT 3309-Painting in Rome

Credits: 3
A study of painting among the monuments and landscapes of central Italy. Prerequisite: ASPT 1300 or permission of instructor. (SMU-in-Italy)

## ASPT 5100 - Directed Studies in Painting

## Credits: 1

Students may take one course per term only. Prerequisite: ASPT 3300.

## ASPT 5200 - Directed Studies in Painting

## Credits: 2

Students may take one course per term only. Prerequisite: ASPT 3300.

## ASPT 5300 - Advanced Painting

## Credits: 3

An intensive studio experience for students who wish to develop a significant body of work in painting. Independent development is stressed alongside a program of readings and individual and group critiques. Prerequisite: 6 credit hours in painting at the 3000 level or permission of instructor.

## ASPT 5302 - Directed Studies in Painting

Credits: 3
Students may take one course per term only. Prerequisite: ASPT 3300.

## ASPT 5306-Painting in Taos II

Credits: 3
An advanced study of painting in the physical and cultural environment of the Fort Burgwin Research Center. Prerequisite: ASPT 3300 or ASPT 3306, or permission of instructor.

## SCULPTURE

## ASSC 1300-Introduction to Sculpture

## Credits: 3

An introduction to working in three dimensions from a variety of approaches, investigating sculpture's purposes, materiality, and spatial nature. Students examine historical and contemporary approaches to sculpture to understand how to manipulate form, space, and expressive content in three dimensions.

## ASSC 1320 - Materials and Processes

Credits: 3
An introductory survey of the manipulation of a variety of media (clay, plaster, wood, metal, etc.) and the contemporary and historical approaches to the use of these materials in art. Emphasis on expressive potential and studio safety.

## ASSC 3300 - Intermediate Sculpture

## Credits: 3

A continuation of study of problems in sculpture, including analysis of form, theory, and technical processes. Emphasis on sustained investigation using a number of perspectives, critical discussion, analysis of contemporary and historical work, and concentrated studio practice. Students gain confidence with and understanding of the tools, materials, and concepts of sculpture. Prerequisites: ASSC 1300, ASSC 1320 or permission of instructor.

## ASSC 3310 - Material and Form

## Credits: 3

Intensive investigation of material processes (construction, metal casting, and subtractive techniques) and the ramifications of material choice and method in the formal and stylistic development of sculptural work. Explores the traditional development and contemporary practice of each process. Requires 6 hours of studio work outside of scheduled meeting times. Prerequisites: 6 credit hours in ASSC courses and 12 credit hours in ASAG courses, or permission of instructor.

## ASSC 3320 - Body and Object

## Credits: 3

An intensive sculptural study of the body and figure that addresses the body through its objective structure and its social and psychological meanings and explores how these can be conveyed in contemporary practice. In class, students focus on the observation and direct study of the figure and its tactile translation into material. Out of class, students focus on independent projects to consider the question of the body as a metaphoric and performative subject, to explore the body's material and immaterial nature, and to create work about the figure without literal reference to it. Requires 6 hours of studio work outside of scheduled meeting times. Prerequisites: 6 credit hours in ASSC courses and 12 credit hours in ASAG courses, or permission of instructor.

## ASSC 3330 - Time and Material

## Credits: 3

An interdisciplinary course that considers the relationships among materiality, time, and drawing, using both constructed and found materials. Investigates time, movement, and repetitive action; work that documents the process of making; the relationship between digital and material form; and the formats of installation and documentation. Prerequisites: 6 credit hours in ASSC courses and 12 credit hours in ASAG courses, or permission of instructor.

## ASSC 3340 - Shelter and Place

## Credits: 3

An intensive interdisciplinary investigation into social forms and environments, both constructed and natural, in order to question what it is to dwell, how a sense of place is described and enacted, and how forms and events can influence and be influenced by structures. Work is based upon the identification of and location within a specific urban or natural landscape site. Includes collaborative work, drawing, analytical study of sites and environments, and construction. Draws paradigm examples from installation, architectural, and sculptural practice. Requires 6 hours of studio work outside of scheduled meeting times. Prerequisites: 6 credit hours in ASSC courses and 12 credit hours in ASAG courses, or permission of instructor.

## ASSC 3350 - X-Sculpture

## Credits: 3

Investigates the creation of 3-D forms and environments using experimental methods such as digital modeling, processing, video, sound and computer-based manufacture or output and performance. Students to interact with different knowledge bases and purposes in an investigation of the problem of how to image spatial and material experience in contemporary practice. Prerequisites: ASSC 1300 or ASAG 1300 and ASAG 1304, plus 3 hours in any ASIM course.

## ASSC 5100 - Directed Studies in Sculpture

## Credits: 1

Students may take one course per term only. Prerequisite: Permission of instructor.

## ASSC 5200 - Directed Studies in Sculpture

## Credits: 2

Students may take one course per term only. Prerequisite: Permission of instructor.

## ASSC 5300 - Advanced Seminar in Sculpture

## Credits: 3

Advanced investigation of contemporary practice in sculpture, including methods of research, means of production, and the critical and theoretical contexts of contemporary sculpture. Prerequisite: 9 credit hours in art courses at the 3000 level or permission of instructor.

## ASSC 5302 - Directed Studies in Sculpture

## Credits: 3

Students may take one course per term only. Prerequisite: Permission of instructor.

## Art History

## Associate Professor Adam Herring, Department Chair

Professor: Randall C. Griffin
Associate Professors: Adam Herring, Lisa Pon
Assistant Professors: Beatriz Balanta, Amy Freund, Adam Jasienski, Stephanie Langin-Hooper
Visiting Assistant Professor: Eric Stryker
Adjunct Associate Professor: Mark Roglán

## Honors Program

The Art History Honors Program is available to majors with exceptional academic records who seek a greater intellectual challenge. It is conducted as a two-term sequence (fall: ARHS 4391 and spring: ARHS 4392) during senior year, culminating with a 30-page thesis and faculty review. Students should contact the art history undergraduate adviser for more information.

## Art History, B.A.

The B.A. degree in art history trains students to negotiate a world saturated with images. It challenges students to confront critically the issues posed by the visual culture that mediates their understanding of the past, present and future. Built on the fertile exchange between the arts and the humanities, art history at SMU subscribes to an interdisciplinary and intercultural approach to learning. Students are taught to think across current categories and boundaries and practice a socially responsible art history.

In addition to developing acute visual sensibilities, students acquire the ability to evaluate and organize information, conduct scholarly research and articulate their ideas in both written and spoken language. Students completing this course of study are prepared for advanced training in the field of art history; museum and gallery professions; or work in a broad range of other fields, including publishing, arts administration, teaching and public policy.

Foundation Courses. All students must enroll in a three-class art history foundations sequence beginning in the first fall term following declaration of the major.

Temporalities/Global Perspectives Courses. Temporalities courses are upper-level art history courses that offer frameworks for a broad understanding of temporal dimensions: a duration of time, the power of some areas over others, the telescoping of past into present and vice versa, or questions of recurrence across time. The global perspectives designation is used for courses that are structured around distinctive spatial dimensions: a geographic feature like an ocean, territorial boundaries, colonial expansion, national imaginaries, subcultures or other social spaces of artistic production.

Required Methods and Theories Courses. These small, upper-level art history classes are reading and writing intensive and offer the occasion to think critically and carefully about the dynamics of historical change and to engage with issues and debates in art history.

Note: Only courses passed with a grade of C or better will count toward the major in art history. Courses passed with a grade of C - or less may count toward other, elective requirements in a student's degree plan.

Many art history majors use free elective hours to complete minors or second majors in fields such as anthropology, chemistry (for conservation), English, history, international business, international studies, languages and psychology.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Foundations (9 Credit Hours)

AP credit may substituted for ARHS 1300, ARHS 1301, or ARHS 1302.

- ARHS 1300 - From Mummies to Gladiators: Art and People of the Ancient World or
- ARHS 1301 - Catacombs, Cathedrals, and Flying Machines: Art and People of the Medieval and Early Modern Worlds
or
- ARHS 1302 - From the Baroque to the Digital Age: Art and People of the Modern World
- ARHS 4399 - Research and Methods in Art History
- One additional 1000-level course


## Temporalities (12 Credit Hours)

- 6 credit hours must cover a period pre-1500 C.E. and 6 must cover a period post-1500 C.E.; 6 of these 12 credit hours must have a global perspectives designation.


## Methods and Theories (6 Credit Hours)

- At least one seminar course, in addition to ARHS 4399.

Art History Electives (9 Credit Hours)

- No more than 6 credit hours at the 1000 level.


## Studio Art (3 Credit Hours)

## Second Language (12 Credit Hours)

Students must complete the intermediate level in a single second language.

## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Art History Minor

The minor in art history enables all students in the University to extend their study into the realm of the visual arts. As a discipline dedicated to the examination of art in context, art history is a natural complement to a major in history, languages, anthropology, political science, sociology, psychology, philosophy, religion, music or any of the humanities.

## Requirements for the Minor

- Eighteen credit hours in art history, with a maximum of nine credit hours at the 1000 level.

Note: Only classes passed with a grade of C - or better will count for credit toward the minor.

## Courses:

## ARHS 1300 - From Mummies to Gladiators: Art and People of the Ancient World

## Credits: 3

Introduces the arts and societies of the major ancient world cultures (Egypt, Mesopotamia, Bronze Age Aegean, Greece, Etruscan, and Roman), primarily c. 4,000 B.C.- 350 A.D., and the pyramids of the pharaohs to the official Roman adoption of Christianity. Focuses on art and architecture as a part of human life, from everyday activities to fabulous spectacles and the afterlife.

## ARHS 1301 - Catacombs, Cathedrals, and Flying Machines: Art and People of the Medieval and Early Modern Worlds

Credits: 3
Explores the arts and cultures of the Middle Ages and Early Modern Era, and considers the objects and buildings produced between 350 and 1700 , from soaring cathedrals and gem-encrusted crowns to beguiling portraits and Baroque fantasies, both as extraordinary aesthetic achievements and as participants in global artistic and political networks.

## ARHS 1302 - From the Baroque to the Digital Age: Art and People of the Modern World

## Credits: 3

Introduces the arts and societies of the modern world, from 1700 to the present, primarily in Europe and the Americas. Highlights include the ornate surfaces of the Rococo, Impressionism's enchanting landscapes, the challenges of Surrealism, and current trends toward intermedia and time-based art. In exploring some of the most famous works of the Western art canon, students consider how historical and social events shaped these artistic movements.

## ARHS 1303-Introduction to Western Art I

## Credits: 3

Prehistoric through medieval. An introduction in lecture form to the fundamentals of art history. Includes observations of historical styles, techniques, and media of cultures.

## ARHS 1304 - Introduction to Western Art II

## Credits: 3

Renaissance through modern. A continuation of ARHS 1303. Can be taken separately or as part of a two-term survey of the history of Western art.

## ARHS 1306- Introduction to Architecture

## Credits: 3

A contextual history of European and North American architecture from classical antiquity to the present century, with particular emphasis on 1400 to the present. Students will be introduced to basic principles and terminology, but the course will focus on the social and cultural meanings of the built environment in its urban context.

## ARHS 1307- Introduction to Art History

## Credits: 3

A one-term introduction to the history of art and architecture, emphasizing the challenges inherent in the evaluation of archaeological, material, and documentary evidence; the identification and analysis of canonical monuments; and the construction of historical narrative. Fulfills the introductory course requirement for the art history major and serves as a prerequisite for ARHS 4399.

## ARHS 1308-Epic of Latin America

## Credits: 3

Examines art, society, and culture in Latin America, 1450-1950. Presents art as a broad and multifaceted cultural problematic, and considers the enduring legacies and the dynamic processes of change that have shaped the region and its art. Topics include pre-Columbian empires; royal Spanish cities and revolution, reform, and modernism; Umbanda, Santeria, and Vodou; and Native American and gendered identities. An introductory survey course intended for undergraduate students of all academic and professional interests; no previous art history courses or experience with Latin America necessary. Includes slide lectures, classroom discussions, and visits to SMU and Dallas museums.

## ARHS 1310 - History Through Things: Consumer Culture in the United States

## Credits: 3

Examines the history of consumption in the U.S. in the 20th century and the phenomenon of consumption as it relates to the economy, social anxieties, cultural expressions, and a complex array of globalization processes.

## ARHS 1312-Picturing the American West

Credits: 3
This class will examine the different ways the American West has been depicted over time in photography, painting, film, and fiction, from Lewis and Clark to Clint Eastwood.

## ARHS 1313 - Pharaohs, Pyramids, and Other Wonders of the Nile: Introduction to the Art of Ancient Egypt

## Credits: 3

Explores the art of ancient Egypt, the Land of the Pharaohs, from the first pyramids (ca. 3500 BCE) through the death of Cleopatra and the Roman conquest ( 30 BCE ). Focuses on major royal monuments, temples, funerary art and mummies, statuary, and luxury arts. Emphasizes an understanding of Egyptian art within its cultural context, in order to better understand both the ancient civilization and the modern fascination with Egypt.

## ARHS 1333-Introduction to Visual Culture

## Credits: 3

Designed to help students develop the skills necessary to negotiate the visual culture in which they now live. Organized as an introduction to the media, methods, and issues of visual culture through the dialectic of copies and originals. Questions of originality and authenticity are particularly resonant today in the age of video and electronic media where digital technology has generated a world of endlessly reproducible, transmittable images. The class is particularly well-suited to students interested in art, art history, advertising, film, and electronic media.

## ARHS 1335 - Monsters, Mayhem, and Miracles: Life in the Medieval World

## Credits: 3

Explores the medieval world - ranging from the miraculous to the preposterous - through art, architecture, music, and literature. Sorcerers and werewolves, crusaders and inquisitors, soaring cathedrals, priceless books, and miracle-making saints are all creations of the Middle Ages and part of a vibrant legacy that is still alive today.

## ARHS 1336 - Rhetorics of Art, Space, and Culture: Ways of Knowing

## Credits: 3

Exposes students to the interdisciplinary field of art history, analyzing its points of intersection with anthropology, English, film studies, geography, history, and religious studies. Also, introduces the diverse media of art history (painting, sculpture, the built environment, printmaking, video, decorative arts); the major debates within the field; and the role played by curators, archivists, and librarians in the production of art knowledge.

## ARHS 1350 - Art in the Portuguese Empire

## Credits: 3

During 1494-1654, Portugal created the world's first truly global empire, using the arts to help project a combination of political, economic, and especially cultural hegemony. Students focus on issues of cultural globalization and concepts of empire in the visual cultures of Portugal, West and East Africa, Brazil, India, Sri Lanka, China, and Japan, paying particular attention to the rich, new artistic traditions that arose as these diverse cultures intermingled

## ARHS 1351 - Visual Cultures: Topics in Western Art

Credits: 3
Introduces the art, architecture, and other visual production of a region, period, or culture within its historical context Designed for nonmajors.

## ARHS 3310 - War, Looting, and Collecting in the Ancient World

## Credits: 3

Examines the effects of war, looting, and collecting practices on the visual culture of the ancient world. Looks at the ways ancient wars and looting caused art objects to be destroyed or relocated, but also inspired the creative repurposed, collecting, and even creation of other arts. Investigates the devastating effects of modern wars and looting on archaeological sites, and analyzes how contemporary collecting practices both contribute to and raise awareness against cultural heritage destruction.

## ARHS 3311 - Mortals, Myths, and Monuments of Ancient Greece

## Credits: 3

A visual analysis of the rich tapestry of ancient Greek culture, fountainhead of Western civilization, with emphasis on mythological, archaeological, and historical settings in which the art and architecture occur. Touches on various aspects of ancient Greek life such as religious practices, Olympic contests, theatrical performances, and artistic perfection. (Temporalities pre-1500)

## ARHS 3312-Portraiture and Selfhood, 1400-1914

## Credits: 3

Examines the development of portraiture and self-portraiture in Europe from the Renaissance through World War I. Considers portraits and self-portraits against changing social, political, religious, and psychological constructs of the self, and in the contexts of artistic theory and practice. Topics include the construction of gender, the reinforcement and subversion of class distinctions, the changing definition of citizenship, racial identity in the context of European colonial conquest, the artist's self-image, and the distinction between human and animal. (Temporalities post-1500)

## ARHS 3313 - The Etruscans and Iron Age Italy

## Credits: 3

Covers the cultural context and environment of the art and architecture of early Italy, including Etruscan art, early Roman art, and Italic art. (Temporalities pre-1500)

## ARHS 3314 - Art of the Moving Image

## Credits: 3

Considers how artists have made use of moving images in film, television, video, animation, and 3D projection, from the 1920s to the present day. Discusses how the uses of these media by artists intersect with and diverge from their uses in the film and television industries. Students will develop an in-depth knowledge of art of the moving image and an awareness of key themes and issues in film and media studies.

## ARHS 3315-Classical Sculpture

## Credits: 3

A study of the styles, subjects, and techniques of the sculptor's art during the ancient Greek, Hellenistic, and Roman eras. Focuses on the functions of sculpture in the round and in relief, free-standing, and in architectural settings, with particular attention to historical background. (Temporalities pre-1500)

## ARHS 3316 - Art in Rome

## Credits: 3

A broad survey of the wide range of ancient, medieval, Renaissance, and Baroque artworks in Rome. Stresses art historical methodologies in looking at painting, sculpture, and architecture. Includes on-site lectures. (Temporalities pre-1500) (SMU-in-Italy)

## ARHS 3317 - Land Between Two Rivers: Art of Ancient Iraq and Its Neighbors

## Credits: 3

From the Tower of Babel and the Hanging Gardens to the Code of Hammurabi, the art of Mesopotamia holds a mythical aura. This lecture course investigates and demystifies the arts of ancient Iraq and its neighbors (Iran, Israel, Anatolia, and the eastern Mediterranean) from the invention of cities (c. 4000 B.C.E.) to the beginning of Islam (c. 600 C.E.). Also, examines temple and palace architecture, monumental sculpture, glyptic, terracotta, and small-scale luxury arts to appreciate some of the oldest civilizations in the world.

## ARHS 3320 - Medieval Art

## Credits: 3

Introduces the art of Byzantium, Islam, and the medieval West through the study of five genres to which each of these cultures made distinctive contributions: the congregational worship space, imaging the sacred word, the court and its objects, the pilgrimage site, and the urban religious complex. (Temporalities pre-1500)

## ARHS 3322-Art and the Italian Commune

Credits: 3
The interplay of artistic styles, workshop practice, religious change, and political controversy in the century between St. Francis and the Black Death, emphasizing the art of the Pisani, Cimabue, Cavallini, Giotto, Duccio, and the Lorenzetti. (Temporalities pre-1500)

## ARHS 3324 - Art and Cultures of Medieval Spain

## Credits: 3

Introduces the visual traditions of the diverse medieval cultures that coexisted from the fall of Roman Hispania to the cultural and political consolidations of Ferdinand and Isabella. Emphasizes instances of cultural coexistence and rivalry
("convivencia") among Spain's medieval Islamic, Christian, and Jewish cultures. Also, the interplay of foreign and indigenous traditions, the expression of religious and ethnic identity, and the reuse and reconception of artistic forms and objects. Direct study of medieval Spanish painting, sculpture, and manuscripts in the Meadows Museum and Bridwell Library supplement classroom lectures, discussion, and research projects. (Temporalities pre-1500; global perspectives)

## ARHS 3325 - The Gothic Cathedral and Its World

## Credits: 3

The social and spiritual centerpiece of medieval European life, the Gothic cathedral was also one of the greatest multimedia creations of its age. This lecture course uses the cathedral as a springing point for the investigation of the rich architectural and artistic traditions of the high and late Middle Ages in Europe. (Temporalities pre-1500)

## ARHS 3328 - Latin American History Through Visual Culture

## Credits: 3

Uses visual culture to explore the history of Latin America, including African slavery, colonialism, independence movements, and civil war.

## ARHS 3329 - Paris Art and Architecture I

## Credits: 3

Interweaves an investigation of the development of Paris from Roman times to the Renaissance with a history of French architecture during this period, revealing the major trends of both and their reciprocal relationship. Includes visits to important monuments, buildings, and features of urban design. (SMU-in-Paris)

## ARHS 3330 - Renaissance and Baroque Architecture

## Credits: 3

An introduction to Renaissance and Baroque architecture through a focus on the fashioning of religious spaces in Italy from the 15 th to 17 th centuries. Considers the work of artists and architects such as Bramante, Sangallo, Raphael, Michelangelo, Vasari, Bernini, Borromini, Tintoretto, Caravaggio, and Guarini. (Temporalities pre- or post-1500)

## ARHS 3331 - Art and Culture of the Italian Renaissance

## Credits: 3

Surveys major artistic developments of the Renaissance (1300-1600), with special attention to the work of Giotto, Donatello, Leonardo, Raphael, Titian, and Michelangelo. Includes study of the customs, literature, and philosophy of the period through selected readings of primary sources. (Temporalities pre-1500)

## ARHS 3332-16th-Century Italian Art

## Credits: 3

Topics include the dominance of Leonardo, Michelangelo, Raphael, and Titian in the 16th century; the High Renaissance in Florence and Rome and its aftermath; Mannerism in Catholic courts across Europe; the development of art history as a discipline in conjunction with the rise of academics, art collecting, and the search for elevated status; and the challenge of women artists such as Sofonisba Anguissola to prevailing notions of creativity. (Temporalities pre- and post-1500)

## ARHS 3333 - Special Topics in Italian Art and Architecture

## Credits: 3

Surveys major monuments of Italian painting, sculpture, and architecture, with a focus specified by the instructor. The SMU-in-Italy summer course includes visits to actual sites. (Temporalities pre-1500)

## ARHS 3334 - The Look of Freedom

Credits: 3
This course investigates the visual history of freedom. The idea of freedom as a fundamental human right became prominent
in the 18th century, during the same time "vision" became an essential tool in science, the main axis of politics, and the leading sensitivity in art and aesthetics. To complicate matters, both liberty and vision emerged at a time of heightened colonialism and the expansion of empire. Students investigate the manner in which different visual media facilitated, documented, and articulated debates regarding freedom. Particular attention is given to the representation of the body, as this exercise negotiated a range of specific aesthetic, artistic, and cultural concerns regarding the social and political world: To what extent is the idea of freedom, both in historical actuality and in the cultural imagination, determined by the colonial system? What is the political history of freedom? How is freedom coded visually? What are the political limits of freedom? The course readings are organized to consider a range of theoretical and methodological approaches that show the complex history of the concept of freedom in the West.

## ARHS 3337-The Baroque From a Northern Perspective

## Credits: 3

Explores the world of Rembrandt, Rubens, Leyster, Vermeer, Van Dyck, De la Tour, Le Brun, Jones, and Wren in the context of contemporary events such as the Thirty Years' War and the Reformation, and of issues such as art versus craft, nationalism versus internationalism, individual genius versus market, colourism versus classicism, and collector versus connoisseur. By considering a broad range of artworks - from tapestry to painting, from etching to architecture - in terms of the maker, patron or client, and market, this survey seeks the underlying whys for this absorbing period. (Temporalities post1500)

## ARHS 3338 - Sacred and Profane: Spanish Art and Architecture

## Credits: 3

Examines Spanish art and architecture through the lenses of art history and religious studies. Learning is primarily on-site in Madrid, focused on the period between 1500 and 1945. Class meets in the Museo del Prado, major architectural monuments, key urban spaces, and before selected paintings in the Museo Nacional Centro de Arte Reina Sofia (Picasso's Guernica) and the Museo Thyssen-Bornemisza. Emphasis is placed on experiential and collaborative learning as well as individual analysis and reflection. (SMU-in-Spain)

## ARHS 3339-EI Greco to Goya: Spanish Painting of the Golden Age

## Credits: 3

A survey of the painting traditions of Spain during the 15th through early 19th centuries. Includes artists such as El Greco, Velazquez, Ribera, Murillo, and Goya. Lectures are supplemented by direct study of Spanish paintings and prints in the Meadows Museum. (Temporalities post-1500)

## ARHS 3344 - Paintings at the Prado

## Credits: 3

A study of Spanish paintings at the Prado Museum. Familiarizes students with the most relevant Spanish artists and offers a general European view through differences and affinities between Spain and the rest of the continent. (Temporalities post1500) (SMU-in-Spain)

## ARHS 3346 - Paris Art and Architecture II

## Credits: 3

Interweaves an investigation of the development of Paris from the Renaissance to the present with a history of French architecture during this period, revealing the major trends of both and their reciprocal relationship. Takes advantage of the Paris location to visit important monuments, buildings, and features of urban design. (Temporalities post-1500) (SMU-inParis)

## ARHS 3348 - 18th-Century Art

## Credits: 3

A study of European visual culture, 1700-1800, in its many contexts. Topics include art and the public sphere; the rise of museums, exhibitions, criticism, and theory; shifts in patronage and artistic practice; connections among commerce,
industry, and the arts; questions of identity; stylistic revivals and innovations; explorations of the past; and encounters with cultures outside Europe. (Temporalities post-1500)

## ARHS 3349 - Hieroglyphs to Hypertext: The Art and History of the Book

Credits: 3
Examines the early development and the enduring cultural impact of the book - the physical format of written communication known as the codex, which has dominated the intellectual landscape for the past two millennia. Traverses the historical forms of written communication, including cuneiform, hieroglyphs, calligraphy, woodblock, letterpress printing, and the new dematerialized forms stored in digital information retrieval technologies. (Temporalities pre-1500)

## ARHS 3350 - Modern Art and Media Culture, 1789-1870

## Credits: 3

Examines the emergence of a public sphere and a culture of looking in the 19th century. Discusses European visual art in relation to the rise of museum and gallery culture, journalistic illustration, the department store display window, photography and the panorama, the art critic, and early cinema. (Methods and theories)

## ARHS 3351-British Art and Architecture: The Making of Modern Britain

## Credits: 3

Surveys the history of art and architecture in Britain and Ireland, with a focus on the modern era roughly between the coronations of Henry VIII in 1503 and Elizabeth II in 1953. Includes a brief study of ancient Roman, Celtic, Viking, and Norman presence on the isles. Examines landscape traditions, portraiture, genre painting, history painting, the conversation piece, caricature and satire, and architecture and the built environment, with each situated within major developments in the nation's dynastic, political, and social history. The course is thematically focused on the question of how geography, ethnicity, and history have interacted over centuries in the production of concepts of national identity and national styles. Investigates strategies of place-making and space-taking in art and architecture as a form of cultural nation-building.

## ARHS 3352 - Impressionism, Symbolism, and the Deviant Body: Making a Difference

## Credits: 3

Examines impressionist and symbolist art in relation to the emergence of the modern metropolis and the concept of modernity in Europe during 1870-1940. The discourse of degeneration that emerged in the context of 19th-century racial theory, criminology, and medical science forms the framework for discussion. (Methods and theories) (Also SMU-in-Paris)

## ARHS 3355 - History of Photography II: 1940-Present

## Credits: 3

A survey of the history of photographic media from 1940 to the present, with particular emphasis on the still photograph in its various uses as art, document, aide-memoire, amateur pursuit, and social practice. Examines photographic images and image-makers in relation to the social historical contexts in which they are produced, the evolution of photographic technologies, and the idea of the photographic image as it appears in and is transformed through TV, video, film, conceptual art, and new media. (Temporalities post-1500)

## ARHS 3356 - Modern Architecture

Credits: 3
Western architecture from the late 19th century to the present, focusing on the protomodern trends of the late 19th century and the major masters of the modern movement: Sullivan, Wright, Gropius, Le Corbusier, and Mies van der Rohe. (Temporalities post-1500)

## ARHS 3358 - Gender and Sexuality in the Visual Arts

## Credits: 3

Considers the representation of gender and sexuality in the visual arts, as well as the gendering of art production, patronage,
and viewership. Topics may include the work of female artists, representations of male and female bodies, the role of the visual arts in constructing, subverting, norms of gender and sexuality, and the gendering of art theory and the art historical canon.

## ARHS 3359-Topics in Art History: International Studies

Credits: 3
Specific topics chosen by the instructor.

## ARHS 3360 - Modern Painters in Spain

## Credits: 3

Spanish art since the beginning of modernity in Spain from the early 19th century to the present. Focuses on the most important and internationally recognized Spanish painters of the 20th century (Picasso, Dali, and Miro) and trends in painting. Special attention is given to integrating program activities into the syllabus, such as the study of Gaudi's architecture. (Temporalities post-1500) (SMU-in-Spain)

## ARHS 3361 - Special Studies in Art History

## Credits: 3

Specific topics chosen by the instructor.

## ARHS 3362 - The Family in European Painting and Photography

## Credits: 3

Examines European art between 1789 and 1916 in relation to modern ideas about family, parenting, and children. Focuses on changes in portraiture through the study of paintings by such figures as Renoir and Picasso and the photography of Lewis Carroll, author of "Alice in Wonderland." (Methods and theories)

## ARHS 3363-Topics in Brazilian Art and Architecture

## Credits: 3

Explores Brazilian art and architecture from the encounter of the Portuguese with native peoples of the New World in 1500, through the long period of colonial history, to the vibrant contemporary arts of Brazil today. Topics include the complex tapestry of artistic and intercultural exchange among Brazil's Amerindian, African, and European populations; indigenous terra-forming; Tupi feather work, ceramics, and urban planning; European mapping of Brazil and the Amazon; religious art and architecture; Afro-Brazilian art forms and religious practices; Carnival and other performances of popular culture; the artistic production of the colonial period and the foundations of Brazilian modern art; video art during the dictatorship and contemporary allegories of underdevelopment; and historical artistic practices and their link to different national and international models for representing Brazilian national identity today, as well as their ethical, aesthetic, political, and/or social repercussions. (Temporalities post-1500; global perspectives)

## ARHS 3364 - History and Theory of Prints

## Credits: 3

Covers how prints are made and how they can function (newspapers, postage stamps, maps, works of art, etc.). Also, the history of printmaking, established and emerging printmakers and major printmaking techniques from the 15th through 21 st centuries, and fundamental issues regarding originality and copying, uniqueness and multiplicity, display, and collecting as raised by the medium of print. Provides first-hand experience of prints through looking assignments, visits to local collections, and in-class exercises. (Temporalities post-1500)

## ARHS 3365 - Race and Gender in Visual Culture

## Credits: 3

The body is not just a compilation of organs. It is a site through which this era's most contentious political discussions (e.g., human rights violations, racism, and sexism) are experienced. This course explores the complex interconnections among
race, gender, and politics in visual culture. Analyzes how these identities, locations, and markers are constructed and deployed in various media, including painting, photography, and TV. (Temporalities post-1500; methods and theories)

## ARHS 3366 - The Rise of European Modernism

## Credits: 3

Surveys the history of modernism in the visual arts in Europe during the period between the Revolutions of 1848 and the Second World War. Considers major artists and movements in the context of the social, economic, and political upheavals of the time period. Topics include the avant-garde; the social meanings of abstraction; the relationship between politics and art; and the impact of new technologies, industrial mass production, and two world wars on the making and viewing of art.

## ARHS 3367 - History of Photography I: Origins-1940

## Credits: 3

Examines the origins of photography in the early 19th century, when photography emerged as part of a late-Enlightenment scientific discourse and was interwoven with a wide array of new institutional spaces, including botany, anthropology, and geology. Also, photography on the battlefield and in prisons, the emergence of documentary photography and the role that medium played in shaping consumer culture, and the emergence of art photography, from Victorian peasant imagery to Precisionist portrayals of skyscrapers in the 1930s. (Temporalities post-1500)

## ARHS 3368-Art and Context: 1940-1970

## Credits: 3

An international survey of modern art during 1940-1970 that looks at the postwar development of modernist, formalist, figurative, realist, and antimodernist art in a social historical context, with particular attention to the cultural impact of World War II, the ideological conflicts and geopolitics of the Cold War, and the social and political upheaval of the 1960s. Also, the relevant histories of gender, sexual, racial, regional, and national identity in America and other industrialized nations (Britain, France, Germany, Italy, the Soviet Union, and Japan.) (Temporalities post-1500)

## ARHS 3369-Contemporary Art: 1965-Present

## Credits: 3

An international survey of contemporary art from 1965 to the present, with specific attention to the rise of the current proliferation of new modes and new media in art (multimedia, installation, performance, site-specificity, video, interactive, and digital art), locating its origins in the social upheaval and shifting artistic practices at the close of the 1960s. Also, contemporary art practices as they relate to a range of influential developments in critical theory, social history, and local and global visual cultures. (Temporalities post-1500)

## ARHS 3370 - The Art Market: Making, Selling, and Displaying Art in Early Modern and Modern Europe

## Credits: 3

Examines how art was produced, sold, collected, and displayed in early modern and modern Europe. Includes case studies of different centuries and cultures, which might include 16th-century Italy, 17th-century Holland, 18th-century England, or 19th-century France. Students consider issues such as artists' education and self-promotion, the roles of private and governmental patronage, the development of art academies and public exhibitions, the circulation of art objects between Europe and non-European countries, the gendering of the production and consumption of art, and the rise of the dealer system. (Temporalities post-1500)

## ARHS 3371 - The Decorative Arts and the History of Dress in 18th-Century Europe

## Credits: 3

Explores the history of production and consumption of the decorative arts and clothing in 18th-century Europe. Topics include how decorative objects and clothing were made and by whom, how styles evolved and in what political and social contexts, how consumers used objects to define themselves in and against society, and how objects and textiles circulated between Europe and the rest of the world. Also, the gendering of production and consumption, and the relationship between the luxury market and more affordable objects. (Temporalities post-1500)

## ARHS 3373 - American Art and Architecture to 1865

Credits: 3
A survey of American painting, sculpture, and architecture from the Colonial period through the Civil War.

## ARHS 3374-American Art and Architecture, 1865-1940

## Credits: 3

Provides a stylistic and iconographic survey of American painting, sculpture, photography, and architecture from 1865 to 1940 and attempts to situate the images within their specific cultural contexts. Also, broad underlying issues such as nationalism, class, race, and gender. Group discussions on the strengths, assumptions, and weaknesses of these interpretations are relevant for the students' research, thinking, and writing. (Temporalities post-1500)

## ARHS 3376-Latin American Art

## Credits: 3

A survey of art and architecture in Latin America from the initial contacts between European and American civilizations until the 20th century. (Temporalities post-1500; global perspectives)

## ARHS 3377-Art and Architecture of Hispanic New Mexico

Credits: 3
Examines the artistic and cultural legacies of colonial New Mexico: Spanish city planning and church design; "retablos,"
"santos," and their place in religious experience; and art in the secular life of towns and haciendas of colonial and postcolonial New Mexico. Field trips to galleries, collections, and historical sites of northern Mexico. (Temporalities post1500; global perspectives) (SMU-in-Taos)

## ARHS 3378-Art and Cultural Production: The Stranger in Visual Culture and Literature of the Americas

## Credits: 3

In this experimental lab, students examine why strangeness, or the succession of encounters with and repulsion of alien life forms, has been a foundational preoccupation of Western culture. Begins with the assumption that the alien operates beyond and within three conceptual boundaries: alien as informal crosser, alien as expatriate, and alien as extraterrestrial. Thus, the sign for alien turns out to be a condensed metaphor for what exists beyond the closed circle of the community. Analyzes the political function and visual production of strangers and alien forces in different locales and specific historical moments. Examines visual and literary representations of the discovery of America, and considers topics such as abduction, transmigration, alien ethnography, prisoners, imposters, sexed monsters, refugees, and intruders. Takes an interdisciplinary approach to the study of these questions.

## ARHS 3379-Power and Spectacle: The Arts of Spain and New Spain

## Credits: 3

Examines the visual arts of early modern Spain and colonial Mexico. Emphasis on the interplay and creative synthesis of European and New World visual cultures within the colonial sphere. (Temporalities post-1500; global perspectives)

## ARHS 3382 - Art and Experience in Inka Peru

## Credits: 3

The ritual and everyday objects of the native inhabitants of North America, and the architecture of the Mound Builders and the Southwestern Indians. (Temporalities post-1500; global perspectives)

## ARHS 3383 - The Ancient Maya: Art and History

## Credits: 3

Introduces the art and history of the Maya of Central America. Also, addresses the principal sites and monuments of the
ancient Maya civilization, imparts a working understanding of the Maya hieroglyphic writing system, and surveys the political history of the fractious ancient Maya cities. (Temporalities pre-1500; global perspectives)

## ARHS 3384 - Land Art

Credits: 3
Focuses on site-specific art made in the landscape. Special attention is given to land art made in the American West. The contemporary practice of land art is studied in relation to historical examples of site-specific works, including petroglyphs from the ancient and Colonial periods, as well as modern alterations of the landscape. Discussion of these works parallels the consideration of philosophical concepts of space, place, and time. Travel to specific sites in New Mexico is a component of this course.

## ARHS 3385-The Aztecs Before and After the Conquest: Mesoamerica, 1400-1600

## Credits: 3

Examines the art and cultural history of Mexico in the centuries immediately before and after the Spanish arrival in Mesoamerica. Topics include the art and ceremony of the imperial Aztec state; the nature of the conflict between 1519 and 1521 that ended in the fall of the Aztec capital to the Spanish; and the monuments of Spanish conquerors, missionaries, and the native elite in Mexico's early colonial period. (Temporalities pre-1500; global perspectives)

## ARHS 3386-Subcultures

## Credits: 3

Studies the scope and nature of subcultural visual production, especially film, photography, illustration, and fashion and/or dress. Distinctions between the related concepts of subculture, counterculture, fan culture, club culture, neo-tribes, and "scenes" are of particular interest. Focuses on discussing problems surrounding the definition, intersection, and historical emergence of group identities within dominant cultures, as well as the subcultural expression of gender and sexual identity in relation to ethnicity, youth, and socioeconomic class. Related themes include the interaction of fashion and politics and the relationship between art and popular culture. The cultures studied run from the end of the 19th century to the present.

## ARHS 3388 - Why We Go to Auschwitz: Art, Trauma, and Memory

## Credits: 3

Examines how societal memory of the Holocaust is shaped by visual media and public spaces of remembrance like museums, memorials, and artistic monuments. Also, the close ties between fascism and visual culture in the 1930s (Leni Riefenstahl's propaganda films for Hitler and the Degenerate Art Exhibition of 1937) and the emergence of a Holocaust consciousness in philosophy, literature, art, and film in the 1960s, stimulated by Eichmann's trial in Israel. The primary focus is the preoccupation with the Holocaust in the last two decades by artists and intellectuals born after World War II whose knowledge of Shoah (the Holocaust) derives from its representation in books, photographs, and film. (Methods and theories; global perspectives)

## ARHS 3391 - Visual Culture in Colonial Mexico

Credits: 3
The arrival of Europeans in the Americas in 1492 inaugurated one of the most remarkable and violent encounters in human history. This course examines the visual and material culture created in the aftermath of this cultural collision in Mexico, the former Viceroyalty of New Spain, from the 16th to 18th centuries. Topics include the interplay and creative synthesis of discrete European and indigenous visual cultures within the colonial sphere; the role of the arts in empire building; and feather work, manuscripts, painting, sculpture, architecture, urban planning, etc. as visual practices. (Temporalities post1500; global perspectives)

## ARHS 3392 - Islamic Art and Architecture: The Creation of a New Art

## Credits: 3

Issues significant to the creation and expansion of Islamic art from the 7th to the 15th century, e.g., the cultural and political exchange and conflict between Muslims and Christians, religious concerns and the artistic forms created to meet them, the
importance of the book in Muslim culture, the distinctions between religious and secular art, and the appropriation of sacred space in Muslim architecture. (Temporalities pre-1500; global perspectives)

## ARHS 3393 - Culture of Oaxaca: A Sense of Place

Credits: 3
Learning adventure in Oaxaca: exploration of multilayered cultural history through field trips to artists' workshops, museums, archaeological sites, and religious fiestas. The focus is on art, art history, folklore, and religion. Lectures, readings, discussion, essays, interviews and photographs of artists for student projects, and numerous field trips provide a broad exposure to Oaxacan culture. (Global perspectives) (SMU-in-Oaxaca)

## ARHS 3394-Art and Architecture of Japan

## Credits: 3

A survey of religious and secular arts from prehistoric times through the Edo period. Field trips to Kyoto and Nara. (Temporalities pre-1500; global perspectives) (SMU-in-Japan)

## ARHS 3396-Art and Architecture of China

## Credits: 3

Important monuments in China, dating from 2000 B.C. to the present day, in a variety of media: cast bronze, stone, sculpture, painting on silk and paper, porcelain, wooden architecture, etc. Selected objects and sites illuminate the concept of monument from differing perspectives of technology, aesthetics, labor, religion, ethnicity, and politics. Also, comparisons to analogous monuments outside China and visits to collections of Chinese art in Dallas/Fort Worth. (Temporalities pre- and post-1500; global perspectives)

## ARHS 3398 - Introduction to Museum Studies

Credits: 3
Introduces art history majors and graduate students to the basic principles of connoisseurship, conservation, framing, lighting, and exhibition design in the context of the art museum today, with emphasis on the interpretative, cultural, and social role of museums over time. Evaluates specific collections and exhibitions in area museums and examines a number of private collections, challenging students to make quality judgments based upon objective criteria and intuitive response. Students assess the meaning of art through visual analysis and comparison. The efficacy and ethics of museum management are considered.

## ARHS 3399 - The Medieval Jewish-Christian Dialogue in Art and Text

## Credits: 3

Examines the mutual perceptions, conflicts, and commonalities among medieval European Christians and Jews as reflected in works of visual art and in philosophical, theological, legal, and literary texts. (Temporalities pre-1500; global perspectives)

## ARHS 4101 - Directed Studies and Tutorials

## Credits: 1

Independent study for undergraduate majors under the direction and supervision of a faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. Instructor permission required.

## ARHS 4102 - Directed Studies and Tutorials

## Credits: 1

Independent study for undergraduate majors under the direction and supervision of a faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. Instructor permission required.

## ARHS 4111 - Undergraduate Museum Internship

Credits: 1
Available to majors with a GPA of 3.000 or higher.

## ARHS 4201 - Directed Studies and Tutorials

## Credits: 2

Independent study for undergraduate majors under the direction and supervision of a faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. Instructor permission required.

## ARHS 4202 - Directed Studies and Tutorials

## Credits: 2

Independent study for undergraduate majors under the direction and supervision of a faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. Instructor permission required.

## ARHS 4211 - Undergraduate Museum Internship

Credits: 2
Available to majors with a GPA of 3.000 or higher.

## ARHS 4301 - Directed Studies and Tutorials

## Credits: 3

Independent study for undergraduate majors under the direction and supervision of a faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. Instructor permission required.

## ARHS 4302 - Directed Studies and Tutorials

## Credits: 3

Independent study for undergraduate majors under the direction and supervision of a faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. Instructor permission required.

## ARHS 4304 - The City as Place

## Credits: 3

Given to us by ancient Roman reality and myth, the distinction between the city as a physical place ("urbs") and the city as an idea ("orbis") created a long-standing link between territory and ritual, locale and law, nation and citizen, and homeland and world. Students investigate the city in Italy in space and time as it is the locus of such cultural to-and-fro. The goal is to better understand the complexities of the Italian city as a living entity. The period of study spans some 3,000 years, from the Etruscan foundations of Rome to Richard Meier's Jubilee Church, located along the suburban periphery of the city. Topics include the Italian city of antiquity, early Christianity, the Middle Ages, the Renaissance, the Baroque era, and modernism. Includes city and museum tours, lecture, readings, discussion, and short essays. (Temporalities pre- and post-1500) (SMU-in-Italy)

## ARHS 4310 - Seminar on Ancient Art

Credits: 3
Specific topics chosen by the instructor. (Methods and theories)

## ARHS 4311 - Undergraduate Museum Internship

Credits: 3
Available to majors with a GPA of 3.000 or higher.

## ARHS 4312 - Special Topics on 18th-Century Art and/or Architecture

Credits: 3
Seminar course on 18th-century art and/or architecture, with specific topics chosen by the instructor.

## ARHS 4320 - Seminar on Medieval Art

## Credits: 3

Specific topics chosen by the instructor. (Methods and theories)

## ARHS 4322-Museum Theory

Credits: 3
Specific topics chosen by the instructor.

## ARHS 4330 - Seminar on Early Modern Art

Credits: 3
Specific topics chosen by the instructor. (Methods and theories seminar)

## ARHS 4331 - Seminar on Spanish Art

Credits: 3
Specific topics chosen by the instructor. (Methods and theories)

## ARHS 4349 - Seminar on Contemporary Art

Credits: 3
Specific topics for investigation are chosen by the instructor. (Methods and theories)

## ARHS 4350 - Seminar on Modern Art

Credits: 3
Specific topics chosen by the instructor. (Methods and theories)

## ARHS 4362 - The City of New York

Credits: 3
This course examines the changing art and architecture of the city of New York from the 18th century to the present.

## ARHS 4391 - Art History Honors Thesis

Credits: 3
First of a two-part Art History Honors Program sequence. Research-based directed study with thesis adviser. Instructor permission required.

## ARHS 4392-Art History Honors Thesis

## Credits: 3

Second of a two-part Art History Honors Program sequence. Completion of writing honors thesis. Prerequisite: ARHS 4391. Instructor permission required.

## ARHS 4399-Research and Methods in Art History

## Credits: 3

This seminar introduces students to seminal texts and contemporary debates in the research and writing of art history. Each week is devoted to a fundamental critical issue raised in the study of images and objects, including form, materials, content, context, connoisseurship, taste, biography, iconography, social identity, politics, ideology, class, and economics. Students read, discuss, and compare the many methods adopted by art historians and use those methods in discussions of objects in Dallas/Fort Worth collections. The course also contains a research and writing workshop component in which students are introduced to research tools, taught writing skills specific to art history, and guided through the process of conducting scholarly research. Enrollment is required for art history majors and is a prerequisite to all other 4000-level seminars. (Methods and theories)

## ARHS 5011 - Museum Internship

Credits: 0
Available to majors with a GPA of 3.000 or higher.

## ARHS 5012-Museum Internship

Credits: 0
Available to majors with a GPA of 3.000 or higher.

## ARHS 5101 - Directed Studies

Credits: 1
To be arranged with permission of the adviser and the faculty members directing the studies project.

## ARHS 5102-Directed Studies

## Credits: 1

To be arranged with permission of the adviser and the faculty members directing the studies project.

## ARHS 5201 - Directed Studies

## Credits: 2

To be arranged with permission of the adviser and the faculty members directing the studies project.

## ARHS 5202-Directed Studies

## Credits: 2

To be arranged with permission of the adviser and the faculty members directing the studies project.

## ARHS 5301 - Directed Studies

## Credits: 3

To be arranged with permission of the adviser and the faculty members directing the studies project.

## ARHS 5302 - Directed Studies

## Credits: 3

To be arranged with permission of the adviser and the faculty members directing the studies project.

## ARHS 5303-History and Methods of Art History

Credits: 3
Introduction to the history of the discipline with discussion of major methodological approaches as they have shaped past
scholarship and the present sense of crisis in the discipline. Exercise in methods of research and its presentation in good form. Required of all first-year graduate students.

## ARHS 5304 - Seminar on Ancient Art

Credits: 3
Specific topics chosen by the instructor. Seminar members discuss the student reports.

## ARHS 5305 - Seminar on Greek Art

Credits: 3
Specific topics chosen by the instructor. Seminar members discuss the student reports.

## ARHS 5316-Seminar on Non-Western Art

Credits: 3
Specific topics chosen by the instructor.

## ARHS 5320 - Seminar on Medieval Art

Credits: 3
Specific topics chosen by the instructor.

## ARHS 5322 - Seminar on Convivencia: Jewish, Islamic, and Christian Art in Medieval Spain

## Credits: 3

The art and architecture produced by the Christians, Jews, and Muslims of Iberia during the 10th through 15th centuries. Students study the cultural contacts, conflicts, and compromises that affected each culture's artistic traditions and contributed to the diverse heritage of what now is called Spanish art.

## ARHS 5326 - History and Theory of Creative Computation

## Credits: 3

How have computers and information networks been used to create art? What ideas and practices have contributed to the development of creative computing? What does making art using code, algorithms, and the Internet say about the nature of art today? The identity of the artist? How do we assess the quality of the art produced by computers or responsive systems? Students explore the rich history and theory of creative computation, from the earliest experiments in machine art of the 20th century to the most advanced concepts of the present, from Artificial Intelligence to Virtual Reality. Prerequisites: A second-level coding course (CSE 1342 or ASIM 3305 or CRCP 3305), or 9 credits in any 3000-level courses designated ARHS, ASAG, ASIM, CRCP, or CSE.

## ARHS 5330-Seminar on Italian Renaissance Art

Credits: 3
Specific topics chosen by the instructor.

## ARHS 5331 - Seminar on Early Modern Art

## Credits: 3

Specific topics chosen by the instructor.

## ARHS 5333-Seminar on 18th-Century Art

Credits: 3
Specific topics on 18th-century art and/or architecture chosen by the instructor.

## ARHS 5340 - Seminar on Spanish Art

Credits: 3
Specific topics chosen by the instructor.
ARHS 5354-Seminar on 19th-Century Art
Credits: 3
Specific topics chosen by the instructor.
ARHS 5355-Seminar on 20th-Century Art

Credits: 3
Specific topics chosen by the instructor.
ARHS 5358 - Seminar on Modern Art

Credits: 3
Specific topics chosen by the instructor.
ARHS 5359-Seminar on Contemporary Art
Credits: 3
Specific topics chosen by the instructor.
ARHS 5360 - Seminar on British Art

Credits: 3
Specific topics chosen by the instructor.

## ARHS 5361 - Seminar on American Art

Credits: 3
Specific topics chosen by the instructor.

## ARHS 5362 - Seminar on American Art

Credits: 3
Specific topics chosen by the instructor.

## ARHS 5366 - Seminar on Pre-Columbian Art

Credits: 3
Specific topics chosen by the instructor.

# Arts Management and Arts Entrepreneurship 

Professor Zannie Giraud Voss, Division Chair

Professor: Zannie Giraud Voss
Assistant Professor: Kathleen Gallagher
Assistant Professor of Practice: Jim Hart
Adjunct Professor: Margaret Williams
Adjunct Assistant Professor: Kelly Trager
Adjunct Lecturers: JoLynne Jensen, Maureen Mixtacki, Jennifer Schuder

## General Information

The Division of Arts Management and Arts Entrepreneurship offers two undergraduate minors. The minor in arts entrepreneurship provides an overview of how to develop and launch a new arts venture, either for-profit or nonprofit. The minor in arts management provides an overview of how professional arts organizations are managed, with an emphasis on understanding the practical issues facing today's arts manager. Students may declare both a minor in arts entrepreneurship and a minor in arts management by completing all requirements for the double minor.

## Arts Entrepreneurship Minor

## Requirements for the Minor

## Core Requirements (12 Credit Hours)

- AMAE 3301 - Introduction to Arts Management
- AMAE 3305 - Arts Budgeting and Financial Management
- AMAE 3387 - Attracting Capital: Donors, Investors, and Public Funds
- AMAE 4390 - Developing an Arts Venture Plan: Legal, Strategic, and Practical Issues


## Elective Course (3 Credit Hours)

One from the following:

- ADV 1300 - Survey of Advertising
- ADV 1360 - Creative Production
- ADV 2301 - Consumer Behavior
- ADV 4343 - Strategic Promotion Management
- AMAE 3322 - Marketing the Arts
- CCPA 3355 - Principles of Public Relations


## Additional Elective Course (3 Credit Hours)

One of the following:

- AMAE 3370 - Entrepreneurship and the Hero Adventure
- AMAE 4321 - Law and the Arts
- AMAE 4375 - Social Entrepreneurship: Creating a Movement and Innovating Through Social Good
- AMAE 4377 - Accelerating A Startup: Going From Idea to Implementation
- ASAG 3350 - Art Colloquium: New York
- CCPA 3360 - Business and Professional Communication
- CCPA 5302-Topics in Communications (For credit toward the minor, the topic must be Communication Consulting)
- FILM 4316 - Producers' Seminar
- MNO 3375 - Corporate Social Responsibility and Ethical Leadership
- MNO 4371 - Leadership and Culture


## Arts Management Minor

## Requirements for the Minor

## Core Requirements (12 Credit Hours)

- AMAE 3301 - Introduction to Arts Management
- AMAE 3305 - Arts Budgeting and Financial Management
- AMAE 3387 - Attracting Capital: Donors, Investors, and Public Funds or
- CCPA 3387-Social Innovation III: Funding, Donors, and Financing for the Social Good
- AMAE 4326-Cultural Policy


## Elective Course (3 Credit Hours)

- ADV 1300 - Survey of Advertising
- ADV 1360 - Creative Production
- ADV 2301 - Consumer Behavior
- ADV 4343 - Strategic Promotion Management
- AMAE 3322 - Marketing the Arts
- APSM 4372 - Sport Facility and Event Management
- CCPA 3355 - Principles of Public Relations
- CCPA 3380-Social Innovation II: From Idea to Organization


## Additional Elective Course (3 Credit Hours)

One additional course from the list above or one from the following with instructor approval:

- AMAE 4321 - Law and the Arts
- ARHS 1333 - Introduction to Visual Culture
- ASAG 3350 - Art Colloquium: New York
- CCPA 3360 - Business and Professional Communication
- CCPA 3365 - Principles of Organizational Communication
- FILM 3328 - Media Management
- FILM 3330 - Media Sales
- FILM 3335 - Film Exhibition and Distribution
- FILM 4316 - Producers' Seminar
- FILM 4399 - Global Media Systems
- MNO 3375 - Corporate Social Responsibility and Ethical Leadership
- MNO 4371 - Leadership and Culture
- THEA 4309 - Business and Professional Aspects of Theatre


## Arts Management/Arts Entrepreneurship Minor

## Requirements for the minor

## Core Requirements (15 Credit Hours)

- AMAE 3301 - Introduction to Arts Management
- AMAE 3305 - Arts Budgeting and Financial Management
- AMAE 3387 - Attracting Capital: Donors, Investors, and Public Funds
- AMAE 4326-Cultural Policy
- AMAE 4390 - Developing an Arts Venture Plan: Legal, Strategic, and Practical Issues


## Elective Courses (6 Credit Hours)

Two from the following:

- ADV 1300 - Survey of Advertising
- ADV 1360 - Creative Production
- ADV 2301 - Consumer Behavior
- ADV 4343 - Strategic Promotion Management
- AMAE 3322 - Marketing the Arts
- APSM 4372 - Sport Facility and Event Management
- CCPA 3355 - Principles of Public Relations
- CCPA 3380-Social Innovation II: From Idea to Organization


## Additional Elective Courses (6 Credit Hours)

Two from the following:

- AMAE 3370 - Entrepreneurship and the Hero Adventure
- AMAE 4321 - Law and the Arts
- ARHS 1333 - Introduction to Visual Culture
- ASAG 3350 - Art Colloquium: New York
- CCPA 3360 - Business and Professional Communication
- CCPA 3365 - Principles of Organizational Communication
- CCPA 5302 - Topics in Communications (For credit toward the minor, the topic must be Communication Consulting)
- FILM 3328 - Media Management
- FILM 3330 - Media Sales
- FILM 3335 - Film Exhibition and Distribution
- FILM 4316 - Producers' Seminar
- FILM 4399 - Global Media Systems
- MNO 3375 - Corporate Social Responsibility and Ethical Leadership
- MNO 4371 - Leadership and Culture
- THEA 4309 - Business and Professional Aspects of Theatre


## Courses:

## AMAE 3301 - Introduction to Arts Management

## Credits: 3

This course introduces students to arts management theory, practices, and trends affecting a variety of disciplines across the visual and performing arts. It explores key issues in management of arts organizations and events at local, regional, national, and international levels. Topics include organizational formation and structure, governance, funding, strategic planning and implementation, and organizational relationships with artists, employees, audiences, supporters, and other sectors of the public.

## AMAE 3305 - Arts Budgeting and Financial Management

## Credits: 3

The primary emphasis of this course is financial management of arts organizations. Emphasis will be placed on budgeting as a reflection of the art form; as a means of fiscal prediction and control; and as a vehicle of communication among staff, trustees, investors, donors, and other constituencies.

## AMAE 3322 - Marketing the Arts

Credits: 3
Introduces the fundamental concepts of marketing and their practical implementation by arts organizations and arts professionals. Discussion of examples and cases help illustrate applications of theory and familiarize students with essentials such as the production, pricing, promotion, and delivering of arts goods and services to audiences, markets, and the community.

## AMAE 3370 - Entrepreneurship and the Hero Adventure

## Credits: 3

Considering the risk, obstacles, competition, and demands for change and adaptability in today's ever-evolving arts market, how do artists and arts entrepreneurs not only survive, but also thrive? Students draw parallels between the "hero journey" structure in storytelling and the grand adventure of entrepreneurship to gain perspective and a practical structure and lens that they can utilize to help build a unique career and life in the arts. Students learn how to take bold but educated risks, how to carve out a niche within the market, and how to persevere in the face of seemingly insurmountable odds.

## AMAE 3387 - Attracting Capital: Donors, Investors, and Public Funds

## Credits: 3

Focuses on the strategies for attracting capital for new arts-related ventures, whether for-profit or nonprofit. Students explore each capital market for its defining characteristics, mechanisms, and motivations, and develop skills in preparing funding proposals and pitching their ideas to potential funders.

## AMAE 4321-Law and the Arts

## Credits: 3

Students examine, debate, and critically assess legal and ethical aspects of the creation, collection, and preservation of works of art and antiquity; the management of intellectual property and related rights in works of visual and performing arts; relationships between and among creators, performers, dealers, collectors, theatres, museums, and the public; and broader domestic and international issues impacting the art world.

## AMAE 4326-Cultural Policy

## Credits: 3

An overview of policy analysis and practice of the cultural sector in its different areas (heritage, visual, performing arts, etc.) and perspectives. Analyzes historical and theoretical backgrounds of cultural policy; cultural policies in practice (stylized facts and geographical and political divergence at the local, national, and international level); evaluation of cultural policies and their socioeconomic impact; culture, diversity, and development; cultural access and arts education.

AMAE 4375 - Social Entrepreneurship: Creating a Movement and Innovating Through Social Good

## Credits: 3

Explores how to use one's talents, passions, and interests to address world problems with innovative solutions that result in movements and cultural change. Focuses on building a business that realizes success and aids those in need.

## AMAE 4377-Accelerating a Startup: Going From Idea to Implementation

## Credits: 3

Provides hands-on training and instruction on how to start, build, and grow a business from idea to implementation. Topics covered include feasibility analysis, market research, financial projections, the process of going to market, team building, and growth of the business. Acceptance to the course is competitive and based on submitted applications from teams of students; each team must include at least one student in the Meadows School of the Arts. It is preferred that applicants are juniors or seniors. An application does not guarantee admission. Selected students receive a predetermined amount of startup funds at the beginning of the class, and they may choose to work with professional mentors, advisers, and experienced entrepreneurs at the Dallas Entrepreneur Center's business incubator.

## AMAE 4385- Negotiation Skills

## Credits: 3

Covers conflict theory and the negotiation skills artists and arts managers use to represent themselves, their work, and their institutions. Topics include assessing individual conflict styles, using the strengths of an individual style to make an effective negotiation plan, and preparing and practicing negotiations in order to be more comfortable navigating interactions in life and business.

## AMAE 4390 - Developing an Arts Venture Plan: Legal, Strategic, and Practical Issues

## Credits: 3

Students 1) develop an idea for an unmet need in the marketplace; 2) create a plan for the intended impact of their service or product and the model for how that change will take place; 3) analyze the environmental, industry-related, legal, and market-related factors that will influence the success of their new venture; 4) analyze the risks involved with launching their new venture; and 5) develop a plan for the human, financial, space-related, and other resource needs that will be necessary to launch their venture.

# Corporate Communication and Public Affairs 

Associate Professor Sandra Duhé, Division Chair<br>Professor: Rita Kirk<br>Associate Professors: Maria Dixon, Sandra Duhé, Owen Lynch, Ben Voth<br>Assistant Professors: Cara Jacocks, Stephanie Martin<br>Senior Lecturer: Christopher Salinas<br>Professor of Practice: Steve Lee<br>Adjunct Lecturers: Trey Bowles, Christina Coats, Alise Cortez, Cole Daugherty, Matthew Jacob, Suzanne Larkin, Meredith McKee, Michele Meitl, Kimberly Millea, Jamaison Schuler, Brittany Merrill Underwood, Shana Wilcox

## General Information

The Division of Corporate Communication and Public Affairs offers a B.A. and a minor in corporate communication and public affairs and a B.A. in public relations and strategic communication. In each of these programs, the division educates students to apply intellectual rigor and integrity to communication theory and practice in research, strategy, consulting, and advocacy. Students may pursue a double major in corporate communication and public affairs and in public relations and strategic communication; certain restrictions apply.

Students seeking an undergraduate degree in corporate communication and public affairs and/or public relations and strategic communication receive a broad background in the liberal arts, followed by a major curriculum that prepares them for graduate study or professional work in agencies, corporations, nonprofit organizations, government and associations, as well as cultural, legal and political institutions.

Students develop requisite communication and professional skills, gain awareness of the ethical responsibilities of communication leaders, and develop the communication and management capabilities required for success in a global environment.

In addition to major coursework in the division, students must complete a minor or an additional major. Students seeking to double major or minor in another communication-related field may need to complete more than the minimum 122 total hours required for graduation.

In addition to those requirements of the University and Meadows School of the Arts, undergraduate students planning to major or minor in corporate communication and public affairs or major in public relations and strategic communication must meet minimum GPA requirements, earn a passing score on a divisional writing examination and meet the specific requirements for their area of study outlined below.

Admission to Corporate Communication and Public Affairs. Students planning to major or minor in corporate communication and public affairs must complete DISC 1312 (or equivalent), one statistics course (STAT 2301, STAT 2331 or ITOM 2305) and six hours of corporate communication and public affairs coursework (CCPA 2310, CCPA 2327), with a minimum 3.000 GPA across these four courses with no grade lower than a C in any course. Once declared, students must successfully complete six hours of corporate communication and public affairs coursework (CCPA 2308 or DISC 1313 with topic introduction to news writing or CCPA 3360, and CCPA 2375) before taking any additional coursework in the major.

Admission to Public Relations and Strategic Communication. Students planning to major in public relations and strategic communication must complete DISC 1312 (or equivalent), one statistics course (STAT 2301, STAT 2331 or ITOM 2305) and six hours of corporate communication and public affairs coursework (CCPA 2327 , and CCPA 3300 or equivalent), with a minimum 3.000 GPA across these four courses with no grade lower than a C in any course. Once declared, students must successfully complete the remaining six hours of
communication studies core coursework (CCPA 2375, CCPA 3355) before taking any additional coursework in the major.

CCPA coursework may not be repeated without faculty consent and approval from the chair of corporate communication and public affairs. STAT may be repeated without CCPA consent.

## Special Requirements

- Transfer hours for major credit may be considered on petition and with approval of the chair. Courses satisfying major requirements are expected to be taken at SMU.
- Students must earn a grade of C (not C-) or better for coursework toward their program's major or minor requirements.
- Corporate communication and public affairs major coursework may not be double-counted toward the requirements for a second major or minor in advertising, fashion media, film and media arts, or journalism.
- Students majoring in corporate communication and public affairs must select and complete a focused track in social innovation and nonprofit engagement, organizational communication, or political communication per course requirements described below.
- Public relations and strategic communication majors may choose to double major in advertising, journalism or corporate communication and public affairs; restrictions apply to which courses may be double counted.
- Attendance is required on the first day of class in CCPA courses to prevent being dropped from the course.
- Students who do not meet enrollment requirements may be administratively dropped from a CCPA course.
- Students who do not meet GPA requirements to declare a major or minor in the division will not be permitted to enroll in major or minor coursework.
Scholarships. Communication honors scholarships are awarded each year to outstanding majors in the division. The Charles Douglas Bauer Scholarship Fund and Advisory Board funds provide competitive scholarships available to division majors through an annual application process.

Pre-Law Scholars Program. The Division of Corporate Communication and Public Affairs offers a one credit hour elective course exclusively for students in SMU's Pre-Law Scholars Program. Enrollment in the program provides preferred access for admission to the highly rated Dedman School of Law at SMU. Additional information is available from SMU's Division of Enrollment Services.

## Honors Program

Students may apply for admission to the honors track after completion of 45 hours with a 3.500 overall GPA or better. To graduate with distinction, students must take six hours of honors-designated corporate communication and public affairs courses and CCPA 4375. Students accepted to the honors track must maintain a 3.500 or higher overall GPA in all SMU coursework to graduate with the honors distinction. The top 10 percent of each class is eligible for faculty nomination to Kappa Tau Alpha, the national communication honorary society.

## Corporate Communication and Public Affairs, B.A.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Core Requirements (12 Credit Hours)

CCPA 2310 and CCPA 2327 are required prior to entry into the major.

- CCPA 2308 - Introduction to Newswriting for Public Relations or
- CCPA 3360 - Business and Professional Communication or
- DISC 1313 - Inquiry Seminar (topic: introduction to newswriting) or
- JOUR 2312 - News Reporting (for declared journalism majors or minors)
- CCPA 2310 - Rhetoric, Community, and Public Deliberation
- CCPA 2327-Communication Theory
- CCPA 2375 - Communication Research and Data Analytics


## Course Requirements (9 Credit Hours)

Enrollment is contingent upon successful completion of all core requirements.

- CCPA 2300 - Public Speaking in Context
- 3 credit hours from an additional CCPA practicum or a CCPA elective at the 3000 level or above


## 3 practicum credit hours from

- CCPA 4325- Organizations in Local Context
- CCPA 4375 - Honors Thesis in Communication
- CCPA 4392 - Mustang Consulting I: Introduction to Communication Consulting
- CCPA 4393 - Mustang Consulting II: Advanced Communication Consulting
- CCPA 4394 - Mustang Consulting III: Leadership Practicum
- CCPA 4396 - Mustang Consulting Internship
- CCPA 4398 - CCPA Fellow: Internship
- CCPA 5315 - Directed Study in Engaged Learning
- CCPA 5320 - Directed Study in Big Ideas
- CCPA 5325 - Directed Study in Caswell Fellowship


## Intercultural/International Requirement (3 Credit Hours)

- CCPA 3321 - Communication in Global Contexts
- CCPA 3341 - Ethnicity, Culture, and Gender: Introduction to Critical Studies in Communication
- CCPA 4385 - Communication, Technology, and Globalization
- CCPA 4390 - Globalization, Economics, and Communication


## Track-Specific Requirements (12 Credit Hours)

Majors must complete all course requirements under one of the following tracks:

## Social Innovation and Nonprofit Engagement

- CCPA 3370 - Principles of Social Innovation: Creating World Changers
- CCPA 3380 - Social Innovation II: From Idea to Organization
or
- SOCI 3321 - Nonprofit Organizations: Conceptual Primer
- CCPA 3387-Social Innovation III: Funding, Donors, and Financing for the Social Good or
- SOCI 4351 - Nonprofit Fundraising and Grant Writing or
- AMAE 3305 - Arts Budgeting and Financial Management
and one of the following:
- CCPA 3360 - Business and Professional Communication
- CCPA 4312 - Seminar in Social Innovation and Nonprofit Engagement
- CCPA 4376 - Social Entrepreneurship: Creating a Movement and Innovating Through the Social Good
- CCPA 4378 - Social Entrepreneurship and Stewardship in the Faith-Based Organization
- CCPA 4380-Social Entrepreneurship, Capitalism, and the Wesleyan Tradition
- CCPA 4390 - Globalization, Economics, and Communication
- CCPA 5303 - Topics in Social Innovation and Nonprofit Engagement
- SOCI 4399 - Special Topics: Sociology Seminar with a non-profit focus


## Organizational Communication

- CCPA 3365 - Principles of Organizational Communication
- CCPA 3368 - Group and Team Communication and Leadership or
- CCPA 4386 - Financial Communication
- CCPA 3390 - Employee Communication
and one of the following:
- CCPA 3360 - Business and Professional Communication
- CCPA 3370 - Principles of Social Innovation: Creating World Changers
- CCPA 4345 - Seminar in Organizational Communication
- CCPA 4378 - Social Entrepreneurship and Stewardship in the Faith-Based Organization
- CCPA 4390 - Globalization, Economics, and Communication
- CCPA 5304 - Topics in Organizational Communication


## Political Communication

- CCPA 3300 - Free Speech and the First Amendment
- CCPA 3347 - Principles of Political Communication
- CCPA 3393 - Politics and the Public Sphere
and one of the following:
- CCPA 3395 - Public Opinion, the Press, and Public Policy
- CCPA 4300 - Seminar in Political Communication
- CCPA 4310 - History and Philosophy of Free Speech
- CCPA 4390 - Globalization, Economics, and Communication
- CCPA 5305-Topics in Political Communication


## Ethics Course Requirement (3 Credit Hours)

## Second Major or Minor

To be determined with counsel of adviser; hours vary according to choice.

## Free Electives

Hours vary as needed to meet University residency and degree requirements.
Total: 122 Credit Hours

## Public Relations and Strategic Communication, B.A.

## Requirements for the Degree

University-wide Requirements (Varies)
Core Requirements (12 Credit Hours)

CCPA 2327 and CCPA 3300 are required prior to entry into the major.

- CCPA 2327 - Communication Theory
- CCPA 3300 - Free Speech and the First Amendment
or
- JOUR 4316 - Communication Law (for declared journalism majors or minors only)
- CCPA 2375 - Communication Research and Data Analytics
or
- ADV 3304 - Advertising Research (for declared advertising majors only)
- CCPA 3355 - Principles of Public Relations


## Course Requirements (16 Credit Hours)

Enrollment is contingent upon successful completion of all core requirements.

- CCPA 2300 - Public Speaking in Context
- CCPA 2308 - Introduction to Newswriting for Public Relations or
- DISC 1313 - Inquiry Seminar (topic: introduction to newswriting) or
- JOUR 2312 - News Reporting (for declared journalism majors or minors only)
- CCPA 3382 - Advanced Writing for Public Relations
or
- JOUR 2313 - Advanced News Reporting (for declared journalism majors or minors only) or
- JOUR 3362 - Magazine Writing (for declared journalism majors or minors only) or
- JOUR 3382 - Feature Writing (for declared journalism majors or minors only) or
- JOUR 4310 - Editorial and Opinion Writing (for declared journalism majors or minors only)
- CCPA 3310 - Crisis Management
- CCPA 4130 - Professional Seminar
- CCPA 4340 - Corporate Public Relations Strategy or
- CCPA 4386 - Financial Communication


## Media/Technology Electives (6 Credit Hours)

- CCPA 3335 - Principles of Digital Communication and Social Media
and one of the following:

Declared Journalism majors may also choose JOUR 4398.

- ADV 1360 - Creative Production
- ASIM 1300 - Introduction to Digital Hybrid Media
- ASIM 1310 - Creative Coding I
- CCPA 4335-Advanced Digital Communication
- CCPA 4338 - Creative Production for Communicators
- FILM 1304 - Production 1
- JOUR 2304 - Basic Video and Audio Production
- JOUR 3357 - Photojournalism


## Campaigns (3 Credit Hours)

- CCPA 4394 - Mustang Consulting III: Leadership Practicum
- CCPA 4395 - Boulevard Consulting Practicum
- (or ADV 4399 for declared advertising majors)


## Second Major or Minor

To be determined with counsel of adviser; hours vary according to choice.

## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Notes

Public relations and strategic communication majors are required to meet the following additional requirements as part of the corporate communication and public affairs curriculum or as part of the University Curriculum. JOUR 4316 may not count as both an ethics course and a substitute for CCPA 3300. CCPA 3310, CCPA 3382, CCPA 4340 and CCPA 4395 may not count toward a double major in corporate communication.

- Ethics/Law. Suggested: JOUR 2302 or CCPA 2328 (or ADV 2302 for declared advertising majors or minors).
- Local Contexts. CCPA 4320 or CCPA 4396 (or CCPA 4325 for declared corporate communication and public affairs majors or CCPA 4125 or CCPA 4225 for declared double majors who complete a three credit hour internship in advertising, public relations or journalism). Students who double major in public relations and strategic communication and in advertising, corporate communication and public affairs or journalism must earn a minimum of four but no more than six total credit hours of internship. At least one credit hour must be earned in CCPA internship credit.
- Intercultural/International. CCPA 3321, CCPA 3341, CCPA 4385 or CCPA 4390 or JOUR 4360 (or ADV 2343 for declared advertising majors).


## Corporate Communication and Public Affairs Minor

To minor in corporate communication and public affairs, students must meet all the requirements for declaring the major. Students must be accepted into the program prior to enrollment in upper-division courses.

## Requirements for the Minor

## Core Requirements (12 Credit Hours)

- CCPA 2308 - Introduction to Newswriting for Public Relations
or
- DISC 1313 - Inquiry Seminar (topic: introduction to newswriting)
or
- CCPA 3360 - Business and Professional Communication
- CCPA 2310 - Rhetoric, Community, and Public Deliberation
- CCPA 2327 - Communication Theory
- CCPA 2375 - Communication Research and Data Analytics


## Electives (9 Credit Hours)

Selected from CCPA courses at the 3000 level or higher.

## Total: 21 Credit Hours

## Courses:

## CCPA 2300-Public Speaking in Context

Credits: 3
Introduces the theory and practice of public speaking, including rhetorical principles, evidence, nonverbal communication, and visual aids. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in law and legal reasoning program.

## CCPA 2301 - Special Topics: Communication, International Studies Abroad

Credits: 3
Specific topics for study abroad must be approved by the Division of Corporate Communication and Public Affairs chair.

## CCPA 2302-Special Topics: Communication, International Studies Abroad

## Credits: 3

Specific topics for study abroad must be approved by the Division of Corporate Communication and Public Affairs chair.

## CCPA 2303 - Special Topics: Communication, International Studies Abroad

Credits: 3
Specific topics for study abroad must be approved by the Division of Corporate Communication and Public Affairs chair.

## CCPA 2308-Introduction to Newswriting for Public Relations

## Credits: 3

Introduces basic media writing, research, and interviewing skills, as well as AP style for news, features, and press releases. Reserved for students who have not earned credit for DISC 1313 (topic: introduction to newswriting). Prerequisite: Eligibility to enroll in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program. Students must be declared majors or minors to remain in the course.

## CCPA 2310-Rhetoric, Community, and Public Deliberation

## Credits: 3

Examines the role of rhetoric and public deliberation in the production and maintenance of communities and the larger public sphere. Topics include the formation and rhetoric of the civil rights movement, the structural factors impacting the modern public sphere, and the skills necessary to be an informed citizen. Prerequisite: DISC 1312.

## CCPA 2327-Communication Theory

## Credits: 3

Introduces the foundational concepts, theories, and approaches to the study and practice of human communication. Includes a historical overview and discussions of contemporary ethical questions. Prerequisite: DISC 1312.

## CCPA 2328 - Communication Ethics

## Credits: 3

Through readings, case studies, and the application of philosophical approaches to ethics, students examine the ethical challenges of strategic communication, explore the historic development of the field, and develop their own personal code of ethics to guide them through the ethical dilemmas they will encounter in the working world.

## CCPA 2375-Communication Research and Data Analytics

## Credits: 3

Students learn how to conduct professional research utilizing primary and secondary data, statistics, and analytic software. Prerequisite: Eligibility to enroll in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program. Students must be declared majors or minors to remain in the course.

## CCPA 3101-SMU Pre-Law Scholars Seminar

## Credits: 1

Introduces various legal topics, including an overview of legal subjects and careers in law. Provides information relating to the Dedman School of Law admissions process. Restricted to SMU Pre-Law Scholars who have completed their first two full-time academic terms.

## CCPA 3300 - Free Speech and the First Amendment

## Credits: 3

Examines the philosophy, cases, and issues relevant to the First Amendment right to free expression, with a focus on internal security, obscenity, pornography, slander, and the regulation of communication. Also, the foundations of legal argumentation. Prerequisite: SMU Pre-Major or enrollment in the B.A. in corporate communication and public affairs or B.A. in public relations and strategic communication, or minor in corporate communication and public affairs or law and legal reasoning program.

## CCPA 3310-Crisis Management

## Credits: 3

Examines different strategies and tactics organizations use before, during, and after a crisis to respond to internal and external audiences. Includes the role of emerging media in crisis response. Prerequisites: C or better in CCPA 2327, CCPA 2375, CCPA 3300 and CCPA 3355; enrollment in the B.A. in public relations and strategic communication program.

## CCPA 3321-Communication in Global Contexts

## Credits: 3

Provides an international perspective to the study and practice of corporate communication and public affairs, including the challenges and influence of social/cultural, economic, and political forces. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375; enrollment in the B.A. in corporate communication and public affairs, or B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 3327-Argumentation and Advocacy

## Credits: 3

Explores concepts characterizing rational discourse with a concern for examining validity and fallacy. Students consider traditional and contemporary models for analyzing argument, including an examination of the philosophy of argument and practical inquiry into the uses of debates on contemporary social issues. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs, minor in corporate communication and public affairs, or minor in law and legal reasoning program.

## CCPA 3335-Principles of Digital Communication and Social Media

Credits: 3
Addresses the fundamentals, strengths, and weaknesses of each significant social media channel. Includes blog writing, statistics, search engine optimization, and plan writing for a client. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 3341 - Ethnicity, Culture, and Gender: Introduction to Critical Studies in Communication

## Credits: 3

Explores the impact of culture on the understanding and practice of human communication in interpersonal, organizational, and mass media contexts. Strong emphasis is placed on the role of globalization, race, and socioeconomic dynamics as impediments and conduits of cross-cultural collaboration and interaction. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375.

## CCPA 3342 - Race and Identity Construction in Global Contexts

## Credits: 3

Explores what impact communication practices in organizational, interpersonal, and mass media contexts have on the construction of ethnicity, gender, and sexuality in U.S. and postcolonial settings.

## CCPA 3345 - Persuasion Theory and Practice

Credits: 3
Surveys major theories that explain how to influence attitudes and behaviors. Applications to persuasion within a variety of contexts, including relationships, organizations, legal campaigns, and the mass culture. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs, minor in corporate communication and public affairs, or minor in law and legal reasoning program.

## CCPA 3347 - Principles of Political Communication

## Credits: 3

Examines messages, media, and speakers in campaigns, institutions, and movements. Topics include theory and research, strategies, and the rhetorical influence of mass media, advertising, debates, news management, polling, and the use of emerging technologies in electoral politics and governance. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375; enrollment in the B.A. in corporate communication and public affairs, or B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 3350 - Integrated Marketing Communication

Credits: 3
Explores the concept of coordinating the media mix within a communication campaign to create maximum clarity and impact. Covers the ways that a firm or brand communicates with its publics. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375; enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 3355 - Principles of Public Relations

Credits: 3
Introduces the basic theories, concepts, and approaches to public relations in a business context. Includes a historical overview as well as the professional and ethical demands on practitioners. Prerequisites: C or better in CCPA 2310 (or CCPA 3300) and CCPA 2327; eligibility to enroll in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, minor in corporate communication and public affairs, minor in arts entrepreneurship, or minor in arts management program. Students must be declared majors or minors to remain in the course.

## CCPA 3360 - Business and Professional Communication

## Credits: 3

Emphasizes the role that communication plays in recruiting and selecting project team members, motivating employees, and making a project team productive. Prerequisites: Eligibility to enroll in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program. Students must be declared majors or minors to remain in the course

## CCPA 3365 - Principles of Organizational Communication

## Credits: 3

Explores the role of communication in key organizational processes in corporate and nonprofit settings. Students examine the multiple approaches to organizing and their implications for human communication. Prerequisites: C or better in CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375; enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, minor in corporate communication and public affairs, or minor in arts management program.

## CCPA 3368-Group and Team Communication and Leadership

## Credits: 3

Focuses on theories and practices that shape work groups and teams, with emphasis on group discourse in real-life contexts such as group structure/culture, project and conflict management, leadership, decision-making, technology, and meeting facilitation. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310, CCPA 2327, CCPA 2375, and CCPA 3365; enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 3370 - Principles of Social Innovation: Creating World Changers

## Credits: 3

Encourages students to think dynamically about social action and their role as global citizens. Course projects and exercises provide a unique opportunity for idea generation and development of innovative plans to address social problems. Prerequisites: C or better in CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375; enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs.

## CCPA 3380 - Social Innovation II: From Idea to Organization

## Credits: 3

Explores the discourses and practices necessary to move beyond an idea toward development of a sustainable socially innovative or nonprofit endeavor. Includes board development and governance, strategic planning and budgeting, branding and communication strategy, and staff and/or volunteer recruitment and development. Prerequisites: C or better in CCPA 3370; enrollment in the B.A. in corporate communication and public affairs, minor in corporate communication and public affairs, or minor in arts management program.

## CCPA 3382 - Advanced Writing for Public Relations

## Credits: 3

Provides experience in researching, strategizing, developing, and writing a variety of public relations materials for an array of audiences and objectives. Prerequisites: C or better in CCPA 2308 (or DISC 1313 topic: introduction to newswriting), CCPA 2327, CCPA 2375, CCPA 3300, and CCPA 3355; enrollment in the B.A. in public relations and strategic communication program.

## CCPA 3387 - Social Innovation III: Funding, Donors, and Financing for the Social Good

## Credits: 3

Examines the financial communication practices necessary to fund organizations for social good. Explores traditional donor and development models, mission-related financing, and impact investing. Prerequisites: C or better in CCPA 3370 and CCPA 3380 (or SOCI 3321); enrollment in the B.A. in corporate communication and public affairs, minor in corporate communication and public affairs, or minor in arts management program.

## CCPA 3390 - Employee Communication

## Credits: 3

Introduces the theories, ethics, and methods of creating and measuring communication to employees and work groups, including employee campaigns, communication with unionized work groups, and use of social media for employee and leadership interaction and collaboration. Explores how employee discourse can shape perceptions of organizational culture and trust, employee retention and satisfaction, and external branding. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310, CCPA 2327, CCPA 2375, and CCPA 3365; enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 3393 - Politics and the Public Sphere

## Credits: 3

Uses classical and modern texts to explore how theories of law, politics, and power influence elections and governments. Explores foundational democratic questions about rights, freedom and equality, individual and common goods, privacy and personhood, free speech and democracy, intellectual property, and efficient markets. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310, CCPA 2327, CCPA 2375, CCPA 3300, and CCPA 3347 enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 3395 - Public Opinion, the Press, and Public Policy

## Credits: 3

Examines the interdependent relationships among media coverage, public opinion, and public policy, including the influence of press coverage on electoral and policymaking processes in which public voice is presumed to affect democratic outcomes. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310, CCPA

2327, CCPA 2375, CCPA 3300, and CCPA 3347; enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 4025-Organizational Internship

## Credits: 0

Students in approved positions gain career-related experience and establish professional contacts. Offered as pass/fail only. Prerequisites: 90 or more credit hours of coursework, 2.750 overall GPA, 3.000 GPA in CCPA coursework, permission of faculty adviser, and enrollment in the B.A. in corporate communication and public affairs or B.A. in public relations and strategic communication program.

## CCPA 4125 - Public Relations in Local Contexts

## Credits: 1

Provides 50 hours of experience working with public relations professionals part time during the fall, summer, or spring terms. Offered as pass/fail only. Prerequisites: 90 or more credit hours of coursework, 2.750 overall GPA, 3.000 GPA in CCPA coursework, permission of faculty adviser, enrollment in the B.A. in public relations and strategic communication program, and C or better in CCPA 3382 (or its equivalent for double majors in advertising or journalism).

## CCPA 4130-Professional Seminar

Credits: 1
Prepares students to meet the expectations and demands of working as a public relations professional in various organizational contexts. Topics include career development, interviewing, and résumé writing skills. Pass/fail only. Prerequisites: C or better in CCPA 2308 (or DISC 1313 topic: introduction to newswriting), CCPA 2327, CCPA 2375, CCPA 3300, CCPA 3355; junior standing; enrollment in the B.A. in public relations and strategic communication program.

## CCPA 4225-Public Relations in Local Context

## Credits: 2

Provides 100 hours of experience working with public relations professionals part time during the fall, summer, or spring terms. Offered as pass/fail only. Prerequisites: 90 or more credit hours of coursework, 2.750 overall GPA, 3.000 GPA in CCPA coursework, permission of faculty adviser, enrollment in the B.A. in public relations and strategic communication program, and C or better in CCPA 3382 (or its equivalent for double majors in advertising or journalism).

## CCPA 4300 - Seminar in Political Communication

Credits: 3
Advanced study of the role of communication in a public affairs context. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 4302 - Washington Term Studies

Credits: 3
Offers an opportunity to study and work in Washington, D.C., as part of American University's Washington semester. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375; junior standing; enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs.

## CCPA 4303 - Washington Term Studies

## Credits: 3

Offers an opportunity to study and work in Washington, D.C., as part of American University's Washington semester. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375; junior standing; enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs.

## CCPA 4304 - Washington Term Studies

## Credits: 3

Offers an opportunity to study and work in Washington, D.C., as part of American University's Washington semester. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375; junior standing; enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs.

## CCPA 4305 - Washington Term Directed Studies

## Credits: 3

An independent study with the goal of producing original research while students are enrolled in American University's Washington semester. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375; junior standing; enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs.

## CCPA 4310 - History and Philosophy of Free Speech

## Credits: 3

Examines the philosophical debates on the existence, extent, and effect of free speech on society, including the rights of the individual versus the rights of the collective body politic.

## CCPA 4312 - Seminar in Social Innovation and Nonprofit Engagement

Credits: 3
Advanced study of the role of communication in a social innovation and nonprofit context. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 4320 - Public Relations in Local Context

## Credits: 3

Provides 150 hours of experience working with public relations professionals part time during the fall, summer, or spring terms. Offered as pass/fail only. Prerequisites: 90 or more credit hours of coursework, 2.750 overall GPA, 3.000 GPA in CCPA coursework, permission of faculty adviser, enrollment in the B.A. in public relations and strategic communication program, and C or better in CCPA 3382 (or its equivalent for double majors in advertising or journalism).

## CCPA 4323 - Forensics Workshop

## Credits: 3

Explores pedagogical methods, theories, and techniques of competitive debate including individual events, tournament administration, professional responsibilities of the forensic educator, and practical experience in forensics and debate competition. Prerequisite: Approval of instructor.

## CCPA 4324 - Competitive Mock Trial

## Credits: 3

Provides the opportunity to investigate and explore principles of legal advocacy within a competitive environment. Trains students to represent SMU as members of the SMU Mock Trial Team before invitational, regional, and national trial competitions. Prerequisite: Approval of instructor.

## CCPA 4325-Organizations in Local Context

## Credits: 3

Students in approved positions gain 150 hours of career-related experience and establish professional contacts. Pass/fail only. Prerequisites: 90 or more credit hours of coursework, 2.750 overall GPA, 3.000 GPA in CCPA coursework, permission of faculty adviser, and enrollment in the B.A. in corporate communication and public affairs program.

## CCPA 4326 - Washington Term Internship

## Credits: 3

Offered in conjunction with courses taken in Washington, D.C. Provides experience working in public affairs in the nation's capital, supervised by a faculty member there. Prerequisites: C or better in CCPA 2308 (or CCPA 3360 or DISC 1313 topic: introduction to newswriting), CCPA 2310 (or CCPA 3300), CCPA 2327, and CCPA 2375; junior standing; enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs.

## CCPA 4335-Advanced Digital Communication

## Credits: 3

Experience in content marketing, search engine optimization, blog writing, live blogging, and client projects that delve into existing and emerging platforms. In-depth focus on management expectations, return on investment, Web analytics, and keyword discovery. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 4338-Creative Production for Communicators

Credits: 3
Introduces basic principles of graphic design and production in tandem with the use of industry-standard hardware and software programs, including the Adobe Creative Suite. Focuses on public relations applications. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs.

## CCPA 4340 - Corporate Public Relations Strategy

Credits: 3
Provides business literacy, financial and accounting basics, and case study analysis that enables professionals to implement communication strategies that advance business objectives. Prerequisites: C or better in CCPA 2308 (or DISC 1313 topic: introduction to newswriting), CCPA 2327, CCPA 2375, CCPA 3300, CCPA 3355; enrollment in the B.A. in public relations and strategic communication program.

## CCPA 4345-Seminar in Organizational Communication

## Credits: 3

Advanced study of the role of communication in an organizational context. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 4375-Honors Thesis in Communication

## Credits: 3

Provides advanced students with the opportunity to do original research on a topic related to communication. Students learn how to write research questions, conduct a literature review, engage in qualitative or quantitative methodologies, and present findings. Prerequisites: Honors standing; enrollment in the B.A. in corporate communication and public affairs or B.A. in public relations and strategic communication program.

## CCPA 4376 - Social Entrepreneurship: Creating a Movement and Innovating Through the Social Good

## Credits: 3

Explores how to use one's talents, passions, and interests to address world problems with innovative solutions that result in movements and cultural change. Focuses on building a business that realizes success and aids those in need. Prerequisites: C or better in CCPA 3370; enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 4378 - Social Entrepreneurship and Stewardship in the Faith-Based Organization

Credits: 3
Focuses on the unique nonprofit strategic communication, management, and funding demands of the 21 st-century church and faith-based organizational leader. Designed for students interested in creating or serving in innovative, responsive, and fiscally sound religious-based contexts. Topics include strategic planning, branding, power and influence, staff and volunteer management, and stewardship in donor relations. Prerequisites: C or better in CCPA 3370 and CCPA 3380 (or CCPA 3321); enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program, or approval of instructor.

## CCPA 4380 - Social Entrepreneurship, Capitalism, and the Wesleyan Tradition

## Credits: 3

Explores the extraordinary contributions of John Wesley, William Wilberforce, and the Clapham Sect to contemporary understandings of money, philanthropy, and capitalism. Examines practices of the Clapham Sect in Victorian England and explores current developments in social innovation, entrepreneurship, and the challenge of funding nontraditional communitybased ministries in the 21 st century.

## CCPA 4385-Communication, Technology, and Globalization

## Credits: 3

Examines how various communication technologies are used within a strategic communication context and addresses historical, ethical, and legal issues surrounding the use of these technologies. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 4386-Financial Communication

## Credits: 3

Familiarizes students with terms, principles, theories, and practices in financial communications. Examines techniques used in investor relations and considers legal and ethical responsibilities. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 4390 - Globalization, Economics, and Communication

## Credits: 3

The globalization of economic and communicative activity entails a new type of organizing structure as well as an understanding of self and one's connection (interdependence) to the global marketplace. Examines the rise of globalization and the social, political, and economic activity that has significance for every individual and community across the globe.

## CCPA 4392-Mustang Consulting I: Introduction to Communication Consulting

## Credits: 3

Provides a hands-on opportunity to learn and implement the theories and skills necessary to engage in the task of communication consulting. Unlike other models of consulting, the art of communication consultation emphasizes the centrality of organizational communication as a means of assisting clients in addressing their organizational concerns and opportunities. Covers applying communication theory and research to the practice of communication consultation; distinguishing the difference between academic research and communication consulting; and proposing, planning, and implementing a consulting project. Prerequisite: Approval of instructor.

## CCPA 4393 - Mustang Consulting II: Advanced Communication Consulting

## Credits: 3

This advanced communication consulting course provides the opportunity for students to manage their own communication consulting clients under the supervision of the faculty principal. Students are responsible for all client contact, presentations, and resolutions and are required to implement an entire strategic communication solution on behalf of the client, from planning through evaluation. Prerequisite: Approval of instructor.

## CCPA 4394 - Mustang Consulting III: Leadership Practicum

## Credits: 3

This strategic communication management/consulting course is for advanced students to develop agency team and project management skills by serving as team leaders for regional and local clients. Prerequisites: Junior or senior standing and approval of instructor.

## CCPA 4395 - Boulevard Consulting Practicum

## Credits: 3

In this capstone course, students work in teams, conduct original research, and develop and present a comprehensive public relations campaign for an actual client. Prerequisites: C or better in CCPA 2308 (or DISC 1313 topic: introduction to newswriting), CCPA 2327, CCPA 2375, CCPA 3300, CCPA 3355, CCPA 3382; senior standing; enrollment in the B.A. in public relations and strategic communication program.

## CCPA 4396 - Mustang Consulting Internship

## Credits: 3

Practicum for advanced students whose client workload requires a minimum of 150 contact hours within one term. Prerequisites: Junior or senior standing and approval of instructor.

## CCPA 4397-Fashion Media Public Relations

Credits: 3
Focuses on application of public relations principles and practices standard to the fashion industry. Covers public relations planning, development of written materials, and demonstration of effective business communication strategies. Prerequisite:

Enrollment in the B.A. in public relations and strategic communication, B.A. in fashion media, or minor in fashion media program.

## CCPA 4398-CCPA Fellow: Internship

## Credits: 3

Practicum for advanced student selected to serve as communication coordinator for the Division of Corporate Communication and Public Affairs whose workload requires a minimum of 150 contact hours within one term. Prerequisites: Junior or senior standing and approval of department.

## CCPA 5110 - Directed Study

## Credits: 1

A close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. The student must secure written permission from the instructor and return a completed directed studies form to the Division of Corporate Communication and Public Affairs before the drop/add date in the term during which the study is to be undertaken. Prerequisites: Junior or senior standing; permission of instructor and division chair; and enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 5210 - Directed Study

Credits: 2
A close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. The student must secure written permission from the instructor and return a completed directed studies form to the Division of Corporate Communication and Public Affairs before the drop/add date in the term during which the study is to be undertaken. Prerequisites: Junior or senior standing; permission of instructor and division chair; and enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 5301-Topics in Communications

## Credits: 3

Focuses on the role of communication in contemporary study or practice. Topics vary by instructor. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 5302-Topics in Communications

## Credits: 3

Focuses on the role of communication in contemporary study or practice. Topics vary by instructor. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 5303-Topics in Social Innovation and Nonprofit Engagement

## Credits: 3

Focuses on the role of communication in the contemporary study or practice of social innovation and social entrepreneurship. Topics vary by instructor. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 5304-Topics in Organizational Communication

## Credits: 3

Focuses on the role of communication in the contemporary study or practice of organizations. Topics vary by instructor. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 5305 - Topics in Political Communication

## Credits: 3

Focuses on the role of communication in the contemporary study or practice of politics. Topics vary by instructor. Prerequisite: Enrollment in the B.A. in corporate communication and public affairs or minor in corporate communication and public affairs program.

## CCPA 5306-Topics in Public Relations and Strategic Communication

## Credits: 3

Focuses on the role of communication in the contemporary study or practice of public relations. Topics vary by instructor. Prerequisite: Enrollment in the B.A. in public relations and strategic communication program.

## CCPA 5310 - Directed Study

## Credits: 3

A close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. The student must secure written permission from the instructor and return a completed directed studies form to the Division of Corporate Communication and Public Affairs before the drop/add date in the term during which the study is to be undertaken. Prerequisites: Junior or senior standing; permission of instructor and division chair; and enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 5315 - Directed Study in Engaged Learning

## Credits: 3

The student must secure written permission from the supervising instructor and return a completed directed studies form to the Division of Corporate Communication and Public Affairs before the drop/add date in the term during which the study is to be undertaken. Prerequisites: Permission of instructor and division chair and enrollment in the B.A. in corporate communication and public affairs, B.A.in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 5320 - Directed Study in Big Ideas

## Credits: 3

The student must secure written permission from the supervising instructor and return a completed directed studies form to the Division of Corporate Communication and Public Affairs before the drop/add date in the term during which the study is to be undertaken. Prerequisites: Permission of instructor and division chair and enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## CCPA 5325 - Directed Study in Caswell Fellowship

## Credits: 3

The student must secure written permission from the supervising instructor and return a completed directed studies form to the

Division of Corporate Communication and Public Affairs before the drop/add date in the term during which the study is to be undertaken. Prerequisites: Permission of instructor and division chair and enrollment in the B.A. in corporate communication and public affairs, B.A. in public relations and strategic communication, or minor in corporate communication and public affairs program.

## Creative Computing

## Professor Ira Greenberg, Center Director

## General Information

Creative computing is a highly interdisciplinary program offering a Bachelor of Arts and a minor that combine theory and methodology from computer science and engineering with aesthetic principles and creative practice from the arts. The program is rigorous in its interdisciplinary integration, requiring students to pursue core coursework in both the Lyle School of Engineering and the Meadows School of the Arts. In addition, the program requires a capstone project and either a minor concentration or a second major. Study abroad is also highly recommended.

The major in creative computing crosses traditional disciplinary boundaries in response to technological innovation, contemporary arts practices and demands of the global marketplace. An underlying principle at the philosophical core of the major is the integration of creative and analytical study and practice - championing an integrated "whole brain" approach. The major in creative computing enables students to consider problems from many angles and conceptual frameworks, integrating widely disparate approaches and practices.

The program's breadth enables students to target many different segments and professional opportunities within the digital economy, including software engineering, Web design, interactive design/development, mobile application development, 3-D modeling and animation, scientific visualization, and social media. It is anticipated that opportunities will continue to increase as the application of computation and digital processes continues to proliferate across all segments of the global economy. Graduates of the program will

- Be fully literate in at least one major programming language (Java, $\mathrm{C} / \mathrm{C}++$, etc.) and a secondary scripting language (JavaScript, Python, etc.), and will be capable of developing a fully functional software project from concept through deployment, including platform integration, installation, debugging and maintenance.
- Have a conceptual, technical and aesthetic direction informing their creative development and research.
- Be capable of bridging multiple disciplines and synthesizing original technology-driven solutions.
- Be equally comfortable and competent applying creative and computational methods, approaches and processes in solving problems.
- Be capable of working across multiple segments of the digital economy in roles such as interactive designers and/or developers, creative technologists, software engineers, project managers, fine artists and entrepreneurs.


## Creative Computing, B.A.

Admission to the program is competitive. A minimum overall GPA of 3.000 is required, as well as at least a 3.500 GPA in courses listed under Computing Fundamentals in the table below. Students are admitted to the major through consultation with the program director.

The major requires a final capstone project, where students, working with a faculty adviser, develop an independent project in creative computing. Projects may include an art installation, performance, original software (tool, library or application) or a scholarly article. It is expected that students will present their projects in a public forum.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Computing Fundamentals (9 Credit Hours)

- CRCP 1310 - Creative Coding I
or
- ASIM 1310 - Creative Coding I
or
- CSE 1341 - Principles of Computer Science
- CRCP 3305 - Creative Coding II
or
- ASIM 3305 - Creative Coding II
or
- CSE 1342 - Programming Concepts
- CRCP 5320/ASIM 5320 - Aesthetics and Computation
or
- CSE 2341 - Data Structures


## Creative Fundamentals (9 Credit Hours)

Any 1000- or 2000-level courses in the Meadows School of the Arts may be substituted for up to 6 hours of the courses listed below, with adviser approval.

Three from the following:

- ASCE 1300 - Introduction to Ceramics
- ASDR 1300 - Introduction to Drawing
- ASPH 1300 - The Basics of Photography
- ASPR 3300 - Printmaking Workshop
- ASPT 1300 - Introduction to Painting
- ASSC 1300 - Introduction to Sculpture
- ENGL 2390 - Introduction to Creative Writing
- FILM 1301 - Art of Film and Media
- FILM 1302 - Contemporary Media Industries


## Creative Computing (21 Credit Hours)

Seven from the following:

- ASIM 1300 - Introduction to Digital Hybrid Media
- ASIM 1330 - Responsive Arts
- ASIM 1340 - Computational Sculpture
- ASPH 3390 - Experimental Camera
- ASIM 3305 - Creative Coding II
- ASIM 3310 - Computational Media Workshop (topic: international digital atelier)
- ASIM 3320 - Responsive Arts II
- ASIM 3350 - Technology and the Body: Exploration in Wearables and E-Textiles
- ASIM 5302 - Intermedia Directed Studies
- ASPH 3304 - Digital Tools
- CEE 5373 - Prestressed Concrete
- CRCP 1330 - Sound and Code
- CRCP 1350 - The Art of 3-D Modeling and Animation or
- CSE 5360 - Introduction to 3-D Animation
- CRCP 2310 - Nature and Code
- CRCP 2330 - Nand to Tetris: Elements of Computing Systems
- CRCP 3310 - Data: Meaning, Narrative, and Discovery
- CRCP 3320 - Postmodern Software Design
- CRCP 3382 - Introduction to Graphics Programming or
- ASIM 3382 - Introduction to Graphics Programming
- CSE 3345 - Graphical User Interface Design and Implementation
- CSE 5382 - Computer Graphics
- EE 1301 - Modern Electronic Technology
- EE 5390-Special Topics
- FILM 1304 - Production 1
- FILM 3309-Multicamera Production
- FILM 3384 - Sound 1
- FILM 4304 - Project Development
- FILM 4308 - Postproduction Visual Fx
- MSA 3310 - Fundamentals of Audio and Sound
- MSA 3330-Special Topics (topic: creative visualization or synthesizing nature)
- MUTH 4310 - Introduction to Electro-Acoustic Music
- MUTH 4311 - Advanced Topics in Music Technology
- PHYS 1320-Musical Acoustics
- PHYS 3320 - Physics of Music
- PHYS 3340-Computational Physics
- THEA 2275-Technical Theatre Laboratory
- THEA 2333-Technical Drawing for the Theatre
- THEA 3379 - Computer-Assisted Design I
- THEA 3380 - Computer-Assisted Design II


## Math, Sciences and Engineering (9 Credit Hours)

Any courses within the math, sciences or engineering disciplines may be substituted for up to 6 credit hours of the courses listed below, with adviser approval.

One from the Following:

- MATH 3304 - Introduction to Linear Algebra
- MATH 3311 - Introduction to Proof and Analysis

At least 6 credit hours from the following:

- ANTH 2415 - Human Evolution: Biological and Social Beginnings of Humankind
- ANTH 2463 - The Science of Our Past: An Introduction to Archaeology
- BIOL 1301 - Introductory Biology
- BIOL 1101 - Introductory Biology Lab
- BIOL 1302 - Introductory Biology
- BIOL 1102 - Introductory Biology Lab
- BIOL 1303 - Essentials of Biology
- BIOL 1305 - The Natural Environment
- BIOL 1308 - Plant Biology
- CHEM 1301-Chemistry for Liberal Arts
- CHEM 1303-General Chemistry
- CHEM 1304-General Chemistry
- CSE 2240 - Assembly Language Programming and Machine Organization
- CSE 2353 - Discrete Computational Structures
- GEOL 1301 - Earth Systems
- GEOL 1305 - Oceanography
- GEOL 1307 - The Solar System
- GEOL 1308 - Earth and Life
- GEOL 1313 - Earthquakes and Volcanoes
- PHYS 1303 - Introductory Mechanics
- PHYS 1304 - Introductory Electricity and Magnetism
- PHYS 3305 - Introduction to Modern Physics


## Advanced Engineering (9 Credit Hours)

- Any Lyle applied technology courses at the 3000 level or above, with adviser approval.


## Advanced Arts (9 Credit Hours)

- Any Meadows studio or performance arts courses at the 3000 level or above, with adviser approval.


## Theory (3 Credit Hours)

One from the following:

- ARHS 3369 - Contemporary Art: 1965-Present
- CSE 2240 - Assembly Language Programming and Machine Organization
- CSE 3353 - Fundamentals of Algorithms
- MATH 3304 - Introduction to Linear Algebra
- MATH 3311 - Introduction to Proof and Analysis
- PHIL 1301 - Elementary Logic
- PHIL 3363 - Aesthetic Experience and Judgment
- PSYC 3310 - Memory and Cognition
- SOCI 3345-Construction of Social Identities in the Media


## Capstone (3 Credit Hours)

- CRCP 5301 - Creative Computing Major Capstone


## Minor or Second Major and Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Creative Computing Minor

The minor in creative computing is highly interdisciplinary, championing a "whole brain" approach. Combining study, creative practice and research, students explore computing as a universal creative medium, integrating aesthetic principles and practices from the arts with analytical theories and processes from computer science and engineering.

## Requirements for the Minor

## Core Course Requirements (9 Credit Hours)

- CRCP 1310 - Creative Coding I
or
- ASIM 1310 - Creative Coding I
or
- CSE 1341 - Principles of Computer Science
- CRCP 3305 - Creative Coding II or
- ASIM 3305 - Creative Coding II or
- CSE 1342 - Programming Concepts
- CRCP 5320/ASIM 5320 - Aesthetics and Computation or
- CSE 2341 - Data Structures


## Creative Computation (6 Credit Hours)

At least 6 hours from the following, according to track choice.

## Computational Art Track

Two from the following:

- ASIM 1330 - Responsive Arts
- ASIM 1340 - Computational Sculpture
- ASIM 3310 - Computational Media Workshop
- ASIM 3320 - Responsive Arts II
- ASIM 3350 - Technology and the Body: Exploration in Wearables and E-Textiles
- ASIM 5302 - Intermedia Directed Studies
- CRCP 3382/ASIM 3382 - Introduction to Graphics Programming


## Graphics and Gaming Track

Two from the following:

- CRCP 1330 - Sound and Code
- CRCP 3382/ASIM 3382 - Introduction to Graphics Programming
- CSE 5360 - Introduction to 3-D Animation
- CSE 5382 - Computer Graphics
- MATH 3304 - Introduction to Linear Algebra


## Music Track

Two from the following:

- CRCP 1330 - Sound and Code
- MUTH 4310 - Introduction to Electro-Acoustic Music
- MUTH 4311 - Advanced Topics in Music Technology
- PHYS 1320 - Musical Acoustics
- PHYS 3340 - Computational Physics


## Creative Coding Track

Two from the following:

- CRCP 2310 - Nature and Code
- CRCP 3310 - Data: Meaning, Narrative, and Discovery
- CRCP 3320 - Postmodern Software Design
- CRCP 3382/ASIM 3382 - Introduction to Graphics Programming
- EE 5378 - Mobile Phone Embedded Design


## Digital Humanities

Two from a list to be determined.

## Customized Track

Two chosen in consultation with adviser

## Capstone Project (3 Credit Hours)

- CRCP 5301 - Creative Computing Major Capstone


## Total: 18 Credit Hours

## Courses:

## CRCP 1310 - Creative Coding I

## Credits: 3

Exploring computation as a powerful generative medium, students learn the fundamentals of coding and computational thinking, including object-oriented programming. Hands-on topics include algorithmic drawing, procedural imaging, 2-D and 3-D animation, visualization, interactivity, and gaming.

## CRCP 1330 - Sound and Code

## Credits: 3

Explores computation as a powerful creative medium. Students learn the fundamentals of aural programming in the context of creative development. Course examples include algorithmic music, sound synthesis, waveform analysis, sound effects, sound detection, and MIDI. Laptop computer required.

## CRCP 1350 - The Art of 3-D Modeling and Animation

## Credits: 3

Students explore 3-D modeling and animation using Maya, the industry standard 3-D software package. Topics include virtual sculpting, texture maps, transformations, procedural shaders, virtual lights and cameras, timeline-based animation, and special effects. Laptop computer required.

## CRCP 2310 - Nature and Code

## Credits: 3

Students explore patterns, systems, and underlying emergent structures found in nature through code experiments, simulations, and sketches. Course topics include swarming, growth, motility, chaos, complexity, predation, cellular automata, L-systems, and fractals. Prerequisite: ASIM 3305 or CSE 1342, or instructor permission. Laptop computer required.

## CRCP 2330 - Nand to Tetris: Elements of Computing Systems

## Credits: 3

Students build an entire modern computer from the ground up to master the creative tools used within creative computation. Includes using simulated hardware and constructing an assembler, a virtual machine, a compiler, an operating system, and a
program that runs on the project computer. Covers computing history, technical layers of abstraction, creative programming, and integration of ideas in creative computing. Prerequisite: CSE 1342 or ASIM 3305.

## CRCP 2340 - Functional Programming for Creative Coding

## Credits: 3

Foundations of functional programming with musical applications. Uses the Haskell programming language and Euterpea library for musical representation to explore functional paradigms through the creation of algorithmic compositions and other musical projects. Prerequisites: CSE 1340, ASIM 1310, CRCP 1310, or prior programming experience.

## CRCP 2350 - Introduction to Creative Game Development

## Credits: 3

Using Unity as a framework for exploration of elements of game design, including lighting, terrain, handling user input, and basic physics. Students will also learn scripting to customize game behavior using the $\mathrm{C} \#$ programming language. Areas of application covered will include games for art, research, training, and entertainment. Prerequisites: CSE 1341, ASIM 1310, CRCP 1310, or prior programming experience.

## CRCP 3305 - Creative Coding II

## Credits: 3

Introduces advanced creative coding principles using the C++ programming language. Students learn how to design software systems for real-time performance, 3-D virtual environments, interactive applications, mobile games, and augmented installations. Prerequisite: Permission of instructor or ASIM 1310, CRCP 1310, or CSE 1341.

## CRCP 3310 - Data: Meaning, Narrative, and Discovery

## Credits: 3

Students apply programming to obtain, transform, and automate data analysis to extract meaning from large sets of data. From basic data streams to social media APIs, relational databases to unstructured data, bits to big data, and from statistics to data mining, students apply technical concepts to datasets from the arts, humanities, sciences, and other disciplines. Prerequisite: CSE 1342 or ASIM 3305.

## CRCP 3320 - Postmodern Software Design

## Credits: 3

Students learn how to build integrated mobile and Web applications using postmodern tools, platforms, and practices. They also obtain a timeless understanding of application architecture, design patterns, and craftsmanship, applying them with powerful tools and workflows to ensure successful software. Covers Web development, Web applications, cloud-based architecture, user experience design, project management, mobile device programming, and software craftsmanship in creative computing. Prerequisite: CRCP 3310 or instructor consent. Restricted to creative computation majors and/or Lyle School of Engineering majors.

## CRCP 3330-Artificial Intelligence and Creative Composition

## Credits: 3

Creative composition as a task represents an interesting problem for artificial intelligence: it demands not only emulation of human decision-making, but also the addition of novelty or creativity features that present numerous computational and philosophical problems in the area of computing. The course deals with artificial intelligence algorithms for analyzing and generating original compositions. Topics surveyed span multiple areas of cutting-edge artificial intelligence research applied to the creative domain. Prerequisite: Permission of instructor or ASIM 3305, CRCP 3305, or CSE 1342.

## CRCP 3343 - Contemporary Interactive Media Performance

Credits: 3
Explores contemporary hybrid performance augmented with live digital media. Students work with the object-based programming tool Max/MSP Jitter to develop responsive systems, instruments, and custom tools for use in a performance context. Students explore hybrid performance practice incorporating dance, music, visual art, and creative computation. Prerequisite: CSE 1341, CRCP 1310, or ASIM 1310.

## CRCP 3382 - Introduction to Graphics Programming

Credits: 3
Using modern C++ and OpenGL, students learn the basics of graphics programming, including hardware rendering using GLSL. Projects developed in the course include 2D imaging, vector graphics, animations, and games. Prerequisite: CRCP 3305, CSE 1342, or ASIM 3305.

## CRCP 4391 - Special Topics

Credits: 3
Designed to cover topics that may have temporary or limited interest. Prerequisite: CSE 1342 or instructor approval.

## CRCP 5101 - Creative Computing Minor Capstone

## Credits: 1

In consultation with a faculty adviser, students propose, design, and implement an independent creative computing project. Projects may include performance, exhibition, and hardware and/or software development. Requires completion of a paper summarizing significant project outcomes and results. Restricted to creative computing majors. To be completed in the student's last term of the creative computing major. Prerequisite: Permission of instructor.

## CRCP 5301 - Creative Computing Major Capstone

## Credits: 3

In consultation with a faculty adviser, students propose, design, and implement an independent creative computing project. Projects may include performance, exhibition, and hardware and/or software development. Requires completion of a paper summarizing significant project outcomes and results. Restricted to creative computing majors. To be completed in the student's last term of the creative computing major. Prerequisite: Permission of instructor.

## CRCP 5320 - Aesthetics and Computation

## Credits: 3

Students explore code and computation as primary generative media, developing original works of art, leading to the creation of an online portfolio. Screen based, printed, mobile, Web, physical, and performative applications may be explored. Prerequisite: ASIM 3305, CRCP 3305, or CSE 1342.

## CRCP 5326 - History and Theory of Creative Computation

## Credits: 3

How have computers and information networks been used to create art? What ideas and practices have contributed to the development of creative computing? What does making art using code, algorithms, and the Internet say about the nature of art today? The identity of the artist? How do we assess the quality of the art produced by computers or responsive systems? Students explore the rich history and theory of creative computation, from the earliest experiments in machine art of the 20th century to the most advanced concepts of the present, from Artificial Intelligence to Virtual Reality. Prerequisites: A second-level coding
course (CSE 1342 or ASIM 3305 or CRCP 3305), or 9 credits in any 3000 -level courses designated ARHS, ASAG, ASIM, CRCP, or CSE.

## CRCP 5330 - Location Based Data \& Creative Visualization

Credits: 3
An immersion in imaginative geographies, this course introduces students to the tools and explorative possibilities of GIS (Geographic Information Systems) mapping software. Building on a basic introduction to the technology, the course explores image making and communication through digital mapping, spatial modelling, and the spatial language of data visualization.

## CRCP 5390 - Visualization of Information

## Credits: 3

Introduces data visualization and creative coding utilizing the Processing programming language. Explores visual and information design principles, primarily though hands-on programming exercises. Includes assignments and exams that incorporate 2-D and 3-D computer graphics, interactivity, and data input. Covers procedural and object-oriented programming approaches to data visualization and provides an overview of leading-edge data visualization libraries and application program interfaces, including Web-based approaches.

## Dance

## Associate Professor Patty Harrington Delaney, Division Chair

Professors: Shelley C. Berg, Danny Buraczeski, Myra Woodruff
Associate Professors: Patty Harrington Delaney, Christopher Dolder, Leslie Peck
Artist in Residence: Brandi Coleman
Visiting Artists in Residence: Dwight Rhoden, Desmond Richardson
Senior Lecturer: Anne Westwick
Adjunct Lecturers: Chris Ham, Christine Nelson, Morgan Palmer. Musicians: Dick Abrahamson, Jamal Mohamed, Martin Morgan, Mina Polevoy, Natalia Sawal, Edward Smith, D.J. Sullivan, Janeen Vestal

## General Information

The Division of Dance offers a Bachelor of Fine Arts and a minor in dance performance. Students receive professional dance training within the context of a comprehensive liberal arts education. The goal is to develop the disciplined, versatile dance artist through a balanced study of ballet, modern dance and jazz dance techniques, complemented and reinforced by a broad range of theoretical studies and performance opportunities. The program provides an atmosphere in which students are nurtured and stimulated in their quest for artistic achievement, technical mastery and scholarly excellence. Undergraduate majors study dance as a performing art with the intent to become practicing artists. The core of the dance curriculum is designed with this goal in mind. The combination of performance and liberal arts education courses serves to develop the articulate dancer.

The Division of Dance has four dance studios, three of which are located in the Owen Arts Center. Studios are equipped with sprung floors, digital sound and projection systems, grand pianos, ballet barres and mirrors. The Charles S. Sharp Performing Arts Studio doubles as a performing space and is also equipped with a tech booth and a theatrical lighting system. Live accompaniment is provided for all ballet and modern technique classes.

## Admission, Audition and Financial Aid

Dance is a dual admit program: in addition to meeting University admission criteria, all first-year and transfer applicants must participate in a performance audition, which is the principal factor in determining eligibility to major or minor in dance. In the performance audition, applicants are observed in a ballet class, modern dance sequences and a jazz dance combination. After this process, selected candidates are asked to perform a prepared solo that is 90 seconds in length. Applicants should bring a brief résumé, a wallet-sized photograph, music for the solo (tablet, smartphone or DVD) and appropriate dancewear and footwear (the modern dance portion of audition will be danced barefoot). Campus and regional dance auditions occur between October and March. Auditions are scheduled at www.smu.edu/danceadmission.

## Performance

All dance majors are required to perform and choreograph as an integral part of their performance studies. Performance opportunities include concerts featuring masterworks and contemporary works in the genres of ballet, modern and jazz presented on the main stage in the Bob Hope Theatre, concerts featuring student choreography in noontime Brown Bag performances in the Owen Arts Center lobby and mainstage concerts in the Bob Hope Theatre and performances in venues in the Dallas Arts District including the Meadows at the Winspear concerts presented in collaboration with the Meadows Symphony. Other opportunities include special events, outreach programs and interdisciplinary projects within and beyond the Meadows community.

## Dance Performance, B.F.A.

Southern Methodist University is an accredited institutional member of the National Association of Schools of Dance. The program is designed to create the versatile dance artist/scholar who possesses technical prowess and expressive range in the genres of ballet, modern and jazz and the ability to think critically and express their ideas through choreography, verbal expression and well crafted writing. The degree requires 80 credit hours in dance, of which a minimum of 44 credit hours are in technique and the remaining 36 credit hours provide students with the opportunity to develop scholarly and creative abilities in dance and related areas of interest.

Curriculum Notes: A student must be enrolled in six credit hours of dance with a minimum of three credit hours in technique class/classes in order to be a dance major in good standing and maintain an artistic scholarship. A minimum of four terms of ensemble work (DANC 3080) are required; enrollment will be processed by the division after casting is determined for each term. Three terms of dance composition (DANC 3341, DANC 3342, DANC 3343, DANC 4391) are required beginning in the junior year. The Dance curriculum is progressive and requires eight semesters to complete for those coming in to the university as first year students. Transfer students may complete the program in less time depending on the application of transfer credit to the course requirements in both the University Curriculum and the B.F.A. in Dance Performance.

## Requirements

Dance majors are expected to apply themselves scholastically and to conscientiously assume artistic and academic responsibilities associated with the degree. Students are required to maintain a minimum GPA of 2.700 in dance courses to continue in the dance major. Grades lower than C are not acceptable in any required dance course and will necessitate repeat enrollments. If GPA requirements are not met, the student is placed on academic probation. To be eligible for scholarship, students are required to maintain a minimum cumulative GPA of 2.700 in dance courses, and they must be enrolled in a minimum of six credit hours in dance. Full participation in the program and in division performances is required of every student. Performance studies and production activities in the Division of Dance take precedence over performance opportunities outside of the division. Students must submit a request and be granted permission to participate in any project outside the division prior to committing to the project. Students are expected to adhere to this policy as well as all policies of the division, which are outlined in the Division of Dance Student Handbook.

## Evaluation

High standards of discipline and execution are essential for artistic growth, progress and success. Regular class attendance, attendance at auditions, classroom and theatre etiquette, punctuality and attendance at student meetings are essential. Students meet with individual faculty at midterm to receive a progress report and to establish individual goals. At the close of each term, each student receives a performance evaluation by the collective faculty. Various aspects of a student's work are examined, including technical progress, performance artistry, capacity for and commitment to class work, attitude, academic performance, participation in all aspects of the program, and health and fitness. When standards are not met, a student is advised that significant improvement must take place to remain in the program. Poor critiques may result in probationary measures and/or loss of dance scholarship funding. All dance scholarships are reviewed each term. Further details on the standards and requirements for the B.F.A. in Dance Performance are outlined in the Division of Dance Student Handbook, which is available online.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Performance Technique (32 Credit Hours)

To be taken during the first 2-3 years of study:

- Ballet Courses: 12 credit hours
- Modern Dance Courses: 12 credit hours
- Jazz Dance Courses: 8 credit hours
- Pointe or Men's Ballet Technique: 2 semesters required - to be taken for 0 credit hours as co-requisite to ballet


## Advanced Performance Technique (12 Credit Hours)

Must be at the 3000-4000 level of proficiency in at least one major area of performance technique.

## Ensemble Performance (0 Credit Hours)

- DANC 3080 - Ensemble Performance (four terms)


## Composition (9 Credit Hours)

- DANC 3341 - Dance Composition I
- DANC 3342 - Dance Composition II
- DANC 3343 - Dance Composition III

Theoretical and Applied Studies (19 Credit Hours)

- DANC 1030 - Partnering I Laboratory
- DANC 1144 - The Dancer's Toolbox
- DANC 1151 - Dance Production I
- DANC 1152 - Dance Production II
- DANC 1326 - Musical Concepts
- DANC 2160 - Introduction to Pilates
- DANC 3363 - Kinesiology for Dance
- DANC 3366 - Dance Pedagogy
- DANC 4373 - Dance History I: Ballet
- DANC 4374 - Dance History II: Modernism


## Dance Electives (5-8 Credit Hours)

Selected from Dance courses in performance technique, theoretical and applied studies, and directed studies.

## Dance Capstone (0-3 Credit Hours)

Includes final choreographic project.

- DANC 4091 - Dance Capstone
- DANC 4191 - Dance Capstone
- DANC 4291 - Dance Capstone
- DANC 4391 - Dance Capstone


## Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements

## Total: 122 Credit Hours

Note: The following courses required for the dance major also count toward the requirements of the University Curriculum: DANC 2160, DANC 3341, DANC 3363, DANC 4373, and DANC 4374. Some of the University Curriculum proficiency requirements are also met by courses in the dance major.

## Dance Performance Minor

The minor in dance performance, which is available to all University students, is designed for those with previous dance training who wish to continue the pursuit of their interests within the context of their liberal arts studies. Dance performance minors do not perform in main stage concerts but are eligible to audition for student concerts by permission. Students who wish to take more than nine hours of technique classes may do so by permission. Acceptance criteria for the dance minor are the same as those for the major. The minor requires a minimum of 18 credit hours in dance as outlined below.

## Requirements for the Minor

Dance Classes (9 Credit Hours)

- DANC 4373 - Dance History I: Ballet

6 credit hours from the following:

- DANC 1151 - Dance Production I
- DANC 1326 - Musical Concepts
- DANC 2160 - Introduction to Pilates
- DANC 2170 - Yoga for Dancers
- DANC 3363 - Kinesiology for Dance
- DANC 3374 - The Evolution of American Musical Theatre
- DANC 4374 - Dance History II: Modernism (by permission only)


## Performance Technique Classes (9 Credit Hours)

Three from the following:

Ballet:

- DANC 1311 - Ballet I
and by permission:
- DANC 2311 - Ballet II
- DANC 3311 - Ballet III


## Modern Dance:

- DANC 1321 - Modern Dance I
and by permission:
- DANC 2321 - Modern Dance II
- DANC 3321 - Modern Dance III


## Jazz Dance:

- DANC 1231 - Jazz Dance I
and by permission:
- DANC 2231 - Jazz Dance II
- DANC 3231 - Jazz Dance III


## Total: 18 Credit Hours

## Courses:

Dance courses open to non-dance majors are offered on a periodic basis. The remaining dance courses are restricted to dance majors unless otherwise indicated in the course descriptions.

| Dance Courses Open to Nonmajors |  |
| :--- | :--- |
|  | DANC 1301, 1303, 1305 |
| Dance Courses for Dance Performance Majors |  |
| Performance Technique | Ballet: DANC 1018, 1311, 2311, 3016, 3018, 3211, 3216, 3218, 3311, 4004, <br> 4104, 4211, 4311 |
|  | Jazz Dance: DANC 1231, 2231, 3231, 4231 |
| Advanced Performance Technique | DANC 3211, 3216, 3218, 3221, 3231, 3311, 3321, 4104, 4211, 4221, 4231, 4311 |


| Ensemble Performance | DANC 3080 |
| :--- | :--- |
| Composition | DANC $3341,3342,3343$ |
| Theoretical Studies | DANC $1326,3363,4190,4290,4390,4373,4374$ |
| Applied Studies | DANC 1144, 1151, 1152, 2160, 2170, 3354, 3366, 4091, 4191, 4291, 4391 |

## DANC 1018 - Pointe I

Credits: 0
Introduces and develops the fundamentals of pointe technique. Admission by placement. Corequisite: DANC 1311, DANC 2311, or DANC 3311.

## DANC 1030 - Partnering I Laboratory

Credits: 0
A focus on the development of weight sharing skills, with methodology based in techniques associated with contact improvisation and Bartenieff fundamentals. Covers repertory from Pilobolus, one of the most internationally renowned dance companies that bases its work in contact improvisation. Restricted to first-year students.

## DANC 1144 - The Dancer's Toolbox

## Credits: 1

Introduces healthy and effective practices that serve to develop a vibrant and successful dance artist. Focuses on physical wellbeing, artistic protocols, intellectual and cultural perspectives, and diverse approaches to creating and sustaining motivation and inspiration. Also, collaboration with other orientation courses and projects.

## DANC 1151 - Dance Production I

## Credits: 1

Introduces the technical preparation, production, and running of dance performances. Also, orientation and information for providing support in areas of lighting, sound, costumes, and scenery. Service assignments provide hands-on training in mounting a mainstage production, as well as load-in and strike of dance productions in other venues. Required of all first-year dance majors.

## DANC 1152 - Dance Production II

## Credits: 1

Service assignments for performance activities as a continuation of material introduced in the previous term. Development of production skills through verbal and visual communication. Includes lab hours outside of and in addition to the regularly scheduled class meeting times. Required.

## DANC 1218 - Pointe I

## Credits: 2

Introduces and develops the fundamentals of pointe technique. Admission by placement.

## DANC 1231 - Jazz Dance I

Credits: 2
Exploration of the basics of jazz dance technique and styles (classic, musical theatre, and contemporary forms), including studies in basic positions, placement, isolations, and jazz rhythms.

## DANC 1301 - Beginning Ballet

Credits: 3
Introduction to the fundamentals of classical ballet. Not for credit in the dance major.

DANC 1303 - Beginning Modern Dance

Credits: 3
Introduction to basic movement skills, experiences, and concepts of modern dance. Not for credit in the dance major.

## DANC 1305 - Beginning Jazz Dance

Credits: 3
Introduction to the fundamentals of jazz dance with emphasis on rhythm and theatrical style. Not for credit in the dance major.

## DANC 1311 - Ballet I

Credits: 3
Introduction to and development of the fundamentals of classical ballet and pointe technique. Inclusive of pointe class, men's class, and partnering class.

## DANC 1321 - Modern Dance I

Credits: 3
Introduction to and development of the fundamentals of contemporary dance.

## DANC 1326-Musical Concepts

Credits: 3
Introduces basic listening skills, historic musical literature methods for exploring multiple genres of music, and basic music theory related to rhythm and dynamics. The theoretical materials introduced are reinforced and practiced in the composition track.

## DANC 2160 - Introduction to Pilates

Credits: 1
Introduces Pilates, a nonimpact, body conditioning method based on principles of abdominal and scapular stabilization. Emphasizes nonweight-bearing exercises, proper alignment, full range of motion, and patterned breathing.

## DANC 2170 - Yoga for Dancers

Credits: 1
An introduction to the fundamentals of hatha yoga taught through vinyasa, a fluid series of physical poses initiated by focused breathing. Designed to cultivate mental clarity, to improve strength and flexibility, and to reduce muscular and metal tension.

## DANC 2231 - Jazz Dance II

Credits: 2
Continuing development of jazz dance technique and styles, with a focus on dynamics, rhythm, and directional changes. Explores classic jazz, blues, and contemporary jazz styles. Admission by placement.

## DANC 2311 - Ballet II

## Credits: 3

Continuing exploration of classical ballet technique on the intermediate level with an emphasis on more complex port de bras, adagio, tourner, enchainement, and allegro batterie. Inclusive of pointe class, men's class, and partnering class. Prerequisite: Admission by placement.

## DANC 2321 - Modern Dance II

## Credits: 3

Continuing exploration of contemporary dance technique at an intermediate level with emphasis on more complex movement phrasing, rhythmic variation, and use of space. Admission by placement.

## DANC 2361 - Dance Theory and Practice with an Emphasis on Laban Movement Studies

## Credits: 3

Introduces established theoretical concepts and their practical application to the performance and creation of movement. Areas of concentration include somatics, Laban Movement Analysis, motif writing, and Labanotation.

## DANC 3016 - Men's Ballet Technique

Credits: 0
Emphasis on the virtuosity specific to the male dancer in the ballet idiom. Corequisite: DANC 1311, DANC 2311, or DANC 3311.

## DANC 3018 - Pointe II

Credits: 0
Emphasis on the virtuosity specific to the female dancer in the ballet idiom. Admission by placement. Corequisite: DANC 1311, DANC 2311, or DANC 3311.

DANC 3080 - Ensemble Performance

Credits: 0
Rehearsal and public performance of existing repertory and/or original works. By audition. Departmental approval and administrative enrollment. Required.

## DANC 3086 - Explorations in Style

Credits: 0
Students explore a variety of dance forms, styles, and techniques beyond the foundation of the standing curriculum. Prerequisites: Junior or senior standing and technique level placement of II or IV in the appropriate technique.

## DANC 3211 - Ballet III

Credits: 2
Continuing development of classical ballet technique on the advanced level with an emphasis on technical proficiency, musicality, and movement dynamics. Admission by placement.

## DANC 3216 - Men's Ballet Technique

Credits: 2
Emphasis on the virtuosity specific to the male dancer in the balletic idiom. The class objective is to strengthen and develop the dancer to his utmost potential. Includes variations. Admission by placement.

## DANC 3218 - Women's Pointe Technique

## Credits: 2

Emphasis on the virtuosity specific to the female dancer in the balletic idiom. The class objective is to strengthen and develop the dancer to her utmost potential. Includes variations. Admission by placement.

## DANC 3221 - Modern Dance III

## Credits: 2

Continuing development of contemporary dance technique at an advanced intermediate level with emphasis on refining performance quality, depth of physically, dramatic expression, and individual style. Admission by placement.

## DANC 3231 - Jazz Dance III

## Credits: 2

Exploration of more advanced technique and styles of jazz dance, performance projection, individual style, characterizations, and musical theatre themes. Focus on retaining extensive combination sequences. Admission by placement.

## DANC 3311 - Ballet III

## Credits: 3

Continuing development of classical ballet technique on the advanced level with an emphasis on technical proficiency, musicality, and movement dynamics. May be inclusive of pointe class, men's class, and/or partnering class. Prerequisite: Admission by placement.

## DANC 3321 - Modern Dance III

## Credits: 3

Continuing development of contemporary dance technique at an advanced intermediate level with emphasis on refining performance quality, depth of physicality, dramatic expression, and individual style. Introduction of repertory. Admission by placement.

## DANC 3341 - Dance Composition I

## Credits: 3

Introduction to fundamental compositional concepts, including improvisation, abstraction, gesture, motivation, movement manipulation, and phrasing. Students create solo, duet, and group studies. Prerequisite: DANC 1326.

## DANC 3342 - Dance Composition II

Credits: 3
Introduction to structural and aesthetic guidelines for the creation of group dance forms. Structural phrasing practices such as canon, unison, and antiphony serve as tools for facilitating student empiricism and experimentation. Prerequisite: DANC 3341.

## DANC 3343 - Dance Composition III

## Credits: 3

Focuses on working collaboratively with peers in music composition and lighting design. The primary project is the creation of an original work generated from a substantiated contextual source drawn from fields such as literature, visual art, science, architecture, philosophy, and religion. Prerequisite: DANC 3342.

## DANC 3354 - Dance and Camera

## Credits: 3

Instruction in basic camera and editing skills and techniques designed to broaden and empower the dancer's understanding of the moving dance image on camera, and the ways this imagery may be modified and presented as digital media. Covers a variety of modes of digital capture, including single-camera archival, performer viewpoint, multicamera, and site-specific capture techniques. Students learn basic nonlinear editing skills in support of creating a dancer and/or choreographer reel and digital portfolio. Prerequisite: Junior or senior standing.

## DANC 3363 - Kinesiology for Dance

Credits: 3
Exploration of basic anatomy and the human body in motion. Normal and deviated skeletal structures and muscular development are assessed in regard to movement efficiency, injury potential, and dance aesthetics. Required.

## DANC 3366 - Dance Pedagogy

## Credits: 3

Focuses on the theory and practice of teaching methodologies in multiple dance genres. Examines pedagogical theories, standards, and goals for teaching dance, and gives students hands-on experience in teaching modern/contemporary, ballet, and/or jazz-based technique classes. Elements of the course include planning a syllabus, presenting educational material, making corrections, integrating dance accompaniment, organizing a term, and grading. Students may focus on one style of dance, or they may teach in all three modalities investigated during the term. They begin the practical application of course materials by teaching fellow classmates small portions of a technique class, and progress to teaching a full class to nonclassmates.

## DANC 3374 - The Evolution of American Musical Theatre

## Credits: 3

Examines the evolution of American musical theatre, from its roots in minstrelsy, burlesque, and vaudeville, to its adolescence in comic opera, operetta, and musical comedy, to its codification as musical theatre. Includes the early forms of popular entertainment, the integration of dance, music, and drama into the form known as musical theatre, and the figures of the 20th century who refined this integration on Broadway and in Hollywood.

## DANC 4004 - Partnering

Credits: 0
Introduction to the basic elements of partnering inherent in classical ballet. Emphasis on technical skills and classical style. Includes excerpts from classical repertory. Admission by invitation. Prerequisite: Instructor approval. Corequisite: DANC 1311, DANC 2311, DANC 3211, or DANC 3311.

## DANC 4090 - Directed Studies

Credits: 0
Supervised projects and/or research in theoretical studies, inclusive of community service projects. Arranged. Prerequisite: Instructor approval.

## DANC 4091 - Dance Capstone

Credits: 0
Provides the opportunity to create solo or group projects that focus on an area of high interest to the individual student. This may take forms such as choreography, performance, critical writing, and community engagement projects. Prerequisites: DANC 3341, 3342 , and 3343.

## DANC 4104 - Partnering

## Credits: 1

Introduction to the basic elements of partnering inherent in classical ballet. Emphasis on technical skills and classical style. Includes excerpts from classical repertory. Admission by invitation. Prerequisite: Instructor approval. Corequisite: DANC 1311, DANC 2311, DANC 3211, or DANC 3311.

## DANC 4190 - Directed Studies

## Credits: 1

Supervised projects and/or research in theoretical studies, inclusive of community service projects. Arranged. Prerequisite: Instructor approval.

## DANC 4191 - Dance Capstone

Credits: 1
Provides the opportunity to create solo or group projects that focus on an area of high interest to the individual student. This may take forms such as choreography, performance, critical writing, and community engagement projects. Prerequisites: DANC 3341, DANC 3342, and DANC 3343.

## DANC 4211 - Advanced Ballet

Credits: 2
Advanced ballet technique offering a transition from dance study to professional-level work.

## DANC 4215 - Advanced Ballet Elective

Credits: 2
Advanced ballet technique offering a transition from dance study to professional level work.

DANC 4221 - Advanced Modern

Credits: 2
Advanced modern technique offering a transition from dance study to professional-level work.

## DANC 4231 - Advanced Jazz

## Credits: 2

Advanced jazz technique offering a transition from dance study to professional-level work.

## DANC 4245 - Advanced Choreographic Projects

Credits: 2
Individual directed studies in choreography with a culminating performance. Prerequisites: DANC 3244 and instructor approval.

## DANC 4270 - Advanced Technique Elective

## Credits: 2

For advanced-level dancers. Presents local dance artists of the highest caliber in many genres of dance. Each term, the class offers one dance form such as modern, jazz, tap, ballroom, or flamenco. Prerequisite or corequisite: Level III class in the corresponding dance technique.

## DANC 4271 - Advanced Technique Elective

## Credits: 2

For advanced-level dancers. Presents local dance artists of the highest caliber in many genres of dance. Each term, the class offers one dance form such as modern, jazz, tap, ballroom, or flamenco. Prerequisite or corequisite: Level III class in the corresponding dance technique.

## DANC 4290 - Directed Studies

## Credits: 2

Supervised projects and/or research in theoretical studies, inclusive of community service projects. Arranged. Prerequisite: Instructor approval.

## DANC 4291 - Dance Capstone

Credits: 2
Provides the opportunity to create solo or group projects that focus on an area of high interest to the individual student. This may take forms such as choreography, performance, critical writing, and community engagement projects. Prerequisites: DANC 3341, DANC 3342, and DANC 3343.

## DANC 4311 - Advanced Ballet

Credits: 3
Advanced ballet technique offering a transition from dance study to professional-level work.

## DANC 4324 - Modern Dance IV

Credits: 3
Advanced contemporary dance technique, offering a transition from dance study to professional-level work. Admission by placement.

## DANC 4370 - Dance Criticism/Aesthetic

Credits: 3
A practical introduction to writing about dance performance, with emphasis on observation and writing skills. Students examine works of master critics to gain a historical perspective and to become familiar with a variety of methodologies in analyzing dance texts. Prerequisites: DANC 2371 or 2372 and instructor approval.

## DANC 4373 - Dance History I: Ballet

## Credits: 3

The development of ballet as a Western theatre art, from its roots in the French court to contemporary ballet in Europe and America. Emphasis will be placed on choreographic schools and styles as well as the consideration of the ballet aesthetic in a broader cultural context. Required.

## DANC 4374 - Dance History II: Modernism

Credits: 3
Explores the development of modernism in dance from the turn of the century to the present, with emphasis on the evolution of choreographic schools and styles. Also, the relationship of dance to the arts and humanities and to the culture in which it is created. Required Prerequisite: DANC 4373 or instructor approval.

## DANC 4390 - Directed Studies

## Credits: 3

Supervised projects and/or research in theoretical studies, inclusive of community service projects. Arranged. Prerequisite: Instructor approval.

## DANC 4391 - Dance Capstone

## Credits: 3

Provides the opportunity to create solo or group projects that focus on an area of high interest to the individual student. This may take forms such as choreography, performance, critical writing, and community engagement projects. Prerequisites: DANC 3341, DANC 3342, and DANC 3343.

# Film and Media Arts 

Associate Professor Derek Kompare, Division Chair<br>Professors: Sean Griffin, Rick Worland<br>Associate Professors: Kevin Heffernan, Mark Kerins, Derek Kompare, Troy Perkins, David Sedman<br>Assistant Professor: Amber Bemak<br>Adjunct Lecturers: Rebecca Flores, Sally Helppie, Tearlach Hutcheson

## General Information

The Division of Film and Media Arts offers students intensive training and close mentorship in the art of cinema and digital media, helping students develop their own artistic voice and vision. Production courses focus on fostering individual creativity and imagination while simultaneously developing technical skills (screenwriting, cinematography, editing and sound). History and critical studies courses expose students to the key artists and theorists of film and media, as well as to the various aesthetic movements that have developed across the globe. Students are also taught the business aspects of film/media, exposing them to how industrial concerns affect technological and artistic choices, and preparing them to successfully negotiate their place in the industry upon graduation. As such, students are encouraged to take an internship in the professional sector to gain practical experience in the field and establish professional contacts.

The B.A. in film and media arts requires 33 credit hours; it is designed to prepare students for careers in media industries or for postgraduate work in film and media studies. The B.A. is also designed to allow time for significant study in another discipline, making room for double majors and multiple minors in other fields. A wide variety of courses in cinema and media history, theory and criticism provide extensive insight into these media as art forms and as vibrant social and cultural institutions. Courses that focus on the business of film, television and new media initiate students into the diverse aspects of these industries. Additionally, courses in production offer experience in writing, shooting, directing and editing film and other media. Finally, a capstone course provides final preparation for either entrance into a career in the media industries or further graduate studies.

The B.F.A. in film and media arts requires 51 credit hours and emphasizes developing the unique creative voice of each student. The B.F.A. is designed to prepare students for careers in media production and to develop their creative abilities in the art form. Courses in production offer experience in writing, shooting, directing and editing film and other media. Courses that focus on the business of film, television and new media initiate students into the diverse aspects of the industries they plan to enter. Additionally, courses in cinema and media history and criticism provide a basic and necessary knowledge of these media as art forms and as vibrant social and cultural institutions. Finally, a capstone sequence provides final preparation for entrance into a career in the media industries, culminating in a collaborative or (if qualified; see "B.F.A. Thesis Film") individual film production.

## Instructional Facilities

The Division of Film and Media Arts is located in the Umphrey Lee Center, which houses faculty offices, classrooms, audio, video and film production, and media support areas. Computer labs with a full suite of editing, audio and graphics software are available to majors seven days a week through ID card access; other facilities include a recording studio, an audio mixing suite, storage and equipment checkout, a seminar room, and production classrooms. The division also has a screening classroom in the Owen Arts Center.


#### Abstract

Admission

To declare the B.A. in film and media arts, a student must complete FILM 1301 and FILM 1302 with a cumulative 2.700 or better GPA. Students transferring from other universities must have completed equivalent courses and obtained the equivalent GPA in those courses before they can declare the major.

The B.F.A. in film and media arts is a dual admit program: in order to be considered for the B.F.A. in film and media arts, a student must submit a portfolio of film/video work prior to matriculation. The portfolio will be reviewed by a faculty committee to determine acceptance into the B.F.A. program. Upon matriculation, a dually admitted student must complete FILM 1304 and FILM 2354 with a cumulative 2.700 or better GPA in order to declare the B.F.A. To be considered for acceptance into the B.F.A. program while in attendance at SMU, students must have completed FILM 1304 and FILM 2354 with a cumulative 2.700 or better GPA, and they must submit a portfolio. Students transferring from other universities must submit a portfolio, and must have completed equivalent courses to FILM 1304, FILM 2354 and obtained the equivalent GPA in those courses before they can declare the major.


## Internships

Upon attaining junior-level status ( 60 credit hours), qualified students are encouraged to pursue internships that enable them to work under the guidance of professionals in the motion picture, television, and other related media industries. Non-classroom internship credit is limited to three credit hours taken as an elective on a pass/fail basis. Students must be a declared film and media arts major, must have taken FILM 1304, and must obtain permission from the division's internship coordinator before enrolling in an internship course (FILM 4125, FILM 4225, or FILM 4325).

## B.A. Research Thesis

B.A. students wishing to pursue a senior thesis project (FILM 5314) must identify a proposed research project and then apply to FILM 5314 the spring term before they plan to do the thesis project; specifically, applications are due by the end of the first school week after spring break. Details about what to include in the application packet are available on the division website. Note: Thesis registration should take place the final fall of a student's SMU career, and application should take place the spring before that (i.e., for those graduating in May, application and registration will occur the spring term of the student's junior year).

Applications will be reviewed by a faculty committee, and students whose proposals are accepted will be notified by the end of the spring term so they can move forward on the projects during the summer break. Applications for a senior thesis are competitive and only a small number of proposals will be accepted each year.

The ensuing fall, approved students will register for FILM 5314 and complete their projects largely independently, though with advice and help from their committees as necessary. Each student registered for FILM 5314 in a given term will have, at most, until the end of the following term of that academic year to complete the proposed project to the satisfaction of his/her committee. This means thesis defenses should be scheduled no later than mid-April to allow time to address any issues or concerns raised by the committee at the defense.

## B.F.A. Thesis Film

One of the capstone options for the B.F.A. degree requires enrollment in a yearlong thesis film course and completion of a senior thesis project. Interested B.F.A. students must submit a thesis project preproduction proposal packet the spring term of their junior year; specifically, proposals are due by the end of the first school week after spring break. Details about what to include in the proposal packet are available on the division website. Proposals will be reviewed by the faculty. Students whose proposals are accepted will be notified about any potential problems that need to be
addressed prior to registration in FILM 5311 and can move forward on their projects during the summer. Students not submitting proposals will not be allowed to register for this course or to shoot a thesis project. Applications for a senior thesis film are competitive and only a small number of proposals may be accepted each year. The ensuing academic year, B.F.A. students with successful thesis proposals will register for FILM 5311 in the fall, and for FILM 5313 in the spring. Students must make satisfactory progress on their film production in FILM 5311, as determined by their committees, in order to enroll in FILM 5313. Students enrolled in FILM 5313 will have, at most, until the second day of final exams that term to complete the proposed project to the satisfaction of their committees. This means thesis defenses should be scheduled no later than mid-April to allow time to address any issues or concerns raised by the committee at the defense. Each thesis filmmaker will be required to screen publicly his/her finished project after it has been approved by the committee, before the date of spring commencement.

## Directed Studies

A directed study is a close collaboration between a professor and an advanced student with junior or senior standing who conducts a rigorous research or creative project that goes beyond the experience available in course offerings. The student must secure formal approval from the professor to undertake a directed studies project.

## Class Attendance

Due to limited class space and enrollment pressures, a student who fails to appear on the first day or who fails to attend three consecutive class meetings during an academic term without establishing contact with the instructor may be administratively dropped from a course. Course instructors determine other attendance policies.

## Departmental Distinction

Both B.A. and B.F.A. film and media arts majors with sufficiently high standing may graduate from the division with honors (i.e., with departmental distinction). All students who are qualified - 3.750 departmental GPA, 3.500 SMU GPA and 21 credits of film and media arts courses completed - will be informed by the division chair of their eligibility at the end of the fall term of their junior year. To attain the departmental distinction recognition, an eligible candidate must complete a thesis project through the FILM 5311/FILM 5313 or FILM 5314 sequence, and successfully defend the thesis to his or her committee with a final grade of A; candidates must also maintain a 3.750 departmental GPA and 3.500 SMU GPA through graduation. Students should note that admission to FILM 5311/FILM 5313 and FILM 5314 is competitive, and eligibility for departmental distinction does not guarantee acceptance into these courses.

## Film and Media Arts, B.A.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Production Requirements (6 Credit Hours)

- FILM 1304 - Production 1 (minimum grade C-)
- FILM 2354 - Screenwriting 1


## Studies Requirements (9 Credit Hours)

- FILM 1301-Art of Film and Media
- FILM 2301 - Film and Media Criticism
- FILM 3351 - International Film History (minimum grade C-)

Industry Requirement (3 Credit Hours)

- FILM 1302 - Contemporary Media Industries

Capstone Requirements (3 Credit Hours)
One of the following:

- FILM 4353 - Philosophy of Film and Media
- FILM 5304 - Production 3
- FILM 5314 - Research Thesis (requires application and permission)
- FILM 5315-Critical Studies Seminar


## Film and Media Arts Electives (12 Credit Hours)

Up to 6 credits may come from approved non-FILM courses in related programs.

## Free Electives

As needed to meet University residency/degree requirements
Total: 122 Credit Hours

## Film and Media Arts, B.F.A.

Requirements for the Degree
University-wide Requirements (Varies)
Production Requirements (18 Credit Hours)

- FILM 1304 - Production 1
- FILM 2354 - Screenwriting 1
- FILM 3304 - Production 2

Three from the following:

- FILM 3301 - Experimental Camera
- FILM 3302 - Convergent Media
- FILM 3303 - Film Acting
- FILM 3305 - MOS Camera
- FILM 3306 - Nonfiction Production
- FILM 3308 - Editing
- FILM 3309 - Multicamera Production
- FILM 3316-16 mm Production
- FILM 3364-Screenwriting 2
- FILM 3365 - Screenwriting 3
- FILM 3384 - Sound 1
- FILM 3385 - Sound 2
- FILM 3390 - Topics in Production
- FILM 3391 - Topics in Postproduction
- FILM 4301 - TV Ad Concepting and Production
- FILM 4305 - Cinematography
- FILM 4306 - Introduction to Animation
- FILM 4307 - Introduction to 3-D Animation
- FILM 4308 - Postproduction Visual Fx
- FILM 4317 - Film Directing


## Studies Requirements (9 Credit Hours)

- FILM 1301-Art of Film and Media (minimum grade C-)
- FILM 2301 - Film and Media Criticism
- FILM 3351 - International Film History


## Industry Requirements (9 Credit Hours)

- FILM 1302 - Contemporary Media Industries
- FILM 4316 - Producers' Seminar

Plus one from the following:

- FILM 3328-Media Management
- FILM 3330 - Media Sales
- FILM 3335 - Film Exhibition and Distribution
- FILM 3361 - Media Programming
- FILM 3396-Topics in Media Industries
- FILM 4304 - Project Development
- FILM 4399 - Global Media Systems
- AMAE 3305 - Arts Budgeting and Financial Management
- AMAE 3322 - Marketing the Arts
- AMAE 3370 - Entrepreneurship and the Hero Adventure
- AMAE 3387 - Attracting Capital: Donors, Investors, and Public Funds


## Capstone Requirement (6 Credit Hours)

- FILM 5304 - Production 3
or
- FILM 5311 - Thesis Film 1
or
- FILM 5312- Media Career Preparation
- FILM 5313 - Thesis Film 2


## Film and Media Arts Electives (9 Credit Hours)

Up to 3 credits may come from approved non-FILM courses in related programs.

## Community Experience (0-1 Credit Hours)

B.F.A. pre-admits enroll their first term at SMU; current SMU students admitted to the B.F.A. enroll the first fall after their acceptance.

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Courses:

## FILM 1301-Art of Film and Media

Credits: 3
Introduction to the fundamental visual and audio techniques used in cinema, television, and emerging media to convey meaning and mood. Careful analysis of selected films, TV shows, and other media. Required of all majors.

## FILM 1302 - Contemporary Media Industries

Credits: 3
Overview of the key cultural, technological, economic, and legal aspects of media industries today. Required of all majors.

## FILM 1304 - Production 1

Credits: 3
Practical, comprehensive course in the fundamentals of digital video and audio production, covering cameras, microphones, lighting, shooting, editing, sound design, and outputting. Incorporates hands-on exercises, screenings, lecture, and group and individual video projects. Required of all majors.

## FILM 2301 - Film and Media Criticism

## Credits: 3

Introduces the various forms of written criticism of film, television, and digital media, including journalistic criticism, genre criticism, and auteur criticism. Also introduces the fundamentals of ideological and cultural criticism. Required of all majors. Prerequisites: Restricted to film majors only.

## FILM 2304-Creativity and Ideation

## Credits: 3

This hybrid production and studies course on creativity in film and media examines the nature of creativity in different fields and businesses. Includes how creativity in film and media manifests both in finished works themselves and within the production process. Explores different sources of ideas and develops ways to generate a myriad of project pitches, stories, and concepts. Students leave the course with multiple ideas for potential projects for future production courses.

## FILM 2306 - History of Recorded Music

## Credits: 3

Connects major periods of recorded music to innovations in music hardware with special focus on the importance of music to the radio, television, cinema, and new media industries.

## FILM 2332 - American Popular Film and Television

## Credits: 3

An in-depth examination of specific aspects of American popular cinema and/or television, with a focus on questions of popular culture and ideology, the historical development of styles and genres, and the impact of the Hollywood film industry. Specific topics vary from term to term.

## FILM 2344 - History of Animated Film

## Credits: 3

Provides a critical and historical overview of the development of the animated film from its origins in the 19th century to the present.

## FILM 2354 - Screenwriting 1

## Credits: 3

Introduces the language of screenwriting. Topics include the creative process of idea generation and ways to make a story filmable; the creation of memorable and redeemable characters; the arc and transformation of story, including the setup, the question or conflict, the turning point, and the climax or ending; and the details of proper format and presentation. Required of all majors.

## FILM 2362 - Diversity and American Film: Race, Class, Gender, and Sexuality

## Credits: 3

Historical survey of representations of race, ethnicity, class structure, gender, and sexual orientation in American cinema. Also, the opportunities for minorities within the industry.

## FILM 2364 - History of Cinema and TV Comedy

Credits: 3
Survey of the development of comedy in film and television, with emphasis on a historical examination of comic films and TV shows. Also, a theoretical analysis of the phenomena of humor and laughter.

## FILM 3300 - Film and Television Genres

## Credits: 3

Examines questions of genre pertinent to film and television by focusing on various generic forms and their history. Specific genres for consideration vary from term to term.

## FILM 3301 - Experimental Camera

## Credits: 3

Pushing the technical boundaries of cameras as capture devices, students experiment with the creative aesthetic possibilities therein (still and/or motion) and then draw from a variety of genres to create short, experimental films. Students explore diverse concepts such as storytelling, portraiture, documentary, poetry, and abstraction, and they combine elements such as still photography, animation, graphics, narration, sound effects, and original music to create motion picture media. Prerequisites: FILM 1304, or ASPH 1300 and ASPH 1310 (or instructor permission is available for students with a working knowledge of the camera, including aperture, shutter speed, and focal length), and a basic understanding of video editing. Students are required to have access to at least a digital still camera.

## FILM 3302 - Convergent Media

## Credits: 3

Explores the technical, legal, and practical requirements for creating cross-platform media, from preproduction through distribution. Also, covers crowdsourcing, projects distributed on the Web, and projects utilizing the interactive nature of the Web. The goal is to understand, at a fundamental level, how the Web works and all the components and/or tools that allow interactivity to happen. This course demystifies Internet and Web technology for nontechnical people.

## FILM 3303 - Film Acting

Credits: 3
Designed to help the director understand the actor's process of crafting performances from objectives, obstacles, substitutions, inner objects, beats, actions, and doings. Explores a basic overview of these techniques through monologue and scenes. Concentrates on the unique circumstances given to the single-camera film actor: set etiquette (film crew breakdown, terminology), technical basics (the shots), blocking (hitting the mark), and general camera awareness (overlapping, cheating, matching). Also, the marketing needed to secure an acting job (headshots, agents and managers, auditioning, callbacks).

## FILM 3304 - Production 2

Credits: 3
Intermediate-level production course building on the lighting, camerawork, editing, and sound design skills and techniques learned in FILM 1304. Focuses on developing an artistic vision, and includes the basics of directing, preproduction, grip, doublesystem sound, set etiquette, postproduction, and crewing. Prerequisites: FILM 1304, FILM 2354.

## FILM 3305-MOS Camera

Credits: 3
A focus on visual language and advanced camera and lens techniques. Each student makes a short film, shooting only nonsynchronous original material and concentrating on visual design through effective lens choice, mise-en-scène, location
usage, and production design. The course covers prime lenses, exposure, latitude, color grading, and other camera-specific technologies, and provides hands-on experience with high-end camera equipment. Students gain a deeper understanding of how to use visual language to express their ideas. Prerequisite: FILM 3304.

## FILM 3306 - Nonfiction Production

## Credits: 3

Combines the history and practice of nonfiction field production. Hands-on demonstrations, screenings, readings, lectures, and discussions prepare students to produce and create a short documentary piece. Focuses on research, preplanning, and writing skills as integral components of video production. Students create a documentary project 5-10 minutes in length on a topic of their choice. Prerequisite: FILM 1304.

## FILM 3308 - Editing

## Credits: 3

This course on the creative art and craft of editing develops storytelling and rhythmic sensibilities through close study of films, critique and discussion of works in progress, and hands-on practice. Projects include short editing exercises, reworks of students' own existing projects, and re-edits of others' films. Prerequisite: FILM 1304.

## FILM 3309 - Multicamera Production

Credits: 3
Multiple-camera shooting has long been a staple of such things as three-camera television shooting and live sporting events, but as cameras have gotten cheaper and more accessible, multicam has found a place in a vast range of applications. Students explore the variety of ways multiple-camera techniques are used and the advantages and disadvantages of each compared with each other and with single-camera shooting. Includes several multicam projects covering a range of content types and shooting styles.
Prerequisite: FILM 1304.

## FILM 3310 - Screen Artists

Credits: 3
Examines the questions of authorship pertinent to the cinema by focusing on the works of one or more film artists. The specific directors, producers, screenwriters, and other artists treated by the course vary from term to term.

## FILM 3314 - Comics: From Panels to Screens

Credits: 3
An introduction to and overview of the medium of comics, with a focus on aesthetics, genre, cultural history, and industrial development, including the relationship between comics and other popular media forms.

## FILM 3316-16 mm Production

Credits: 3
A focus on visual language and 16 mm film production techniques. Each student makes a short film, shooting only nonsynchronous original material. Covers use and operation of the Bolex 16 mm film camera: incident light meter, fixed focal length lenses, film speeds, and color temperature ratings. Also, visual design through effective lens choice, mise-en-scène, location usage, and production design. Students gain a deeper understanding of how to use visual language to express their ideas. Prerequisite: FILM 1304.

## FILM 3328 - Media Management

Credits: 3
Explores the relationship between the theory and practice of broadcast and cable management, with emphasis on legal and economic constraints on these media outlets.

## FILM 3330-Media Sales

## Credits: 3

Examines the contemporary world electronic media sales, combining strategic thinking with creative thought while keeping the target audience and/or client in mind.

## FILM 3335 - Film Exhibition and Distribution

## Credits: 3

Detailed examination of contemporary practices in the distribution and exhibition of theatrical feature films, including the roles of audience survey techniques, booking, publicity, and advertising.

## FILM 3351 - International Film History

## Credits: 3

Overview of the development of the cinema as a technology, an art form, an industry, and a social institution, beginning with the origins of the medium and tracing its major movements and configurations up to the present. Required of all majors.

## FILM 3352 - American Film History

## Credits: 3

An overview of U.S. film history from the silent period to the present day. Emphasis on the genres, directors, cinematic techniques, and industrial factors that advanced the art of Hollywood and independent filmmakers.

## FILM 3353 - American Broadcast History

## Credits: 3

Focus on the history of American television, with an emphasis on the industrial and sociocultural aspects of the medium's development. Issues of race, gender, class, genre, sexuality, and national identity are studied in the context of significant television shows of the past and present.

## FILM 3355 - History of Documentary Film and Television

## Credits: 3

An overview of the development of the documentary mode surveying historical and critical aspects of nonfiction cinema and TV, including newsreels, social issue films, propaganda movies, wartime documentaries, the cinema verité movement, network documentary series, and reality TV.

## FILM 3359 - National Cinemas

## Credits: 3

Examines the social, economic, technological, and aesthetic histories of cinema from various nations. Also, the concept of "national cinema." Specific nations for consideration vary from term to term.

## FILM 3361 - Media Programming

Credits: 3
Analysis of the development of program ideas and the research and strategies involved in programming media outlets.

## FILM 3364 - Screenwriting 2

## Credits: 3

Workshop-based class devoted to enhancing the dramatic value of existing stories and developing new ideas. Discussions, written exercises, and feedback guide the development of emotionally muscular, well-crafted stories, and hone the purpose, premise, and structure of writing. Prerequisite: FILM 2354.

## FILM 3365 - Screenwriting 3

## Credits: 3

Students produce a first draft of a feature screenplay. Review of proper format and act structure leads to a more in-depth exploration of story, character, dialogue, scenes and scene sequencing, narrative devices, and the emotional payoff. Work includes step outlines of each act, scene readings, and collective feedback, culminating in a fully realized first-draft screenplay. Prerequisite: FILM 2354.

## FILM 3375 - Postwar European Cinema: 1945-Present

## Credits: 3

Presents an overview of postwar European cinema, with a focus on major films, directors, and national movements. Considers cultural and stylistic features that differ from Hollywood-genre models. (Summer abroad)

## FILM 3384 - Sound 1

## Credits: 3

Comprehensive audio course with instruction and work in recording, editing, mixing, and design. Topics include microphone selection and placement, Pro Tools, advanced recording techniques, routing in a studio and within software, Foley sound effects, automated dialog replacement, and introduction to audio processors. Also, individual and group sound-design projects.
Prerequisite: FILM 1304, MSA 3310, or instructor permission.

## FILM 3385 - Sound 2

## Credits: 3

Audio course that builds on the ideas and tools covered in FILM 3384, with a focus on postproduction. Also, creative sound design, including sound effect creation, synthesis and sampling, artistic approaches to using sound over the course of an entire work, and storytelling through sound. Emphasizes the rerecording mix, including advanced work with processing and automation, surround sound mixing, and mastering. Additional topics such as MIDI, stems, live mixing, music mixing, and mixing for different venues may be added depending on student and instructor interests. Prerequisite: FILM 3384.

## FILM 3390 - Topics in Production

## Credits: 3

Focus on a specific area of production. Subjects and prerequisites vary from term to term.

## FILM 3391 - Topics in Postproduction

Credits: 3
Focus on a specific topic of film/video postproduction. Subjects and prerequisites vary from term to term.

## FILM 3395 - Topics in Film and Media Studies

## Credits: 3

Focuses on a specific topic pertinent to film and media studies (e.g., film and/or television history, criticism, critical theory). Topics vary from term to term.

## FILM 3396 - Topics in Media Industries

## Credits: 3

Focuses on a specific topic related to the business and/or industrial side of film and media. Subjects vary from term to term.

## FILM 3397 - Gender and Sexuality in Media

## Credits: 3

Focus on a specific topic related to gender and sexuality in film and media. Subjects vary from term to term.

## FILM 4125-Internship

## Credits: 1

Offers practical experience through work in the professional media, either part-time during the fall or spring terms, or full-time during summer. Students may take a maximum of 3 credit hours of internship ( 150 hours of work per term is calculated as 3 credit hours). Internship credit is given on a pass/fail basis only. Prerequisites: Permission of instructor and upper-division standing.

## FILM 4225 - Internship

## Credits: 2

Offers practical experience through work in the professional media, either part-time during the fall or spring terms, or full-time during summer. Students may take a maximum of 3 credit hours of internship ( 150 hours of work per term is calculated as 3 credit hours). Internship credit is given on a pass/fail basis only. Prerequisites: Permission of instructor and upper-division standing.

## FILM 4301-TV Ad Concepting and Production

## Credits: 3

Working collaboratively, students create and develop ideas for 30 -second commercials for predetermined clients, complete all necessary preparation for producing these concepts, and shoot and edit them into finished ads. Focus is on real-world commercial-style production, emphasizing how to address clients' specific needs while maintaining the creative elements of design and production. Completed ads are submitted to national and/or international advertising competitions and festivals. Note: Interdisciplinary course cross-listed with ADV 4397; usually offered during the January or summer term. Prerequisite: Instructor consent. Generally, students must have taken ADV 3395 and/or FILM 3304 beforehand, though in special cases exceptions may be made.

## FILM 4302 - Online Media Distribution

Credits: 3
Overview of the distribution and monetization of online media. Industry concepts such as measuring return on investment, identifying the major industry players, and sustaining an online brand are framed within the contemporary multiplatform media marketplace.

## FILM 4304 - Project Development

## Credits: 3

Covers creative preproduction and development, including previsualization and script breakdown. Also logistical planning, building a lookbook, finding visual and/or aural references, storyboarding, minor script revising, budgeting, etc. Students do all the creative planning for a major project to potentially shoot in FILM 3304 or as a B.F.A. thesis film. Prerequisite: FILM 3304.

## FILM 4305-Cinematography

## Credits: 3

Advanced production class focusing on the articulation of motion picture language through the technical and aesthetic concerns of the lens, composition, lighting, visual design, camera movement, and point of view. Students explore each of these elements in theory and in practice to better develop their visual storytelling skills. Examination and analysis of art, print media, films, videos, and TV shows is complemented by demonstration of and intensive hands-on practice with camera, lighting, grip, electric, filtration, modern color grading techniques, and software training. Prerequisite: FILM 1304.

## FILM 4306 - Introduction to Animation

Credits: 3
Studies in traditional animation principles, including squash and stretch, timing and spacing, morphing, paths of action, overlapping actions, walk/run cycles, balance, and jumping. This introduction to character animation, with class exercises in character acting in both voice and movement, helps students translate performance into their animated characters. Students have opportunities to work with multiple methods of animation, including 2-D traditional hand drawn, Claymation, stop motion, and 2-D/3-D CGI software. Prerequisite: FILM 1304.

## FILM 4307 - Introduction to 3-D Animation

Credits: 3
An introduction to computer graphics with an emphasis on the popular software package Maya. Includes focus on the user interface, creating of 3-D geometry using polygonal techniques, materials and textures, kinematics, animation, and camera lighting techniques. This course explores the various aspects and fundamentals of computer graphics. Students gain an understanding of the workflow necessary to create 3-D imagery. Assignments employ students to combine a variety of techniques to become familiar with the computer animation production process. Prerequisite: Junior standing or higher.

## FILM 4308-Postproduction Visual Fx

## Credits: 3

Project-based studies in design concepts and application to broadcast graphics and visual special FX. Introduces 3-D design and advanced green screen keying and compositing techniques and motion tracking. Also, working within 3-D space and setting up virtual cameras and lights using After Effects. Focuses on visual FX design and advanced key framing techniques for animating FX with final compositing into live-action footage. Prerequisites: FILM 1304 and consent of instructor.

## FILM 4316 - Producers' Seminar

Credits: 3
Lectures and discussions by both faculty and guest speakers provide an overview of the basic business and legal aspects of film and television production. Prerequisites: FILM 1304, FILM 2354.

## FILM 4317 - Film Directing

## Credits: 3

Covers all elements of the directing process, with specific emphasis on how the film director works with screen actors and captures actors' performances to fit the director's unique vision. Working from a script throughout the term, students learn about script analysis, character outline, casting, rehearsals, and on-set direction. Students create a casting notice, hold auditions, and work with professional and/or student actors. Prerequisite: FILM 1304.

## FILM 4325 - Internship

## Credits: 3

Offers practical experience through work in the professional media, either part-time during the fall or spring terms, or full-time during summer. Students may take a maximum of 3 credit hours of internship ( 150 hours of work per term is calculated as 3 credit hours). Internship credit is given on a pass/fail basis only. Prerequisites: Permission of instructor and upper-division standing.

## FILM 4351 - Mapping Modernism: Artistic Collaborations in Paris and Moscow, 1890-1940

## Credits: 3

Investigates artistic modernism in Paris, Moscow, and St. Petersburg, with a focus on fertile collaborations and exchange in art, dance, theatre, music, and film.

## FILM 4353 - Philosophy of Film and Media

## Credits: 3

Provides an overview of major philosophical and theoretical writings on cinema, television, and new media (including the work of theorists such as André Bazin, Sergei Eisenstein, Laura Mulvey, and Christian Metz) and demonstrates the application of various analytical perspectives to specific texts. Prerequisites: FILM 1301, FILM 3351.

## FILM 4399 - Global Media Systems

## Credits: 3

Overview of contemporary globalized media industries, policies, and texts, with an emphasis on how cultural differences and similarities are represented, marketed, and contested in television, film, and other media forms. Prerequisite: FILM 2351 or instructor consent.

## FILM 5110 - Directed Study

## Credits: 1

Independent study under the direction and supervision of a faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. The student must secure written permission from the instructor and return a completed directed studies form to the Film and Media Arts Office before the start of the term during which the study is to be undertaken. Prerequisites: Junior standing and permission of instructor.

## FILM 5210 - Directed Study

## Credits: 2

Independent study under the direction and supervision of a faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. The student must secure written permission from the instructor and return a completed directed studies form to the Film and Media Arts Office before the start of the term during which the study is to be undertaken. Prerequisites: Junior standing and permission of instructor.

## FILM 5304 - Production 3

## Credits: 3

Advanced-level production course building on the techniques and tools covered in FILM 1304 and FILM 3304, with each student focusing on a particular area of filmmaking craft (directing, cinematography, editing, producing, or sound). All students work collaboratively to take multiple short film projects through production and completion. Emphasizes using craft productively and creatively to create engaging, polished works. Prerequisites: FILM 3304 and at least one course in the desired area of specialization (editing: FILM 3308; cinematography: FILM 4305 or FILM 3316; sound: FILM 3384 or FILM 3385; directing: FILM 4317 or FILM 4304; producing: FILM 4316).

## FILM 5310 - Directed Study

## Credits: 3

Independent study under the direction and supervision of a faculty member. A directed study is a close collaboration between the professor and an advanced student who conducts a rigorous project that goes beyond the experience available in course offerings. The student must secure written permission from the instructor and return a completed directed studies form to the Film and Media Arts Office before the start of the term during which the study is to be undertaken. Prerequisites: Junior standing and permission of instructor.

## FILM 5311-Thesis Film 1

## Credits: 3

A course centered on completing a high-quality senior thesis film using classes as a workshop to improve projects in the preproduction, production, and postproduction phases. This course is designed as the culmination of the production curriculum, providing a forum for putting the ideas, skills, and techniques learned throughout the curriculum into use on one ambitious piece. The student enrolled must come in the first day with director's book in hand and be the director and primary creative force behind the project proposed (e.g., cannot propose to be the producer, writer, or director of photography for the film but not direct it). The thesis film must ultimately be defended to and approved by a faculty committee. Prerequisites: Completion of all other production requirements, senior standing, and acceptance through a competitive application process.

## FILM 5312 - Media Career Preparation

## Credits: 3

Through various assignments, research, lectures, and guest presentations by industry professionals, students learn about career options and opportunities in the field of media arts. Students are expected to prepare for their short- and long-term career goals through research projects, the creation of personal marketing pieces (e.g., business cards, reels of their work, and film festival submissions), the preparation of appropriate résumés, networking, and the creation of a final project designed to launch their individual careers in the entertainment industry. Substantial work outside the class periods is required. Prerequisite: FILM 5311 or senior standing within the division.

## FILM 5313 - Thesis Film 2

## Credits: 3

A course centered on completing a high-quality senior thesis film using classes as a workshop to improve projects in the preproduction, production, and postproduction phases. This course is designed as the culmination of the production curriculum, providing a forum for putting the ideas, skills, and techniques learned throughout the curriculum into use on one ambitious piece. The student enrolled must be the director and primary creative force behind the project proposed (e.g., cannot propose to be the producer, writer, or director of photography for the film but not direct it). The thesis film must ultimately be defended to and approved by a faculty committee. Prerequisite: FILM 5311.

## FILM 5314 - Research Thesis

Credits: 3
An advanced critical studies course in which students research, write, and defend a research paper, 10,000-15,000 words in length and developed in consultation with a faculty adviser. The thesis is designed to synthesize interests and works that the student may have developed in previous critical studies courses, and to potentially serve as an essay for scholarly publication or for application to a graduate program in media studies. While the course is individually structured and highly self-directed, it also requires regular meetings with the thesis adviser. The thesis must ultimately be defended to and approved by a faculty committee. Prerequisites: Two 2000-level or above FILM critical studies courses, senior standing, and acceptance through a competitive application process.

## FILM 5315 - Critical Studies Seminar

## Credits: 3

A high-level research seminar that fulfills a capstone requirement for the film B.A. Topics may vary each term; may be repeated once for credit with a different topic. Prerequisites: FILM 3351 and one other 3000- or 4000-level critical studies course; nonmajors need consent of instructor.

# Interdisciplinary Programs and Courses 

Interdisciplinary Studies in the Arts, B.A.

Professor Kevin Paul Hofeditz, Director

The major in interdisciplinary studies provides an opportunity for outstanding students to design programs that bring together multiple disciplines within the Meadows School of the Arts. Another option is to combine a discipline or disciplines housed in the Meadows School of the Arts with areas of study found elsewhere in the University for the purpose of exploring new forms of artistic expression or communication. Academically qualified students may explore the possibility of a specialized major with the program director. If the proposed plan appears to have merit, the program director will suggest faculty advisers who can provide further assistance in designing the program.

## Program Description.

Students with at least a 3.000 GPA in the first 24 credit hours taken through enrollment at SMU are eligible to pursue the program. The program consists of individually designed majors in the arts of at least 36 term hours, with a minimum of at least 24 credit hours of advanced courses ( 3000 level or above). At least two-thirds of the courses that count toward the major must be taken in the Meadows School of the Arts. The program must satisfy all Universitywide requirements and all other University and Meadows School graduation requirements. Students are responsible for fulfilling all prerequisites for courses taken. This program is designed to allow exceptional students an opportunity to design an interdisciplinary program; it is not intended to be a way of avoiding divisional requirements. Certain Meadows courses are open only to majors or by audition. Admission to such courses is at the discretion of the faculty of the division in which such courses are offered. The degree will be identified as a Bachelor of Arts. The transcript will refer to the major as "Interdisciplinary Studies in the Arts." A note on the transcript will denote the specialization. Students intending to seek admission to graduate schools are encouraged to include at least 30 hours of a coherent set of courses in an identifiable disciplinary field.

## Administrative Procedures.

The Meadows Academic Policies Committee shall have the final authority to approve all specialized programs. In order to initiate discussion of a specialized major, a student must submit to the program director a preliminary plan of study in the form of a brief statement of goals and a course list made in consultation with appropriate faculty advisers. A number of steps must be completed prior to declaring the major:

1. If the program director approves the program, the student and the faculty advisers must form a supervisory committee with a minimum of three members. The supervisory committee will provide advice and guidance to the student. At least two members, including the chair of the committee, shall be resident members of the Meadows School faculty. The chair of the committee will normally be the faculty adviser.
2. The student will submit a formal plan of study to the supervisory committee. The plan of study must include a proposal for a special project such as a thesis, exhibition or performance. Satisfactory completion (in the judgment of the supervisory committee) of this special project is a requirement. If the commit-tee approves the plan, it must then be submitted to the program director, who will submit it to the Meadows Academic Policies Committee for approval.
3. Once approved by the Meadows Academic Policies Committee, the plan will be transmitted to the Office of the Meadows Associate Dean for Student Affairs. The plan of study normally should be submitted to the Meadows Academic Policies Committee for approval before the completion of 60 total credit hours of coursework.
4. The chair of the supervisory committee and the program director will recommend candidates for graduation. The chair of the supervisory committee will certify that the required project has been completed to the
satisfaction of the committee. The supervisory committee may recommend that the degree be awarded with distinction if the GPA in the courses required for the major exceeds or equals 3.500 and if the project is deemed excellent. The associate dean for student affairs will be responsible for verifying and certifying graduation requirements.

## Graphic Design Minor

## Lecturer Cheryl Mendenhall, Director

The graphic design minor provides a basic understanding and development of skills necessary for message design across various media. Topics and skill sets may include identity (logos, branding collateral material, packaging), digital (social, mobile, online media), publication (magazines, newspapers, books), and other areas of design. The minor is designed for students who wish to incorporate an interest in graphic design into their major coursework or to pursue further study in a variety of design disciplines.

Through this minor, students will demonstrate an understanding of the history of graphic design communication, demonstrate the visual and aesthetic skills needed to communicate design messages across media, apply production techniques and technologies to solve graphic design problems, create a design portfolio that includes both print and online collateral material, understand the interrelationship of graphic design to society, and develop a better understanding of graphic design in the various communication industries (advertising, journalism, public relations, publishing, etc.) The minor requires 21 credit hours, distributed as follows:

## Requirements for the Minor

## Core Courses (12 Credit Hours)

- ADV 1360 - Creative Production
- ADV 2323 - Word and Image, Art and Design: 1900-Present
or
- ASAG 1310 - Word and Image, Art and Design: 1900-Present
- ADV 3323 - Introduction to Graphic Design
- ADV 3361 - Typography


## Electives (9 Credit Hours)

Three from the following, with at least one course at the 4000 level or above:

- ADV 4363 - Logo and Trademark Design
- ADV 4364 - Publication Design
- ADV 4366 - Visualization of Information
- ASIM 1300 - Introduction to Digital Hybrid Media
- ASIM 1310 - Creative Coding I
- ASIM 3310 - Computational Media Workshop


## Total: 21 Credit Hours

## History of the Visual and Performing Arts Minor

## Lecturer Melissa Murray, Director

The minor in the history of the visual and performing arts provides students with a broad multidisciplinary engagement with the arts in their historical contexts. Students must take six courses ( 18 hours) from the following list, with at least one course from each group and no more than two courses from any single group.

Art, art history, dance, film and media arts, music, and theatre majors may apply credits from the history sequence requirements of their respective majors toward this minor but must take at least 12 hours outside their discipline.

## Requirements for the Minor

## History of Art (3-6 Credit Hours)

One or two from the following:

- ARHS 1300 - From Mummies to Gladiators: Art and People of the Ancient World
- ARHS 1301 - Catacombs, Cathedrals, and Flying Machines: Art and People of the Medieval and Early Modern Worlds
- ARHS 1302 - From the Baroque to the Digital Age: Art and People of the Modern World
- ARHS 1307 - Introduction to Art History
- ARHS 1336 - Rhetorics of Art, Space, and Culture: Ways of Knowing
- Any art history course at the 3000 level or above


## Music (3-6 Credit Hours)

One or two from the following:

- MUHI 1321 - Music: Art of Listening
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- MUHI 4355 - Music and Culture: Studies in Popular Music
- MUHI 4357 - Music and Emotion
- MUHI 4358 - An Historical and Aesthetic Examination of Film Music Practices From American and Other Traditions


## Dance and Theatre (3-6 Credit Hours)

One or two from the following:

- DANC 3374 - The Evolution of American Musical Theatre
- THEA 3381 - Theatre and Drama History 1
- THEA 3382 - Theatre and Drama History 2


## Film History (3-6 Credit Hours)

One or two from the following:

- FILM 3351 - International Film History
- FILM 3352 - American Film History
- FILM 3353 - American Broadcast History
- WL 3309 - French Cinema: 1945 to the Present
- WL 3330 - Migration, Occupation, and Independence in North African Cinema
- WL 3355 - Tradition, Community, and Identity in African Cinema


## Total: 18 Credit Hours

## Music Theatre Minor

## Professor Kevin Paul Hofeditz, Director

The minor in musical theatre is designed to develop the fundamental set of skills required for musical theatre. Through the specific studies in dance, music and theatre that are needed for competency in musical theatre, students in this program enhance their marketability as performers.

Admission to the minor is competitive and available only by audition. The minor is intended, primarily, for dance performance, theatre and voice majors, and for dance performance minors and music minors with a voice concentration, but all students may audition.

Students who are not enrolled in one of the above majors or minors may audition for provisional admission to the minor in musical theatre. Full admission to the minor is subsequently granted upon the successful completion (with a grade of B or better) of PERB 1206 by no later than the first term of the sophomore year and THEA 2311 by no later than in the first term of the junior year.

Auditions are held annually, typically late in the fall term or early in the spring term, for entrance to the program the following fall. In order to be able to complete the curriculum, students must audition during their first year and begin the course-work in the fall term of their sophomore year.

## Requirements for the Minor

## Jazz Dance (3-4 Credit Hours)

- DANC 1305 - Beginning Jazz Dance
or
Dance performance majors or minors substitute two from the following:
- DANC 1231 - Jazz Dance I
- DANC 2231 - Jazz Dance II
- DANC 3231 - Jazz Dance III


## Ballet or Modern Dance (3 Credit Hours)

- DANC 1301 - Beginning Ballet
or
- DANC 1303 - Beginning Modern Dance

Dance performance majors or minors substitute one of the following:

- DANC 1311 - Ballet I
- DANC 2311 - Ballet II
- DANC 3311 - Ballet III
or
- DANC 1321 - Modern Dance I
- DANC 2321 - Modern Dance II
- DANC 3321 - Modern Dance III


## Music (6 Credit Hours)

- PERB 3306 - Class Voice Musical Theatre I
- PERB 3307 - Class Voice Musical Theatre II

Music minors or majors with a concentration in voice and voice performance majors substitute 6 hours:

- VOIC 3100 - Private Study: Voice
and/or
- VOIC 3200 - Private Study: Voice


## Theatre (3 Credit Hours)

- THEA 3311-Acting for Singers and Dancers (theatre students substitute THEA 3303-Acting 3)


## History/Theory (3 Credit Hours)

- DANC 3374 - The Evolution of American Musical Theatre


## Interdisciplinary (3 Credit Hours)

- MSA 3131 - Acting in Song I: Solo
- MSA 3232 - Acting in Song II: Ensemble

Total: 21-22 Credit Hours

## Courses:

## MSA 1001 - Face: First-Year Arts Community Experience

## Credits: 0

A collaborative, cross-disciplinary exploration for students enrolled in the foundational courses in art, dance, music, and theatre.
Students meet collectively to build community, to explore a common currency among the arts, to take risks, to discover alternative models of practice, to understand the concept of artists as entrepreneurs, and to define personal goals for success. Graded pass/fail. Corequisite: ASAG 1300, DANC 1144, MUAS 1020, or THEA 1303.

## MSA 1010 - Undergraduate Teaching Practicum

## Credits: 0

Development of teaching and leadership skills through preparing lesson plans, leading discussion groups, assessing course presentations, and coordinating and developing supplemental learning experiences. The corresponding course by the same professor is required as either a prerequisite or corequisite. Students spend a minimum of 1 hour per week preparing a lesson plan, 1 hour in discussion planning with the professor, and 1 hour leading a discussion and listening group.

## MSA 1101 - Face: First-Year Arts Community Experience

## Credits: 1

A collaborative, cross-disciplinary exploration for students enrolled in the foundational courses in art, dance, music, and theatre. Students meet collectively to build community, to explore a common currency among the arts, to take risks, to discover alternative models of practice, to understand the concept of artists as entrepreneurs, and to define personal goals for success. Graded pass/fail. Corequisite: ASAG 1300, DANC 1144, MUAS 1020, or THEA 1303.

## MSA 1110 - Undergraduate Teaching Practicum

## Credits: 1

Development of teaching and leadership skills through preparing lesson plans, leading discussion groups, assessing course presentations, and coordinating and developing supplemental learning experiences. The corresponding course by the same professor is required as either a prerequisite or corequisite. Students spend a minimum of 1 hour per week preparing a lesson plan, 1 hour in discussion planning with the professor, and 1 hour leading a discussion and listening group.

## MSA 1315-Mass Media and Technology

## Credits: 3

An overview of technology as it applies to mass media in America, emphasizing the access of information via the Internet and World Wide Web. Topics include the expanding nature of technology, legal aspects, and the effects of technology on society.

## MSA 1350-The Arts in Their Cultural Context: The City of the Imagination

## Credits: 3

Introduction to the way that the performing and visual arts are situated in their temporal, historiographic, geographic, and social contexts. Examines issues of theory and practice in the individual disciplines (art, art history, cinema, dance, music, and theatre) through readings that engage varied methodologies and through hands-on experiences with practitioners and scholars in Dallas.

## MSA 2051 - Artists in the World: The Teaching Artist as Catalyst

## Credits: 0

Introduces artists-in-training to the basic principles, practices, and priorities of the artist as teacher in the community. Provides a foundation in any artistic discipline and for the most common kinds of education work that artists undertake, such as working with young people (in schools and other settings), teaching one's art form, integrating curriculum and in-depth residencies, creating artistically authentic programs with an education thrust, working in challenging situations, and working with adults in performance, educational, and professional settings. Students design a program they can use in real-world settings. Includes field observations, readings, written response, and active participation and presentation. First course of a two-term sequence.
Prerequisites: Consent of instructor and a minimum GPA of 3.000.

## MSA 2052 - Artists in the World: The Teaching Artist as Catalyst

## Credits: 0

Introduces artists-in-training to the basic principles, practices, and priorities of the artist as teacher in the community. Provides a foundation in any artistic discipline and for the most common kinds of education work that artists undertake, such as working with young people (in schools and other settings), teaching one's art form, integrating curriculum and in-depth residencies, creating artistically authentic programs with an education thrust, working in challenging situations, and working with adults in performance, educational, and professional settings. Students design a program they can use in real-world settings. Includes field observations, readings, written response, and active participation and presentation. After completion, students are eligible to apply for a competitive paid fellowship in the following year. Second course of a two-term sequence. Prerequisites: MSA 2051, MSA 2151, or MSA 3351; consent of instructor; and a minimum GPA of 3.000.

## MSA 2151 - Artists in the World: The Teaching Artist as Catalyst

## Credits: 1

Introduces artists-in-training to the basic principles, practices, and priorities of the artist as teacher in the community. Provides a foundation in any artistic discipline and for the most common kinds of education work that artists undertake, such as working with young people (in schools and other settings), teaching one's art form, integrating curriculum and in-depth residencies, creating artistically authentic programs with an education thrust, working in challenging situations, and working with adults in performance, educational, and professional settings. Students design a program they can use in real-world settings. Includes field observations, readings, written response, and active participation and presentation. First course of a two-term sequence.
Prerequisites: Consent of instructor and a minimum GPA of 3.000.

## MSA 2152 - Artists in the World: The Teaching Artist as Catalyst

## Credits: 1

Introduces artists-in-training to the basic principles, practices, and priorities of the artist as teacher in the community. Provides a foundation in any artistic discipline and for the most common kinds of education work that artists undertake, such as working with young people (in schools and other settings), teaching one's art form, integrating curriculum and in-depth residencies, creating artistically authentic programs with an education thrust, working in challenging situations, and working with adults in performance, educational, and professional settings. Students design a program they can use in real-world settings. Includes field observations, readings, written response, and active participation and presentation. After completion, students are eligible to apply for a competitive paid fellowship in the following year. Second course of a two-term sequence. Prerequisites: MSA 2051, MSA 2151, or MSA 3351; consent of instructor; and a minimum GPA of 3.000 .

## MSA 2301 - Media Literacy

Credits: 3
An exploration of the critical thinking skills necessary to understand and interpret modern media, both news and entertainment. Social networking and the Internet, the complexities of the 24 -hour news cycle, celebrity news and infotainment, violence, media framing and bias are among the topics examined.

## MSA 3101-Directed Study in the Arts

Credits: 1
Independent study in an interdisciplinary arts topic under the direction and close supervision of a faculty member of the Meadows School. Prerequisite: Instructor approval.

## MSA 3130 - Special Topics

Credits: 1
Various topics determined by the instructor regarding studies in the arts.

## MSA 3131 - Acting in Song I: Solo

## Credits: 1

Focuses on the acquisition and/or redirection of the skills, technical vocabulary, and techniques necessary to create fully realized performances of solo songs from the musical theatre repertoire. Culminates in a program of performed solo songs. Prerequisites: Permission of instructor; musical theatre minor or major or minor in dance, music, or theatre. Students minoring in musical theatre have priority to enroll in the class.

## MSA 3201 - Directed Study in the Arts

## Credits: 2

Independent study in an interdisciplinary arts topic under the direction and close supervision of a faculty member of the Meadows School. Prerequisite: Instructor approval.

## MSA 3230 - Special Topics

Credits: 2
Various topics determined by the instructor regarding studies in the arts.

## MSA 3232 - Acting in Song II: Ensemble

## Credits: 2

Builds on the skills developed in MSA 3131. Includes preparing, rehearsing, and performing selected duets, trios, and ensemble pieces from the musical theatre repertoire. Also, synthesizing vocal and acting performance techniques. Culminates in the creation of a workshop performance. Prerequisites: Permission of instructor; musical theatre minor or major or minor in dance, music, or theatre. Students minoring in musical theatre have priority to enroll in the class.

## MSA 3301 - Directed Study in the Arts

## Credits: 3

Independent study in an interdisciplinary arts topic under the direction and close supervision of a faculty member of the Meadows School. Prerequisite: Instructor approval.

## MSA 3310 - Fundamentals of Audio and Sound

## Credits: 3

Provides a solid grounding in the concepts, techniques, and terms associated with audio across disciplines. Individual and/or group projects acquaint students with the basics of recording, editing, mixing and processing, and distributing audio projects. Includes lectures and discussions on these and other areas such as listening practices, rights, and fair use to supplement hands-on work with a broader perspective on sound.

## MSA 3330-Special Topics

Credits: 3
Various topics determined by the instructor regarding studies in the arts.

## MSA 3351 - Artists in the World: The Teaching Artist as Catalyst

Credits: 3
Introduces artists-in-training to the basic principles, practices, and priorities of the artist as teacher in the community. Provides a
foundation in any artistic discipline and for the most common kinds of education work that artists undertake, such as working with young people (in schools and other settings), teaching one's art form, integrating curriculum and in-depth residencies, creating artistically authentic programs with an education thrust, working in challenging situations, and working with adults in performance, educational, and professional settings. Students design a program they can use in real-world settings. Includes field observations, readings, written response, and active participation and presentation. First course of a two-term sequence. Prerequisites: Consent of instructor and a minimum GPA of 3.000.

## MSA 3352 - Artists in the World: The Teaching Artist as Catalyst

## Credits: 3

Introduces artists-in-training to the basic principles, practices, and priorities of the artist as teacher in the community. Provides a foundation in any artistic discipline and for the most common kinds of education work that artists undertake, such as working with young people (in schools and other settings), teaching one's art form, integrating curriculum and in-depth residencies, creating artistically authentic programs with an education thrust, working in challenging situations, and working with adults in performance, educational, and professional settings. Students design a program they can use in real-world settings. Includes field observations, readings, written response, and active participation and presentation. After completion, students are eligible to apply for a competitive paid fellowship in the following year. Second course of a two-term sequence. Prerequisites: MSA 2051, 2151 , or 3351 ; consent of instructor; and a minimum GPA of 3.000 .

## MSA 3369 - London: Exploring Representation of the Performative

## Credits: 3

This course is based in the academic discipline of performance studies, which examines performance from a broad range of critical perspectives and includes the disciplines of history, anthropology, literary studies, gender studies, critical theory, and analysis of the act of performance itself. The intention is to use the city of London (and its environs: theatres, concert halls, sports arenas, exhibitions, museums, tourist attractions, fairs, markets, law courts, pubs, restaurants, etc.) as a template to engage the student with the vibrant dialogues between art, culture, and history that make it a thriving, multicultural city and an international melting pot.

## MSA 3390 - Interdisciplinary Studies in the Arts: SMU Abroad

## Credits: 3

Interdisciplinary topics in the performing, visual, and communication arts.

## MSA 3391 - Interdisciplinary Studies in the Arts: Bali

## Credits: 3

Interdisciplinary topics in the performing, visual, and communication arts.

## MSA 4099 - Meadows Undergraduate Full-Time Status

## Credits: 0

## MSA 5105 - Directed Study in the Arts

Credits: 1
Independent study in an interdisciplinary arts topic under the direction and close supervision of a faculty member of the Meadows School. Prerequisite: Instructor approval.

## MSA 5205 - Directed Study in the Arts

## Credits: 2

Independent study in an interdisciplinary arts topic under the direction and close supervision of a faculty member of the Meadows School. Prerequisite: Instructor approval.

## MSA 5305 - Directed Study in the Arts

## Credits: 3

Independent study in an interdisciplinary arts topic under the direction and close supervision of a faculty member of the Meadows School. Prerequisite: Instructor approval.

## MSA 5310 - Directed Study

Credits: 3
Independent study under the direction of an instructor.

## MSA 5326 - Cultural Policy

## Credits: 3

Overview of policy analysis and practice of the cultural sector in its different areas (heritage, visual and performing arts, etc.) and perspectives. Analyzes the historical and theoretical backgrounds of cultural policy; cultural policies in practice (stylized facts and geographical and political divergence at the local, national, and international level); cultural policies and their socioeconomic impact; culture, diversity and development; and cultural access and arts education.

## Journalism

Professor Tony Pederson, Chair
Professor: Tony Pederson
Associate Professors: Jake Batsell, Camille Kraeplin
Assistant Professor: Jared Schroeder
William J. O'Neil Chair in Business Journalism and Journalist in Residence: Mark Vamos
Executive-in-Residence: Pam Harris Hackett
Professors of Practice: Valerie Evans, Michele Houston, Karen Thomas
Adjunct Professor of Practice: Jayne Suhler
Adjunct Lecturers: Cole Daugherty, Robert Hart, Elif Kavakci, Linda Leavell, Lauren Smart, Jean-Jacques Taylor, Bruce Tomaso

## General Information

The world of journalism is changing fast. Once-divergent media forms are rapidly coming together in ways that make it essential for 21st-century journalism education to reflect the complexity of actual practice. Graduates must be prepared to function and lead in a new and changing environment. The Division of Journalism offers the Bachelor of Arts with majors and minors in journalism and fashion media to prepare students to succeed in this dynamic setting.

Majors study multimedia journalism, including broadcast, print and online formats. They learn professional skills that enable them to adapt swiftly to a changing journalism environment. Content that is useful and interesting will have value regardless of the delivery system or systems of a particular era. For this reason, students also are taught the intellectual and theoretical skills they will need to help them interpret the world around them and understand the role of the media in society. They will graduate as clear, concise thinkers and writers.

Specialized knowledge also plays an increasingly critical role for media professionals in this competitive age. Students in the Division of Journalism may develop expertise in financial reporting while pursuing their degree through the William J. O'Neil program in business journalism, detailed below. Likewise, students with an interest in the growing fields of fashion journalism or fashion industry promotions may earn a Bachelor of Arts in fashion media, a rigorous new interdisciplinary program housed in the Division of Journalism.

## Instructional Facilities

The Division of Journalism is located in the Journalism Complex in the Umphrey Lee Center, which houses faculty and administrative offices, audio and video production, and media support areas. The main media content areas are a complete broadcast studio with control room and a convergence newsroom with computer equipment designed for production of multiplatform news content. Classrooms and conference rooms in the Journalism Complex are state of the art, with complete audio and video capabilities. All labs are equipped with the latest computers for each student.

The Journalism Complex is a secured area where journalism majors are permitted 24-hour access. The concept and design of the Journalism Complex promote the individualized instruction for which the Division of Journalism is known. Each student is encouraged to spend as much time as desired on highly specialized equipment to pursue projects and assignments in a professional media work environment.

## Admission and Degree Requirements

Strong writing skills are essential to the student's success in the division's journalism curriculum and later in the profession of journalism. Students may enroll in journal-ism classes as first-year students. Those seeking permission to major or minor in the Division of Journalism must have completed 24 hours of study, which may include transfer
hours. Students must also have taken DISC 1312 (or equivalent) and earned a minimum grade of B in this course. Students are required to take JOUR 2103 before further journalism study, and they must declare the major or minor before taking JOUR 2312. Students transferring from other universities must have completed equivalent courses and obtained the equivalent GPA in those courses before they can be considered a major candidate in the Division of Journalism. The Journalism Division has a focus on and commitment to diversity, recognizing the need for diversity in media and communications in the 21st century.

## Scholarships

Honors scholarships are awarded each year to outstanding students who intend to major in journalism. Other scholarships are available to journalism students through a variety of foundations and gifts to the division.

## The William J. O'Neil Program in Business Journalism

As global markets and fast-paced technological change buffet American workers, consumers, investors and companies, business has become one of the most important components of news. The O'Neil Program equips aspiring journalists with both the technical knowledge to understand often-complex business and economic issues and the journalistic skills to make those topics understandable and accessible to news audiences. And because an ability to follow the money is critical to many beats, the tools and techniques developed in this program will prepare students for more sophisticated and insightful coverage of subjects ranging from national and local politics to technology, the fashion industry and the environment.

This innovative interdisciplinary program includes courses in the Cox School of Business. In addition to the 37 credit hours required for the journalism major or the 37 hours required for the major in fashion media, students wishing to concentrate in business and finance journalism will complete a second major in business, the minor in business administration or the summer minor in business, plus ECO 1311 and ECO 1312. Students will put into practice what they are learning about business, financial markets and economics in advanced journalism classes and in coverage of North Texas-based companies and the regional economy.

Admission to the program is subject to the approval of the faculty member who holds the O'Neil Chair in Business Journalism. Students studying in the program will be advised by this faculty member.

## Internships and Practica

Upon achieving junior and senior status, students are encouraged to take on experiences that enable them to work under the guidance of professionals in the news industry (internships). Many on-campus activities also offer practical experience (practica), and students are strongly urged to take advantage of the opportunities available to them through both the Student Media Company, which publishes a weekly newspaper and a yearbook, and the Journalism Division.

Practica are taken for one credit hour at a time. Internships may be taken for one, two or three credit hours at a time, depending on the number of hours worked. A total of three credit hours of internships and practica may be counted toward a student's degree requirements but no more than two internships may be taken for credit. Internships and practica may not be counted toward the required nine credit hours of electives within the division.

All internships taken for credit must have prior approval of the faculty adviser. Internships and practica are taken on a pass/fail basis only and are restricted to journalism majors and minors.

## Class Attendance

Due to limited class space and enrollment pressures, a student who fails to appear on the first day of journalism class may be administratively dropped from the class at the instructor's discretion. Furthermore, students must comply with any more specific attendance policies spelled out in course syllabi; creation and enforcement of such policies are entirely at the instructor's discretion. The division strives to keep class size small enough for individual attention, and large enough to ensure discussion and interaction among students.

## Off-Campus Programs

Journalism students may participate in academic programs offered abroad and through partners in the United States. Two programs of particular interest to journalism students are the Washington Term Program and SMU-in-London.

Washington Term Program. Through a cooperative program with American University in Washington, D.C., students have an opportunity to study in the nation's capital as a part of the Washington Term Program. Students may complete up to six hours of journalism elective credit and internships, as well as courses in other disciplines. The program is restricted to journalism majors and minors.

SMU-in-London. SMU students can earn six credit hours by enrolling in the SMU-in-London communications program. Conducted each year during the second session of summer school, the program allows students to study in London, a hub for international communications. Courses offered carry three credit hours. They do not require prerequisites, and they are designed to take full advantage of London's importance as an international center. Students live in dormitories in London. As part of their international experience, students are encouraged to explore the culture and fine arts offerings of London and European countries on their own, as class schedules permit.

## Programs of Study

Journalism students will study multimedia journalism, learning the basic skills and conventions of broadcast journalism, print journalism and the emerging skill set needed to practice journalism on the Internet. The major requires 37 credit hours within the division. Journalism majors may count no more than 40 hours of JOUR courses toward graduation. Courses may be used to fulfill only one of the student's divisional requirements (i.e., a student may not fulfill two divisional requirements with one course). Note: All journalism majors must declare and complete a second major or a minor of their choosing. The fashion media major does not meet this requirement. Only courses passed with a grade of C - or better will count for credit toward the major or minor in journalism or the major in fashion media.

## Departmental Distinction

The honors program in journalism is highly selective. At midterm of the sophomore year, and again at midterm of the junior year, declared journalism majors with a GPA of 3.500 or better can apply to the honors program. All interested students, including those who have been previously awarded honors scholarships, need to apply for admission to the program. Those wishing to graduate with distinction in journalism must complete six hours of honors coursework within the Division of Journalism. Where specific honors sections are not offered in the Division of Journalism, students may work with individual professors to develop appropriate honors coursework within regular classes, subject to approval of the honors program director. Three hours must be in honors skills; the remaining three hours must come from either honors topical studies or honors critical studies. In addition, seniors must complete JOUR 5308 as a directed study and produce an honors thesis. More information is available from the honors program director, Division of Journalism, Meadows School of the Arts, 280 Umphrey Lee, Dallas TX 75275. The honor society is separate from the honors program. At midterm of the senior year, the top 10 percent of the graduating class is invited for membership in Kappa Tau Alpha, the Journalism Mass Communication Honor Society.

## Fashion Media, B.A.

All fashion media majors must declare and complete a second major or a minor of their choosing. The journalism major and minor do not meet this requirement. Required courses must be passed with a grade of C- or better to count for credit toward the major in fashion media.

## Requirements for the Degree

## University-wide Requirements (Varies)

## Introductory Core (10 Credit Hours)

- JOUR 2103 - Writing and Editing Tutorial and Laboratory
- JOUR 2302 - Ethics of Convergent Media
- JOUR 2310 - Fashion, Media, and Culture
- JOUR 2312 - News Reporting


## Written Media Skills (3 Credit Hours)

One from the following:

- JOUR 2313-Advanced News Reporting
- JOUR 3362 - Magazine Writing
- JOUR 3370 - Fashion Journalism
- JOUR 3382 - Feature Writing


## Visual Media Skills (3 Credit Hours)

- JOUR 2304 - Basic Video and Audio Production


## Critical Studies (6 Credit Hours)

- ANTH 2301 - Introductory Cultural Anthropology

One from the following:

- ANTH 3310 - Gender and Sex Roles: A Cross-Cultural Perspective
- ARHS 1333 - Introduction to Visual Culture
- ARHS 3350 - Modern Art and Media Culture, 1789-1870
- ARHS 3369 - Contemporary Art: 1965-Present
- CCPA 3341 - Ethnicity, Culture, and Gender: Introduction to Critical Studies in Communication
- JOUR 4360 - Women and Minorities in the Media
- PSYC 3371 - Psychology of Women
- SOCI 3345-Construction of Social Identities in the Media
- SOCI 3371 - Sociology of Gender
- WGST 2322 - Gender: Images and Perspectives


## Advanced Core (6 Credit Hours)

- JOUR 3326 - Media and the Art of Fashion Design
- JOUR 3327 - Media and the Business of Fashion
or
- JOUR 4306 - Business and Journalism


## Capstone (3 Credit Hours)

- JOUR 4398 - Digital Journalism


## Electives (6 Credit Hours)

Two additional courses from written media skills, critical studies, or chosen from the following:

- ADV 1300 - Survey of Advertising
- ADV 1360 - Creative Production
- ARHS 3355 - History of Photography II: 1940-Present
- ARHS 3367 - History of Photography I: Origins-1940
- ASPH 1300 - The Basics of Photography
- ASPH 3300 - Black-And-White Photography I
- CCPA 4397 - Fashion Media Public Relations
- Any JOUR course (excluding internships)

Minor or Second Major and Free Electives

Hours vary as needed to meet University residency and degree requirements
Total: 122 Credit Hours

## Journalism, B.A.

## Requirements for the Degree

## University-wide Requirements (Varies)

Journalism Core Curriculum (13 Credit Hours)

- JOUR 2103 - Writing and Editing Tutorial and Laboratory
- JOUR 2302 - Ethics of Convergent Media
- JOUR 2304 - Basic Video and Audio Production
- JOUR 2312 - News Reporting
- JOUR 4316 - Communication Law


## Advanced Writing Requirement (3 Credit Hours)

One from the following:

- JOUR 2313 - Advanced News Reporting
- JOUR 3362 - Magazine Writing
- JOUR 3370 - Fashion Journalism
- JOUR 3382 - Feature Writing


## Skills Requirement (3 Credit Hours)

One from the following:

- JOUR 2313 - Advanced News Reporting
- JOUR 3357 - Photojournalism
- JOUR 3358 - New Media News
- JOUR 3360 - Computer-Assisted Reporting
- JOUR 3362 - Magazine Writing
- JOUR 3365 - Investigative Reporting
- JOUR 3370 - Fashion Journalism
- JOUR 3382 - Feature Writing
- JOUR 3385 - Broadcast I
- JOUR 4310 - Editorial and Opinion Writing
- JOUR 4384 - Broadcast II
- JOUR 4385 - Graphics and Design
- JOUR 4388 - Print Design and Editorial Decision-Making
- JOUR 4390 - Advanced Web Mastery
- JOUR 5306 - Topics in Journalism Practice


## Topical Studies Requirement (3 Credit Hours)

One from the following:

- JOUR 3325 - Technology Reporting
- JOUR 3326 - Media and the Art of Fashion Design
- JOUR 3327 - Media and the Business of Fashion
- JOUR 4300 - Broadcast News Seminar
- JOUR 4306 - Business and Journalism
- JOUR 4307 - Business News Seminar
- JOUR 4344 - Sports Journalism
- JOUR 4345 - Media and Politics
- JOUR 4387 - Arts Beat
- JOUR 4392 - Journalism and Religion
- JOUR 4395 - Public Affairs Reporting
- JOUR 4396 - International Reporting
- JOUR 5301 - Topics in Journalism
- JOUR 5302 - Topics in Journalism
- JOUR 5303 - Topics in Journalism
- JOUR 5304 - Topics in Journalism


## Critical Studies Requirement (3 Credit Hours)

One from the following:

- JOUR 3345 - Mass Media in Great Britain: Politics, Pin-Ups, and Propaganda
- JOUR 3390 - Literary Journalism
- JOUR 3396 - History of Journalism
- JOUR 4331 - Current Issues in the News
- JOUR 4350 - Human Rights and the Journalist
- JOUR 4360 - Women and Minorities in the Media
- JOUR 4370 - Law and Ethics in a High-Tech World
- JOUR 4380- Objectivity and Bias
- JOUR 4393 - Civil Rights in the Media
- JOUR 4394 - Media Effects
- JOUR 4397 - Journalism in Latin America
- JOUR 5305 - Topics in Critical Studies


## Journalism Electives (9 Credit Hours)

Selected from JOUR courses.

## Capstone (3 Credit Hours)

- JOUR 4398 - Digital Journalism


## Minor or Second Major and Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Journalism Minor

The minor in journalism provides a basic understanding of the role of the news media in American society and an introduction to the basic skills necessary for the practice of the field.

## Requirements for the Minor

## Core Courses (19 Credit Hours)

- JOUR 2103 - Writing and Editing Tutorial and Laboratory
- JOUR 2302 - Ethics of Convergent Media
- JOUR 2304 - Basic Video and Audio Production
- JOUR 2312 - News Reporting
- JOUR 4398 - Digital Journalism
- JOUR 4316 - Communication Law
- Additional JOUR course


## One from the following: (3 Credit Hours)

- JOUR 2313 - Advanced News Reporting
- JOUR 3362 - Magazine Writing
- JOUR 3370 - Fashion Journalism
- JOUR 3382 - Feature Writing


## Total: 22 Credit Hours

## Courses:

## JOUR 2103 - Writing and Editing Tutorial and Laboratory

Credits: 1
Introduces basic journalistic writing for all media. Students review English grammar and punctuation, and become versed in Associated Press writing style. Combines an online tutorial with a required weekly lab. Required before enrollment in JOUR 2312.

## JOUR 2302 - Ethics of Convergent Media

Credits: 3
Explores the ethical issues (e.g., free speech, privacy, and government regulation and censorship) that provide the foundation for all communication fields and have become more complex as media and industries have converged.

## JOUR 2304 - Basic Video and Audio Production

Credits: 3
Offers practical training in the fundamentals of broadcast communication. Students learn the basic techniques, including field production and editing, and control room and studio editing. Includes 3 hours of lecture and one 1.5 -hour lab per week.
Prerequisite: JOUR 2103 or JOUR 2303 and JOUR 2302.

## JOUR 2310 - Fashion, Media, and Culture

Credits: 3
Explores how and why people tell others who they are by what they wear, and what roles fashion magazines, blogs, and other media play in that process. Examines fashion, media, and their relationship to culture, with an emphasis on the contemporary designers and fashion editors who have shaped the modern fashion landscape. Supports the fashion media major and minor.

## JOUR 2312 - News Reporting

## Credits: 3

Rigorous foundation writing and reporting course needed to complete the major. Students gain fundamental skills (e.g., gathering, documenting, organizing, and writing news) that are essential to accurate, fair, clear, and concise journalism. Includes 3 hours of lecture and one 1.5 -hour lab per week. Restricted to journalism majors and minors or fashion media majors and minors. Prerequisites: JOUR 2103 (or JOUR 2303) and JOUR 2302.

## JOUR 2313 - Advanced News Reporting

Credits: 3
Builds on the foundation of JOUR 2312. Students learn to analyze information quickly and accurately while applying critical thinking skills. Introduces the basics of broadcast writing. Prerequisites: JOUR 2103, JOUR 2302, JOUR 2312. Restricted to majors and minors.

## JOUR 3325 - Technology Reporting

## Credits: 3

Helps journalists of tomorrow understand complex technologies like the World Wide Web in a way that will allow them to foresee the impact of those technologies on U.S. society, culture, and way of life. Prerequisite: JOUR 2312.

## JOUR 3326 - Media and the Art of Fashion Design

## Credits: 3

An in-depth look at how the elements of art and the principles of design apply to the medium of fashion. Examines the work of fashion designers, from inspiration through creative process to final product, with an emphasis on analysis and critique and the use of personal inspiration and creative process techniques to style and narrate looks. Prerequisite: JOUR 2310. Restricted to fashion media majors.

## JOUR 3327 - Media and the Business of Fashion

## Credits: 3

Introduces journalism students to the trillion-dollar global fashion industry. Students learn to find and tell stories about the businesses behind the fashions, from designers to manufacturers, marketers, and retailers, and about how these enterprises affect their investors, customers, workers, and communities. Prerequisites: JOUR 2103 and JOUR 2312, or permission of instructor. Restricted to fashion media majors.

## JOUR 3345 - Mass Media in Great Britain: Politics, Pin-Ups, and Propaganda

## Credits: 3

Explores the interaction between power, politics, and mass media in Great Britain; the history of the media in Great Britain; the health (or lack thereof) of mass media today and its impact on politics and popular culture; and how journalists report the news abroad and in the United States. Daily assignments include examination of newspapers and broadcast and Internet news available in the U.K. Students write papers based on visits to sites such as the British Library and the Imperial War Museum. British journalists, scholars, and foreign correspondents present guest lectures. Final class projects that include papers and class presentations involve group studies in specialized areas of British media. (SMU-in-London)

## JOUR 3350 - Fashion Broadcast: SMU Look TV

## Credits: 3

An immersive broadcast experience in which students work as a highly motivated team to produce all components of a weekly fashion, beauty, and lifestyle show. "SMU Look" is a mix of news packages, special segments, tips, and round-table discussion. Students generate all content, and produce the show in the division's digital news studio, rotating through all technical and anchoring positions. Students also post-edit the show, preparing it for publication on Student Media digital sites, and conduct all social media and branding campaigns. Prerequisites: JOUR 2304, JOUR 2312. Restricted to majors and minors.

## JOUR 3355 - Media Entrepreneurship

## Credits: 3

Increases students' understanding of the entrepreneurial landscape of the changing media industry. Students learn how to combine their versatile skills and creative passion to become more enterprising and shape their own media careers. Students conceive, develop and pitch an entrepreneurial idea while also learning the basics of freelancing and self-employment. Includes frequent visits from entrepreneurial journalists and guest speakers. Prerequisite: Sophomore standing, instructor consent.

## JOUR 3357 - Photojournalism

Credits: 3
Training in the techniques and execution of digital photojournalism, including computer processing of images. Students learn to produce digital photojournalism, and have the opportunity to generate photographic images for the division's convergence website. Restricted to fashion media and journalism premajors, majors, and minors.

## JOUR 3358- New Media News

Credits: 3
Focuses on using new media presentation methods and design skills to produce new forms of communication for news outlets. Prerequisite: JOUR 2380, 3330, or JOUR 4398.

## JOUR 3360 - Computer-Assisted Reporting

## Credits: 3

Emphasizes a hands-on approach through the gathering and organizing of computerized data. Students learn techniques for locating, retrieving, and verifying information from electronic sources such as libraries, research institutions, government documents, databases, court cases, and experts. Prerequisite: JOUR 2313, JOUR 3362, JOUR 3370, or JOUR 3382. Restricted to majors and minors.

## JOUR 3362 - Magazine Writing

Credits: 3
Introduces the diverse world of magazines. Students study exceptional magazine feature writing (profiles, narratives, analytical pieces, etc.) and practice feature magazine reporting and writing to prepare for professional work in the industry. Prerequisites: JOUR 2103 (or JOUR 2303), JOUR 2302, JOUR 2312. Restricted to majors and minors.

## JOUR 3365 - Investigative Reporting

Credits: 3
Intensive introduction to the art of generating original news ideas about issues of public significance; developing critical news judgment; unearthing often difficult-to-access information; and organizing the information into focused, well-documented, and compelling stories. Prerequisite: JOUR 2313, JOUR 3362, JOUR 3370, or JOUR 3382. Restricted to journalism majors and minors.

## JOUR 3370 - Fashion Journalism

Credits: 3
Intensive training on reporting and writing for journalism outlets, with a focus on fashion. Students produce spot news and short fashion features for student media. Includes field trips to meet with Dallas fashion writers and other fashion media professionals. Prerequisite: JOUR 2103, or JOUR 2303 and 2312, or CCPA 2308. Restricted to majors and minors.

## JOUR 3382 - Feature Writing

## Credits: 3

Emphasizes the conceptual and technical skills needed to develop one's own voice, to bring a literary quality to one's journalism, and to produce professional-level descriptive pieces and features for various media. Prerequisites: JOUR 2103 (or JOUR 2303), JOUR 2302, JOUR 2312. Restricted to majors and minors.

## JOUR 3385 - Broadcast I

Credits: 3
Builds on skills learned in JOUR 2304, with more emphasis on deadline-driven, original, campus-based reporting and broadcast producing. Students learn how to assign coverage, to enterprise original story ideas, and to write cogent broadcast stories and turn them in on deadline using video, set debriefs, and Web components. Convergence laboratory required. Prerequisites: JOUR 2304, JOUR 2312.

## JOUR 3390 - Literary Journalism

Credits: 3
Students explore and analyze nonfiction through roundtable discussion, book reviews, and creative writing. Requires heavy reading, with an emphasis on books and essays of the last 100 years. Prerequisite: Sophomore standing.

## JOUR 3396 - History of Journalism

## Credits: 3

The story of how American journalism became what it is today. Emphasizes the people and events that transformed the media, from the Colonial printer to 21 st-century media conglomerates. Prerequisite: Sophomore standing.

## JOUR 4101 - Journalism Practica

## Credits: 1

Students work in on-campus media positions. A maximum of 2 credit hours may be earned and counted toward degree requirements. Offered on a pass/fail basis only. Prerequisites: Junior standing and permission of adviser. Restricted to majors and minors.

## JOUR 4102 - Journalism Practica

## Credits: 1

Students work in on-campus media positions. A maximum of 2 credit hours may be earned and counted toward degree requirements. Offered on a pass/fail basis only. Prerequisites: Junior standing and permission of adviser. Restricted to majors and minors.

## JOUR 4125 - Internships in Journalism

## Credits: 1

Internship credit for off-campus work in the field during the regular term or in the summer. Students are limited to a total of 3 credit hours for internships. These hours will not count toward the 9 credit hours of required electives in the division. Offered on a pass/fail basis only. Prerequisites: Junior standing and permission of adviser. Restricted to majors and minors.

## JOUR 4127 - Internship in Fashion Media

Credits: 1
Off-campus interdisciplinary internship in any area of the fashion media field during the regular term or summer. Graded pass/fail. Prerequisites: Junior standing and permission of adviser. Restricted to fashion media majors and minors.

## JOUR 4225 - Internships in Journalism

## Credits: 2

Internship credit for off-campus work in the field during the regular term or in the summer. Students are limited to a total of 3 credit hours for internships. These hours will not count toward the 9 credit hours of required electives in the division. Offered on a pass/fail basis only. Prerequisites: Junior standing and permission of adviser. Restricted to majors and minors.

## JOUR 4227 - Internship in Fashion Media

## Credits: 2

Off-campus interdisciplinary internship in any area of the fashion media field during the regular term or summer. Graded pass/fail. Prerequisites: Junior standing and permission of adviser. Restricted to fashion media majors and minors.

## JOUR 4300 - Broadcast News Seminar

## Credits: 3

A small group of selected students conduct an in-depth study of current events, examining and analyzing issues and producing sophisticated television programming. Prerequisite: JOUR 3385.

## JOUR 4306 - Business and Journalism

## Credits: 3

An intensive introduction to business, financial markets, and economics, combined with practice in reporting and writing about these complex topics. Gives aspiring business journalists the tools to make business information understandable and accessible to news audiences. Prerequisite: JOUR 2312.

## JOUR 4307 - Business News Seminar

## Credits: 3

Builds upon the skills and insights gained in JOUR 4306. Combines close reading and analysis of business coverage with detailed exploration of how to gather and understand financial and economic information. Also, intensive practice in reporting and writing business stories. Prerequisite: JOUR 4306.

## JOUR 4310 - Editorial and Opinion Writing

## Credits: 3

Examines the role of opinion writing in American journalism and teaches techniques that will help students develop clear and effective editorials and columns on a range of topics. The course emphasizes critical thinking and writing skills. Prerequisites: JOUR 2103, JOUR 2302, and JOUR 2312. Restricted to fashion media and journalism majors and minors.

## JOUR 4316-Communication Law

## Credits: 3

An exploration of the historical and philosophical bases for freedom of expression. Practical applications of the law (e.g., libel,
censorship, access, privacy, obscenity, copyright, and government regulations) that affect broadcasting, advertising, and the press. Prerequisite: Sophomore standing.

## JOUR 4325 - Internships in Journalism

## Credits: 3

Internship credit for off-campus work in the field during the regular term or in the summer. Students are limited to a total of 3 credit hours for internships and practica. These hours will not count toward the 9 credit hours of required electives in the division. Offered on a pass/fail basis only. Prerequisites: Junior standing and permission of adviser. Restricted to majors and minors.

## JOUR 4326 - Washington Term Internship

## Credits: 3

Internship opportunities in the nation's capital. Restricted to majors and minors.

## JOUR 4327 - Internship in Fashion Media

## Credits: 3

Off-campus interdisciplinary internship in any area of the fashion media field during the regular term or summer. Graded pass/fail. Prerequisites: Junior standing and permission of adviser. Restricted to fashion media majors and minors.

## JOUR 4331 - Current Issues in the News

## Credits: 3

Encourages students to think critically about important issues in journalism today, acquaints them with the classic writings and ideas that have shaped modern journalism, and identifies the key concepts that have formed recent journalism criticism. The goal is to teach communications majors to become more creative problem-solvers as professionals, and more critical as media consumers. Prerequisite: Sophomore standing.

## JOUR 4344 - Sports Journalism

## Credits: 3

Emphasizes the particular narrative style and newsgathering techniques of sports stories and coverage. Students will learn how to interview sports personalities and compose stories relating to the competitive events and social issues surrounding the world of sports. Prerequisites: JOUR 2103, JOUR 2302, and JOUR 2312. Restricted to fashion media and journalism majors and minors.

## JOUR 4345 - Media and Politics

## Credits: 3

Increases students' understanding of political and elections processes so they can evaluate and practice political journalism. Covers campaigns, governance, analysis of media coverage, and practical application. Prerequisite: JOUR 2312.

## JOUR 4350 - Human Rights and the Journalist

## Credits: 3

Students analyze current human rights issues and the ways U.S. and international media cover these issues. Topics include the role of images in conveying the harsh truth of any human rights story, and the ways new media formats, shrinking budgets, etc. are changing the way journalists who cover these stories do their job. Prerequisite: Sophomore standing.

## JOUR 4360 - Women and Minorities in the Media

## Credits: 3

Examines the impact and representation of women and minorities in the mass media from historical and critical perspectives. Prerequisite: Sophomore standing. Restricted to fashion media and journalism majors and minors only.

## JOUR 4370 - Law and Ethics in a High-Tech World

## Credits: 3

Investigates the real and possible boundaries in cyberspace among open and closed systems of code, commerce, governance, and education, while examining the relationship of law and ethics to each. Engages a wide spectrum of Internet issues, including privacy, intellectual property, antitrust concerns, content control, and electronic commerce. Prerequisite: Sophomore standing.

## JOUR 4380-Objectivity and Bias

## Credits: 3

Identifies the various forces that critics say bias the news media and looks for evidence of these biases in media products. Prerequisite: Sophomore standing.

## JOUR 4384 - Broadcast II

## Credits: 3

Furthers the foundation established in JOUR 3385. The curriculum emphasizes deadline-driven, off-campus beat reporting and broadcast producing. Students learn how to plan original story ideas, including investigative and long-form pieces. Convergence laboratory required. JOUR 4300 is highly recommended before taking this course. Prerequisites: JOUR 2313 (or JOUR 3362, JOUR 3370, or JOUR 3382) and JOUR 3385. Restricted to journalism majors and minors.

## JOUR 4385-Graphics and Design

## Credits: 3

Introduction to the principles and processes associated with visual design. Students examine the roles of visual design as both a tool and a medium of communication and cultural production. Assignments include creating, altering, editing, and processing images; conceptualizing, formatting, analyzing, and refining typography; and preparing materials for production and publication, utilizing one or more media. Includes 3 hours of lecture and one 1.5 -hour lab per week. Prerequisite: JOUR 2312.

## JOUR 4387 - Arts Beat

## Credits: 3

Students gain experience in a convergence class in reporting on arts and entertainment and writing reviews, etc. Includes sessions with local critics and experts in various areas of arts and literature. Prerequisite: JOUR 2313, JOUR 3362, JOUR 3370, or JOUR 3382. Restricted to journalism majors and minors.

## JOUR 4388 - Print Design and Editorial Decision-Making

## Credits: 3

The fundamentals of newspaper layout and design, including an emphasis on news selection, decision-making, and publication trends. Includes 3 hours of lecture and one 1.5-hour lab per week. Prerequisite: JOUR 2313.

## JOUR 4390 - Advanced Web Mastery

Credits: 3
Builds on the online journalism skill sets of students and trains them to create dynamic, online news packages that leverage the flexibility of the Internet in order to increase the public's understanding of news stories. Students learn how to create their own websites, how to use technology to assist in newsgathering, and how to unleash their creativity in online presentations.
Prerequisite: JOUR 2380 or 3330.

## JOUR 4392 - Journalism and Religion

Credits: 3
Introduces the basics of the world's major religions and describes how journalists should cover faith-based organizations and interview religious leaders. Prerequisites: JOUR 2103, JOUR 2302, and JOUR 2312. Restricted to fashion media and journalism majors and minors.

## JOUR 4393 - Civil Rights in the Media

Credits: 3
Prior to the 1950s, the mainstream press was one of the major obstacles to African-American progress. But during the civil rights movement, the media became a primary force in helping African Americans achieve equal rights. The course explores how and why this revolutionary change took place. Prerequisite: Sophomore standing.

## JOUR 4394 - Media Effects

Credits: 3
A critical study of how mediated messages influence behavior, attitudes, and feelings within a society. Surveys historical research efforts to examine effects on individuals, groups, and institutions. Also, explores contemporary social critiques in the American mass media. Prerequisite: Sophomore standing.

## JOUR 4395 - Public Affairs Reporting

Credits: 3
Emphasizes the skills required for reporting news emanating from governmental bodies or politics. Prerequisite: JOUR 2313, JOUR 3362, JOUR 3370, or JOUR 3382. Restricted to majors and minors.

## JOUR 4396 - International Reporting

## Credits: 3

Prepares students to work as foreign correspondents by helping them understand international production processes. Students profile current American correspondents who work in foreign countries, comparing their work to those of their contemporaries. Includes newsgathering assignments that encourage students to publish on matters of international interest. Prerequisite: JOUR 2313, JOUR 3362, JOUR 3370, or JOUR 3382. Restricted to majors and minors.

## JOUR 4397 - Journalism in Latin America

## Credits: 3

Provides students with an understanding of the practice of journalism in Latin America. Students profile specific regions, examining the historical, political, economic, cultural, ethnic, and even geographical differences, to better understand the issues that affect the struggle for freedom of the press. Prerequisite: Sophomore standing.

## JOUR 4398 - Digital Journalism

## Credits: 3

Students explore the use of new communication technologies for multimedia storytelling; work with social media as a tool for newsgathering, community building, and the fostering of audience engagement; learn about Web metrics and search engine optimization techniques; and update and perfect their personal portfolio websites and social media presence. Prerequisites: JOUR 2103 (or JOUR 2303), JOUR 2302, JOUR 2304, JOUR 2312; junior or senior standing. Restricted to majors and minors.

## JOUR 5110 - Directed Study

## Credits: 1

Independent study under the direction and supervision of a faculty member. In close collaboration with the instructor, the student conducts a rigorous project that goes beyond the experience in course offerings. Written permission from the instructor is required, and a completed directed studies form must be filed with the Division of Journalism before the start of the term during which the study is to be undertaken. Prerequisites: Junior standing and permission of instructor. Restricted to majors and minors.

## JOUR 5210 - Directed Study

## Credits: 2

Independent study under the direction and supervision of a faculty member. In close collaboration with the instructor, the student conducts a rigorous project that goes beyond the experience in course offerings. Written permission from the instructor is required, and a completed directed studies form must be filed with the Division of Journalism before the start of the term during which the study is to be undertaken. Prerequisites: Junior standing and permission of instructor. Restricted to majors and minors.

## JOUR 5301 - Topics in Journalism

Credits: 3
Provides a study and discussion setting for an issue or topic of current interest in the journalism profession. Offered on an irregular basis, depending on the significance and timeliness of the topics to be studied.

## JOUR 5302 - Topics in Journalism

Credits: 3
Provides a study and discussion setting for an issue or topic of current interest in the journalism profession. Offered on an irregular basis, depending on the significance and timeliness of the topics to be studied.

## JOUR 5303 - Topics in Journalism

Credits: 3
Provides a study and discussion setting for an issue or topic of current interest in the journalism profession. Offered on an irregular basis, depending on the significance and timeliness of the topics to be studied.

## JOUR 5304 - Topics in Journalism

## Credits: 3

Provides a study and discussion setting for an issue or topic of current interest in the journalism profession. Offered on an irregular basis, depending on the significance and timeliness of the topics to be studied.

## JOUR 5305-Topics in Critical Studies

Credits: 3
Provides a study and discussion setting for a critical media studies issue. Offered on an irregular basis, depending on the significance and timeliness of the topics to be studied.

## JOUR 5306 - Topics in Journalism Practice

## Credits: 3

Provides an introduction to new, cutting-edge areas of journalism practice. Offered on an irregular basis, depending on the significance and timeliness of the topics to be studied.

## JOUR 5307-Topics in Journalism

## Credits: 3

Provides a study and discussion setting for an issue or topic of current interest in the journalism profession. Offered on an irregular basis, depending on the significance and timeliness of the topics to be studied.

## JOUR 5308 - Honors Thesis

## Credits: 3

Students research and write a thesis examining an aspect of or an issue in the field of journalism. Required for all students wanting to graduate with an honors degree in journalism. Prerequisite: Permission of instructor. Restricted to majors and minors.

## JOUR 5310 - Directed Study

Credits: 3
Independent study under the direction and supervision of a faculty member. In close collaboration with the instructor, the student conducts a rigorous project that goes beyond the experience in course offerings. Written permission from the instructor is required, and a completed directed studies form must be filed with the Division of Journalism before the start of the term during which the study is to be undertaken. Prerequisites: Junior standing and permission of instructor. Restricted to majors and minors.

## Music

## Associate Professor David Mancini, Director

Professors: Joaquín Achúcarro, Jack Delaney, Andrés Díaz, Virginia Dupuy, Stefan Engels, Clifton Forbis, Michael Hawn, Samuel Holland, David Karp, Robert Krout, Barbara Hill Moore, Alfred Mouledous, Paul Phillips, Thomas Tunks
Associate Professors: Sarah Allen, Christopher Anderson, Robert Frank, Kevin Hanlon, Pamela Elrod Huffman, Carol Leone, David Mancini, Xi Wang
Assistant Professors: Peter Kupfer, Zachary Wallmark
Artists-in-Residence: Alessio Bax, Emanuel Borok, Lucille Chung, Chee-Yun Kim
Professors of Practice: Derrick Horne, Catharine Lysinger, Julie Scott
Senior Lecturers: Dale Dietert, Mark Feezell, Hank Hammett, Melissa Murray
Lecturers: Barbara Bastable, Tom Booth, Kevin Gunter, Lane Harder, Jamal Mohamed, Jason Smith
Adjunct Professors: Christopher Adkins, Jean Larson Garver, Robert Guthrie, Douglas Howard, Gregory Hustis, John Kitzman, Wilfred Roberts
Adjunct Associate Professors: Ann Marie Brink, Kalman Cherry, Paul Garner, Matthew Good, Erin Hannigan, Diane Kitzman, Thomas Lederer, Brian Merrill, Deborah Perkins, Brian Perry, Gregory Raden, Ellen Rose, Barbara Sudweeks
Adjunct Assistant Professors: Deborah Baron, John Bryant, Kim Corbet, Don Fabian, Lynne Jackson, Brian Jones, Camille King, Jon Lee, David Matthews, Naoko Nakamura, Dylan Smith, Kara Kirkendoll Welch
Adjunct Lecturers: Brian Bentley, Liudmila Georgievskaya, Haley Hoops, Drew Lang, Morgan May, James Richman, Edward Smith
Assistant Director for Operations: David Brown
Accompanist: Tara Emerson
Mustang Band Staff: Don Hopkins, Tommy Tucker

## General Information

The Division of Music is devoted to the advancement of music performance and scholarship; preparation of the next generation of music professionals; and service to the artistic life of the community, nation and world. Students in the Division of Music pursue the Bachelor of Arts or Bachelor of Music degree. Majors and minors offered by the division are described below. All music programs are accredited by the National Association of Schools of Music.

## Admission

Music is a dual admit program: in addition to meeting University admission criteria, first-year and transfer applicants intending to major in music must complete an audition prior to matriculation. Auditions assess a prospective student's previous experience and potential for success in the intended major. Entering students intending to major in composition must submit a portfolio of original compositions and pass a performance audition. Both the Division of Music and the University must accept the candidate in order for him or her to be classified as a music major. Information regarding auditions may be obtained at www.smu.edu/musicadmission or by contacting the Office of the Associate Director for Music Admission of the Division of Music. In decisions regarding advanced placement, the Division of Music considers transfer credits and AP test results. Departments reserve the right to give additional tests to determine the most appropriate placement in any course sequence.

Nondegree students are those applicants for admission who wish to be enrolled in University courses for credit but are not intending to pursue an SMU degree program. Non-degree students are admitted through the Office of Nondegree Credit Studies and are eligible to register in day and evening classes for which they have satisfied prerequisites and received departmental approval. Admission as a non-degree-seeking student does not qualify a student as a degree applicant. The presence of non-degree students in courses or ensembles may not displace an opportunity for a degree-seeking music major.

## Facilities

Concert performances are presented in Caruth Auditorium, a 490-seat concert hall, the 168 -seat Robert J. O'Donnell Lecture-Recital Hall, Perkins Chapel, and the Dr. Bob and Jean Smith Auditorium in the Meadows Museum. Opera productions are presented in the 400-seat Bob Hope Theatre. The Jake and Nancy Hamon Arts Library houses an inspiring collection of more than 110,000 books and scores, more than 31,000 audio and video recordings, and more than 100,000 items in special collections of research materials such as the Van Katwijk Music Collection.

Facilities available to music students include 45 newly renovated practice rooms in the Jeanne R. Johnson Practice Complex.

The electronic keyboard laboratory, used for class instruction in piano, theory and improvisation, is equipped with 17 Yamaha Clavinova 88-key digital pianos, an MLC 100 Communications Center and state-of-the-art audio-visual technology, including high definition projectors, screens and sound system.

Student recitals and faculty and ensemble performances are digitally recorded in formats that are acceptable for auditions, competitions and archival purposes.

The Group and Individual Music Therapy Clinics, connected by an observation room, offer student therapists opportunities for clinical practicum experiences under faculty supervision.

The Division of Music maintains an inventory of 30 Steinway grand pianos, three harpsichords and eight pipe organs, including a celebrated three-manual 51 -stop tracker organ built by C.B. Fisk located in Caruth Auditorium.

The Electronic Music Studio is a comfortable, multitrack, MIDI and digital audio facility featuring hardware and software on a Macintosh platform. The studio is well equipped to support algorithmic composition, interactive performance, synthesis, sampling, sequencing, signal processing, video post scoring and digital recording with stereo, quad and 5.1 -surround monitoring.

## Act of Enrollment

By the act of enrolling in the Meadows School of the Arts Division of Music for participation in a music course whether as a music major, music minor or through elective study - and in consideration of the right to participate in such course, the student

1. Acknowledges his or her willingness to accept and comply with the standards and policies set forth in the Division of Music Handbook, the Graduate Supplement to the Division of Music Handbook, and all other University rules and regulations.
2. Assigns to the University the exclusive right to use the proceeds from any curricular or extracurricular promotional, publicity or entertainment activities associated with the course, including but not limited to photographs, television, recordings, motion pictures, concerts and theatrical productions, and any right the student may have to receive any royalties and/or other sums that may be due to the student from such activities.
3. Releases the University, its trustees, officers, agents, employees and assigns from any obligation to pay any proceeds, royalties and/or other sums that may be due to the student in connection with the course.
4. Agrees, on request of the University, to periodically execute all documents necessary to acknowledge the assignment and release set forth herein.

## Specific Music Requirements

During the second year of study, each premusic major or transfer student must apply for upper-division degree/major status. The appropriate department faculty and the Director review all upper-division applications.

All full-time music majors are required to enroll for MUAS 1010 each term of residence, for which they will receive a grade of Credit/No Credit. Minors are required to enroll for four terms.

All B.M. students, with the exception of guitar, piano, organ, composition and music therapy, are required to enroll in one large ensemble (wind ensemble, orchestra or choral ensemble) each term of residence. Wind and percussion students are required to enroll for both Meadows Symphony Orchestra and Meadows Wind Ensemble at the discretion of the ensemble directors. Exemptions may be granted by written approval of the ensemble director and the Director of the Music Division. Transfer students will not be exempted from the large ensemble requirement based on transfer credits. Music artistic scholarships may require enrollment in a large ensemble each term of residence.

All second-year students are expected to present one solo performance in general recital, departmental recital or master class each term. Required recitals must include a cross section of the repertory in the student's major performance area. The performance of contemporary works is encouraged.

The Division of Music requires attendance at all scheduled class meetings, lessons and ensemble rehearsals. The instructor determines the extent to which absences affect a student's grade. Students should become thoroughly acquainted with the class attendance policy established by their teachers and ensemble directors. Except for official University-excused absences, instructors are not obligated to make special arrangements for any student to accommodate an absence. All reasons for absence should be submitted to the instructor in advance. Failure to do so may result in a student being dropped from a course with a grade of $W$ (before the calendar deadline to drop) or receiving a grade of $F$ for the course.

All undergraduate music majors must receive a minimum grade of $C$ - in all courses specified in the major. The major consists of all courses listed in the student's degree plan with the exception of University Curriculum courses, free electives and coursework in a minor or second major. Students must retake major courses in which a grade below $C$ is received. A course may be repeated only once.

All undergraduate music education majors who are seeking teacher certification must receive a grade of $C$ or better in courses required for teacher certification ( 24 hours in the content area, as defined by the Texas Education Agency). A minimum cumulative GPA of 2.500 for all University courses leading to the degree and a minimum GPA of 3.000 in courses required for teacher certification are required for student teaching.

## Bachelor of Music

The Division of Music offers majors in the areas of orchestral or keyboard instrument performance, as well as majors in percussion performance, guitar performance, voice performance, composition, music therapy and music education.

## Dual Major in Performance and Music Education

Students who meet degree candidacy criteria in both performance and music education can pursue dual majors in these fields. If begun by the second or third term, the second major can usually be achieved with a range of nine to 17 additional credits (approximately one term) through careful selection of electives and curricular planning. Students considering these plans should consult their adviser and the department heads as early as possible in their academic program.

## Courses Open to All University Students

The following courses are open to all students from any field of study.

| Performance Classes | PERB 1103/PERB 1104, PERB 1203/PERB 2203, PERB 1205/PERB <br> $2205 /$ PERB 3205, PERB 1206/PERB 2206, PERB 2113/PERB 2114/PERB <br> 2313,2115 |
| :--- | :--- |
| Ensembles | PERE $5010 / 5110,5011 / 5111,5012 / 5112,5013 / 5113,5014 / 5114,5015 / 5115$, <br> $5017 / 5117,5018 / 5118,5019 / 5119,5011 / 5121,5073 / 5173$ |
| Other Music Courses | MUAS 1323, 5320, 5322 MUHI 1321, MUHI 3339, MUHI 3340, MUHI <br> 3343, MUHI 4355 MUTH 1301, MUTH 3117/MUTH 3217, MUTH 4310 <br> MUTY 1320, MUTY 4341 |

## Private Studies

XXXX 3100 (1). PRIVATE STUDY. One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

XXXX 3200 (2). PRIVATE STUDY. One-hour lesson each week (14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## Music Composition, B.M.

Each year, students are expected to organize at least one performance of an original work (completed in their studies) in a general/studio recital or another appropriate venue or medium, such as a film score, incidental music, a dance collaboration or an electronic music installation.

## Requirements for the Major

## University-wide Requirements (Varies)

## Core Courses

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of 1st year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUTH 1325 - Introduction to Composition Studies (fall term of first year)
- MUTH 3350 - Form and Analysis
- MUTH 4300 - Analysis of Contemporary Music
- MUTH 4310 - Introduction to Electro-Acoustic Music
- MUTH 5360-Advanced Orchestration
- MUTH 5370 - Survey of Counterpoint
- MUTH 3200/MUTH 3300 - Private Composition (each term of residence after first term; minimum 14 credit hours)
- MUTH 5000 - Composition Seminar (each term of residence)
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- PERB 1131 - Class Piano I
- PERB 1132 - Class Piano II
- PERB 2131 - Class Piano III
- PERB 2132 - Class Piano IV
or
- PERB 1233 - Advanced Class Piano I
- PERB 1234 - Advanced Class Piano II
- MURE 4201 - Senior Recital
- MUCO 3208 - Fundamentals of Choral Conducting or
- MUCO 3209 - Fundamentals of Instrumental Conducting


## Private Studies (4 Credit Hours)

Private Studies 3200 or 3100 (two to four terms, as needed)
PERE/PERB Ensemble (8 Credit Hours)

Must include two terms of large ensemble.

## Music/AMAE Electives (7 Credit Hours)

Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Music Education, B.M.

After the completion of 60 hours of coursework, including the music theory sequence, music education students must successfully undergo an upper-division review before enrolling in upper-division coursework. The senior major should present one solo performance in general recital. Prior to student-teaching certification, students must complete 45 clock hours of field experience in early childhood through grade 12 schools.

Students should arrange to take both portions of the state-mandated Texas Higher Education Assessment before their student-teaching term. Registration for the TExES Pedagogy and Professional Responsibilities Test requires approval of the Department of Teaching and Learning of the Annette Caldwell Simmons School of Education and Human Development. Students are not eligible to apply for state certification until successful completion of the TExES examination, all degree requirements and student-teaching hours.

Student teaching, in addition to being subject to the eligibility requirements published by the Department of Teaching and Learning, must be approved by the Music Education Department and must follow successful completion of all methods (MUED) and techniques (MUAS) courses. Student teaching is considered a full-time endeavor, with no daytime coursework or concurrent ensemble assignments.

## Requirements for the Major

## University-wide Requirements (Varies)

## Core Courses (51 Credit Hours)

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of 1st year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUTH 5330 - Instrumentation and Arranging
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- PERB 1131 - Class Piano I
- PERB 1132 - Class Piano II
- PERB 2131 - Class Piano III
- PERB 2132 - Class Piano IV
or
- PERB 1233 - Advanced Class Piano I
- PERB 1234 - Advanced Class Piano II
- MUCO 3208 - Fundamentals of Choral Conducting (vocal)
- MUCO 3210 - Choral Conducting Practicum (vocal)
or
- MUCO 3209 - Fundamentals of Instrumental Conducting (instrumental)
- MUCO 3211 - Instrumental Conducting Practicum (instrumental)
- MUAS 2149 - Introduction to Music Education
- MUAS 5152 - Percussion Techniques
- MUED 2250 - New Horizons in Music Education
- MUED 3330 - Elementary Music Methods and Materials
- MUED 3331 - Instrumental Music Methods and Materials (instrumental)
or
- MUED 3332 - Choral Music Methods and Materials (vocal/keyboard)
- EDU 2350 - Educational Psychology
- EDU 5327 - Integrating Teaching and Learning
- EDU 5349 - Learning Environment and Professionalism: EC-12


## Private Studies 3200 (14 Credit Hours)

## PERE Large Ensemble (5 Credit Hours)

Each term of residence.

## PERE Chamber Ensemble (1 Credit Hour)

Keyboard principals may substitute MUAC 2101 or MUAC 2102; vocalists may substitute large ensemble.
Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## For Instrumental (9 Credit Hours)

- MUAS 5146 - Upper String Techniques
- MUAS 5147 - Lower String Techniques
- MUAS 5148 - Single Reed and Flute Techniques
- MUAS 5149 - Double Reed Techniques
- MUAS 5150 - Low Brass Techniques
- MUAS 5151 - High Brass Techniques
- MUAS 5153 - Vocal Techniques
- MUAS 5154 - Marching Band Techniques (optional for strings)
- MUAS 5155 - Jazz Techniques


## For Vocal or Keyboard (11 Credit Hours)

- PERB 2106 - Diction: Italian
- PERB 2108 - Diction: English
- PERB 2107 - Diction: German
- PERB 2109 - Diction: French
- MUAS 5146 - Upper String Techniques or
- MUAS 5147 - Lower String Techniques
- MUAS 5148 - Single Reed and Flute Techniques or
- MUAS 5149 - Double Reed Techniques
- MUAS 5150 - Low Brass Techniques or
- MUAS 5151 - High Brass Techniques
- MUAS 4230 - Elementary Music Practicum
- MPED 5216 - Vocal Pedagogy I (keyboard may substitute MUAS 5153)


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

*Additional Requirements (6 Credit Hours)

Additional requirements for teacher certification.

## Student Teaching

Select any two with adviser approval

- EDU 5363 - Elementary Student Teaching
- EDU 5364 - Elementary Student Teaching
- EDU 5373-Secondary Student Teaching
- EDU 5374-Secondary Student Teaching
- Successful completion of the state TExES exam


## Music Performance: Brass and Woodwind Instruments, B.M.

The credit hour requirements for a major in bassoon, clarinet, euphonium, flute, French horn, oboe, saxophone, trombone, trumpet or tuba performance are below. Saxophone and euphonium performance majors do not require enrollment in PERE 5018/PERE 5118 unless specifically requested by the ensemble director. The saxophone performance major may require enrollment in PERE 5015/PERE 5115 - Meadows Jazz Orchestra.

## Requirements for the Major

## University-wide Requirements (Varies)

## Core Courses

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of 1st year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- PERB 1131 - Class Piano I
- PERB 1132-Class Piano II
- PERB 2131 - Class Piano III
- PERB 2132 - Class Piano IV
or
- PERB 1233 - Advanced Class Piano I
- PERB 1234 - Advanced Class Piano II
- MURE 3001 - Junior Recital or
- MURE 3101 - Junior Recital
- MURE 4001 - Senior Recital or
- MURE 4101 - Senior Recital or
- MURE 4201 - Senior Recital
- MUCO 3209 - Fundamentals of Instrumental Conducting
- PERE 5018 - Meadows Symphony Orchestra (each term of residence) or
- PERE 5118 - Meadows Symphony Orchestra (each term of residence)
- PERE 5019 - Meadows Wind Ensemble (each term of residence) or
- PERE 5119 - Meadows Wind Ensemble (each term of residence)
- PERE 5071 - Chamber Ensemble (three terms)
or
- PERE 5171 - Chamber Ensemble (three terms)
- MPED 4305 - Introduction to Instrumental Pedagogy


## MUTH Electives (6 Credit Hours)

At the 3000 level or above
MUHI Elective (3 Credit Hours)

At the 4000 level or above
Private Studies 3200 (16 Credit Hours)

Eight terms

## Music/AMAE Electives (13 Credit Hours)

Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.
Total: 122 Credit Hours

## Music Performance: Guitar, B.M.

Credit hour requirements for this curriculum are distributed as follows:

## Requirements for the Major

## University-wide Requirements (Varies)

## Core Courses

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of 1st year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- PERB 1131 - Class Piano I
- PERB 1132 - Class Piano II
- PERB 2131 - Class Piano III
- PERB 2132 - Class Piano IV
or
- PERB 1233 - Advanced Class Piano I
- PERB 1234 - Advanced Class Piano II
- GUIT 3200 - Private Study: Guitar (eight terms)
- MURE 3001 - Junior Recital or
- MURE 3101 - Junior Recital
- MURE 4001 - Senior Recital or
- MURE 4101 - Senior Recital or
- MURE 4201 - Senior Recital
- MUCO 3208 - Fundamentals of Choral Conducting
or
- MUCO 3209 - Fundamentals of Instrumental Conducting
- PERE 5030 - Meadows Guitar Ensemble (each term of residence) or
- PERE 5130 - Meadows Guitar Ensemble (each term of residence)
- MPED 4303 - Guitar Pedagogy
- MREP 5030 - Guitar Repertoire (two terms) or
- MREP 5130 - Guitar Repertoire (two terms)


## MUTH Electives (6 Credit Hours)

At the 3000 level or above
MUHI Elective (3 Credit Hours)

At the 4000 level or above

## PERE Large Ensemble (0-4 Credit Hours)

Four terms

## Music/AMAE Electives (11 Credit Hours)

Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.
Total: 122 Credit Hours

## Music Performance: Organ, B.M.

Credit hour requirements for this curriculum are distributed as follows:

## Requirements for the Major

## University-wide Requirements (Varies)

## Core Courses

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of 1st year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- PERB 1233 - Advanced Class Piano I
- PERB 1234 - Advanced Class Piano II
- ORG 3200 - Private Study: Organ (eight terms)
- MURE 3001 - Junior Recital
or
- MURE 3101 - Junior Recital
- MURE 4001 - Senior Recital or
- MURE 4101 - Senior Recital or
- MURE 4201 - Senior Recital
- MUCO 3208 - Fundamentals of Choral Conducting or
- MUCO 3209 - Fundamentals of Instrumental Conducting
- MPED 5114 - Organ/Harpsichord Pedagogy
- MUAC 2101-Techniques of Vocal Accompanying
- MUAC 2102 - Techniques of Instrumental Accompanying
- MUHI 4320 - Organ History/Literature
- MUHI 5207 - Organ Survey
- PERB 1001 - Departmental Performance Class (each term of residence)


## MUTH Electives (6 Credit Hours)

At the 3000 level or above

## MUHI Elective (3 Credit Hours)

At the 4000 level or above

## PERE Large Ensemble (0-6 Credit Hours)

Six terms

## PERE Chamber Ensemble (0-1 Credit Hours)

One term

## Music/AMAE Electives (5 Credit Hours)

Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.
Total: 122 Credit Hours

## Music Performance: Percussion, B.M.

Credit hour requirements for this curriculum are distributed as follows:

## Requirements for the Major

## University-wide Requirements (Varies)

## Core Courses

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of 1st year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- PERB 1131 - Class Piano I
- PERB 1132 - Class Piano II
- PERB 2131 - Class Piano III
- PERB 2132 - Class Piano IV or
- PERB 1233 - Advanced Class Piano I
- PERB 1234 - Advanced Class Piano II
- PERC 3100/PERC 3200 - Private Study: Percussion (eight terms)
- MURE 3001 - Junior Recital or
- MURE 3101 - Junior Recital
- MURE 4001 - Senior Recital or
- MURE 4101 - Senior Recital or
- MURE 4201 - Senior Recital
- MUCO 3209 - Fundamentals of Instrumental Conducting
- PERE 5018 - Meadows Symphony Orchestra (each term of residence) or
- PERE 5118 - Meadows Symphony Orchestra (each term of residence)
- PERE 5019 - Meadows Wind Ensemble (each term of residence) or
- PERE 5119 - Meadows Wind Ensemble (each term of residence)
- PERE 5073 - Meadows Percussion Ensemble (three terms) or
- PERE 5173 - Meadows Percussion Ensemble (three terms)
- MPED 4305 - Introduction to Instrumental Pedagogy


## MUTH Electives (6 Credit Hours)

At the 3000 level or above

## MUHI Elective (3 Credit Hours)

At the 4000 level or above

## Music/AMAE Electives (13 Credit Hours)

## Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.
Total: 122 Credit Hours

## Music Performance: Piano, B.M.

Credit hour requirements for this curriculum are distributed as follows:

## Requirements for the Major

University-wide Requirements (Varies)

## Core Courses

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of 1st year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- PERB 1233 - Advanced Class Piano I
- PERB 1234 - Advanced Class Piano II
- PIAN 3200 - Private Study: Piano (eight terms)
- MURE 3001 - Junior Recital
or
- MURE 3101 - Junior Recital
- MURE 4001 - Senior Recital or
- MURE 4101 - Senior Recital or
- MURE 4201 - Senior Recital
- MUCO 3208 - Fundamentals of Choral Conducting or
- MUCO 3209 - Fundamentals of Instrumental Conducting
- MUAC 2101-Techniques of Vocal Accompanying
- MUAC 2102-Techniques of Instrumental Accompanying
- MUAC 3100 - Practicum in Collaborative Performance (three terms)
- PERB 1001 - Departmental Performance Class (each term of residence)
- MUPD 4125 - Piano Pedagogy Practicum (for an emphasis in piano pedagogy substitute MUPD 5325)
- MUPD 4126 - Piano Pedagogy Practicum (for an emphasis in piano pedagogy substitute MUPD 5326)
- MUPD 4396 - Fundamentals of Piano Pedagogy I
- MUPD 4397 - Fundamentals of Piano Pedagogy II
- MREP 4114 - Piano Repertoire (two terms)
- PERB 1011 - Sight Reading for Pianists I
- PERB 1012 - Sight Reading for Pianists II


## MUTH Electives (6 Credit Hours)

At the 3000 level or above

MUHI Elective (3 Credit Hours)

At the 4000 level or above
PERE Large Ensemble (0-3 Credit Hours)

Three terms
PERE Chamber Ensemble (0-2 Credit Hours)

Two terms

## Music/AMAE Electives (5 Credit Hours)

Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Music Performance: Strings, B.M.

Credit hour requirements for a major in cello, double bass, harp, viola or violin performance are distributed as follows:

## Requirements for the Major

## University-wide Requirements (Varies)

## Core Courses

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of 1st year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- PERB 1131 - Class Piano I
- PERB 1132 - Class Piano II
- PERB 2131 - Class Piano III
- PERB 2132 - Class Piano IV
or
- PERB 1233 - Advanced Class Piano I
- PERB 1234 - Advanced Class Piano II
- MURE 3001 - Junior Recital or
- MURE 3101 - Junior Recital
- MURE 4001 - Senior Recital or
- MURE 4101 - Senior Recital or
- MURE 4201 - Senior Recital
- MUCO 3209 - Fundamentals of Instrumental Conducting
- PERE 5018 - Meadows Symphony Orchestra (PERE 5109 or PERE 5119 if assigned) (each term of residence) or
- PERE 5118 - Meadows Symphony Orchestra (PERE 5109 or PERE 5119 if assigned) (each term of residence)
- PERE 5071 - Chamber Ensemble (three terms) or
- PERE 5171 - Chamber Ensemble (three terms)
- MPED 4305 - Introduction to Instrumental Pedagogy or
- MPED 4308 - String Pedagogy I
- MREP 5060 - Orchestral Repertoire: Strings (two terms) or
- MREP 5160 - Orchestral Repertoire: Strings (two terms)


## MUTH Electives (6 Credit Hours)

At the 3000 level or above

## MUHI Elective (3 Credit Hours)

At the 4000 level or above
Private Studies 3200 ( 16 Credit Hours)

Eight terms
Music/AMAE Electives (11 Credit Hours)
Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Music Performance: Voice, B.M.

Credit hour requirements for this curriculum are distributed as follows:

## Requirements for the Major

## University-wide Requirements (Varies)

## Core Courses

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of 1st year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- PERB 1131 - Class Piano I
- PERB 1132 - Class Piano II
- PERB 2131 - Class Piano III
- PERB 2132 - Class Piano IV
or
- PERB 1233 - Advanced Class Piano I
- PERB 1234 - Advanced Class Piano II
- VOIC 3200 - Private Study: Voice (eight terms)
- MURE 3001 - Junior Recital or
- MURE 3101 - Junior Recital
- MURE 4001 - Senior Recital or
- MURE 4101 - Senior Recital or
- MURE 4201 - Senior Recital
- MUCO 3208 - Fundamentals of Choral Conducting
- PERE 5013 - Meadows Chorale (each term of residence) or
- PERE 5113 - Meadows Chorale (each term of residence) or
- PERE 5014 - Concert Choir (each term of residence) or
- PERE 5114 - Concert Choir (each term of residence) or
- PERE 5016 - Diva Dolce (each term of residence) or
- PERE 5116 - Diva Dolce (each term of residence)
- MPED 5216 - Vocal Pedagogy I
- MPED 5217 - Vocal Pedagogy II or
- Two additional terms of PERE 5122
- PERB 2017 - Meadows Opera Workshop (two terms) or
- PERB 2117 - Meadows Opera Workshop (two terms) or
- PERE 5022 - Meadows Opera Ensemble (two terms) or
- PERE 5122 - Meadows Opera Ensemble (two terms)
- PERB 2106 - Diction: Italian and
- PERB 2108 - Diction: English
- PERB 2107 - Diction: German and
- PERB 2109 - Diction: French
- VOIC 3015 - Vocal Coaching
- VOIC 3116 - Vocal Coaching
- VOIC 4017 - Vocal Coaching
- VOIC 4118 - Vocal Coaching


## MUTH Elective (3 Credit Hours)

At the 3000 level or above

## MUHI Elective (3 Credit Hours)

At the 4000 level or above

## Second Language (8 Credit Hours)

Two terms

## Music/AMAE Electives (5 Credit Hours)

## Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Music Therapy, B.M.

The Bachelor of Music degree with a major in music therapy is approved by the American Music Therapy Association. Successful completion of this program entitles the graduate to take the national board examination in music therapy administered by the Certification Board for Music Therapists. The official designation by the board is MT-BC, the nationally accepted credential of qualified music therapists.

Students majoring in music therapy have two junior-level performance options: 1) to present a minimum of one solo performance in general recital each term of the junior year or 2) to present a half recital of 30 minutes. Before enrolling for internship MUTY 4144, the student must meet the following conditions:

1. Completed all course, practicum and preclinical work.
2. Demonstrated good physical health and emotional stability.
3. Achieved functional competency on piano, guitar, percussion and voice.
4. Achieved a cumulative GPA of 2.500 and a 2.750 in all music therapy courses.

Students completing this program of study may add a minor in psychology with nine additional psychology credits.
The following, by adviser approval, fulfill large ensemble requirements for music therapy majors:

- Wind and percussion students are required to enroll in the Meadows Symphony Orchestra, Meadows Wind Ensemble or SMU Symphony Band.
- Voice students must enroll in a choral ensemble.
- String students must enroll in Meadows Symphony Orchestra or Mustang Strings.
- Piano and guitar students must enroll in Meadows Jazz Orchestra or in one of the other ensembles listed above.


## Requirements for the Major

## University-wide Requirements (Varies)

## Core Courses (65 Credit Hours)

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of 1st year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- PERB 1131 - Class Piano I
- PERB 1132 - Class Piano II
- PERB 2131 - Class Piano III
- PERB 2132 - Class Piano IV
or
- PERB 1233 - Advanced Class Piano I
- PERB 1234 - Advanced Class Piano II
- PERB 1103 - Modern Acoustic Guitar
- PERB 1104 - Modern Acoustic Guitar II
- MUAS 5152 - Percussion Techniques
or
- PERB 2113 - Hand Drumming and Ethnic Percussion I
- MUAS 5153 - Vocal Techniques
- MURE 3001 - Junior Recital (optional)
or
- MURE 3101 - Junior Recital (optional)
- MUCO 3208 - Fundamentals of Choral Conducting or
- MUCO 3209 - Fundamentals of Instrumental Conducting
- MUTY 1120-Clinical Orientation
- MUTY 1320 - Introduction to Music Therapy
- MUTY 3211 - Developmental Music Therapy
- MUTY 3212 - Psychiatric Music Therapy
- MUTY 3213 - Medical Music Therapy
- MUTY 3214-Gerontological Music Therapy
- MUTY 3141 - Developmental Music Therapy Practicum I
- MUTY 3142 - Psychiatric Music Therapy Practicum II
- MUTY 3143-Medical Music Therapy Practicum III
- MUTY 3144-Gerontological Practicum IV
- MUTY 4340 - Research Methods and Materials in Music Therapy
- MUTY 4341 - Survey of Music Psychology
- MUTY 4144 - Internship I
- MUTY 4145 - Internship II
- MUTY 4141 - Music Therapy Practicum V
- PSYC 1300 - Introduction to Psychology
- PSYC 2351 - Abnormal Psychology
- PSYC elective

Private Studies 3200 or 3100 ( 10 Credit Hours)
PERE Large Ensemble (5 Credit Hours)

Five terms

## Music/AMAE Electives (11 Credit Hours)

May include MURE 3101 optional recital.

## Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

Note: Students with a concentration in voice, percussion or guitar must substitute music electives for the corresponding technique class.

## Music, B.A.

The B.A. degree is intended to serve students combining a music degree with interests in one or more of the following:

- A broad liberal arts education.
- Exploration of the interdisciplinary relationship of music coursework to coursework in other areas of the Meadows School and the University as a whole.
- An additional major, a minor or preparation for medical school or law school.
- Preparation for graduate study in music.
- Participation in the SMU Honors Program.
- A term or summer of study abroad.


## Requirements for the Major

## University-wide Requirements (Varies)

## Core Courses ( 26 Credit Hours)

- MUAS 1020 - Music Pathways: Exploring Meadows and Your Future (one enrollment fall term of first year)
- MUAS 1010 - Concert Experience (each term of residence except fall term of 1st year)
- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUTH 2129 - Musicianship III
- MUTH 2130 - Musicianship IV
- MUTH 2229 - Music Theory III
- MUTH 2230 - Music Theory IV
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- MUTH Elective (3000 level or above)
or
- MUHI Elective (4000 level)
- PERB 1131 - Class Piano I
- PERB 1132 - Class Piano II
or
- PERB 1233 - Advanced Class Piano I


## Private Studies (6 Credit Hours)

Private Studies 3200 or 3100, or composition in combination with private studies (14 credits maximum)

## PERE Ensemble (5 Credit Hours)

Required each term of residence; 4 large ensembles and one chamber.

## Music/AMAE Electives (12 Credit Hours)

May include senior project.

## Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Notes

- Vocalists are required to take two diction courses among PERB 2106, PERB 2107, PERB 2108, and PERB 2109, and need only take 10 hours Music/AMAE electives.
- Multiple one- or two-credit electives may be taken in place of a three-credit elective.


## Music Minor

The minor is designed to meet one of the following objectives:

1. A course of study in music with sufficient breadth and depth to satisfy the artistic aspiration of students from any major who have some background and experience in music, or
2. An alternative to the rigorous course of study required for the major in music for those students who do not aspire to a musical career.
Acceptance criteria for the minor include a successful audition or composition portfolio review and a theory/aural skills assessment prior to enrollment in private lessons or the theory sequence. The ability to read music is required. Musicianship (MUTH 1129, MUTH 1130) must be taken concurrently with the corresponding offering of music theory (MUTH 1229, MUTH 1230). In any given term, private study will be approved only if the student is enrolled for at least one other course (not including MUAS 1010) required for the minor. Approval is required for study beyond four credits. Ensemble participation is encouraged.

## Requirements for the Minor

- MUTH 1129 - Musicianship I
- MUTH 1130 - Musicianship II
- MUTH 1229 - Music Theory I
- MUTH 1230 - Music Theory II
- MUHI 1302 - Introduction to Music in History and Culture
- MUHI 3301 - Survey of Music History I
- MUHI 3302 - Survey of Music History II
- Private Study (in instrument, voice or composition; typically 1 credit hour per term; minimum 4 credit hours)
- MUAS 1010 - Concert Experience (four terms)


## Total: 19 Credit Hours

## Songwriting Minor

The minor in songwriting is available to majors in all disciplines at SMU who are interested in developing basic skills as composers, lyricists and/or recording artists. The program allows students to pursue a lyric, music or production emphasis within the field of songwriting. The plan includes a repeatable class in which songs are written, produced, performed and recorded.

## Requirements for the Minor

## Core Courses (16 Credit Hours)

- MUTH 1301 - Music Fundamentals (music majors and minors substitute MUTH 1129, MUTH 1229)
- MUTH 3117 - Songwriting Laboratory (two terms)
- MUTH 3217 - Songwriting
- MUTH 4310 - Introduction to Electro-Acoustic Music
- MUAS 5322 - Analysis of Music Production
- ENGL 2390 - Introduction to Creative Writing


## One from the following: (3 Credit Hours)

- AMAE 4321 - Law and the Arts
- MUHI 3339 - Music for Contemporary Audiences
- MUHI 3340 - Jazz: Tradition and Transformation


## Total: 19 Credit Hours

## Courses:

## BASSOON

## BSSN 3100 - Private Study: Bassoon

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## BSSN 3200 - Private Study: Bassoon

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are
completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## CELLO

## CELL 3100 - Private Study: Cello

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## CELL 3200 - Private Study: Cello

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## CLARINET

## CLAR 3100 - Private Study: Clarinet

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## CLAR 3200 - Private Study: Clarinet

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## DOUBLE BASS

## DBBS 3100 - Private Study: Double Bass

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## DBBS 3200 - Private Study: Double Bass

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## FLUTE

## FLUT 3100 - Private Study: Flute

Credits: 1
One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## FLUT 3200 - Private Study: Flute

Credits: 2
One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## FRENCH HORN

## FRHN 3100 - Private Study: French Horn

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## FRHN 3200 - Private Study: French Horn

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## GUITAR

## GUIT 3100 - Private Study: Guitar

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching,
subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## GUIT 3200 - Private Study: Guitar

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## GUIT 4408 - Private Study: Guitar

## Credits: 4

## HARP

## HARP 3100 - Private Study: Harp

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## HARP 3200 - Private Study: Harp

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## HARPSICHORD

## HARS 3100 - Private Study: Harpsichord

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## HARS 3200 - Private Study: Harpsichord

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## MUSIC PEDAGOGY

## MPED 4184 - Directed Study: Pedagogy

## Credits: 1

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MPED 4284 - Directed Study: Pedagogy

## Credits: 2

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MPED 4303 - Guitar Pedagogy

## Credits: 3

(spring term of even-numbered years) Prepares guitarists for studio teaching.

## MPED 4305 - Introduction to Instrumental Pedagogy

## Credits: 3

Prepares instrumental private teachers for studio teaching.

## MPED 4308 - String Pedagogy I

Credits: 3
A survey of methods, materials, and curriculum for teaching strings at the beginning level, with a focus on the philosophical, psychological, and developmental bases of string study. Topics include review and evaluation of current educational materials, current trends, the history of string education, and pedagogical situations. Prerequisite: Proficiency on a string instrument as a major, MUAS 3146 and MUAS 3147 or equivalents, or permission of instructor.

## MPED 4309 - String Pedagogy II

Credits: 3
A survey of methods, materials, and curriculum for teaching strings at the beginning level, with a focus on the philosophical, psychological, and developmental bases of string study. Topics include review and evaluation of current educational materials, current trends, the history of string education, and pedagogical situations. Prerequisite: Proficiency on a string instrument as a major, MPED 4308 or equivalent, or permission of instructor.

## MPED 4384 - Directed Study: Pedagogy

Credits: 3
A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MPED 5114 - Organ/Harpsichord Pedagogy

Credits: 1
(fall term of even-numbered years) A survey of teaching materials and pedagogical methods, both historical and modern, for
organ and harpsichord students. Projects include compilation of graded repertoire lists and preparation and/or presentation of a supervised private lesson.

## MPED 5216 - Vocal Pedagogy I

## Credits: 2

A study of vocal techniques, including vocal acoustics, breathing, and laryngeal function. Provides information useful to the singer, studio voice teacher, and choral director. Prerequisite: Permission of instructor.

## MPED 5217 - Vocal Pedagogy II

## Credits: 2

A study of teaching strategies and philosophies, diagnosis of vocal problems, stage deportment, vocal repertoire, and ethics for teachers. Students gain practical, supervised experience in teaching.

## MUSIC PSYCHOLOGY

## MPSY 5340 - Acoustics of Music

## Credits: 3

A study of the acoustical foundations of music. Covers topics such as basic acoustics, acoustics of musical instruments and voice, room and auditorium acoustics, acoustical principles of sound systems, and psychoacoustics. Includes 3 hours of lecture and one laboratory period per week.

## MUSIC REPERTOIRE

## MREP 4114 - Piano Repertoire

## Credits: 1

A broad survey of piano literature, including lectures and performances by the students enrolled. Performance styles and practices of every historical period are emphasized.

## MREP 5030-Guitar Repertoire

Credits: 0
Student performances of their solo repertoire and individual instruction in a master-class setting.

## MREP 5040-Orchestral Repertoire: Woodwinds

Credits: 0
Interpretive study and performance preparation of significant excerpts from selected orchestral repertoire.

## MREP 5050-Orchestral Repertoire: Brass

## Credits: 0

Interpretive study and performance preparation of significant excerpts from selected orchestral repertoire.

## MREP 5060-Orchestral Repertoire: Strings

Credits: 0
Interpretive study and performance preparation of significant excerpts from selected orchestral repertoire.

## MREP 5070-Orchestral Repertoire: Percussion

Credits: 0
Interpretive study and performance preparation of significant excerpts from selected orchestral repertoire.

## MREP 5130 - Guitar Repertoire

## Credits: 1

Student performances of their solo repertoire and individual instruction in a master-class setting.

## MREP 5140-Orchestral Repertoire: Woodwinds

## Credits: 1

Interpretive study and performance preparation of significant excerpts from selected orchestral repertoire.

## MREP 5150-Orchestral Repertoire: Brass

## Credits: 1

Interpretive study and performance preparation of significant excerpts from selected orchestral repertoire.

## MREP 5160 - Orchestral Repertoire: Strings

## Credits: 1

Interpretive study and performance preparation of significant excerpts from selected orchestral repertoire.

## MREP 5170-Orchestral Repertoire: Percussion

Credits: 1
Interpretive study and performance preparation of significant excerpts from selected orchestral repertoire.

## MREP 5209-Classical and Romantic Song Literature

## Credits: 2

(spring term of odd-numbered years) An overview of song literature from the Classical and Romantic periods. Students prepare repertoire for performance in class and make presentations on topics of specialized interest. Lectures focus on specific developmental trends such as the genesis of the song cycle, the evolution of the piano accompaniment in the 19th century, and links between poets and composers.

## MREP 5210 - 20th-Century Song Literature

## Credits: 2

(spring term of even-numbered years) A survey of repertoire and performance practices of song literature from the 20th century. Provides students with a general knowledge of the literature to acquaint them with performance notational practices and to develop the musical skills necessary to perform this literature.

## MREP 5212 - Sacred Masterpieces for Singers

## Credits: 2

An overview for singers of the great masses and oratorios of the 18th and 19th centuries, with an emphasis on performance.
Baroque, Classical, and Romantic styles are taught through the study and performance of arias and ensembles from these works.

Students are coached by the instructor, and they perform for the class. Open to junior, senior, and graduate voice majors, as well as singers in the Perkins' Master of Sacred Music program, or by instructor permission.

## ACCOMPANYING

## MUAC 2101-Techniques of Vocal Accompanying

## Credits: 1

A course designed for pianists to acquaint them with the various skills associated with accompanying and to familiarize them with some of the vocal repertoire.

## MUAC 2102-Techniques of Instrumental Accompanying

## Credits: 1

A course designed for pianists to acquaint them with the various skills associated with accompanying and to familiarize them with some of the instrumental repertoire.

## MUAC 3100 - Practicum in Collaborative Performance

## Credits: 1

Practical application of collaborative performance skills through studio assignments and performance. Prerequisites: MUAC 2101, MUAC 2102.

## MUSIC ARTS AND SKILLS

## MUAS 1010 - Concert Experience

Credits: 0
Required of all music majors each term in residence except for the fall term of the first year. Students attend and experience a wide variety of music and music-inclusive concerts and events upon which to reflect and share. Prerequisite: MUAS 1020 for music majors.

## MUAS 1020 - Music Pathways: Exploring Meadows and Your Future

Credits: 0
Required orientation for all first-year music majors. Provides valuable information about college life and professional opportunities in music.

## MUAS 1323 - Exploring the Power of Music in Our Lives: From Chaos 2 Creation

## Credits: 3

Experiential course that explores ways to use music creatively in order to effect positive change. Covers the building blocks of sound and music (pitch, timbre, rhythm, melody, harmony), how the environment affects the sound source, and how sound and music affect the brain and body. Topics include hearing systems and music and emotions. Also, using musical improvisation, composition, and songwriting to help express thoughts and feelings in healthy and creative ways. No previous music training is required.

## MUAS 2149 - Introduction to Music Education

Credits: 1
A broad-based survey of the issues, aims, and opportunities in music education programs of all levels, with an introduction to music education philosophies and methodologies.

## MUAS 3011 - Practicum in Music

## Credits: 0

Practical on-campus work in areas such as piano technology or recording engineering. Specific learning outcomes, measures, and activities are stated in an individualized syllabus. Students are limited to a total of 3 credit hours for internships and practica. Departmental permission required.

## MUAS 3084 - Internship in Music

## Credits: 0

Internship credit for practical off-campus work in the music industry or with a professional music organization. Specific learning outcomes, measures, and activities are stated in an individualized syllabus. Students are limited to a total of 3 credit hours for internships and practica. Departmental permission required.

## MUAS 3111 - Practicum in Music

## Credits: 1

Practical on-campus work in areas such as piano technology or recording engineering. Specific learning outcomes, measures, and activities are stated in an individualized syllabus. Students are limited to a total of 3 credit hours for internships and practica. Departmental permission required.

## MUAS 3184 - Internship in Music

## Credits: 1

Internship credit for practical off-campus work in the music industry or with a professional music organization. Specific learning outcomes, measures, and activities are stated in an individualized syllabus. Students are limited to a total of 3 credit hours for internships and practica. Departmental permission required.

## MUAS 3284 - Internship in Music

## Credits: 2

Internship credit for practical off-campus work in the music industry or with a professional music organization. Specific learning outcomes, measures, and activities are stated in an individualized syllabus. Students are limited to a total of 3 credit hours for internships and practica. Departmental permission required.

## MUAS 3384 - Internship in Music

## Credits: 3

Internship credit for practical off-campus work in the music industry or with a professional music organization. Specific learning outcomes, measures, and activities are stated in an individualized syllabus. Students are limited to a total of 3 credit hours for internships and practica. Departmental permission required.

## MUAS 4230 - Elementary Music Practicum

## Credits: 2

Focuses on crafting and teaching short lessons for peers in the college classroom and for area public school classrooms. Video camera is used extensively for accurate feedback. Prerequisite: MUED 3330.

## MUAS 5145-Overview of Piano Technology

## Credits: 1

An overview of the history and development of the piano, grand and upright construction and regulation, tuning, temperament, and relationships with technicians and retailers. Hands-on instruction in tuning techniques includes unison and octave tuning.

## MUAS 5146 - Upper String Techniques

## Credits: 1

Basic principles involved in playing and teaching violin and viola. Reserved for music majors and minors.

## MUAS 5147 - Lower String Techniques

Credits: 1
Basic principles involved in playing and teaching cello and bass. Reserved for music majors and minors.

## MUAS 5148 - Single Reed and Flute Techniques

Credits: 1
Basic principles involved in playing and teaching single reed and flute instruments. Reserved for music majors and minors.

## MUAS 5149 - Double Reed Techniques

Credits: 1
Basic principles involved in playing and teaching double reed instruments. Reserved for music majors and minors.

## MUAS 5150-Low Brass Techniques

## Credits: 1

Basic principles involved in playing and teaching low brass. Reserved for music majors and minors.

## MUAS 5151-High Brass Techniques

## Credits: 1

Basic principles involved in playing and teaching upper brass. Reserved for music majors and minors.

## MUAS 5152 - Percussion Techniques

Credits: 1 Basic principles involved in playing and teaching percussion. Reserved for music majors and minors.

## MUAS 5153 - Vocal Techniques

Credits: 1
Basic principles involved in singing and teaching voice. Reserved for music majors and minors.

## MUAS 5154 - Marching Band Techniques

## Credits: 1

(fall term of even-numbered years) Provides music education students with opportunities to learn skills and techniques involved in marching band.

## MUAS 5155-Jazz Techniques

## Credits: 1

(fall term of even-numbered years) Introduces jazz pedagogy, with an emphasis on improv.

## MUAS 5310 - Directed Study in Music Skills

## Credits: 3

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUAS 5320 - Recording Technology

## Credits: 3

A philosophical comparison of approaches to music recording in all forms of mass media. Includes demonstrations of studio equipment and digital recording and editing.

## MUAS 5322-Analysis of Music Production

## Credits: 3

Students gain a basic yet broad understanding of the function of a music producer in both artistic and music business environments, and of the process through which any musical work is produced as a live performance or recording. The role of the music producer is concentric to all decisions in recording and defining artistic endeavors. Whether working with a director in producing music for a film score, collaborating with a songwriter to define an expression, working with a composer to achieve an artistic vision, or understanding how an advertising agency needs musical help in order to sell a product, the producer must be able to coordinate the procedure with the vision. Even when the producer is also the artist, composer, recording engineer, and financier, he/she must step outside of all other roles to plan how the end result can best be achieved.

## CONDUCTING

## MUCO 3208 - Fundamentals of Choral Conducting

## Credits: 2

Includes all basic beat patterns, subdivision, fermata problems, beat character, and an introduction to left-hand usage and basic score reading, with emphasis on the psychophysical relationship between conductor and ensemble.

## MUCO 3209 - Fundamentals of Instrumental Conducting

## Credits: 2

Includes basic conducting technique, score reading, score analysis, and general rehearsal procedures, with attention given to rehearsal techniques in a laboratory setting.

## MUCO 3210-Choral Conducting Practicum

## Credits: 2

Stresses development of rehearsal techniques in a laboratory setting. Students choose, prepare, and rehearse music with other students in class to develop skills in error detection, rehearsal pacing, sequencing, and ordering of music for optimum rehearsals. Prerequisite: MUCO 3208 or equivalent.

## MUCO 3211 - Instrumental Conducting Practicum

## Credits: 2

Stresses development of rehearsal techniques in a laboratory setting. Students choose, prepare, and rehearse music with other students in the class to develop skills in error detection, rehearsal pacing, sequencing, and ordering of music for optimal rehearsals. Prerequisite: MUCO 3209.

## MUCO 4184 - Directed Study in Conducting

## Credits: 1

Individual technical development and score preparation for the advanced conductor. Prerequisite: Approval of instructor.

## MUCO 4284 - Directed Study in Conducting

## Credits: 2

Individual technical development and score preparation for the advanced conductor. Prerequisite: Approval of instructor.

## MUCO 4384 - Directed Study in Conducting

Credits: 3
Individual technical development and score preparation for the advanced conductor. Prerequisite: Approval of instructor.

## MUCO 5210 - Choral Conducting Practicum

Credits: 2
Stresses development of rehearsal techniques in a laboratory setting. Students choose, prepare, and rehearse music with other students in class to develop skills in error detection, rehearsal pacing, sequencing, and ordering of music for optimum rehearsals. Prerequisite: MUCO 3208 or equivalent.

## MUCO 5309 - Advanced Instrumental Conducting

Credits: 3
Stylistic analysis of a range of large ensemble repertoire, with emphasis on historical context, performance practice, interpretive issues, performance techniques, and conducting problems. Also, the study of baton and rehearsal technique.

## MUSIC EDUCATION

## MUED 2250 - New Horizons in Music Education

Credits: 2
Observation and discussion of teaching methodologies conducted primarily in the public schools. Includes hands-on teaching experiences with supervision by SMU faculty and public school cooperating teachers.

## MUED 3330 - Elementary Music Methods and Materials

## Credits: 3

An investigation of major approaches for teaching elementary general music. Includes public school classroom observations.

## MUED 3331 - Instrumental Music Methods and Materials

## Credits: 3

Covers materials for instruction, motivation, administration, class control, and performance preparation.

## MUED 3332-Choral Music Methods and Materials

## Credits: 3

Focuses on the art and practice of developing successful choral programs for fifth grade through high school. Topics include recruitment, auditions, behavior management, vocal techniques, the changing voice, choosing music, planning rehearsals, and management of nonmusical details. Includes public school observations.

## MUED 4194 - Directed Studies in Music Education

## Credits: 1

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUED 4294 - Directed Studies in Music Education

## Credits: 2

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUED 4394 - Directed Studies in Music Education

Credits: 3
A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUED 5115-Methods and Materials: Church

Credits: 1
(spring term of odd-numbered years) The principles and practices of music education useful to church music professionals and others who may be interested in church work.

## MUED 5147 - Workshop in Music Education

Credits: 1
A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5149 - Workshop in Music Education

Credits: 1
A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5150 - Workshop in Music Education

Credits: 1
A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5151 - Workshop in Music Education

## Credits: 1

A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5152 - Workshop in Music Education

## Credits: 1

A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5153 - Workshop in Music Education

Credits: 1
A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5154 - Workshop in Music Education

## Credits: 1

A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5250 - Workshop in Music Education

## Credits: 2

A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5251 - Workshop in Music Education

## Credits: 2

A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5252 - Wind Literature for the Secondary School

## Credits: 2

(fall term of odd-numbered years) Survey of new and standard literature suitable for secondary school students. Examines music for instrumental solo, ensemble, band, and orchestra.

## MUED 5253 - Vocal and Choral Literature for the Secondary School

## Credits: 2

(fall term of odd-numbered years) Survey of new and standard vocal solo, ensemble, and choral literature suitable for the secondary school.

## MUED 5254 - Workshop in Music Education

Credits: 2
A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5255 - Workshop in Music Education

Credits: 2
A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5257-Computer Applications for Music Education

## Credits: 2

Investigates the potential for computer use in music education, including computer-assisted instruction, information storage and retrieval, book and record keeping, and specialized uses such as computer-assisted management of schools of music. Also, the development of basic techniques for designing and implementing such uses.

## MUED 5350 - Workshop in Music Education

## Credits: 3

A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5351 - Workshop in Music Education

## Credits: 3

A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5352 - Workshop in Music Education

Credits: 3
A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUED 5354 - Workshop in Music Education

## Credits: 3

A brief, intensive study of a focused topic in music education, including Orff, Kodály, Dalcroze, and other methodologies.

## MUSIC HISTORY AND LITERATURE

## MUHI 1302 - Introduction to Music in History and Culture

## Credits: 3

Introduction to the historical and cultural study of music designed to provide a big-picture overview of the role of music in diverse social contexts; to acquaint students with the central paradigms, methods, and problems of music scholarship; and to provide a critical orientation toward some of the major questions that will play a role in subsequent music history coursework. Examples are drawn from Western art music, world music, and popular music. Class readings and discussions foster the development of advanced critical-thinking and problem-solving skills in relation to musical questions.

## MUHI 1321 - Music: Art of Listening

## Credits: 3

An investigation of the elements of music (melody, rhythm, harmony, form, timbre) as they develop and change throughout the various historical periods of music. Emphasis is on active listening. For nonmajors. Does not satisfy music history requirements for music majors.

## MUHI 1322 - Introduction to Jewish Music

## Credits: 3

Surveys the Jewish musical tradition, spanning over two millennia and five continents; its place in Jewish life; and its influences on church and mosque melodies. Music-reading and non-English languages not required.

## MUHI 3301 - Survey of Music History I

## Credits: 3

Surveys the origins and evolution of musical forms, compositional procedures, performing practices, and musical instruments in the West from the rise of the Christian liturgy through the death of J.S. Bach. Presented within the contexts of related arts and historical events, as time permits. Includes listening, score analysis, and practice in writing about music. Prerequisite: MUHI 1302.

## MUHI 3302 - Survey of Music History II

## Credits: 3

Surveys musical forms, styles, compositional procedures, and performing practices from the late 18th century to the present day. Presented within the contexts of related arts and historical events, as time permits. Includes listening, score analysis, and practice in writing about music. Prerequisite: MUHI 3301.

## MUHI 3339 - Music for Contemporary Audiences

## Credits: 3

An examination of the interaction of the various forms of popular musical expression (folk, blues, soul, rock, Muzak, and film music) and their impact upon American culture.

## MUHI 3340 - Jazz: Tradition and Transformation

## Credits: 3

Bunk, Bird, Bix, Bags, and Trane. From blues to bop, street beat to free jazz. A study of the people and music from its African, Euro-American origins through the various art and popular forms of the 20th century.

## MUHI 3343 - Music and Identity in Colonial and Postcolonial France

## Credits: 3

For undergraduate students with or without musical backgrounds. Explores music in France and in the colonies of the Maghreb and sub-Saharan Africa from the late 19th century to the present, including events that led to the invention of new musical styles in these geographical areas. Also, the music of the diaspora in France. Focuses on the incorporation of foreign musical elements by composers living in France, including the social context for several musical compositions, and the musical traditions of Java, Spain, and Russia, which provided sources of inspiration for these works. Examines how music has been used in colonial and postcolonial contexts to construct regional, ethnic, and national identities in France and formerly colonized countries. Does not satisfy music history requirements for music majors or minors; may be taken by music majors or minors as an elective. (SMU-inParis).

## MUHI 4192 - Directed Study in Music History

Credits: 1
A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUHI 4292 - Directed Study in Music History

## Credits: 2

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUHI 4301 - Research Project in Music History

## Credits: 3

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUHI 4302 - Seminar in Music History

## Credits: 3

Provides advance investigation into a variety of topics in music history, including music aesthetics, the works of a specific composer or compositional school, music within the context of a specific time and/or place, or in-depth studies of works relative to a particular genre. Topics are announced each term. Writing intensive. May be repeated for credit. Prerequisites: MUHI 3301, MUHI 3302.

## MUHI 4320-Organ History/Literature

## Credits: 3

A survey of the literature for the organ, Renaissance to contemporary. Required of organ majors and concentrations (undergraduate).

## MUHI 4345 - Survey of Opera History

## Credits: 3

A chronological survey of opera, beginning with a brief introduction to medieval and Renaissance precedents, followed by an indepth presentation of selected Baroque and Classical masterworks. Explores the ways 19th-century Romantic opera synthesized music, literature, art, and elements of politics and culture. Also, investigates the musical language and dramatic substance of selected works from 20th-century operatic repertoire. Students spend a significant amount of time viewing operas on video and laser disc, and in certain cases making comparative studies of productions. Prerequisite: MUHI 3302.

## MUHI 4347 - Symphonic Literature

## Credits: 3

Examines representative orchestral works from the late Baroque era to the present day. Attention is directed to the forms, compositional procedures, and orchestration devices employed by selected composers who reflect the various stylistic orientations within this time frame. Prerequisite: MUHI 3302.

## MUHI 4348-Guitar History/Literature

## Credits: 3

(spring term of odd-numbered years) Examines the history of guitar and its music from the early 16th century to the present. Included are the vihuela and Baroque guitar, four-string Spanish guitar, and related literature. Emphasis is given to the evolution of the modern instrument and its repertoire. Prerequisite: Completion of the music history sequence or permission of division head.

## MUHI 4355 - Music and Culture: Studies in Popular Music

## Credits: 3

Focuses on music as an element of culture formation. Explores current scholarship to introduce the multidisciplinary study of the role of human agency in creating meaningful spaces in which music unfolds its sociopolitical and cultural dimensions.
Prerequisite: MUHI 3302.

## MUHI 4356 - Music and Musicking as Historical Experience

## Credits: 3

Introduces historical, anthropological, and musicological approaches to the study of music as an element of culture formation.
"Musicking" references the activities, interactions, and behaviors that influence the production of culture. Students are challenged
to think of music culture in relation to the ideologies and meanings that transpire and permeate musicking within a particular social group, and to identify the contextual factors (social, economic, political) that shape music culture.

## MUHI 4357 - Music and Emotion

## Credits: 3

Introduction to the psychological study of music and the emotions, with emphasis on cognitive, evolutionary, behavioral, and socio-cultural perspectives.

## MUHI 4358 - An Historical and Aesthetic Examination of Film Music Practices From American and Other Traditions

## Credits: 3

A study of film music, including its historical development, deployment in different film genres, styles of various composers, interactions between "art music" composers and cinema (including classical music as used in film scores, art music composers composing for film, and composers as subjects of films), and issues of the psychology of film music. Explores not only how changes in culture and society affected films and their music since the coming of recorded sound to cinema in the 1920s, but also how cinema and its music have worked as forces of cultural and social change. Focuses primarily on American cinema, but draws examples from other traditions as well. Prerequisite: MUHI 3302 or consent of the instructor.

## MUHI 4384 - Survey of Choral Literature

Credits: 3
(spring term of even-numbered years) A survey of choral music from the medieval era to the present. Examines representative compositions with regard to genre, form, compositional procedures, and stylistic aspects. Includes sociopolitical conditions, the intellectual and artistic outlooks of patrons and composers, and other external influences. Prerequisite: Completion of the music history sequence or permission of division head.

## MUHI 4392 - Directed Study in Music History

Credits: 3
A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUHI 5206-Performance Practicum in Early Music

Credits: 2
(spring term of even-numbered years) Studies in the interpretation of Baroque music from a stylistic point of view.

## MUHI 5207-Organ Survey

## Credits: 2

Covers organ building fundamentals of construction and design and organ history as it relates to the development of a styleconscious concept of enrollment. Required of organ majors and concentrations (undergraduate). Recommended elective for the M.M. and the M.S.M. degree.

## PIANO PEDAGOGY

## MUPD 4125-Piano Pedagogy Practicum

Credits: 1 Supervised teaching experience; specific goals and projects are agreed upon for the term. Required for all piano majors.

## MUPD 4126 - Piano Pedagogy Practicum

## Credits: 1

Supervised teaching experience; specific goals and projects are agreed upon for the term. Required for all piano majors.

## MUPD 4396 - Fundamentals of Piano Pedagogy I

## Credits: 3

(fall term of even-numbered years) In-depth study of methods and curriculum for teaching piano at the elementary level. Students survey and evaluate current educational materials, with a focus on philosophical and physiological bases of piano study.

## MUPD 4397 - Fundamentals of Piano Pedagogy II

## Credits: 3

(fall term of odd-numbered years) In-depth study of methods, materials, and curriculum for teaching piano at the intermediate and advanced levels. Includes current trends (including technology), professionalism, history of piano pedagogy, and employment opportunities.

## MUPD 5103-Creative Piano Teaching

## Credits: 1

Pedagogical projects designed to meet the needs of the piano teacher. Offered in conjunction with the SMU Institute for Piano Teachers in the summer of even-numbered years or the National Conference on Keyboard Pedagogy in the summer of oddnumbered years. Reserved for music majors. Pedagogy majors are limited to one credit.

## MUPD 5196 - Directed Study in Piano Pedagogy

Credits: 1

## MUPD 5203 - Creative Piano Teaching

## Credits: 2

Pedagogical projects designed to meet the needs of the piano teacher. Offered in conjunction with the SMU Institute for Piano Teachers in the summer of even-numbered years or the National Conference on Keyboard Pedagogy in the summer of oddnumbered years. Reserved for music majors. Pedagogy majors are limited to one credit.

## MUPD 5210-Current Trends in Piano Pedagogy

## Credits: 2

(spring term of even-numbered years) Students explore, through participation and observation, the psychological principles operative in group and class environments, with emphasis on teacher effectiveness. Surveys college-level keyboard texts.

## MUPD 5312 - Survey of Precollege Piano Literature

## Credits: 3

(spring term of odd-numbered years) Survey and performance of standard piano literature in all style periods for precollege students. Emphasis on technical preparation and curriculum-building.

## MUPD 5325 - Piano Pedagogy Internship I

Credits: 3 Supervised teaching experience; specific goals and projects are agreed upon for the term. Required of all undergraduate piano majors with an emphasis in piano pedagogy performance.

## MUPD 5326 - Piano Pedagogy Internship II

## Credits: 3

Supervised teaching experience; specific goals and projects are agreed upon for the term. Required of all undergraduate piano majors with an emphasis in piano pedagogy performance.

## RECITALS

## MURE 3001 - Junior Recital

Credits: 0
Solo performance of approximately 30 minutes of music. Graded pass/fail by committee.

## MURE 3101 - Junior Recital

Credits: 1
Solo performance of approximately 30 minutes of music. Graded pass/fail by committee.

## MURE 4001 - Senior Recital

## Credits: 0

Solo performance of approximately 1 hour of music. Graded pass/fail by committee.

## MURE 4101 - Senior Recital

## Credits: 1

Solo performance of approximately 1 hour of music. Graded pass/fail by committee.

## MURE 4201 - Senior Recital

## Credits: 2

Solo performance of approximately 1 hour of music. Graded pass/fail by committee.

## MURE 5000 - Elective Recital

Credits: 0
Solo or chamber music performance. Does not fulfill degree or diploma recital requirements. Specific guidelines may be found in the Division of Music Handbook.

## MURE 5100 - Elective Recital

## Credits: 1

Solo or chamber music performance. Does not fulfill degree or diploma recital requirements. Specific guidelines may be found in the Division of Music Handbook.

## MUSIC COMPOSITION AND THEORY

## MUTH 1129 - Musicianship I

## Credits: 1

Beginning studies in solfege, melodic, and harmonic dictation. Corequisite: MUTH 1229

## MUTH 1130 - Musicianship II

Credits: 1
Continuation of MUTH 1129 covering solfege, melodic, and harmonic dictation. Prerequisites: MUTH 1129, MUTH 1229.
Corequisite: MUTH 1230.

## MUTH 1229 - Music Theory I

Credits: 2
Covers rudiments (notation, clefs, key signatures, intervals, scales, and modes), diatonic and chromatic harmony, figured bass, part-writing, and analysis. Corequisite: MUTH 1129.

## MUTH 1230 - Music Theory II

Credits: 2
Continuation of MUTH 1229 covering diatonic and chromatic harmony, figured bass, part-writing, and analysis. Prerequisites: MUTH 1129, MUTH 1229. Corequisite: MUTH 1130.

## MUTH 1301-Music Fundamentals

Credits: 3
Covers the recognition, basic aural realization, and use and writing of the fundamental elements of tonal music, including pitch, rhythm, meter, chords, scales, key signatures, melody, and harmony. Lecture and discussion, with in-class application through rhythmic reading and singing. Appropriate for all students except music majors.

## MUTH 1325 - Introduction to Composition Studies

Credits: 3
Provides a survey of historical and contemporary compositional skills and practices via projects and study of the literature. Also serves as an introduction to the faculty, each of whom directs sessions during the term. Required course during the first term of composition studies prior to private study. Prerequisite: Composition major or instructor consent.

## MUTH 2129 - Musicianship III

Credits: 1
Continuation of MUTH 1130 covering solfege, melodic, and harmonic dictation employing chromaticism and 20th-century materials. Prerequisites: MUTH 1130, MUTH 1230. Corequisite: MUTH 2229.

## MUTH 2130 - Musicianship IV

## Credits: 1

Continuation of MUTH 2129 covering solfeggio, melodic, and harmonic dictation employing chromaticism and 20th-century materials. Prerequisites: MUTH 2129, MUTH 2229. Corequisite: MUTH 2230.

## MUTH 2229-Music Theory III

## Credits: 2

Continuation of MUTH 1230 covering repertoire from the 19th century to the present. Emphasis on traditional harmonization exercises, beginning studies in musical form, and introduction to current analytical methods. Prerequisites: MUTH 1130, MUTH 1230. Corequisite: MUTH 2129.

## MUTH 2230 - Music Theory IV

## Credits: 2

Continuation of MUTH 2229 covering repertoire from the 19th century to the present. Emphasis on traditional harmonization exercises, musical form, and current analytical methods. Prerequisites: MUTH 2129, MUTH 2229. Corequisite: MUTH 2130.

## MUTH 3117 - Songwriting Laboratory

## Credits: 1

Guided work-shopping of songs through group sharing and comprehensive application of information provided in MUTH 3217. Does not satisfy the 3000-level or above MUTH requirement for music majors. Corequisite: MUTH 3217 or permission of instructor.

## MUTH 3200 - Private Composition

## Credits: 2

Individual study with the composition faculty and regularly scheduled seminars with faculty and visiting guests. Prerequisite: Admission to the composition degree program.

## MUTH 3217 - Songwriting

Credits: 2
Development of songwriting knowledge and skills, including essential components of a song, basic song forms, multiple approaches to starting and completing songs, recording basics, and related aspects of music law. Does not satisfy the 3000-level or above MUTH requirement for music majors. Corequisite: MUTH 3117.

## MUTH 3300 - Private Composition

Credits: 3
Individual study with the composition faculty and regularly scheduled seminars with faculty and visiting guests. Prerequisite: Admission to the composition degree program.

## MUTH 3350 - Form and Analysis

Credits: 3
Study of musical form within a wide range of styles. Prerequisites: MUTH 2130, MUTH 2230.

## MUTH 4184 - Directed Studies in Music Theory

## Credits: 1

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUTH 4190 - Directed Studies in Music Composition

## Credits: 1

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUTH 4202 - Seminar in Music Theory

## Credits: 2

Advanced analytical study of music in a selected style or genre, or by a particular composer or group of composers. Fulfills upper-division MUTH requirements. Repeatable. Prerequisites: MUTH 2130, MUTH 2230.

## MUTH 4284 - Directed Studies in Music Theory

Credits: 2
A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUTH 4290 - Directed Studies in Music Composition

## Credits: 2

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUTH 4300 - Analysis of Contemporary Music

## Credits: 3

Detailed analysis of recent music written in a variety of styles and using diverse techniques. Explores early 20th-century antecedents of more recent music. Analysis and discussion are supported by readings from theoretical articles and composers' writings. Prerequisites: MUTH 2130, MUTH 2230.

## MUTH 4310 - Introduction to Electro-Acoustic Music

## Credits: 3

Covers historical and emerging concepts and techniques of composing, performing, and listening to fixed and interactive electroacoustic music via lectures and laboratory projects. Includes basic acoustics and the history and literature of electronically generated music. Also, hardware and software tools for the generation, processing, and reproduction of musical sound. Students complete individual and collaborative projects, applying their studies to the recording, creation, and performance of fixed and real-time interactive, creative projects. Prerequisites: MUTH 2130 and MUTH 2230, or consent of instructor.

## MUTH 4311 - Advanced Topics in Music Technology

## Credits: 3

Advanced investigation into a variety of topics in electro-acoustic music and technology-related musical art forms. Topics are announced each term the course is offered and may include film music, MIDIstration, real-time interactive performance using Max/MSP/Jitter, algorithmic composition, and technology-related interdisciplinary collaboration. Repeatable. Prerequisite: MUTH 4310/MUTH 6310, MSA 3310, or permission of instructor.

## MUTH 4384 - Directed Studies in Music Theory

## Credits: 3

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUTH 4390 - Directed Studies in Music Composition

## Credits: 3

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUTH 5000-Composition Seminar

## Credits: 0

Topics of common interest to all composers are presented and discussed by composition faculty, current students, and guest artists. Required each term of composition study.

## MUTH 5010 - Keyboard Skills

## Credits: 0

Applies the student's knowledge of music theory to practical keyboard musicianship and explores core principles of keyboard improvisation. Prerequisites: MUTH 2130, MUTH 2230 and PERB 2132, or permission of instructor.

## MUTH 5110-Keyboard Skills

## Credits: 1

Applies the student's knowledge of music theory to practical keyboard musicianship and explores core principles of keyboard improvisation. Prerequisites: MUTH 2130, MUTH 2230 and PERB 2132, or permission of instructor.

## MUTH 5130-Collaborative Composition

Credits: 1
Students collaborate with artists in other disciplines on composition projects. Meadows disciplines rotate periodically.

## MUTH 5150-Advanced Musicianship

## Credits: 1

Develops musicianship skills beyond the level attained in the undergraduate core musicianship courses. Includes sight reading and improvisation studies in a range of musical styles for both voice and instruments, advanced melodic and harmonic dictation exercises, aural analysis of musical examples from a wide range of style periods, and the use of the keyboard to support the continued development of skills. Repeatable for credit. Instructor consent required. Prerequisites: MUTH 2130, MUTH 2230 for
undergraduate students, or a passing score for the Graduate Music Theory Diagnostic Exam or for MUTH 6023, 6124, and 6125 for graduate students.

## MUTH 5250 - Advanced Musicianship

## Credits: 2

Develops musicianship skills beyond the level attained in the undergraduate core musicianship courses. Includes sight reading and improvisation studies in a range of musical styles for both voice and instruments, advanced melodic and harmonic dictation exercises, aural analysis of musical examples from a wide range of style periods, and the use of the keyboard to support the continued development of skills. Repeatable for credit. Instructor consent required. Prerequisites: MUTH 2130, MUTH 2230 for undergraduate students, or a passing score for the Graduate Music Theory Diagnostic Exam or for MUTH 6023, MUTH 6124, and MUTH 6125 for graduate students.

## MUTH 5325-Class Composition

## Credits: 3

A composition course for noncomposition majors. Topics include notational practices; contemporary and traditional approaches to composition through study of model works from the literature; in-class presentation, reading, and critique of projects; and professional standards for the creation and distribution of scores, parts, and recordings of compositions and arrangements. Prerequisites: MUTH 2130, MUTH 2230 or permission of instructor. Restricted to music majors.

## MUTH 5330 - Instrumentation and Arranging

## Credits: 3

An overview of the ranges and performing characteristics of orchestral and band instruments and vocalists, with practical application via scoring and arranging for a variety of small instrumental and vocal ensembles. Prerequisites: MUTH 2130, MUTH 2230.

## MUTH 5360-Advanced Orchestration

## Credits: 3

Explores advanced techniques of orchestration through a series of scoring projects for a variety of ensembles. Prerequisite: MUTH 5330 or permission of instructor.

## MUTH 5370 - Survey of Counterpoint

## Credits: 3

Through exercises in analysis and composition, this course provides a study of contrapuntal techniques from the Middle Ages to the 20th century, with emphasis on traditional modal and tonal styles. Prerequisites: MUTH 2130, MUTH 2230.

## MUSIC THERAPY

## MUTY 1120 - Clinical Orientation

## Credits: 1

The study of music therapy assessment, treatment procedures, and evaluation, through observation as well as literature and repertoire review. Each student will participate on a working music therapy team. Prerequisite: Permission of instructor.

## MUTY 1320 - Introduction to Music Therapy

## Credits: 3

An overview of the function of the music therapist, the history of the music therapy profession, and music in treatment procedures. The course is required of all music therapy majors and is open to others who may want information about the professional field of music therapy.

## MUTY 3130 - Directed Studies in Music Therapy

## Credits: I

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUTY 3141 - Developmental Music Therapy Practicum I

## Credits: 1

Supervised observation of and therapeutic experience with persons who exhibit developmentally delayed disorders. Corequisite: MUTY 3211.

## MUTY 3142 - Psychiatric Music Therapy Practicum II

## Credits: 1

Supervised observation of and therapeutic experience with persons who exhibit psychopathological disorders. Corequisite: MUTY 3212.

## MUTY 3143 - Medical Music Therapy Practicum III

## Credits: 1

Supervised observation and development of clinical skills with patients in medical settings. Corequisite: MUTY 3213.

## MUTY 3144-Gerontological Practicum IV

Credits: 1
Supervised observation and development of clinical skills with elderly clients. Corequisite: MUTY 3214.

## MUTY 3211 - Developmental Music Therapy

Credits: 2
A study of music therapy with developmentally disabled children and adults such as mentally disabled, visually disabled, and speech-impaired individuals. Corequisite: MUTY 3141.

## MUTY 3212-Psychiatric Music Therapy

Credits: 2
A study of music therapy with persons with psychopathological disorders such as schizophrenia, depression, and dementia. Corequisite: MUTY 3142.

## MUTY 3213-Medical Music Therapy

Credits: 2
A study of music therapy with the health impaired, including burn patients, AIDS patients, and obstetric patients. Corequisite: MUTY 3143.

## MUTY 3214 - Gerontological Music Therapy

## Credits: 2

A study of music therapy with elderly, gerontological clients. Corequisite: MUTY 3144.

## MUTY 3230 - Directed Studies in Music Therapy

## Credits: 2

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUTY 3330 - Directed Studies in Music Therapy

## Credits: 3

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## MUTY 4141 - Music Therapy Practicum V

Credits: 1
Supervised clinical experience in the treatment and health maintenance of clients with clinical disorders.

## MUTY 4144 - Internship I

Credits: 1
Includes 3 months, or 520 clock hours, of continuous full-time music therapy experience in an AMTA-approved clinical facility. Requires reports from the intern and music therapy supervisor before, during, and after the internship. Because the internship extends beyond the regular term, enrollment for MUTY 4144 occurs for the term during which the internship begins and enrollment for MUTY 4145 occurs concurrently or for the term immediately following. Prerequisite: Completion of all course, clinical, and preclinical work in the undergraduate music therapy degree or graduate equivalency program.

## MUTY 4145 - Internship II

## Credits: 1

Continuation of MUTY 4144. An additional 3 months, or 520 clock hours, of continuous full-time music therapy experience in an AMTA-approved clinical facility. Requires reports from the intern and music therapy supervisor before, during, and after the internship. Prerequisite or corequisite: MUTY 4144.

## MUTY 4340 - Research Methods and Materials in Music Therapy

## Credits: 3

A study of research methods in music psychology, therapy, and education, with emphasis on research designs, analysis, and interpretation of research literature.

## MUTY 4341 - Survey of Music Psychology

## Credits: 3

Basic study of music systems, with emphasis on perception of and responses to musical stimuli. Also, interpretation of the interdependence of psychological, sociological, and physiological processes in musical behavior, such as musical ability and preference.

## MUTY 5340 - Topics in Music Therapy

## Credits: 3

A survey of contemporary trends in music therapy, psychology, and medicine. Also, the universality of music, with applications in modern therapy, medicine, and health. Prerequisite: Permission of instructor.

## MUTY 5341 - Seminar on Clinical Music Therapy

## Credits: 3

A survey of contemporary trends in music therapy, psychology, and medicine. Through use of group process and self-
exploration, students develop a comprehensive, personalized, and demonstrable theory of clinical music therapy. Prerequisite: Permission of instructor.

## OBOE

## OBOE 3100 - Private Study: Oboe

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## OBOE 3200 - Private Study: Oboe

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## ORGAN

## ORG 3100-Private Study: Organ

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## ORG 3200 - Private Study: Organ

Credits: 2
One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## CLASS FOR PERFORMANCE

| Harpsichord | PERB 5118, 5213 |
| :--- | :--- |
| Piano | PERB 1001, PERB 1011, PERB 1012, PERB 1131, PERB 1132, PERB 1205, <br> PERB 1233, PERB 1234, PERB 2131, PERB 2132, PERB 2205, PERB 3205, <br> 5107,5108 |
| Voice | PERB 1206, PERB 2017, PERB 2106-PERB 2109, PERB 2206, PERB 2117, <br> PERB 3306, 5006, 5101, 5208 |
| Other Instrumental | PERB 1103/PERB 1104, PERB 1203/PERB 2203, PERB 2113/PERB <br> 2114/PERB 2313, 2115, 5011, 5111, 5211, 5215 |

## PERB 1001 - Departmental Performance Class

## Credits: 0

Departmental recitals, performance classes, master classes, guest artist performances, and lectures related to performance specialization. Students enroll concurrently with studies in applied music.

## PERB 1011 - Sight Reading for Pianists I

Credits: 0.5
A requirement for premusic majors in piano performance. Students explore techniques to improve their ability to read music at any level through supervised practicing and reading of various piano literature.

## PERB 1012 - Sight Reading for Pianists II

Credits: 0.5
A requirement for premusic majors in piano performance. Emphasis is given to reading skills that are particularly useful in collaborative playing, including exposure to various types of scores and score preparation. Prerequisite: PERB 1011.

## PERB 1103 - Modern Acoustic Guitar

## Credits: 1

Beginning steel-string acoustic guitar skills, with emphasis on flat-picking and finger-picking chords, strums, and additional leftand right-hand techniques for accompanying folk, popular, and original songs in music therapy, music education, and recreational music settings.

## PERB 1104 - Modern Acoustic Guitar II

Credits: 1
Intermediate steel-string acoustic guitar skills, with emphasis on enhanced flat-picking and finger-picking chords, strums, and additional left- and right-hand techniques for accompanying folk, popular, and original songs in music therapy, music education, and recreational music settings.

## PERB 1131 - Class Piano I

Credits: 1
Emphasis on sight reading, technique, harmonization, transposition, improvisation, and appropriate literature. Corequisites: MUTH 1129, MUTH 1229. Reserved for music majors (except keyboard majors) or minors.

PERB 1132 - Class Piano II

## Credits: 1

Emphasis on sight reading, technique, harmonization, transposition, improvisation, and appropriate literature. Corequisites: MUTH 1130, MUTH 1230. Prerequisite: PERB 1131. Reserved for music majors (except keyboard majors) or minors.

## PERB 1203-Class Guitar

## Credits: 2

Basics of reading music; technique; simple chord progressions as applied to popular music; performance of simple classic guitar pieces.

## PERB 1205 - Beginning Class Piano

## Credits: 2

Designed for students with no previous piano study. Emphasis placed on the development of basic music reading and functional keyboard skills. Not open to music majors.

## PERB 1206 - Class Voice

## Credits: 2

A course in basic singing techniques and interpretive skills, suitable for both beginning singers and for students with singing experience but little formal training.

## PERB 1233 - Advanced Class Piano I

## Credits: 2

(fall term of odd-numbered years) Emphasis on sight reading, harmonization, transposition, improvisation, and technique. Reserved for keyboard majors or music majors with advanced keyboard skills.

## PERB 1234 - Advanced Class Piano II

Credits: 2
(spring term of even-numbered years) Emphasis on sight reading, harmonization, transposition, improvisation, and technique. Prerequisite: PERB 1233. Reserved for keyboard majors or music majors with advanced keyboard skills.

## PERB 2017 - Meadows Opera Workshop

## Credits: 0

Exploration of operatic and musical theatre styles, basic acting technique, dramatic analysis, storytelling skills, character development, monologue study, stagecraft skills, repertoire preparation and research, and scene study. Open to all undergraduates whose primary instrument is voice. Must be taken in sequence for two terms beginning with the fall term.

## PERB 2106 - Diction: Italian

## Credits: 1

Principles of pronunciation and enunciation for singing in Italian. Phonetic practice and practical application to the performance of art songs and arias.

PERB 2107 - Diction: German

## Credits: 1

Principles of pronunciation and enunciation for singing in German. Phonetic practice and practical application to the performance of art songs and arias.

## PERB 2108 - Diction: English

Credits: 1
Principles of pronunciation and enunciation for singing in English. Phonetic practice and practical application to the performance of art songs and arias.

## PERB 2109 - Diction: French

Credits: 1
Principles of pronunciation and enunciation for singing in French. Phonetic practice and practical application to the performance of art songs and arias.

## PERB 2113 - Hand Drumming and Ethnic Percussion I

Credits: 1
Development of fundamental hand drumming and other percussion skills through listening, analysis, and performance of African, Latin American, and Asian rhythms.

## PERB 2114 - Hand Drumming and Ethnic Percussion II

## Credits: 1

Further development of hand drumming and other percussion skills through listening, analysis and performance of non-Western rhythms. Prerequisite: PERB 2113 or consent of instructor.

## PERB 2117-Meadows Opera Workshop

## Credits: 1

Exploration of operatic and musical theatre styles, basic acting technique, dramatic analysis, storytelling skills, character development, monologue study, stagecraft skills, repertoire preparation and research, and scene study. Open to all undergraduates whose primary instrument is voice. Must be taken in sequence for two terms beginning with the fall term.

## PERB 2131 - Class Piano III

Credits: 1
Emphasis on sight reading, technique, harmonization, transposition, improvisation, and appropriate literature. Corequisites: MUTH 2129, MUTH 2229. Prerequisite: PERB 1132. Reserved for music majors (except keyboard majors) or minors.

## PERB 2132 - Class Piano IV

## Credits: 1

Emphasis on sight reading, technique, harmonization, transposition, improvisation, and appropriate literature. Corequisites: MUTH 2130, MUTH 2230. Prerequisite: PERB 2131. Reserved for music majors (except keyboard majors) or minors.

PERB 2203-Class Guitar

## Credits: 2

Continued development of technical skills and performance repertoire. Prerequisite: PERB 1203 or equivalent proficiencies.

## PERB 2205-Class Piano

## Credits: 2

Continued development of fundamental keyboard skills. Emphasis on sight reading, harmonization, transposition, improvisation, technique, and repertoire study. Prerequisite: PERB 1205 or equivalent. Audition for placement required. Not open to music majors.

## PERB 2206 - Class Voice

## Credits: 2

A course in singing techniques and interpretive skills, suitable for students with some singing experience but little formal training. Prerequisite: PERB 1206.

## PERB 2313 - World Rhythms: Ethnic Percussion and Cultural Immersion

## Credits: 3

Introduces rhythms and instruments of world music through total immersion in a specific world culture. Students learn hand drumming and ethnic percussion techniques and the cultural context of the music. (SMU Abroad)

## PERB 3205 - Intermediate Class Piano

## Credits: 2

Continued development of individual repertoire study in a variety of musical styles, with supporting work in sight reading, harmonization, pop chord symbols, technique, and improvisation. Prerequisite: PERB 2205 or equivalent. Audition for placement required. Not open to music majors.

## PERB 3306 - Class Voice Musical Theatre I

## Credits: 3

Introduces the dancer and actor to proper singing technique for musical theatre, with an emphasis on the repertoire of musical theatre. Prerequisites: Permission of instructor, musical theatre minor or major or minor in dance, music, or theatre. Students minoring in musical theatre have priority to enroll in the class.

## PERB 3307-Class Voice Musical Theatre II

Credits: 3
Advanced development of proper musical theatre singing technique for dancers and actors. Students also gain a broader knowledge of repertoire for the musical theatre. Prerequisite: PERB 3306 or instructor consent.

## PERB 5006 - Singers' Diction Review

## Credits: 0

A review course required of all students not passing an entrance assessment for proficiency in the pronunciation of Italian, French, and German.

## PERB 5011 - Directed Studies in Performance

## Credits: 0

Directed studies or approved internships in performance or pedagogy. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## PERB 5022 - Music Theatre Acting and Performance

## Credits: 0

Fundamentals of acting in musical theatre: script analysis, blocking, character development, and scene study. Introduces musical theatre movement and audition techniques. Culminates with a series of performed musical scenes. Prerequisite: By audition.

## PERB 5101 - Directed Studies in Voice

## Credits: 1

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## PERB 5107-Keyboard Skills for Conductors I

Credits: 1
Keyboard competencies for conductors, including basic technical patterns, harmonization, and relevant score reading. Review course for the M.S.M. and the M.M. in conducting keyboard proficiency requirement.

## PERB 5108 - Keyboard Skills for Conductors II

Credits: 1
Advanced keyboard competencies for conductors, including basic technical patterns, harmonization, and relevant score reading. Review course for the M.S.M. and the M.M. in conducting keyboard proficiency requirement.

## PERB 5111 - Directed Studies in Performance

## Credits: 1

Directed studies or approved internships in performance or pedagogy. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## PERB 5118 - Introduction to the Harpsichord

Credits: 1
(spring term of odd-numbered years) Presents a variety of topics related to the harpsichord and its music. Provides keyboard musicians, especially pianists, with knowledge and practical experience at the harpsichord to enable them to face future contacts with the instrument in a more informed, confident, and artistic manner.

## PERB 5122 - Music Theatre Acting and Performance

Credits: 1
Fundamentals of acting in musical theatre: script analysis, blocking, character development, and scene study. Introduces musical theatre movement and audition techniques. Culminates with a series of performed musical scenes. Prerequisite: By audition.

## PERB 5201 - Directed Studies in Voice

## Credits: 2

A close collaboration between a faculty member and an advanced student who conducts a rigorous project that goes beyond the experience available in current course offerings. Prerequisite: Approval of instructor.

## PERB 5208 - Advanced Acting for Voice Majors

## Credits: 2

Acting and performance tools, character development, monologue study, and repertoire preparation and research. Prerequisites: Concurrent enrollment in VOIC and consent of instructor.

## PERB 5211 - Directed Studies in Music Performance

## Credits: 2

Directed studies or approved internships in performance or pedagogy. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## PERB 5213 - Studies Continuo Playing

## Credits: 2

(fall term of even-numbered years) Designed for the harpsichord major, to fill the need for a well-developed skill in playing Baroque through bass accompaniments from an unrealized figured bass and/or from an unfigured bass with style performance suitable to the period.

## PERB 5215 - Introduction to Jazz Theory and Improvisation

## Credits: 2

Introduces jazz improvisation through applied theory. Students gain theoretical and practical experience in jazz improvisation using common jazz chord progressions and chord and scale relationships. Includes the study of jazz recordings to explore and understand the links among chords, scales, and melodies. May be repeated for credit. Prerequisite: Music major or minor, or instructor consent.

## PERB 5310 - Music Theatre Workshop

## Credits: 3

Preparation and performance of musical theatre as an American art form. Prerequisite: By audition.

## PERCUSSION

## PERC 3100 - Private Study: Percussion

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## PERC 3200 - Private Study: Percussion

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## PERFORMANCE ENSEMBLES

| Fulfill Large Ensemble Requirements | PERE 1013/1113, 1014/1114, 1018/1118, 1019/1119, 5016/5116 |
| :--- | :--- |
| Chamber Ensembles | PERE 5023/5123, 5030/5130, 5068/5168, 5069/5169, 5071/5171, <br> $5072 / 5172,5073 / 5173$ |
| Other Ensembles | PERE 1010/1110, 1011/1111, 1012/1112, 1015/1115, 1017/1117, 3020/3120, |
| $5077 / 5177,3150,4050 / 4150$ |  |

## PERE 5010 - Point: Interdisciplinary Project and Performance Ensemble

## Credits: 0

An interdisciplinary ensemble for inventive artists of all interests, exploring the future of personal expression through collaborative projects and performances. Innovative technologies are utilized and created. Open to all SMU students with instructor consent. May be repeated for credit.

## PERE 5011 - Mustang Strings: An SMU Campus Orchestra

## Credits: 0

Open to all students and community members. Does not meet the large ensemble requirement for music majors. Prerequisite: Audition or permission of instructor.

## PERE 5012 - Mustang Marching Band

## Credits: 0

Preparation and performance of music for field performances.

## PERE 5013-Meadows Chorale

Credits: 0
This mixed choir features the most advanced vocal talent in the university. Open to all undergraduate and graduate students,
regardless of major. An audition is required prior to placement in the ensemble. Auditions are held at the beginning of every term.

## PERE 5014 - Concert Choir

## Credits: 0

This large mixed ensemble performs a variety of choral repertoire and is open to all students through audition. An audition is required prior to placement in the ensemble. Auditions are held at the beginning of every term.

## PERE 5015-Meadows Jazz Orchestra

## Credits: 0

Rehearsal and performance of standard and original works for jazz ensembles. By audition.

## PERE 5016 - Diva Dolce

## Credits: 0

Select women's choral ensemble open to all students regardless of major. An audition is required prior to placement in the ensemble. Auditions are held at the beginning of every term.

## PERE 5017 - SMU Symphony Band

## Credits: 0

Open to all students and community members. Provides a concert band experience exploring band music ranging from transcriptions to original works. Does not meet the large ensemble requirement for music majors. Prerequisite: Audition or permission of instructor.

## PERE 5018 - Meadows Symphony Orchestra

Credits: 0
Open to all students through audition, although most participants are music majors. Includes public performances of a wide variety of orchestral repertoire each season.

## PERE 5019-Meadows Wind Ensemble

Credits: 0
Open to all students through audition, although most participants are music majors or minors. Includes performance of a wide variety of literature that encompasses the symphonic band and wind orchestra idioms.

## PERE 5021 - Meadows World Music Ensemble

Credits: 0
Exploration of rhythms, melodies, forms, and basic ethnic percussion techniques from Africa, Asia, Latin America, and a variety of cultures. Includes composition, improvisation, and performances within forms of ethnic traditions adapted to Western instruments. Prerequisite: Music major or consent of instructor.

## PERE 5022 - Meadows Opera Ensemble

Credits: 0
Musical preparation, dramatic coaching, role study, rehearsal, and performance of opera (one-act operas and opera excerpts) and
scenes from musical theatre. Eligibility, by audition, for the annual main stage production. Prerequisites: By audition. Requires two consecutive terms of PERB 2017 or PERB 2117, or consent of instructor.

## PERE 5023 - Directed Studies in Chamber Music

## Credits: 0

Preparation and performance of repertoire for various ensembles of three to nine mixed instruments, one to a part, without conductor. Reserved for projects that exceed the standard chamber music requirements.

## PERE 5025 - Jazz Combo Performance Workshop

## Credits: 0

Preparation and performance of jazz repertoire in small-group settings developing improvisation and fake book reading skills and gig protocol. Does not fulfill ensemble requirements for music majors. Prerequisite: Audition or consent of instructor.

## PERE 5030 - Meadows Guitar Ensemble

## Credits: 0

Preparation and performance of guitar ensemble literature. Prerequisite: Guitar major or consent of instructor.

## PERE 5068 - Chamber Ensemble: Piano Duos

## Credits: 0

Preparation and performance of piano duets for one piano, four hands and two pianos, four hands. Does not fulfill chamber music requirements for music majors.

## PERE 5069 - Chamber Ensemble: Sonatas

## Credits: 0

Preparation and performance of repertoire for one instrument and piano. With adviser approval, one term may be counted toward chamber music requirements for undergraduate piano majors. Does not fulfill chamber music requirements for graduate students.

## PERE 5071 - Chamber Ensemble

## Credits: 0

Preparation and performance of repertoire for various ensembles of three to nine mixed instruments, one to a part, without conductor.

## PERE 5072 - Additional Chamber Ensemble

## Credits: 0

Preparation and performance of repertoire for various ensembles of three to nine mixed instruments, one to a part, without conductor. Requires simultaneous participation in at least one additional chamber ensemble.

## PERE 5073 - Meadows Percussion Ensemble

Credits: 0
Rehearsal and performance of standard percussion ensemble literature. By audition.

## PERE 5077 - Syzygy Contemporary Chamber Ensemble

## Credits: 0

Preparation and performance of the music of living and local composers as well as seminal works of the 20th century for various mixed ensembles, typically without conductor. Fulfills one term of chamber music requirement. Prerequisite: Audition or consent of instructor.

## PERE 5110 - Point: Interdisciplinary Project and Performance Ensemble

## Credits: 1

An interdisciplinary ensemble for inventive artists of all interests, exploring the future of personal expression through collaborative projects and performances. Innovative technologies are utilized and created. Open to all SMU students with instructor consent. May be repeated for credit.

## PERE 5111 - Mustang Strings: An SMU Campus Orchestra

## Credits: 1

Open to all students and community members. Does not meet the large ensemble requirement for music majors. Prerequisite: Audition or permission of instructor.

## PERE 5112 - Mustang Marching Band

## Credits: 1

Preparation and performance of music for field performances.

## PERE 5113 - Meadows Chorale

## Credits: 1

This mixed choir features the most advanced vocal talent in the university. Open to all undergraduate and graduate students, regardless of major. An audition is required prior to placement in the ensemble. Auditions are held at the beginning of every term.

## PERE 5114 - Concert Choir

## Credits: 1

This large, mixed ensemble performs a variety of choral repertoire. Open to all students through audition. Auditions are held at the beginning of every term.

## PERE 5115 - Meadows Jazz Orchestra

Credits: 1
Rehearsal and performance of standard and original works for jazz ensembles. By audition.

## PERE 5116 - Diva Dolce

Credits: 1
Select women's choral ensemble open to all students regardless of major. An audition is required prior to placement in the ensemble. Auditions are held at the beginning of every term.

## PERE 5117 - SMU Symphony Band

## Credits: 1

Open to all students and community members. Provides a concert band experience exploring band music ranging from transcriptions to original works. Does not meet the large ensemble requirement for music majors. Prerequisite: Audition or permission of instructor.

## PERE 5118 - Meadows Symphony Orchestra

Credits: 1
Open to all students through audition, although most participants are music majors. Includes public performances of a wide variety of orchestral repertoire each season.

## PERE 5119 - Meadows Wind Ensemble

## Credits: 1

Open to all students through audition, although most participants are music majors or minors. Includes performance of a wide variety of literature that encompasses the symphonic band and wind orchestra idioms.

## PERE 5121 - Meadows World Music Ensemble

## Credits: 1

Exploration of rhythms, melodies, forms, and basic ethnic percussion techniques from Africa, Asia, Latin America, and a variety of cultures. Includes composition, improvisation, and performances within forms of ethnic traditions adapted to Western instruments. Prerequisite: Music major or consent of instructor.

## PERE 5122 - Meadows Opera Ensemble

## Credits: 1

Musical preparation, dramatic coaching, role study, rehearsal, and performance of opera (one-act operas and opera excerpts) and scenes from musical theatre. Eligibility, by audition, for the annual main stage production. Prerequisites: By audition. Requires two consecutive terms of PERB 2017 or PERB 2117, or consent of instructor.

## PERE 5123 - Directed Studies in Chamber Music

## Credits: 1

Preparation and performance of repertoire for various ensembles of three to nine mixed instruments, one to a part, without conductor. Reserved for projects that exceed the standard chamber music requirements.

## PERE 5125 - Jazz Combo Performance Workshop

## Credits: 1

Preparation and performance of jazz repertoire in small-group settings developing improvisation and fake book reading skills and gig protocol. Does not fulfill ensemble requirements for music majors. Prerequisite: Audition or consent of instructor.

## PERE 5130 - Meadows Guitar Ensemble

Credits: 1
Preparation and performance of guitar ensemble literature. Prerequisite: Guitar major or consent of instructor.

## PERE 5168 - Chamber Ensemble: Piano Duos

Credits: 1
Preparation and performance of piano duets for one piano, four hands and two pianos, four hands. Does not fulfill chamber music requirements for music majors.

## PERE 5169 - Chamber Ensemble: Sonatas

## Credits: 1

Preparation and performance of repertoire for one instrument and piano. With adviser approval, one term may be counted toward chamber music requirements for undergraduate piano majors. Does not fulfill chamber music requirements for graduate students.

## PERE 5171 - Chamber Ensemble

## Credits: 1

Preparation and performance of repertoire for various ensembles of three to nine mixed instruments, one to a part, without conductor.

## PERE 5172-Additional Chamber Ensemble

## Credits: 1

Preparation and performance of repertoire for various ensembles of three to nine mixed instruments, one to a part, without conductor. Requires simultaneous participation in at least one additional chamber ensemble.

## PERE 5173 - Meadows Percussion Ensemble

## Credits: 1

Rehearsal and performance of standard percussion ensemble literature. By audition.

## PERE 5177 - Syzygy Contemporary Music Ensemble

## Credits: 1

Preparation and performance of the music of living and local composers as well as seminal works of the 20th century for various mixed ensembles, typically without conductor. Fulfills one term of chamber music requirement. Prerequisite: Audition or consent of instructor.

## PIANO

## PIAN 3000 - Private Study: Piano

Credits: 0

## PIAN 3100 - Private Study: Piano

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## PIAN 3200 - Private Study: Piano

Credits: 2
One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## PIAN 5203 - Private Study: Piano

Credits: 2

## SAXOPHONE

## SAX 3100 - Private Study: Saxophone

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## SAX 3200 - Private Study: Saxophone

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## TROMBONE

## TROM 3100 - Private Study: Trombone

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## TROM 3200 - Private Study: Trombone

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## TRUMPET

## TRPT 3100 - Private Study: Trumpet

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## TRPT 3200 - Private Study: Trumpet

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## TUBA

## TUBA 3100-Private Study: Tuba

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## TUBA 3200-Private Study: Tuba

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## VIOLIN

## VIOL 3100 - Private Study: Violin

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## VIOL 3200 - Private Study: Violin

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course
numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

VIOL 5203 - Private Study: Violin

## Credits: 2

## VIOLA

## VLA 3100 - Private Study: Viola

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## VLA 3200 - Private Study: Viola

## Credits: 2

One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## VLA 5201 - Private Study: Viola

## Credits: 2

## VOICE AND VOCAL COACHING

## VOIC 3015 - Vocal Coaching

## Credits: 0

Vocal coaching (for voice majors only) course numbers are VOIC 3015, VOIC 3116, VOIC 4017, VOIC 4118. The instructor coaches the singer on diction and interpretation of art song and aria.

## VOIC 3100 - Private Study: Voice

## Credits: 1

One half-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall, spring, and summer. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## VOIC 3116 - Vocal Coaching

## Credits: 1

Vocal coaching (for voice majors only) course numbers are VOIC 3015, VOIC 3116, VOIC 4017, VOIC 4118. The instructor coaches the singer on diction and interpretation of art song and aria.

## VOIC 3200 - Private Study: Voice

Credits: 2
One 1-hour lesson each week ( 14 per term) with a jury examination at the conclusion of each term. These repeatable course numbers are offered each fall and spring. Majors are required to enroll in private studies each term until degree requirements are completed. Students are required to accept internships in performance or private teaching, subject to availability and/or scheduling conflicts with other SMU courses. Internships may begin prior to the beginning of the term.

## VOIC 4017 - Vocal Coaching

Credits: 0
Vocal coaching (for voice majors only) course numbers are VOIC 3015, VOIC 3116, VOIC 4017, VOIC 4118. The instructor coaches the singer on diction and interpretation of art song and aria.

## VOIC 4118 - Vocal Coaching

Credits: 1
Vocal coaching (for voice majors only) course numbers are VOIC 3015, VOIC 3116, VOIC 4017, VOIC 4118. The instructor coaches the singer on diction and interpretation of art song and aria.

## Theatre

Distinguished Professor Stanley Wojewodski, Jr., Division Chair<br>Professors: Rhonda Blair, Kevin Paul Hofeditz, Bill Lengfelder, Stanley Wojewodski, Jr., Steve Woods<br>Associate Professors: Michael Connolly, Jack Greenman, Russell Parkman, Sara Romersberger, Anne Schilling, Gretchen Smith, Claudia Stephens<br>Assistant Professors: Benard Cummings, Blake Hackler<br>Artist-in-Residence: Will Power<br>Lecturers: Brad Cassil, Marsha Grasselli<br>Adjunct Lecturers: Dawn Askew, Jason Biggs, Linda Blase, Steve Leary, J.D. Margetts, Kathy Windrow<br>Costume Shop Manager: Melissa Panzarello<br>Costumer: Eugenie Stallings<br>Prop Master: JT Ringer<br>Scene Shop Foreman: Eliseo Gutierrez<br>Master Electrician: Dawn Askew<br>Associate Master Electrician: Steven Piechocki<br>Technical Director: J.D. Margetts<br>Assistant Technical Director: Steve Leary

## General Information

Undergraduate education in the Division of Theatre reflects a commitment to the rigorous study of theatre within a liberal arts context. To this end, undergraduate theatre majors pursue coursework not only in theatre, but also in the social and natural sciences, literature, the arts and humanities, and other areas of human culture and experience. A faculty adviser works closely with each student to develop a program of study best suited to the individual's needs and career goals. In addition, the Division of Theatre presents an annual season of public productions chosen for their timeliness, public appeal and suitability for training. Practical experience in all areas of theatre operation is considered a vital part of the educational program.

## Instructional Facilities

The Division of Theatre is housed in the well-equipped facilities of the Meadows School of the Arts. These facilities include the Greer Garson Theatre (a 380 -seat theatre with a classical thrust stage), the Bob Hope Theatre (a 400-seat proscenium theatre), the Margo Jones Theatre (a 125-seat "black box" theatre), the Hamon Arts Library and numerous rehearsal studios.

## Admission

Theatre is a dual admit program: in addition to meeting University admission criteria, prospective theatre majors at SMU are admitted to the major by audition and interview. All prospective students prepare an audition, consisting of two contrasting monologues and a song. Candidates may also be asked to demonstrate improvisational skills. Students seeking admission into the B.F.A. in Theatre Studies program may also be asked to demonstrate ability in their particular area of interest by supplying writing samples, portfolio materials, etc. Admission to the major requires both admission to SMU and admission through the theatre audition process. Note: Admission procedures for applicants seeking to transfer from other schools are the same as those for first-year applicants. Transfer students may begin work only in the fall term.

## Evaluation of Progress and Artistic Growth

Students must continually demonstrate a high order of talent and commitment in both class work and production work to progress in the curriculum. At the end of each term, the faculty of the Division of Theatre evaluates each student's progress, examining all aspects of a student's academic and production participation. Every student meets with the faculty to receive this evaluation. An unsatisfactory evaluation is accompanied by the reasons for this evaluation and the terms for continuation in the program. An unsatisfactory evaluation may also result in a student's immediate dismissal from the program. Only Theatre courses passed with a grade of C- or better will count toward the major in Theatre.

## Degrees and Programs of Study

The Division of Theatre offers the B.F.A. degree in theatre with a specialization in theatre studies or a specialization in acting.

## Theatre, B.F.A., Acting Specialization

The B.F.A. degree in theatre with a specialization in acting is a unique program of specialized acting study within a liberal arts context. Enriched by the intellectual growth engendered by both their liberal arts and theatre courses, acting students engage in an intense investigation of acting at the highest level. The purpose of the program is twofold: to prepare students for 1) entrance into the profession, and/or 2) admission to a top-flight, graduate training program. Upon completion of two years of foundational actor training, students in the acting major receive advanced training in the areas of acting, stage movement and stage voice.

## Requirements for the Specialization

## University-wide Requirements (Varies)

Dramatic Arts (6 Credit Hours)

- THEA 1303 - Dramatic Arts Today
- THEA 1304 - Dramatic Arts Today


## Practica/Crews (9 Credit Hours)

- THEA 2140 - Light Running/Construction Crew
- THEA 2240 - Lighting Practicum
- THEA 2141 - Scene Running/Construction Crew
- THEA 2241 - Scenery Practicum
- THEA 2142 - Costume Running/Construction Crew
- THEA 2242 - Costume Practicum


## Acting (18 Credit Hours)

- THEA 2303 - Acting 1
- THEA 2304 - Acting 2
- THEA 3303 - Acting 3
- THEA 3304 - Acting 4
- THEA 4303 - Acting 5
- THEA 4304 - Acting 6


## Voice (14 Credit Hours)

- THEA 2305 - Voice for the Stage 1
- THEA 2306 - Voice for the Stage 2
- THEA 3305 - Voice for the Stage 3
- THEA 3306 - Voice for the Stage 4
- THEA 4105 - Voice for the Stage 5
- THEA 4106 - Voice for the Stage 6


## Movement (14 Credit Hours)

- THEA 2307 - Movement 1
- THEA 2308 - Movement 2
- THEA 3207 - Movement 3
- THEA 3208 - Movement 4
- THEA 4207 - Movement 5
- THEA 4208 - Movement 6


## Theatre and Drama History (6 Credit Hours)

- THEA 3381-Theatre and Drama History 1
- THEA 3382 - Theatre and Drama History 2


## Text Analysis, Stage Management and Business Aspects of Theatre (9 Credit Hours)

- THEA 2322 - Text Analysis
- THEA 2361 - Introduction to Stage Management
- THEA 4309 - Business and Professional Aspects of Theatre

Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Theatre, B.F.A., Theatre Studies Specialization

The B.F.A. degree in theatre with a specialization in theatre studies reflects a commitment to theatre training within the context of liberal education. Based on the division's philosophy that an understanding of and experience with the actor's process are essential to education and training in all areas of theatre, all undergraduate theatre majors focus on foundational actor training during the first two years of their program of study. Focused study in one area of theatre, chosen from directing, play-writing, stage management, critical studies and design, is required to complete the major. With the approval of the student's theatre adviser and the chair of the division, this emphasis may be individualized to suit the specific goals of the student. All theatre studies students must complete at least 12 hours of upper-level courses among those offered in directing, playwriting, stage management, critical studies or design.

## Requirements for the Specialization

## University-wide Requirements (Varies)

## Dramatic Arts (6 Credit Hours)

- THEA 1303 - Dramatic Arts Today
- THEA 1304 - Dramatic Arts Today


## Practica/Crews (9 Credit Hours)

- THEA 2140 - Light Running/Construction Crew
- THEA 2240 - Lighting Practicum
- THEA 2141 - Scene Running/Construction Crew
- THEA 2241 - Scenery Practicum
- THEA 2142 - Costume Running/Construction Crew
- THEA 2242 - Costume Practicum


## Acting (6 Credit Hours)

- THEA 2303 - Acting 1
- THEA 2304 - Acting 2


## Voice (6 Credit Hours)

- THEA 2305 - Voice for the Stage 1
- THEA 2306 - Voice for the Stage 2

Movement (6 Credit Hours)

- THEA 2307 - Movement 1
- THEA 2308 - Movement 2


## Theatre and Drama History (6 Credit Hours)

- THEA 3381-Theatre and Drama History 1
- THEA 3382 - Theatre and Drama History 2


## Text Analysis, Stage Management (6 Credit Hours)

- THEA 2322-Text Analysis
- THEA 2361 - Introduction to Stage Management


## Emphasis Courses (12 Credit Hours)

Emphasis on directing, playwriting, stage management, design, or critical studies.

## Theatre Electives (17 Credit Hours)

## Community Experience (0-1 Credit Hours)

- MSA 1001 - Face: First-Year Arts Community Experience or
- MSA 1101 - Face: First-Year Arts Community Experience


## Free Electives

Hours vary as needed to meet University residency and degree requirements.

## Total: 122 Credit Hours

## Courses:

## THEA 1001 - Rehearsal and Performance Laboratory

Credits: 0
Embodied application in the processes of rehearsal and performance.

## THEA 1303 - Dramatic Arts Today

## Credits: 3

An introduction to theatre and performance for entering theatre majors. Considers basic artistic concepts, disciplines, and vocabulary common to this program, providing an elementary foundation in theatre with an emphasis on acting.

## THEA 1304 - Dramatic Arts Today

Credits: 3
An introduction to theatre and performance for entering theatre majors. Considers basic artistic concepts, disciplines, and vocabulary common to this program, providing an elementary foundation in theatre with an emphasis on acting.

## THEA 2000 - Rehearsal and Performance Laboratory

## Credits: 0

Embodied application in the processes of rehearsal and performance.

## THEA 2001 - Rehearsal and Performance Laboratory

Credits: 0
Embodied application in the processes of rehearsal and performance.

## THEA 2101 - Directed Study

## Credits: 1

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 2140 - Light Running/Construction Crew

## Credits: 1

Practical application of skills and knowledge studied in THEA 2240 to the mounting and running of a theatrical production; involves either serving on the running crew of a division production or completing 65 hours of work mounting a production. Theatre majors should complete this course by the end of the junior year. Division approval required for nonmajors. Must be taken concurrently with or subsequent to completion of THEA 2240.

## THEA 2141 - Scene Running/Construction Crew

## Credits: 1

Practical application of skills and knowledge studied in THEA 2241 to the mounting and running of a theatrical production; involves either serving on the running crew of a division production or completing 65 hours of work mounting a production. Theatre majors should complete this course by the end of the junior year. Division approval required for nonmajors. Must be taken concurrently with or subsequent to completion of THEA 2241.

## THEA 2142-Costume Running/Construction Crew

## Credits: 1

Practical application of skills and knowledge studied in THEA 2242 to the mounting and running of a theatrical production; involves either serving on the running crew of a division production or completing 65 hours of work mounting a production. Theatre majors should complete this course by the end of the junior year. Division approval required for nonmajors. Must be taken concurrently with or subsequent to completion of THEA 2242.

## THEA 2201 - Directed Study

## Credits: 2

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 2240 - Lighting Practicum

## Credits: 2

An introduction to the backstage crafts of theatrical lighting intended to give the student a broad understanding of the basic principles and technical procedures used in the design of lighting. Requires a 50 -hour lab. Division approval required for nonmajors.

## THEA 2241 - Scenery Practicum

## Credits: 2

An introduction to the backstage crafts of theatrical scenery intended to give the student a broad understanding of the basic principles and technical procedures used in the design of scenery. Requires a 50-hour lab. Division approval required for nonmajors.

## THEA 2242-Costume Practicum

## Credits: 2

An introduction to the backstage crafts of theatrical costume intended to give the student a broad understanding of the basic principles and technical procedures used in the design of costumes. Requires a 50-hour lab. Division approval required for nonmajors.

## THEA 2271 - Technical Theatre Laboratory

## Credits: 2

Various workshops structured to introduce a broad range of technical experience. May include properties design and construction, audio design for performing arts, advanced electrics, costume construction, and scenic construction for film and television.

## THEA 2272-Technical Theatre Laboratory

## Credits: 2

Various workshops structured to introduce a broad range of technical experience. May include properties design and construction, audio design for performing arts, advanced electrics, costume construction, and scenic construction for film and television.

## THEA 2273-Technical Theatre Laboratory

## Credits: 2

Various workshops structured to introduce a broad range of technical experience. May include properties design and construction, audio design for performing arts, advanced electrics, costume construction, and scenic construction for film and television.

## THEA 2274 - Technical Theatre Laboratory

## Credits: 2

Various workshops structured to introduce a broad range of technical experience. May include properties design and construction, audio design for performing arts, advanced electrics, costume construction, and scenic construction for film and television.

## THEA 2275-Technical Theatre Laboratory

Credits: 2
Various workshops structured to introduce a broad range of technical experience. May include properties design and construction, audio design for performing arts, advanced electrics, costume construction, and scenic construction for film and television.

## THEA 2276 - Technical Theatre Laboratory

## Credits: 2

Various workshops structured to introduce a broad range of technical experience. May include properties design and construction, audio design for performing arts, advanced electrics, costume construction, and scenic construction for film and television.

## THEA 2277 - Technical Theatre Laboratory

## Credits: 2

Various workshops structured to introduce a broad range of technical experience. May include properties design and construction, audio design for performing arts, advanced electrics, costume construction, and scenic construction for film and television.

## THEA 2278 - Technical Theatre Laboratory

## Credits: 2

Various workshops structured to introduce a broad range of technical experience. May include properties design and construction, audio design for performing arts, advanced electrics, costume construction, and scenic construction for film and television.

## THEA 2301 - Directed Study

## Credits: 3

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 2303-Acting 1

Credits: 3
Exploration of the actor's imagination and the nature of acting, embracing training concepts of ease, honesty, sense memory, and concentration.

## THEA 2304 - Acting 2

## Credits: 3

Beginning script work, in which the actor learns to analyze a scene for its events and to particularize these events in a series of expressive action tasks. Sophomore course. Prerequisite: THEA 2303.

## THEA 2305 - Voice for the Stage 1

## Credits: 3

Employing body awareness, modified yoga positions, and a variety of isolated physical actions, students deepen their experience of breath, impulse, and vibration. This process of freeing the vocal mechanism allows students to practice ease and efficiency of vocal release and to begin to make acting choices that are self-revealing. Addresses general patterns of self-editing and an initial expansion of the actor's range and flexibility in performance.

## THEA 2306 - Voice for the Stage 2

Credits: 3
Students continue to practice ease and efficiency of vocal release and deepen their ability to make acting choices that are selfrevealing. Vocal power, flexibility, and efficiency are enhanced and refined. Includes an introduction to phonetic information and execution of detailed speech actions.

## THEA 2307 - Movement 1

## Credits: 3

Teaches students to individuate internal energies of the body, to use these energies in movement and creation of precise statuary mime for the stage, and to begin to synthesize physical listening skills for ensemble acting. Skills taught include juggling, hatha yoga, corporal mime, illusionistic pantomime, t'ai chi ch'uan, and improvisation of mime pieces.

## THEA 2308 - Movement 2

Credits: 3
Increases students' physical listening skills and practices these in unarmed stage combat. Skills taught include t'ui shou, chi sao, foil fencing (left and right), French sabre, kung fu animals, and conventions of unarmed stage combat. Prerequisite: THEA 2307.

## THEA 2309 - Theatre Movement for Nonmajors

## Credits: 3

Students develop beginning skills as an acrobat, a stage fighter, an imaginative physical improviser, and a deviser of physical stories and storytelling. This hands-on course helps the student find a process that can be used to create character or to broach any movement or physical challenge presented by a role for the stage, in a public-speaking situation, or in any part of life. Designed for nonmajors.

## THEA 2311 - The Art of Acting

Credits: 3
Basic work in acting, voice, and movement for the nonmajor. Relaxation, concentration, imagination, and the actor's exploration and use of the social world.

## THEA 2319 - Fashion History and Culture

## Credits: 3

Explores how and why people tell others who they are by what they wear. Also, the role of clothing in and reflection of various historical cultures, including the relationship between fashion, art, architecture, and the decorative arts of selected time periods. For majors and nonmajors.

## THEA 2321 - Spectacle of Performance

Credits: 3
Students learn to deconstruct spectacle and to analyze its influence upon themselves and society. Offers the opportunity to go backstage to experience firsthand how effects are achieved. Students are required to attend performances in a wide range of live venues and discuss what they observe, enabling them to view performance on a critical level. For majors and nonmajors.

## THEA 2322-Text Analysis

## Credits: 3

Aids the first-year student in the skills necessary to read a play as an actor, a director, a playwright, a designer, and a student of drama; as such, it is an essential foundation step in the major. Explores key styles and genres of dramatic literature and important texts in the development of theatre. Includes lecture and discussion, and assignments include reading, written papers, and textbased exercises. Guest lecturers from the faculty will provide perspective on different areas of theatre production.

## THEA 2333-Technical Drawing for the Theatre

## Credits: 3

Principles and practice in the techniques of drafting traditional and nontraditional types of stage scenery. Students learn how to prepare and present construction and detail drawings for use in a scene, prop, or electric shop.

## THEA 2361 - Introduction to Stage Management

## Credits: 3

An exploration of the methods and techniques of theatrical stage management, including preproduction planning, scheduling, and conducting rehearsals and performances. Assignments are both theoretical and practical. Permission of instructor required for nonmajors and first-year students.

## THEA 2371 - Theatre Technology 1: Lighting Mechanics

## Credits: 3

Introduces basic principles of stage lighting design, including the mechanics and optics of lighting instruments, electrical theory and practices, control systems, basic design concepts, and color theory. Controllable qualities of light are investigated and demonstrated through the student's participation on a lighting crew for a production. Students are expected to provide appropriate materials as needed.

## THEA 2372 - Theatre Technology 2: Costume Construction Techniques

## Credits: 3

Introduces basic costume patterning and construction methods. Covers draping, drafting, flat-patterning, terminology, equipment usage, and the skills necessary to the entire costuming process. Students are expected to provide appropriate materials as needed.

## THEA 2373 - Theatre Technology 3: Stagecraft

## Credits: 3

Introduces the organization of the scene shop, tool maintenance and usage, construction techniques, technical drawing development, computer applications, rigging, and time and material budgeting. Includes class projects and work on Meadows stage productions. Students are expected to provide appropriate materials as needed.

## THEA 2374 - Theatre Technology 4: Introduction to Theatrical Sound

Credits: 3
Introduces the organization of the sound studio, maintenance and usage of equipment, recording techniques, and computer applications. Includes class projects and work on Meadows stage productions. Students are expected to provide appropriate materials as needed.

## THEA 3000 - Rehearsal and Performance Laboratory

Credits: 0
Embodied application in the processes of rehearsal and performance.

## THEA 3001 - Rehearsal and Performance Laboratory

## Credits: 0

Embodied application in the processes of rehearsal and performance.

## THEA 3201 - Theatre Practicum

Credits: 2
Independent work with theatre faculty on a specific topic chosen by the student.

## THEA 3207-Movement 3

## Credits: 2

Teaches extension of energy and physical listening skills. Skills taught include quarterstaff, rapier and dagger, court sword, and broad sword. Prerequisite: THEA 2308.

## THEA 3208-Movement 4

Credits: 2
Allows the student to process personal experience into the movement and sound of a character. Skills taught include clowning, Lecoq figures, and neutral mask. Prerequisite: THEA 3207.

## THEA 3301 - Directed Study

## Credits: 3

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 3302 - Directed Study

## Credits: 3

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 3303 - Acting 3

Credits: 3
A synthesis of first- and second-year work to the end of an individual system by which actors approach the presentation of characters through their ability to present themselves effectively. Prerequisite: THEA 2302.

## THEA 3304-Acting 4

## Credits: 3

Continuation and extension of THEA 3303, consisting of special projects in characterization studies. Prerequisite: THEA 3303.

## THEA 3305 - Voice for the Stage 3

## Credits: 3

Students refine their ability to execute detailed speech actions and identify specific phonetic changes using the International Phonetic Alphabet. Vocal power, flexibility, and malleability are enhanced. The application of voice and speech actions to heightened language and stakes in a scene is practiced and refined.

## THEA 3306 - Voice for the Stage 4

## Credits: 3

Vocal power, flexibility, and expressive capability are practiced in a variety of space configurations. Students refine their ability to execute detailed speech actions and identify specific phonetic changes using the phonetic alphabet. The application of voice and speech actions to accents and dialects is practiced and refined.

## THEA 3307-Topics in Theatre: Playwriting

## Credits: 3

Conducted in a workshop structure. Led by a distinguished guest artist, each student playwright develops and refines a short play. Student actors conduct a daily reading of each play, led by a director, and take part in discussion with the playwrights and director intended to assist the playwright in the development of his/her play. Culminates with a public reading of the studentwritten plays.

## THEA 3310 - Special Topics in Theatre

## Credits: 3

Focuses on specific topics pertinent to theatre performance. Subjects vary from term to term, and may include acting, voice, and movement.

## THEA 3311 - Acting for Singers and Dancers

## Credits: 3

Advanced work in acting, voice, and movement built upon the foundational performance and presentation skills required for singing and dancing. Focus is on scene study intended to reinforce the actor's development of a method of text analysis as an entry to a tactical approach (objective, obstacle, action) to acting and to facilitate the integration of text analysis and self-use as a process to create an emotionally honest, powerful, and effective moment of dramatic action on the stage. For dance majors and music vocal performance majors only. Prerequisite: Permission of instructor.

## THEA 3312 - Scene Study for Nonmajors

## Credits: 3

Facilitates each actor's exploration of his/her full range and complexity of imaginative, intellectual, emotional, and experiential life, as well as each actor's access to these elements of self as useful tools of creative expression. Reinforces the actor's development of a method of text analysis as an entry to a tactical approach (objective, obstacle, action) to acting. Also, the integration of text analysis and self-use as a process to create an emotionally honest, powerful, and effective moment of dramatic action on the stage. Prerequisite: THEA 2311 or instructor permission.

## THEA 3313 - Introduction to Design for the Theatre

## Credits: 3

An analytical study of stage design, including an introduction to the basic history, principles, and languages of stage design. Includes text analysis, elements and principles of design, and critical discussion of current theatre productions. For majors and nonmajors.

## THEA 3314 - Lighting Design: Theatre, Film, and Television

Credits: 3
Introduces the practice of lighting design. Students study techniques, complete projects, and make presentations in the discipline.

## THEA 3316 - Scene Design: Theatre, Film, and Television

## Credits: 3

Introduces the practice of scenic design. Students study techniques, complete projects, and make presentations in the discipline.

## THEA 3318 - Costume Design: Theatre, Film, and Television

## Credits: 3

Introduces the practice of costume design. Students study techniques, complete projects, and make presentations in the discipline.

## THEA 3319-History of Design: Fashion, Architecture, and Interiors

## Credits: 3

A historical survey of fashion, interior design, and architecture, and the ways they relate to designing costumes and scenery for theatre, film, and television.

## THEA 3321 - Topics in Design 1: Lighting

## Credits: 3

Presents approaches to lighting design and poses specific design problems for the student to solve, with attention given to color, composition, cueing, and production through presentations and discussions in class. Includes participation in productions as assistant designers and electricians. Students are expected to provide appropriate materials as needed.

## THEA 3322 - Topics in Design 2: Director-Designer Relationship

## Credits: 3

Covers design metaphors, ground plans, and terminology. Explores the relationship between a director and designer, and the elements of design as they relate to theatrical space. Students are expected to provide appropriate materials as needed.

## THEA 3323-Topics in Design 3: Costume

## Credits: 3

Students develop an understanding of the basic principles of costume design used to create statements about a play and its characters. Lectures and class discussions prepare students to confront specific problems in design projects. Students are expected to provide appropriate materials as needed.

## THEA 3324 - Topics in Design 4: Sound

## Credits: 3

Introduces the basic principles of theatrical sound design and the practices and skills required to develop a production's sound design and supportive technical documentation. Also, system layout, effects development, source researching, and organization. The combined hands-on presentations and class assignments allow students to develop a working knowledge of the sound designer's responsibilities and skills. Students are expected to provide appropriate materials as needed.

## THEA 3331 - Playwriting 1

Credits: 3
Creative exploration in the development of performance scripts with emphasis on structural vocabularies of story, plot, character development, and dramatic action.

## THEA 3332 - Playwriting 2

## Credits: 3

Intermediate techniques of playwriting with emphasis on developing individual style and voice; writing one-act plays.
Prerequisite: THEA 3331.

## THEA 3341 - Directing 1

## Credits: 3

Students research the relationship between a designer and director, and create and conceptualize various approaches to texts to gain a working vocabulary in the collaborative language among theatre artists. Culminates in a director and designer presentation or performance.

## THEA 3342 - Directing 2

## Credits: 3

Production styles and methodologies evidenced in the art of major modern directorial innovators. Directing projects required. Prerequisites: THEA 3341 and permission of instructor.

## THEA 3351-Textiles

Credits: 3
Explores various fabrics and materials used in costume construction, millinery, and crafts for theatre and film. Includes skills such as dyeing, distressing, fabric painting, and various methods of fabrication. The course attempts to complete training for the designer beyond the sketch.

## THEA 3357 - Designing with Computers, Stage Projection

## Credits: 3

An exploration of the tools for computer image creation (e.g., AutoCAD, MiniCAD, and Adobe Photoshop) and their application.

## THEA 3361 - Stage Management 1

Credits: 3
Fuller explanation of the methods and techniques of theatrical stage management. Prerequisite: THEA 2361.

## THEA 3362 - Stage Management 1

Credits: 3
Fuller explanation of the methods and techniques of theatrical stage management. Prerequisite: THEA 2361.

THEA 3371-Automated Lighting 2

Credits: 3
Students work with Vari-Lite, Robe, and Martin automated lighting fixtures while learning advanced programming skills.

## THEA 3373 - Draping I

Credits: 3
A study of pattern making that utilizes the three-dimensional approach of draping fabric on a dress form and the approach of drafting patterns by formula. Students learn to drape a basic bodice, skirt, and collars, to create a basic sleeve pattern by formula, and to manipulate these patterns to achieve a variety of shapes.

THEA 3374 - Draping II

Credits: 3
Exploration of period dress from a draping point of view.
THEA 3375 - Theatre Technology 5: Lighting Automation

Credits: 3
Advanced study in the field of automated lighting and control systems.

THEA 3376-Theatre Technology 6: Advanced Costume Construction Techniques

Credits: 3
A continuation in the study of costume construction.

## THEA 3377-Theatre Technology 7: Advanced Stagecraft

Credits: 3
A continuation of stagecraft that explores advanced construction techniques, rigging, metal work, and the use of automation in scenery.

THEA 3378-Theatre Technology 8: Advanced Techniques in Sound

Credits: 3
The use of sound to create an environment for a theatrical event will be explored. Students will complete a studio project and/or Meadows event.

## THEA 3379-Computer-Assisted Design I

Credits: 3
Students learn the fundamentals of computer-assisted design, using VectorWorks and Spotlight, in application for the theatre. Emphasizes 2-D work and includes 3-D work. Drafting, as such, is not taught. Prerequisite: Knowledge of mechanical drawing and its conventions.

## THEA 3380 - Computer-Assisted Design II

## Credits: 3

Uses VectorWorks as the primary drafting software, with a focus on modeling scenic and lighting designs, organization of the drawing layouts, rendering techniques, and lighting-specific CAD tools.

## THEA 3381 - Theatre and Drama History 1

## Credits: 3

Examines key moments in the history of Western theatre and drama. Focuses on selected dramatic texts and their social and cultural contexts, and to the dynamic interactions and changing relationships among performance, audience, and society as influenced by the advent of actors, playwrights, designers, and directors, and by changes in theatre architecture and the social definition of space.

## THEA 3382 - Theatre and Drama History 2

## Credits: 3

Examines key moments in the history of Western theatre and drama. Focuses on selected dramatic texts and their social and cultural contexts, and to the dynamic interactions and changing relationships among performance, audience, and society as influenced by the advent of actors, playwrights, designers, and directors, and by changes in theatre architecture and the social definition of space.

## THEA 4000 - Rehearsal and Performance Laboratory

Credits: 0
Embodied application in the processes of rehearsal and performance.

## THEA 4001 - Rehearsal and Performance Laboratory

## Credits: 0

Embodied application in the processes of rehearsal and performance.

## THEA 4101 - Directed Study

## Credits: 1

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 4105 - Voice for the Stage 5

## Credits: 1

A continuation of the voice curriculum to further enrich the actor's technique and address any outstanding issues in the work. The
vocal workout keeps the actor in tune with his/her instrument while preparing to enter the profession. Prerequisite: Permission of instructor.

## THEA 4106 - Voice for the Stage 6

## Credits: 1

A continuation of the voice curriculum, including the study of the International Phonetic Alphabet, dialect and accent work, and the addition of specific skills for a variety of media. Addresses cold-reading skills, studio time and use of microphones, and commercial work for radio and television spots. Prerequisite: Permission of instructor.

## THEA 4201 - Directed Study

## Credits: 2

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 4207- Movement 5

## Credits: 2

Explores historical movement and dance, including selected dances, movements, and manners during the 16th-20th centuries, focusing on the embodiment of the style of those periods. Emphasis is placed on the dress, movement, and manners of the Renaissance and Classic Baroque periods. Prerequisite: Permission of instructor.

## THEA 4208- Movement 6

## Credits: 2

Explores physical self-study through mask work, including neutral mask, the masks of the commedia dell'arte, the character mask, and the European clown. Also, finding a physical neutral, playing the stock masked commedia characters and their counterparts in plays by Shakespeare and Moliere, and finding one's own personal clown. Prerequisite: Permission of instructor.

## THEA 4301 - Directed Study

## Credits: 3

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 4303-Acting 5

## Credits: 3

An actor's approach to classic texts through scene study, monologues, and lecture and demonstration, with a focus on Shakespeare and his contemporaries.

## THEA 4304 - Acting 6

## Credits: 3

An actor's approach to classic texts through scene study, monologues, and lecture and demonstration, with a focus on Shakespeare and his contemporaries.

## THEA 4305-Voice for the Stage 5

## Credits: 3

Vocal power, flexibility, and transformation are practiced with a variety of textual demands. Actors work in character voice in scene work and presentations. Students refine their ability to execute detailed speech actions and identify specific phonetic changes using close phonetic transcription.

## THEA 4306 - Voice for the Stage 6

## Credits: 3

Vocal power, flexibility, and transformation are practiced with a variety of textual, character, and space demands. Students refine their ability to execute detailed speech actions and identify specific phonetic changes using close phonetic transcription. Students prepare a solo performance employing the skills they have learned in the entire sequence of training.

## THEA 4309-Business and Professional Aspects of Theatre

## Credits: 3

A preparation for graduating actors that includes compiling résumés, photographs, cold readings, monologues, and scene work with a variety of scripts for repertory or summer theatre casting.

## THEA 4321 - Advanced Scene Study

## Credits: 3

Designed for junior, senior and graduate theatre majors. Team taught by senior faculty. Includes intensive exploration of modern and contemporary dramatic literature. Reinforces the actor's development of a method of text analysis as an entry to a tactical approach to acting. Uses improvisational techniques and other exercises to facilitate each actor's exploration of his/her full range and complexity of imaginative, intellectual, emotional, and experiential life, as well as each actor's access to these elements of self as useful tools of creative expression. Also, the integration of text analysis and self-use as a process to create an emotionally honest, powerful, and effective moment of dramatic action on the stage.

## THEA 4331 - Playwriting 3

Credits: 3
Advanced work in the development of performance scripts for the stage with emphasis on full-length works. Prerequisite: THEA 3332.

## THEA 4332 - Playwriting IV

## Credits: 3

Advanced techniques of writing for the stage, including rehearsal and performance or produced theatrical event. Focuses on professional aspects of playwriting. Prerequisite: THEA 4331.

## THEA 4341 - Directing 3

## Credits: 3

Advanced project studies in stage direction with emphasis on the interplay between director and other artistic collaborators (playwrights and/or designers). Prerequisites: THEA 3342 and permission of instructor.

## THEA 4342 - Directing 4

## Credits: 3

Advanced techniques in the interpretation of established dramatic literature and/or creation of original work for the stage.
Emphasis on collaboration between director and playwright. This course is for the student seriously considering directing as a career. Time will be spent on exploring professional career choices for the young director. Prerequisites: THEA 4341 and permission of instructor.

## THEA 4357 - Designing with Computers: Stage Projection

Credits: 3
Working with the tools necessary to create projected scenery, students learn the fundamentals of creating projected images for the stage.

## THEA 4361 - Stage Management 2

## Credits: 3

Fuller explanation of the methods and techniques of theatrical stage management. Prerequisites: THEA 3361, THEA 3362.

## THEA 4362 - Stage Management 2

## Credits: 3

Fuller explanation of the methods and techniques of theatrical stage management. Prerequisites: THEA 3361, THEA 3362.

## THEA 4363 - Production Management

Credits: 3
Introduces the role of the production manager for live entertainment, including budgeting, scheduling, and business aspects.

## THEA 4376 - Lighting Automation I

## Credits: 3

Presents approaches to lighting design and poses specific design problems for the students to solve, with attention given to color composition, cueing, and production values. Focuses on Vari-Lite, Robe, and Martin experimentation.

## THEA 4381 - Studies in Theatre, Drama, and Performance

## Credits: 3

An examination of selected topics in theatre, drama, and performance. Texts, topics, and critical approaches vary.

## THEA 4382 - Studies in Theatre, Drama, and Performance

Credits: 3
An examination of selected topics in theatre, drama, and performance. Texts, topics, and critical approaches vary.

## THEA 4383 - Studies in Theatre, Drama, and Performance

## Credits: 3

An examination of selected topics in theatre, drama, and performance. Texts, topics, and critical approaches vary.

## THEA 4384 - Studies in Theatre, Drama, and Performance

## Credits: 3

An examination of selected topics in theatre, drama, and performance. Texts, topics, and critical approaches vary.

## THEA 4385 - Studies in Theatre, Drama, and Performance

## Credits: 3

A senior-level, interdisciplinary seminar that examines cultural production through the media of art, architecture, dramaturgy, festival, and theatre.

## THEA 4386-European Theatre, 1879-1953

## Credits: 3

A survey of major figures and movements in European theatre, beginning with the premiere of Ibsen's "A Doll's House" and culminating with the premiere of Beckett's "Waiting for Godot."

## THEA 4387-Art and Drama in Classical Athens

## Credits: 3

Intensive reading and discussion seminar focused on the relationships between the visual arts and dramatic performances as seen against the historical background of golden-age Athens during the fifth century B.C.

## THEA 4491 - Special Project 1

## Credits: 4

Provides meaningful and challenging hands-on leadership experience in the design or technical area, bringing together 3 years of the student's classwork, shop and studio experience, and growth.

## THEA 4492-Special Project 2

## Credits: 4

Provides meaningful and challenging hands-on leadership experience in the design or technical area, bringing together 3 years of the student's classwork, shop and studio experience, and growth.

## THEA 4493 - Summer Theatre Workshop 1

Credits: 4
Students may engage in summer theatre work and gain credit toward degree completion. Enrollment and class credit must be obtained from the chair of the Division of Theatre and the program head.

THEA 4494 - Summer Theatre Workshop 2

## Credits: 4

Students may engage in summer theatre work and gain credit toward degree completion. Enrollment and class credit must be obtained from the chair of the Division of Theatre and the program head.

## THEA 5000 - Rehearsal and Performance Laboratory

Credits: 0
Embodied application in the processes of rehearsal and performance.

## THEA 5001 - Design Laboratory I

Credits: 0
Exploration of techniques in advanced design.

## THEA 5002 - Design Laboratory II

Credits: 0
Continuing exploration of techniques in advanced design.

THEA 5003 - Design Laboratory III

Credits: 0
Continuing exploration of techniques in advanced design.

THEA 5004 - Design Laboratory IV

Credits: 0
Continuing exploration of techniques in advanced design.

## THEA 5005 - Rehearsal and Performance Laboratory

Credits: 0
Embodied application in the processes of rehearsal and performance.

## THEA 5101 - Directed Study

## Credits: 1

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 5103 - Projects I

Credits: 1
Performance/production workshops for first-year graduate acting students, directed by faculty.

## THEA 5104 - Projects II

Credits: 1
Performance/production workshops for first-year graduate acting students, directed by faculty.

THEA 5106-Singing for Actors

Credits: 1
Provides fundamental techniques for the embodiment and exploration of melody, rhythm, sustaining sound, shaping lyrics, etc.

## THEA 5201 - Directed Study

## Credits: 2

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 5204-Acting II

Credits: 2
Furthering the embodiment of a fundamental acting process through exercise, discussion, reading, improvisation, and scene study. Dramaturgical materials are drawn primarily from the works of Chekhov, Ibsen, and early modern American realism.

## THEA 5205-Movement I

## Credits: 2

Exploration of the actor's self through immersion in physical skills for the theatre, including t'ai chi ch'uan, corporal mime, improvisation, juggling, hatha yoga, unarmed stage combat, animal-style wu shu, and foil fencing.

## THEA 5206-Movement 2

## Credits: 2

Exploration of the actor's self through immersion in physical skills for the theatre, including t'ai chi ch'uan, corporal mime, improvisation, juggling, hatha yoga, unarmed stage combat, animal-style wu shu, and foil fencing.

## THEA 5207-Voice for the Stage I

## Credits: 2

Introduces basic principles of physical, vocal, and imaginative freedom through a series of progressive exercises and experiences. Encourages the removal of psychophysical barriers to sound production and develops the voice's sensitivity to impulse, power, flexibility, and range. Includes organic exploration of sounds of speech, using IPA pillows and sound and movement improvisations. Students develop self-scripted solo pieces, explore poetry and song, and apply voice work to modern dramatic texts.

## THEA 5208 - Voice for the Stage II

## Credits: 2

Introduces basic principles of physical, vocal, and imaginative freedom through a series of progressive exercises and experiences. Encourages the removal of psychophysical barriers to sound production and develops the voice's sensitivity to impulse, power, flexibility, and range. Includes organic exploration of sounds of speech, using IPA pillows and sound and movement improvisations. Students develop self-scripted solo pieces, explore poetry and song, and apply voice work to modern dramatic texts.

## THEA 5209-Applied Movement I

## Credits: 2

Bodywork as it pertains to economy of movement, alignment, proper use, kinesthetic awareness, strength, flexibility, and freeing the physical instrument. Includes acrobatics, the Lecoq 20 movements, neutral mask, the physicalization of text, improvisation, and ensemble projects employing the physical work investigated throughout the term.

## THEA 5210 - Applied Movement II

Credits: 2
Continuation of bodywork as it pertains to economy of movement, alignment, proper use, kinesthetic awareness, strength, flexibility, and freeing the physical instrument. Includes acrobatics, the Lecoq 20 movements, neutral mask, the physicalization of text, improvisation, and ensemble projects employing the physical work investigated throughout the term.

## THEA 5215-Text Analysis For Actors I

## Credits: 2

Fundamentals of decoding play texts, from reading and comprehension to personalized embodiment, in order to facilitate and render efficiently imaginative the move of the actor. Dramaturgical focus falls on realism texts from the 19th and 20th centuries.

## THEA 5216-Text Analysis For Actors II

## Credits: 2

Decoding and embodying the texts of Shakespeare.

## THEA 5221 - Scene Design I

## Credits: 2

An introductory course for designers focusing on the communication skills (visual and verbal) necessary for collaborating with the director and the other artists in the theatre. Includes a design seminar that explores the text relative to its literary, musical, social, and historical influences.

## THEA 5222 - Scene Design II

## Credits: 2

An introductory course for designers focusing on the communication skills (visual and verbal) necessary for collaborating with the director and the other artists in the theatre. Includes a design seminar that explores the text relative to its literary, musical, social, and historical influences.

## THEA 5223-Costume Design I

## Credits: 2

An introductory course for designers with emphasis on the application of design principles and the use of research materials.

## THEA 5224 - Costume Design II

## Credits: 2

An introductory course for designers with emphasis on the application of design principles and the use of research materials.

## THEA 5225 - Lighting Design I

## Credits: 2

The fundamentals of learning how to see, exploring the mind's eye, and painting with light. Includes translating theatrical moments and music into lighting sketches, storyboards, and atmospheres, and developing points of view and approaches. Also, the fundamentals of the tools of the lighting designer and assistant skills and techniques.

## THEA 5226-Lighting Design II

## Credits: 2

The fundamentals of learning how to see, exploring the mind's eye, and painting with light. Includes translating theatrical moments and music into lighting sketches, storyboards, and atmospheres, and developing points of view and approaches. Also, the fundamentals of the tools of the lighting designer and assistant skills and techniques.

## THEA 5241-Collaboration: Directors and Designers

## Credits: 2

Team taught by directing and design faculty, this course emphasizes the building of a collaborative process among theatre artists. Students research historical collaborative relationships, create and conceptualize approaches to various texts, and familiarize themselves with the approaches of artists currently working in the theatre.

## THEA 5258 - Photoshop

## Credits: 2

A continuation of the exploration of tools for computer image creation (e.g., AutoCAD, MiniCAD, and Adobe Photoshop) and their applications.

## THEA 5259 - Advanced Design Skills

## Credits: 2

Students learn advanced skills in theatrical design practice, including hand drafting, theatrical model-making, set sketching, and digital tablet drawing. Also, fashion illustration and an introduction to textiles.

## THEA 5301 - Directed Study

## Credits: 3

Directed study courses are not required and are taken only as needed; form and content are not predetermined. The student and the adviser decide what kind of activity or learning experience should occur. Before the end of the add-drop period, the student must arrange the course content and grading basis with the supervising faculty. Numbers are assigned to the student's year status rather than by the subject matter.

## THEA 5303 - Acting I

## Credits: 3

Focuses on defining a fundamental acting process, identifying behavioral blocks, channeling impulses into uncluttered and organic psychophysical connections, and using the text as a blueprint for action. Combines a mix of exercise, improvisation, and scene study with materials drawn from modern American realism and the early modernist plays of Ibsen, Strindberg, and Chekhov.

## THEA 5304 - Acting II

## Credits: 3

Focuses on defining a fundamental acting process, identifying behavioral blocks, channeling impulses into uncluttered and organic psychophysical connections, and using the text as a blueprint for action. Combines a mix of exercise, improvisation, and scene study with materials drawn from modern American realism and the early modernist plays of Ibsen, Strindberg, and Chekhov.

## THEA 5319 - History of Design

Credits: 3
How and why do elements of design describe a culture? Students study design elements and their role in various historical cultures, including the relationships among fashion, art, architecture, and the decorative arts of selected time periods. For majors and nonmajors.

## THEA 5321 - Topics in Design I: Lighting

## Credits: 3

Presents approaches to lighting design and poses specific design problems for the students to solve, with attention given to color composition, cueing, and production values. Focuses on Vari-Lite, Robe, and Martin experimentation.

## THEA 5341 - The Art of Storytelling in Everyday Life

## Credits: 3

Guides students towards a deeper understanding of ancient principles of narrative, while equipping them to identify and explore the stories that exist in their own lives. Developes personal, historical, contemporary, as well as biblical tales, and examines the creative nexus of the theology and mythology they all have in common. Students analyze stories from literature as well as the oral traditions, and discuss tales that exist in both the secular and the sacred realms. Moves students towards mastery of the foundational techniques of Story, and enables them to apply this knowledge in their chosen professions.

## THEA 5351 - Scene Design III

Credits: 3
A continuation of the study of scene design incorporating individual class projects with the intensive study of style and genre.

## THEA 5352 - Scene Design IV

## Credits: 3

A continuation of the study of scene design incorporating individual class projects with the intensive study of style and genre.

## THEA 5353 - Costume Design III

## Credits: 3

An intermediate course with emphasis on play analysis, character relationships, and techniques of presentation.

## THEA 5354 - Costume Design IV

## Credits: 3

An intermediate course with emphasis on play analysis, character relationships, and techniques of presentation.

## THEA 5355 - Lighting Design III

Credits: 3
Continued study in the art of lighting design. Explores advanced atmosphere creation, professional techniques, and specialized approaches. Professional assistantships are assigned to selected students.

## THEA 5356 - Lighting Design IV

Credits: 3
Continued study in the art of lighting design. Advanced atmosphere creation, professional techniques, and specialized approaches are explored. Professional assistantships are assigned to select students.

## THEA 5357 - Designing with Computers: Stage Photography

## Credits: 3

An exploration of the tools for computer image creation (e.g., AutoCAD, MiniCAD, and Adobe Photoshop) and their applications.

## THEA 5371 - Automated Lighting 2

## Credits: 3

Students work with Vari-Lite, Robe, and Martin automated lighting fixtures while learning advanced programming skills.

## THEA 5373 - Draping I

## Credits: 3

A study of pattern making that utilizes the three-dimensional approach of draping fabric on a dress form and the approach of drafting patterns by formula. Students learn to drape a basic bodice, skirt, and collars, to create a basic sleeve pattern by formula, and to manipulate these patterns to achieve a variety of shapes.

## THEA 5374 - Draping II

Credits: 3
Exploration of period dress from a draping point of view.

THEA 5375-Theatre Technology 5: Lighting Automation

Credits: 3
Advanced studies in the field of automated lighting and control systems. Students will explore top brands of intelligent lighting equipment, learning to program and provide simple repair and upkeep of equipment.

## THEA 5379-Computer-Assisted Design I

Credits: 3
Students learn the fundamentals of computer-assisted design, using VectorWorks and Spotlight, in application for the theatre. Emphasizes 2-D work and includes 3-D work. Prerequisite: Knowledge of mechanical drawing and its conventions.

## THEA 5380 - Computer-Assisted Design II

Credits: 3
Uses VectorWorks as the primary drafting software, with a focus on modeling scenic and lighting designs, organization of the drawing layouts, rendering techniques, and lighting-specific CAD tools.

## THEA 5382 - Automated Lighting 3: Busking

Credits: 3
Focuses on creating a library of techniques that will permit the lighting designer to Busk.

THEA 5398 - Production Research and Development I

Credits: 3
Script analysis, background research, and performance design for actors, designers, and directors.

THEA 5399 - Production Research and Development II

Credits: 3
Script analysis, background research, and performance design for actors, designers, and directors.

# Simmons School of Education and Human Development 

## General Information


#### Abstract

The Annette Caldwell Simmons School of Education and Human Development comprises research institutes, undergraduate and graduate programs, and community enrichment and service centers that focus on areas of professional education, school leadership, dispute resolution, counseling, applied physiology and health management, sport management, sport performance leadership, personal responsibility and wellness, and liberal studies. The mission of the school is to integrate the theory, research and practice of education and human development; to promote academic rigor and interdisciplinary study; to prepare students for initial certification and professional practice; and to nurture collaboration across the academic community.


Undergraduate programs include a major and three minors in applied physiology and sport management and a major and a minor in educational studies. The school offers three doctoral degrees, nine master's degrees and a number of graduate professional-preparation programs. Its academic departments include Teaching and Learning, Applied Physiology and Wellness, Education Policy and Leadership, Dispute Resolution and Counseling, and Lifelong Learning.

The school is housed in Annette C. Simmons Hall and Harold C. Simmons Hall, which are two of several LEEDcertified buildings on campus. Key features include the Locomotor Performance Laboratory; an integrated physiology laboratory; an applied physiology laboratory equipped with a data acquisition system, an environmental research chamber, and teaching pods; a cerebrovascular research lab; a curriculum design lab; and a teaching assessment center.

In an annual awards ceremony, the Simmons School recognizes those students, faculty and staff members who are regarded as leaders among their peers. Awards are given to students who have excelled academically, demonstrated uncommon leadership or engaged in community service in unique and meaningful ways. The faculty and staff members who have distinguished themselves through their research activities, teaching or professional accomplishments are honored. Additionally, a select number of University alumni who have made significant contributions of their time and resources to the school during the year are recognized.

The Department of Teaching and Learning represents SMU's commitment to the professional development of educators through innovative, research-based under-graduate and graduate programs. The department's teaching and research practices are grounded in multiple perspectives that encompass behaviorist, cognitive, socialconstructivist and sociocultural approaches to scholarship. All Teaching and Learning programs prepare educators who are scholars and leaders in professionalism, experts in high-quality differentiated instruction, and able to translate research into practice. The department's undergraduate curriculum prepares students for initial teacher certification. Graduate programs focus on research, literacy and language acquisition, teaching and learning, special education, giftedness, Montessori, bilingual education, ESL, STEM, and mathematics. A variety of enrichment opportunities serve the continuing education needs of practicing educators. The school promotes high-quality research that combines quantitative and qualitative methodologies, generates new hypotheses, and influences pedagogical practices in early childhood (or "EC") through grade 12 schools.

The Department of Applied Physiology and Wellness offers undergraduate and graduate degrees. The undergraduate B.S. in applied physiology and sport management offers three concentrations within the APSM major: applied physiology and health management, sport management, and sport performance leadership. Graduate programs include an M.S. in sport management, an M.S. in health promotion management, and a Ph.D. in education with an emphasis in applied physiology. The department also offers the personal responsibility and wellness courses that are required of all undergraduate students as part of the University Curriculum and a selection of sports and fitness activity courses that are available as electives. The undergraduate and graduate programs have access to the department's four laboratories. The Applied Physiology Laboratory is a teaching laboratory developed with
experiential learning in mind and comprises three complete and functional exercise physiology laboratories (teaching pods), a biochemistry lab, in-ground force plates, and a temperature- and humidity-controlled environmental chamber. The Cerebrovascular Research Laboratory is focused on understanding the relationship between brain flow regulation and functional outcome in health and diseased/injured individuals. The Integrative Physiology Laboratory is dedicated to research that measures cardiovascular, neural and thermoregulatory function in human health and disease. The Locomotor Performance Laboratory specializes in terrestrial locomotion and in relating muscle function to metabolic energy expenditure and performance.

The Department of Education Policy and Leadership focuses on preparing educators for leadership roles in complex educational settings, including colleges and universities. Coursework and systematic applications of knowledge are designed to ensure that the education leaders of tomorrow are able to develop and support effective teachers and other education service providers; to select and implement effective curricula and instructional programs; and to identify, implement and sustain effective organizational practices that ensure high levels of student learning and achievement. In service to this mission, the department offers the following M.Ed. degrees: an M.Ed. in accelerated school leadership, an M.Ed. in educational leadership with a specialization in higher education and an M.Ed. in educational leadership with a specialization in urban school leadership. Two doctoral programs are also offered: an Ed.D. in higher education and an Ed.D. in pre-K through grade 12 educational leadership. The department is also dedicated to the preparation and continued education of education policy leaders; to the promotion of research, development and analysis; and to the translation of research into policy and practice at the local, state, national and international levels.

The Department of Dispute Resolution and Counseling offers an M.S. in counseling, an M.A. in dispute resolution and a graduate certificate in dispute resolution, all of which draw on social and behavioral science theories to teach the communication skills necessary for the resolution of personal and interpersonal conflicts. Additionally, the department operates four community resource centers: the SMU Mediation Center, the Center for Family Counseling, the Resource Center and the Frisco ISD Center.

The Department of Lifelong Learning offers the Doctor of Liberal Studies, the Master of Liberal Studies and a noncredit creative writing program, all of which broaden students' perspectives, insights and understandings of the world. At the heart of the two graduate liberal studies degrees is the belief that people can continue to grow intellectually, personally and professionally throughout their lives.

## Institutes, Centers and Research

## Center on Research and Evaluation

www.smu.edu/CORE

## Akihito Kamata, Executive Director

CORE's mission is to improve the well-being of children, adults and families through knowledge creation and dissemination and through evaluations of programs designed to enhance positive outcomes for individuals and communities. This interaction between knowledge creation and the work of organizations and individuals is essential for these organizations to improve lives and communities. CORE adheres to principles of science to understand how best to improve education and human development and believes the evidence exists to substantially increase the number of individuals who are equipped to make a positive contribution to society. The center supports Simmons' faculty in its research efforts and conducts third-party evaluations for clients such as nonprofits and schools, as well as internal SMU entities. CORE provides undergraduate and graduate students with real-world opportunities to participate in research and evaluation.

## Research in Mathematics Education

www.smu.edu/RME

## Leanne Ketterlin Geller, Director

RME conducts and disseminates high quality, evidence-based research to improve students' mathematics performance in Texas and across the country. Formed in 2011 under the direction of Dr. Leanne Ketterlin Geller, RME is committed to engaging in research and outreach that will make a significant and lasting difference at the student, classroom, school, district, state and national levels. RME's mission is to cultivate positive change by educating and empowering teachers and administrators through the provision of evidence-based practices and systems to support mathematics achievement through academic growth and development of all students. Key focal areas include

- Creating systems of formative assessment to inform teacher decision-making.
- Designing evidence-based interventions for students struggling in mathematics.
- Designing and delivering professional development to support teachers' and administrators' implementation of best practices.
- Offering a dynamic community where researchers and educators can collaborate and share ideas and resources.
RME's externally funded research and development budget has grown beyond $\$ 11$ million. Efforts by RME researchers have directly impacted nearly a million students across Texas and the nation. Through participation in research activities and conferences, engagement with professional development courses, dissemination of materials through the RME website, and collaborations with other organizations and publications, RME has reached thousands of educators since 2011.

RME's director actively collaborates with the Bush Institute's Middle School Matters Initiative and the Meadows Center for Preventing Educational Risk at the University of Texas in Austin and was named director of K-12 STEM initiatives for SMU's Caruth Institute for Engineering Education in 2014.

RME faculty members teach in the Simmons School's Department of Education Policy and Leadership as well as the Department of Teaching and Learning. Additionally, faculty members disseminate their research findings locally, nationally and globally.

## The Budd Center: Involving Communities in Education

www.smu.edu/CCE

## Regina Nippert, Executive Director

The mission of The Budd Center is to equip schools and nonprofits with tools and information so they can work together to meet the extraordinary social, emotional and educational needs of children living in poverty. The Budd Center uses the following strategies to accomplish its mission:

- Develops processes to drive collaboration between school systems, nonprofits and SMU.
- Trains teachers and nonprofits to use individualized student information to create curricula and targeted intervention plans.
- Connects SMU faculty and students to meaningful teaching and learning experiences.


## Center for Family Counseling

www.smu.edu/FamilyCounseling

The Center for Family Counseling offers a variety of counseling services to members of the community, including adults, adolescents, children, groups, couples, and families struggling with personal, social or career-related issues, while providing SMU graduate counseling students with meaningful training experience via supervised therapeutic interactions.

## SMU Mediation and Conflict Resolution Services

## www.smu.edu/MediationClinic

Mediation, arbitration, facilitation and conflict coaching services are available to parties involved in civil, family and community disputes. Alumni, current students of the Dispute Resolution Program who have completed at least 200 training hours, and other conflict resolution professionals serve as volunteer mediators and arbitrators.

## Writer's Path

www.smu.edu/CreativeWriting

## Suzanne Frank, Director

The Writer's Path is a creative writing program that guides individuals in the process of writing for fiction or nonfiction publication. Progressive noncredit courses take students from the development of writing ideas, through the preparation of a draft, to the revisions and then the polish. Qualified students are eligible to participate in a trip to New York where they meet professionals in the publishing industry.

## Institute for Leadership Impact

http://www.smu.edu/Simmons/CommunityEnrichment/LeadershipImpact

## Eric Bing, Executive Director

A growing demand for skilled leaders that create social impact and empower organizations and communities to grow, learn and prosper spurred the development of the Institute for Leadership Impact. The Institute provides educational opportunities that equip emerging and established leaders with the essential skills needed to be more effective in leading organizations and solving real-world problems. Institute offerings focus on training leaders in school districts, independent schools, hospitals, clinics and health-related organizations.

# Applied Physiology and Wellness 

www.smu.edu/apsm
Professor Lynn Romejko Jacobs, Department Chair
Professors: Lynn Romejko Jacobs, Peter Weyand
Associate Professor: Scott L. Davis
Assistant Professor: Sushmita Purkayastha
Clinical Associate Professor: Megan Murphy
Clinical Assistant Professors: Gashaw Abeza, David Bertrand, Derek Marr
Professors of Practice: Susan Holland, Michael Stone
Senior Lecturers: Caitlin Anderson, Brian Fennig, Donna Gober
Lecturers: Peter Carton, Piotr Chelstowski, Courtney Gedney, Ueline Newmon, Laura Robinson-Doyle, Kelyn Rola, Mark Rudich, Bradley Warren
Research Professor: Eric Bing

## General Information

The Department of Applied Physiology and Wellness offers undergraduate and graduate programs. The B.S. with a major in applied physiology and sport management offers three concentrations: applied physiology and health management, sport management, and sport performance leadership. The department also offers minors in applied physiology, applied physiology and health management, sport management, and sport performance leadership. Its graduate programs include an M.S. in sport management, an M.S. in health promotion management, and a Ph.D. in education, with an emphasis in applied physiology. The department also offers the personal responsibility and wellness courses that are required of all undergraduate students as part of the University Curriculum and a selection of sports and fitness activity courses. All UC students must take PRW1 and PRW2 in order to graduate from SMU.

## Admission Requirements and Application Process

To apply for admission, students first must meet minimum GPA criteria and complete prerequisite requirements before submitting the application for admission. Admission is competitive. Students who are not accepted may reapply for admission during another term. For consideration, students must

- Have a minimum 2.000 GPA overall.
- Complete a minimum of 30 credit hours (currently enrolled hours may be included).
- Complete the two subset courses required for the selected concentration with a minimum of $C$ - in each course.
- Acceptance for students in the applied physiology and health management and sport management concentrations is also contingent upon space availability in each concentration; for sport performance concentration, acceptance is based on only the criteria above.


## Concentration

Applied Physiology and Health Management

Sport Management

Subset
APSM 2441 and one of the following: APSM 2442, APSM 3332, APSM 3340, APSM 3343, or APSM 3351

APSM 2310 and one of the following: APSM 3322, APSM 3332, or APSM 3340

- Attend a required orientation meeting for prospective majors.
- Submit a completed general application form for the APSM major program.
- Declare an area of concentration.

Students approved for admission by the faculty are assigned an adviser; they may continue to take core courses and/or courses in their concentration of interest.

## Degree Requirements

The applicable requirements of the major are those in effect during the academic year in which the major is declared or those of a subsequent academic year. If an APSM major makes a grade below $C$ - in any APSM course, the student must retake the course; a grade below $C$ - will not apply toward the major. The Simmons School also requires a cumulative GPA of 2.000 on all courses attempted for completion of a major or minor. All courses attempted that could count toward the major or minor are included in determining the major or minor GPA. Majors must be officially declared (or changed) through the Office of the Dean.

Student Responsibility for Completion of Degree Plan. Students are required to schedule a degree-plan conference with an APSM adviser at the time of their acceptance into the major. Note: Each term, students are encouraged to attend an advising session with their assigned adviser. Detailed information concerning academic regulations and degree requirements is provided at that time. Students are individually responsible for knowing and complying with all regulations and requirements that may apply to the APSM program.

Honor Code Violations. An APSM major who commits an honor code violation while enrolled in any of the APSM courses could be expelled from the program and not allowed to continue and complete the major.

Application for a Degree. Students must submit to the Office of the Dean a formal application for graduation at the beginning of the term in which they will complete all degree requirements. Applications should be filed by the deadline date in the Official University Calendar.

Credits. A candidate for a Simmons School APSM degree must have

- A minimum of 122 credit hours, including University-wide requirements and requirements for the APSM major.
- A minimum of 42 advanced credit hours (300o level or above).
- A maximum of two credit hours of PRW courses.
- A maximum of six credit hours of internship for Sport Management and Applied Physiology \& Health Management students.
- A maximum of three credit hours of Experiential Learning Labs (SPL students only).

Grades. A candidate for a Simmons School APSM degree must have

- A minimum cumulative GPA of 2.000 on all work attempted through enrollment at SMU.
- A minimum cumulative GPA of 2.000 on all equivalent work attempted elsewhere, if any.
- A minimum grade of $C$ - on any APSM course taken in fulfillment of major or minor requirements.
- A minimum cumulative GPA of 2.000 on all work attempted for completion of major or minor requirements.
- No more than 12 hours with a grade of $P$ (Pass).

Minimum Credit Requirement. A candidate for a B.S. degree in APSM from the Simmons School must take the following hours as SMU credit; that is, the credit hours must be earned in SMU courses or SMU-approved international programs.

- A minimum of 60 credit hours.
- A minimum of 18 credit hours of advanced work in the major.

Multiple Concentrations. A student may pursue up to three concentrations within the APSM major in the Simmons School by completing all requirements for each concentration, along with the general requirements for a B.S. degree in APSM. However, these additional concentrations are not degrees. Students with multiple concentrations within the APSM major are awarded one baccalaureate degree from the Department of Applied Physiology and Wellness.

Additional Degrees. A student may also concurrently pursue a program of study leading to a degree from the Simmons School along with a degree (or degrees) from the Dedman College of Humanities and Sciences, Cox School of Business, Meadows School of the Arts, or Lyle School of Engineering. The student must obtain approval for the proposed program of study from the deans of the schools involved.

## Personal Responsibility and Wellness

www.smu.edu/wellness
The personal responsibility and wellness courses reflect the University's philosophy that a well-rounded education enhances the physical and mental well-being of the student. PRW courses help students to become more aware of the comprehensive nature of wellness; to understand the importance of personal life management; to respond positively to imbalances in their lifestyles; to become familiar with campus wellness facilities, equipment and services; to commit to a lifetime of physical activity and physical fitness; and to utilize opportunities the University provides and promotes in a variety of wellness areas. Each student must complete PRW1 and PRW2 as part of the University Curriculum. Additional information is found in the University-wide Requirements section of this catalog.

Concepts of Wellness: PRW1. PRW1 introduces students to the University and explores life transition topics such as stress management, personal financial planning and healthy decision-making. PRW1 is designed to be completed during the first year of SMU enrollment.

Physical Fitness: PRW2. Extensive research supports that regular physical activity is essential for health and vitality. Students take PRW2 to establish personal fitness goals and fitness plans for the term. A variety of individual and group fitness courses are available; in both cases, students work with instructors. Each course contains central core objectives and student-learning outcomes based on health-related fitness components. Topics and activities include the following: comprehensive physical fitness assessments, cardiorespiratory workshops, resistance exercise workshops, individual goals and individual or group training, post-training assessments, counseling, and a final exam under the auspices and leadership of a qualified instructor. Grades are based on attendance, understanding of training and health principles, and satisfactory improvements toward the goals that students set for themselves. The aim is to help each student achieve immediate fitness benefits and inculcate positive, lifelong fitness habits. Grading is on a letter (A, B, C) basis. PRW2 courses are offered in the fall and spring terms. All courses share a congruent syllabus with core student-learning outcomes and assessments, as well as outcomes specific to the modality through which the core objectives are met. All health-related fitness courses meet the criteria for the required PRW2 credit. Students may take up to four additional PRW2 courses beyond the required graded course for their own personal benefit during their college career. These additional PRW2 courses can only be taken after the student has completed the PRW2 required course. Additional courses are graded on a pass/fail basis only, do not count toward the minimum hours for the degree and must meet the criteria outlined in the Pass/Fail Option section of this catalog.

## Departmental Distinction and Honors

A student may be awarded departmental distinction and honors regardless of eligibility for graduation honors based on specific criteria established by the department. This award is conferred by the Department of Applied Physiology and Wellness at Honors Convocation every spring.

## Applied Physiology and Sport Management, B.S., Applied Physiology and Health Management Concentration

The APSM program provides a rigorous curriculum for understanding the biological basis of health and fitness and the business background required of professionals in the sport, health, coaching and fitness industries. The program leads to a B.S. degree with concentrations available in applied physiology and health management, sport management, and sport performance leadership. Concentrations require coursework in the physiological sciences and business.

The core curriculum introduces the discipline; establishes the scientific basis of health, fitness and human performance; introduces the business principles and skills necessary to establish and maintain a sport- or fitnessrelated business; and familiarizes students with the legal and ethical aspects of the fitness, health, coaching and sport industries. Woven throughout the program are experiential learning opportunities as well as science courses structured in accordance with evidence-based practices and augmented by reviews of current research. The program culminates in a research methodology course and an internship. Students are ultimately prepared for a variety of career paths, including commercial health and fitness facility management; corporate fitness and wellness programming; graduate programs in the allied health professions (i.e., physical therapy, nursing, physician assistant); coaching; health management; sports marketing; management of professional, collegiate or amateur sport organizations; representation of professional athletes; sport public relations; and sport facility and event management.

All students must complete 12-16 hours of core courses and 24-32 hours of concentration courses to obtain the B.S. degree in APSM. The core courses and concentrations are described below.

## Health Management Concentration

The applied physiology and health management concentration ensures that students are able to develop effective lifestyle prescriptions that include research-based training methods, to design and manage fitness and health facilities, and to serve in meaningful professions within the health management and allied health industries. The course offerings within this concentration focus on holistic fitness and health outcomes and are formulated and presented around the central theme of evidence-based practice. This strategy equips students with the analytic skills necessary to evaluate and properly incorporate research results into professional practice. The program provides students with the solid research foundation that is necessary for leaders, educators and practitioners to contribute to the prevention of chronic diseases that plague society and affect the health care system.

## Degree Requirements

## Core Courses (16 Credit Hours)

- APSM 3411 - Exercise Physiology with Laboratory
- APSM 3321 - Biomechanics
- APSM 3332 - Legal and Ethical Aspects of Applied Physiology and Sports Management
- APSM 3340-Applied Management Skills in Sports and Fitness
- APSM 5300-Senior Project


## Concentration Courses (20 Credit Hours)

- APSM 2441 - Human Anatomy and Physiology I with Laboratory
- APSM 2442 - Human Anatomy and Physiology II with Lab
- APSM 3343-Health Promotion Practice
- APSM 5351 - Fitness and Health Enterprise
- APSM 5610 - Applied Physiology and Enterprise Internship


## Elective Courses (12 Credit Hours)

## At least two from

- APSM 4312 - Advanced Exercise Physiology
- APSM 4349 - Health Care: From Policy to Practice
- APSM 3351 - Nutrition
- APSM 4307-Global and Public Health


## Remaining hours from

- ANTH 4343 - Biomedicine, Culture, and Power
- APSM 4360 - Strength and Conditioning Programs
- APSM 5261 - Research Practicum in Applied Physiology
- APSM 5370 - Exercise Program Design
- MKTG 3310 - Marketing Concepts
- PHIL 3376 - Bioethics
- DANC 3363 - Kinesiology for Dance

Total: 48 Credit Hours

## Applied Physiology and Sport Management, B.S., Sport Management Concentration

The APSM program provides a rigorous curriculum for understanding the biological basis of health and fitness and the business background required of professionals in the sport, health, coaching and fitness industries. The program leads to a B.S. degree with concentrations available in applied physiology and health management, sport management, and sport performance leadership. Concentrations require coursework in the physiological sciences and business.

The core curriculum introduces the discipline; establishes the scientific basis of health, fitness and human performance; introduces the business principles and skills necessary to establish and maintain a sport- or fitnessrelated business; and familiarizes students with the legal and ethical aspects of the fitness, health, coaching and sport industries. Woven throughout the program are experiential learning opportunities as well as science courses structured in accordance with evidence-based practices and augmented by reviews of current research. The program culminates in a research methodology course and an internship. Students are ultimately prepared for a variety of career paths, including commercial health and fitness facility management; corporate fitness and wellness
programming; graduate programs in the allied health professions (i.e., physical therapy, nursing, physician assistant); coaching; health management; sports marketing; management of professional, collegiate or amateur sport organizations; representation of professional athletes; sport public relations; and sport facility and event management.

All students must complete 12-16 hours of core courses and 24-32 hours of concentration courses to obtain the B.S. degree in APSM. The core courses and concentrations are described below.

## Sport Management Concentration

Due to the explosion of interest in sport as a business, curricula to prepare management professionals are growing in number and prevalence. Further, as the business of sport becomes more complex, the preparation of professionals has become increasingly sophisticated, relying heavily on successful business theories and principles. The academic discipline of sport management draws on significant research and practices from organization and information management systems, including budgeting, accounting, managing events, managing personnel and facilities, controlling, directing, evaluating, leading, writing, selling, working with media, developing publications, keeping game notes and statistics, interviewing, promoting, advertising and fundraising.

## Degree Requirements

## Core Courses (15 Credit Hours)

- APSM 3311 - Exercise Physiology
- APSM 3322 - Functional Biomechanics
- APSM 3332 - Legal and Ethical Aspects of Applied Physiology and Sports Management
- APSM 3340-Applied Management Skills in Sports and Fitness
- APSM 5300-Senior Project


## Concentration Courses ( 24 Credit Hours)

- APSM 2310 - Contemporary Issues in Sport Management
- APSM 3372 - Advanced Public Relations in Sport
- APSM 4345 - Sports Marketing
- APSM 4371 - Revenue in Sports
- APSM 4372 - Sport Facility and Event Management
- APSM 5371-Sport Management Practicum
- APSM 5672-Sport Management Internship

Total: 39 Credit Hours

## Applied Physiology and Sport Management, B.S., Sport Performance Leadership Concentration

The APSM program provides a rigorous curriculum for understanding the biological basis of health and fitness and the business background required of professionals in the sport, health, coaching and fitness industries. The program leads to a B.S. degree with concentrations available in applied physiology and health management, sport
management, and sport performance leadership. Concentrations require coursework in the physiological sciences and business.

The core curriculum introduces the discipline; establishes the scientific basis of health, fitness and human performance; introduces the business principles and skills necessary to establish and maintain a sport- or fitnessrelated business; and familiarizes students with the legal and ethical aspects of the fitness, health, coaching and sport industries. Woven throughout the program are experiential learning opportunities as well as science courses structured in accordance with evidence-based practices and augmented by reviews of current research. The program culminates in a research methodology course and an internship. Students are ultimately prepared for a variety of career paths, including commercial health and fitness facility management; corporate fitness and wellness programming; graduate programs in the allied health professions (i.e., physical therapy, nursing, physician assistant); coaching; health management; sports marketing; management of professional, collegiate or amateur sport organizations; representation of professional athletes; sport public relations; and sport facility and event management.

All students must complete 12-16 hours of core courses and 24-32 hours of concentration courses to obtain the B.S. degree in APSM. The core courses and concentrations are described below.

## Sport Performance Leadership Concentration

The concentration in sport performance leadership provides students with academic and experiential training pertinent to the leadership and instruction of sport. Graduates of the program are equipped with an evidence-based scientific foundation for their leadership and instructional aspirations. The program serves two objectives:

1. To enhance understanding of scientific evidence for human performance improvement in the context of sport.
2. To provide a philosophical and historical foundation for successful, safe and ethical athletic coaching. Several features distinguish the program from those at other institutions. Most programs include classes on teaching the fundamentals of sport. Fewer programs apply the psychological component of dealing with motivation, confidence, intensity, focus and emotional well-being. Rarely do programs address the communicative aspect of coaching. SMU's program in sport performance leadership addresses all three components, equipping students with a unique and dynamic skill set to offer the coaching marketplace. Students also complete three hours of experiential learning. This type of exposure to real-world coaching helps to assure superior preparation for graduates of the program.

## Degree Requirements

## Core Courses (12 Credit Hours)

- APSM 3311 - Exercise Physiology
- APSM 3322 - Functional Biomechanics
- APSM 3332 - Legal and Ethical Aspects of Applied Physiology and Sports Management
- APSM 5300-Senior Project


## Concentration Courses ( 27 Credit Hours)

- APSM 2340 - Coaching and Leadership for Performance
- APSM 3300-Anatomy for Movement
- APSM 3315-Communication in Sport
- APSM 3351-Nutrition
- APSM 4310 - Psychology of Sport
- APSM 4190 - Experiential Learning Lab (3 enrollments)
- APSM 4350 - Motor Learning
- APSM 5370 - Exercise Program Design
- APSM 4360 - Strength and Conditioning Programs
or
- APSM 4380-Technology and Sport


## Total: 39 Credit Hours

## Applied Physiology and Health Management Minor

A candidate for a degree may also complete the requirements of a minor, either in the Simmons School or in one of the other undergraduate schools of the University. Coursework intended to apply toward a minor may not be taken pass/fail. If an APSM minor earns a grade below C- in any APSM course, the student must retake the course. In addition, the Simmons School requires a cumulative GPA of 2.000 on all courses attempted for completion of a major or minor. All courses attempted that could count toward the major/minor are included in determining the major/minor GPA. Minors must be officially declared (or changed) through the Office of the Dean.

## Requirements for the Minor

- APSM 2441 - Human Anatomy and Physiology I with Laboratory
- APSM 2442 - Human Anatomy and Physiology II with Lab
- (PSYC 3360 and APSM 3332 recommended)


## Choice of two courses from:

- APSM 3311 - Exercise Physiology
- APSM 3322 - Functional Biomechanics
- APSM 3351 - Nutrition
- APSM 4360 - Strength and Conditioning Programs
- APSM 5370 - Exercise Program Design


## Choice of two courses from:

- APSM 3343 - Health Promotion Practice
- APSM 4307-Global and Public Health
- APSM 4349 - Health Care: From Policy to Practice
- APSM 5351 - Fitness and Health Enterprise


## Total: 20 Credit Hours

## Applied Physiology Minor

A candidate for a degree may also complete the requirements of a minor, either in the Simmons School or in one of the other undergraduate schools of the University. Coursework intended to apply toward a minor may not be taken pass/fail. If an APSM minor earns a grade below C- in any APSM course, the student must retake the course. In addition, the Simmons School requires a cumulative GPA of 2.000 on all courses attempted for completion of a major or minor. All courses attempted that could count toward the major/minor are included in determining the major/minor GPA. Minors must be officially declared (or changed) through the Office of the Dean.

## Requirements for the Minor

- APSM 2441 - Human Anatomy and Physiology I with Laboratory
- APSM 2442 - Human Anatomy and Physiology II with Lab
- APSM 3411 - Exercise Physiology with Laboratory
- APSM 3321 - Biomechanics
- APSM 3351 - Nutrition
- APSM 4312 - Advanced Exercise Physiology
- (APSM 4349 recommended)


## Total: 21 Credit Hours

## Sport Management Minor

A candidate for a degree may also complete the requirements of a minor, either in the Simmons School or in one of the other undergraduate schools of the University. Coursework intended to apply toward a minor may not be taken pass/fail. If an APSM minor earns a grade below C-in any APSM course, the student must retake the course. In addition, the Simmons School requires a cumulative GPA of 2.000 on all courses attempted for completion of a major or minor. All courses attempted that could count toward the major/minor are included in determining the major/minor GPA. Minors must be officially declared (or changed) through the Office of the Dean.

## Requirements for the Minor

## Core Courses (9 Credit Hours)

- APSM 2310 - Contemporary Issues in Sport Management
- APSM 3332 - Legal and Ethical Aspects of Applied Physiology and Sports Management
- APSM 3340-Applied Management Skills in Sports and Fitness


## Choice of three electives from the following: (9 Credit Hours)

- APSM 3372 - Advanced Public Relations in Sport
- APSM 4345 - Sports Marketing
- APSM 4371 - Revenue in Sports
- APSM 4372 - Sport Facility and Event Management


## Total: 18 Credit Hours

## Sport Performance Leadership Minor

A candidate for a degree may also complete the requirements of a minor, either in the Simmons School or in one of the other undergraduate schools of the University. Coursework intended to apply toward a minor may not be taken pass/fail. If an APSM minor earns a grade below C- in any APSM course, the student must retake the course. In addition, the Simmons School requires a cumulative GPA of 2.000 on all courses attempted for completion of a major or minor. All courses attempted that could count toward the major/minor are included in determining the major/minor GPA. Minors must be officially declared (or changed) through the Office of the Dean.

## Requirements for the Minor

## Core Courses (12 Credit Hours)

- APSM 2340 - Coaching and Leadership for Performance
- APSM 3300-Anatomy for Movement
- APSM 3311 - Exercise Physiology
- APSM 4310 - Psychology of Sport


## Choice of one elective: (3 Credit Hours)

- APSM 4360 - Strength and Conditioning Programs or
- APSM 5370 - Exercise Program Design
- (APSM 3315, APSM 3322, APSM 4350 recommended)


## Total: 15 Credit Hours

## Courses:

## APPLIED PHYSIOLOGY AND SPORT MANAGEMENT

## Elective Courses

These courses are elective courses offered to APSM

APSM 4159, 4259, 4359, 5160, 5260, 5261, 5360, 5361, 5362, $5363,5364,5461,5561,5661$ students with faculty approval.

## APSM 2310 - Contemporary Issues in Sport Management

## Credits: 3

Explores the functional areas of business, management principles, contemporary issues, and future considerations for organizations within the fitness and sports industries. Gateway course for sport management concentration majors; successful completion is mandatory to be invited into the program. Recommended corequisite: APSM 3322, 3332, OR 3340. Reserved for students with fewer than 90 credit hours.

## APSM 2340 - Coaching and Leadership for Performance

## Credits: 3

Examines what coaches do, the qualities of expert coaches, strategies for effective and cohesive programs, a sound coaching
philosophy, and the art and science of coaching. Serves as the gateway course to the major. Students must complete this course with a $\mathbf{C}$ - or better in order to qualify for the sport performance leadership major. Recommended Corequisite: APSM 3300, 3315, 3322, 3332, or 3351. Reserved for students with fewer than 90 credit hours.

## APSM 2441 - Human Anatomy and Physiology I with Laboratory

## Credits: 4

A systemic approach to the study of the human body, with a focus on the anatomical structure and function of the human neuromusculoskeletal systems. Gateway course for applied physiology and enterprise concentration majors; successful completion is mandatory for admission to the program. Lab fee: $\$ 30$. Prerequisite: Reserved for students who have fewer than 90 credit hours or have the instructor's approval.

## APSM 2442 - Human Anatomy and Physiology II with Lab

Credits: 4
Examines the gross anatomy and physiology of the endocrine, cardiovascular, respiratory, digestive, and urinary systems, and their relationship with human health and performance. Lab fee: \$30. Prerequisite: APSM 2441.

## APSM 3300 - Anatomy for Movement

Credits: 3
Explores the anatomy of bones and muscles and their role in normal muscle function and common gross motor movements. Cannot be taken by APSM majors in APHM concentration or by APHM or AP minors.

## APSM 3311 - Exercise Physiology

## Credits: 3

Uses an organ system approach to examine the body's responses and adaptations to exercise and movement. Prerequisites: APSM 2310 and APSM 3322 OR APSM 3300 and APSM 3322.

## APSM 3315-Communication in Sport

## Credits: 3

Facilitates the improvement of communication skills for coaches through the introduction of various communication styles and techniques and furthers an understanding of conflict resolution and negotiation.

## APSM 3321 - Biomechanics

## Credits: 3

Introduces the mechanical basis of function and dysfunction in human movement. Newtonian mechanics and musculoskeletal biology are integrated to provide the necessary foundation for clinical and performance-based professions. Course fee: $\$ 30$. Recommended: PHYS 1303, MATH 1304. Prerequisite: APSM 2441. APSM majors and minors only.

## APSM 3322 - Functional Biomechanics

## Credits: 3

Introduces the scientific basis of support and motion in humans and other vertebrate animals, drawing equally on musculoskeletal biology and Newtonian mechanics. Prerequisite: APSM 2310 or APSM 2340.

## APSM 3332 - Legal and Ethical Aspects of Applied Physiology and Sports Management

Credits: 3
Explores legal and ethical implications related to careers within the fitness and sport industries as well as ethical practices and legalities related to safety, risk management, personnel, and contracts. Prerequisite: APSM 2310, APSM 2340, or APSM 2441.

## APSM 3340 - Applied Management Skills in Sports and Fitness

## Credits: 3

An extensive study of organizational functions, methods of operation, and types of ownership. Also, the role of organizations in contemporary society as they relate to fitness and sport enterprises today. Prerequisite: APSM 2310 or APSM 2441.

## APSM 3343 - Health Promotion Practice

## Credits: 3

Focuses on understanding, influencing, and modifying health status and behaviors in populations. Explores the assessment, planning, execution, and evaluation of health promotion programming, as well as different applications and delivery methods of health promotion.

## APSM 3351-Nutrition

## Credits: 3

An examination of the role that nutrition plays in health and optimal function, including the impact of nutrition on obesity, heart disease, stroke, cancer, eating disorders, and specific populations.

## APSM 3372 - Advanced Public Relations in Sport

## Credits: 3

Examines the role of public relations specific to the industry of sport, focusing on the conceptual, strategic, and technical understanding of the operation and business of public relations in sport communication. Prerequisite: APSM 2310.

## APSM 3411 - Exercise Physiology with Laboratory

Credits: 4
Examines the physiological mechanisms underlying human movement. Topics include muscle physiology, respiration, cardiac function, circulation, energy metabolism, and their application to training. Students are expected to have a basic understanding of algebra, general chemistry, and anatomy and/or physiology prior to enrollment. Lab fee: \$30. Prerequisites: APSM 2441, APSM 2442.

## APSM 4159 - Independent Study in Applied Physiology and Sport Management

## Credits: 1

For APSM majors or minors seeking to increase their experiential presence and/or research capabilities. Enrollment is by faculty invitation only. Prerequisite: APSM 2310, APSM 2340, or APSM 2441. Minimum 60 credit hours

## APSM 4190 - Experiential Learning Lab

Credits: 1
Explores practical and theoretical aspects of the discipline with hands-on experience in the sport-coaching industry. Possible topics and/or activities include shadowing a coach, working on a community outreach project, and satisfying professional
certification requirements. A total of 3 credit hours from among APSM 4190, APSM 4290, and APSM 4390 are required for the sport performance leadership concentration. Prerequisites: Instructor approval and junior standing (minimum of 60+ hours).

## APSM 4259 - Independent Study in Applied Physiology and Sport Management

## Credits: 2

For APSM majors or minors seeking to increase their experiential presence and/or research capabilities. Enrollment is by faculty invitation only. Prerequisite: APSM 2310, APSM 2340, or APSM 2441. Minimum 60 credit hours.

## APSM 4290-Experiential Learning Lab

## Credits: 2

Explores practical and theoretical aspects of the discipline with hands-on experience in the sport-coaching industry. Possible topics and/or activities include shadowing a coach, working on a community outreach project, and satisfying professional certification requirements. A total of 3 credit hours from among APSM 4190, APSM 4290, and APSM 4390 are required for the sport performance leadership concentration. Prerequisites: Instructor approval and junior standing (minimum of 60+ hours).

## APSM 4307-Global and Public Health

## Credits: 3

Provides an overview of issues in international health, with a focus on contributions of anthropology and anthropologists to international public health issues. Prerequisites: 60 credit hours or more. Reserved for applied physiology and sport management majors in the applied physiology and health management concentration program.

## APSM 4310-Psychology of Sport

## Credits: 3

Explores various psychological theories and research related to sport and exercise behavior.

## APSM 4312 - Advanced Exercise Physiology

## Credits: 3

Addresses the hemodynamic principles, neural and local regulatory mechanisms, and molecular pathways associated with the physiologic adaptations to exercise training and pathological alterations associated with disease. Students gain laboratory experience and participate in discussions related to current research topics in the field of exercise. Course fee: $\$ 30$. Prerequisites: APSM 2441, APSM 2442, APSM 3411. Restricted to APSM majors and minors only.

## APSM 4345 - Sports Marketing

## Credits: 3

This course provides a strategic framework to understand market dynamics, trends, consumer behavior, products, delivery systems, and marketing and promotional strategies that shape and drive the sports marketing industry. Prerequisite: APSM 2310.

## APSM 4349 - Health Care: From Policy to Practice

## Credits: 3

Explores the development and transformation of health care policy; the environmental factors that influence the delivery of health care services; and the financial, economic, and operational issues related to health care. Prerequisite: APSM 2441.

## APSM 4350 - Motor Learning

Credits: 3
Focuses on the principles of learning as they relate to the acquisition and development of motor skills, motor performance, and motor learning throughout life. Also covers learning in the context of sports and performance-related skills acquisition.

## APSM 4359 - Independent Study in Applied Physiology and Sport Management

## Credits: 3

For APSM majors or minors seeking to increase their experiential presence and/or research capabilities. Enrollment is by faculty invitation only. Prerequisite: APSM 2310, APSM 2340, or APSM 2441. Minimum 60 credit hours.

## APSM 4360 - Strength and Conditioning Programs

## Credits: 3

Examines the essentials of strength training and conditioning that are key to completion of the Certified Strength and Conditioning Specialist certification and the Certified Personal Trainer certification. Prerequisite: APSM 3311.

## APSM 4371 - Revenue in Sports

## Credits: 3

This course covers sports industry revenue topics, including professional league and team revenue generation, franchise ownership and valuation, corporate sponsorship, sports media revenue, and industry selling practices. Prerequisite: APSM 2310.

## APSM 4372 - Sport Facility and Event Management

## Credits: 3

This course examines the principles of sport facility planning, design, and management. Topics include venue design, operations, revenue streams, budgeting, personnel, security, media relations, crisis control, and legal considerations. Prerequisite: APSM 2310.

## APSM 4380 - Technology and Sport

## Credits: 3

An overview of the role technology plays in modern coaching, specifically in student-athlete development, monitoring, and recruitment. Emphasizes organization of team and individual video analysis, tactics of competition, and administration of an athletic program. Also covers scouting opponents, determining playing time, and making annual training plans. Junior and senior standing only.

## APSM 4390 - Experiential Learning Lab

## Credits: 3

Explores practical and theoretical aspects of the discipline with hands-on experience in the sport-coaching industry. Possible topics and/or activities include shadowing a coach, working on a community outreach project, and satisfying professional certification requirements. A total of 3 credit hours from among APSM 4190, APSM 4290, and APSM 4390 are required for the sport performance leadership concentration. Prerequisites: Instructor approval and junior standing (minimum of 60+ hours).

## APSM 5160 - Teaching Practicum

## Credits: 1

Students assist the instructor in conducting a course in which they have previously excelled. Maximum of 3 credit hours allowed.

Prerequisites: Junior or senior standing, A- or better for any previous enrollment in this course, and instructor approval. APSM majors or minors only.

## APSM 5260-Teaching Practicum

## Credits: 2

Students assist the instructor in conducting a course in which they have previously excelled. Maximum of 3 credit hours allowed. Prerequisites: Junior or senior standing, A- or better for any previous enrollment in this course, and instructor approval. APSM majors or minors only.

## APSM 5261 - Research Practicum in Applied Physiology

## Credits: 2

Intended for students considering a career in laboratory-based biological research. Students conduct supervised research with an APSM research faculty member in his/her laboratory. Enrollment is by invitation from an APSM research faculty member in whose lab the research is conducted. Prerequisites: APSM 2441, APSM 2442, APSM 3311.

## APSM 5300-Senior Project

## Credits: 3

Teaches the process of formal inquiry to plan, execute, and report results regarding a scientific question of interest. Prerequisite: STAT 2301 or STAT 2331. Reserved for APSM majors. Senior standing only (at least 90 credit hours required).

## APSM 5351 - Fitness and Health Enterprise

## Credits: 3

Prepares students who aspire to careers in the health and fitness industries. Topics include the fundamentals of leadership and management. Requires visits to off-campus fitness and health-related facilities for which students must provide their own transportation. Prerequisites: APSM 2441 and junior-year standing.

## APSM 5360-Teaching Practicum

## Credits: 3

Students assist the instructor in conducting a course in which they have previously excelled. Maximum of 3 credit hours allowed. Prerequisites: Junior or senior standing, A- or better for any previous enrollment in this course, and instructor approval. APSM majors or minors only.

## APSM 5361 - Research Practicum in Applied Physiology

## Credits: 3

Intended for students considering a career in laboratory-based biological research. Students conduct supervised research with an APSM research faculty member in his/her laboratory. Enrollment is by invitation from an APSM research faculty member in whose lab the research is conducted. Prerequisites: APSM 2441, APSM 2442, APSM 3311.

## APSM 5362 - Directed Studies in Applied Physiology

## Credits: 3

This directed research course is necessary to be considered for departmental distinction. Students must have an APSM faculty sponsor and a written structured course plan to enroll. Prerequisites: Instructor invitation, APSM 5361, senior standing, 3.000 overall GPA, and 3.500 GPA within the major.

## APSM 5363 - Directed Studies in Sport Management

## Credits: 3

This directed research course is necessary to be considered for departmental distinction. Students must have an APSM faculty sponsor and a written structured course plan to enroll. Prerequisites: Instructor approval, APSM 4359, senior standing, 3.000 overall GPA, and 3.500 GPA within the major.

## APSM 5364 - Directed Studies in Applied Physiology and Enterprise

## Credits: 3

This directed research course is necessary to be considered for departmental distinction. Students must have an APSM faculty sponsor and a written structured course plan to enroll. Prerequisites: Instructor approval; APSM 4159, APSM 4259, or APSM 4359; senior standing; 3.000 overall GPA; and 3.500 GPA within the major.

## APSM 5370 - Exercise Program Design

## Credits: 3

Focuses on evidence-based exercise prescriptions that promote health and maximize performance in the elite and recreational athlete. Prerequisites: APSM 3300 and APSM 3311 OR APSM 2441 and APSM 3411. Senior standing only.

## APSM 5371 - Sport Management Practicum

## Credits: 3

Prepares students for a career in the sport industry, including sport management. Students assess and clarify their personal skills and competencies to better align with their career goals within the sport marketplace. (Students are required to provide their own transportation to and from their assigned off-campus sports-related events.) Prerequisite: Junior standing. Recommended: APSM 3372, APSM 4345, APSM 4371, APSM 4372.

## APSM 5461 - Research Practicum in Applied Physiology

## Credits: 4

Intended for students considering a career in laboratory-based biological research. Students conduct supervised research with an APSM research faculty member in his/her laboratory. Enrollment is by invitation from an APSM research faculty member in whose lab the research is conducted. Prerequisites: APSM 2441, APSM 2442, APSM 3311.

## APSM 5561 - Research Practicum in Applied Physiology

## Credits: 5

Intended for students considering a career in laboratory-based biological research. Students conduct supervised research with an APSM research faculty member in his/her laboratory. Enrollment is by invitation from an APSM research faculty member in whose lab the research is conducted. Prerequisites: APSM 2441, APSM 2442, APSM 3311.

## APSM 5610 - Applied Physiology and Enterprise Internship

## Credits: 6

Experiential learning at a local fitness or health organization as an intern for a total of 250 hours. (Students are required to provide their own transportation to and from their assigned off-campus fitness and/or health-related internship site.) Prerequisites: APSM 5351 and senior standing. Reserved for APSM majors.

## APSM 5661 - Research Practicum in Applied Physiology

## Credits: 6

Intended for students considering a career in laboratory-based biological research. Students conduct supervised research with an APSM research faculty member in his/her laboratory. Enrollment is by invitation from an APSM research faculty member in whose lab the research is conducted. Prerequisites: APSM 2441, APSM 2442, APSM 3311.

## APSM 5672-Sport Management Internship

## Credits: 6

Experiential learning at a local sports industry organization as an intern for a total of 250 hours. (Students are required to provide their own transportation to and from their assigned off-campus sports-related internship site.) Prerequisites: APSM 5371 and senior standing. Reserved for APSM majors.

## HUMAN DEVELOPMENT

The Simmons School offers a selection of HDEV courses that address learning and career development skills. These courses are largely available as electives.

## HDEV 1110 - Reading and Learning Strategies

## Credits: 1

A one-term graded course that counts as a University free elective. Designed to improve reading and learning efficiency, this course is directed to undergraduate students who want to acquire advanced reading and learning techniques.

## HDEV 1211 - Success Strategies

Credits: 2
Students learn study skills and other strategies for creating success in their academic, professional, and personal lives. Includes self-assessment and journal writing to identify academic strengths and challenges. Provides an opportunity to explore the campus resources to succeed at SMU.

## HDEV 1306-Developmental Mathematics

Credits: 3
This course refreshes and strengthens algebraic skills, especially those needed for success in precalculus. Only SMU students who are approved to take this course on the SMU campus may receive credit. This course is not eligible for transfer credit from other institutions.

## HDEV 1307-Essentials of College Writing

Credits: 3
This course emphasis is placed on reading comprehension, grammar, and punctuation mastery appropriate to university-level thinking. Only SMU students who are approved to take this course on the SMU campus may receive credit. This course is not eligible for transfer credit from other institutions.

## HDEV 1308-Psychology of Learning

Credits: 3
This course is a theoretical overview of how human learning occurs. Only SMU students who are approved to take this course on the SMU campus may receive credit. This course is not eligible for transfer credit from other institutions.

## HDEV 1401 - American Sign Language I

## Credits: 4

An introductory study of grammar and language, with an emphasis on developing question-and-answer skills. The student learns conversational strategies to help maintain a conversation.

## HDEV 1402 - American Sign Language II

## Credits: 4

Examines the development of receptive and expressive language skills. The student learns to express, negotiate, and interpret meaning in American Sign Language.

## HDEV 2101 - Practicum: Group Leadership

## Credits: 1

Unique leadership experience that gives students a laboratory for assessing learned concepts and skills about leadership. Includes discussions on empowerment, public speaking, ethics, and citizenship.

## HDEV 2102 - Practicum: Group Leadership

Credits: 1
A practicum either on campus or in the community for a minimum of 15 clock hours. Prerequisite: HDEV 2101/EDU 2101.

## HDEV 2170 - Volunteer Activity

## Credits: 1

Students explore the well-being that comes from serving others and develop the skills and knowledge necessary to increase their individual effectiveness as a volunteer. Covers placement, communication with project personnel, and problem-solving. Students perform a minimum of 30 hours of volunteer work in a community agency, reflect on issues raised by the volunteer experience, submit weekly journals, and complete a project evaluation at the end of the term. Satisfies the GEC Wellness II requirement, but does not satisfy the UC Personal Responsibility and Wellness II requirement.

## HDEV 2201 - Diversity: Fitting Into a World of Difference

Credits: 2
This course is a study of human diversity and identity development. Students learn about their own identities and about fitting into the communities of which they are a part. Topics include elements of oppression, cycle of socialization, identity development models, privilege, race, sex, gender, sexuality, ability, ethnicity, class, and faith.

## HDEV 2308 - Career Development Theory and Practice

## Credits: 3

A study of the history of theories and practice in career development. Topics include leaders in vocational education, legislative initiatives, social issues, and organizations involved in and impacting career development. Also, the study and application of career development and choice, and traditional and emerging career development theories, models, and strategies. Using these models and strategies, students develop abilities to work constructively to build individualized career plans. The format includes lecture, discussion, demonstration, and experiential components.

## HDEV 2310 - Leadership Dynamics: Theory, Practice, and Innovation

Credits: 3
An examination of the theories and skills necessary for the development of effective leadership.

## PERSONAL RESPONSIBILITY AND WELLNESS

## PRW 1101 - PRW1: Concepts of Wellness

## Credits: 1

PRW1 is required for graduation, and it should be taken in the first term upon entering SMU. The course introduces students to the University and explores three sets of issues: 1) the role of personal responsibility in coping with college and life's other transitional periods; 2) challenges and opportunities such as managing time and stress, benefiting from diversity and autonomy, dealing with pitfalls related to alcohol and drugs, and exploring resources and activities on campus; and 3) personal finance decisions while at SMU and later in life, including managing money, using credit cards, and making major purchases. Also, introduces the e portfolio that students use to record and reflect upon their activities. Grading is on a pass/fail basis. (Fall term restricted to first-year standing only.)

## PRW 2101 - PRW2: Physical Fitness: Bench Aerobics

## Credits: 1

Offers an intense aerobic workout using benches. Also, body contouring using dumb bells, body bars, and mats. Includes selected activities designed to target health-related fitness.

## PRW 2102 - PRW2: Physical Fitness: Jogging

Credits: 1
This class provides an excellent means for improving cardiovascular endurance by running. Introduces selected activities designed to target health-related fitness. Students are expected to increase their jogging ability and set personal running goals.

PRW 2103 - PRW2: Physical Fitness: Body Mechanics and Physical Preparation for Actors

Credits: 1
Students learn body mechanics in tandem with rigorous exercises designed to align and condition the body, build core strength, focus on flexibility through the body, and target health-related fitness. Restricted to theatre or pre-theatre majors.

## PRW 2105 - PRW2: Physical Fitness: Weight Training

Credits: 1
Accommodates all levels of weight training experience. Proper mechanics, safety, and principles of strength building with machines and free weights are presented and practiced. Includes selected activities designed to target health-related fitness.

## PRW 2106 - PRW2: Physical Fitness: Weight Training for Women

## Credits: 1

Accommodates all levels of weight training experience. Proper mechanics, safety, principles of strength building, and endurance training with machines and free weights are presented and practiced in a friendly setting. Includes selected activities designed to target health-related fitness.

## PRW 2110 - PRW2: Physical Fitness: Individual Fitness

## Credits: 1

Students develop a personal exercise program, and they test and evaluate their own strengths and weaknesses in terms of health and fitness. Accommodates all levels of fitness. Activities aim to improve cardiovascular endurance, muscular strength and endurance, and flexibility.

## PRW 2112 - PRW2: Physical Fitness: Walking

Credits: 1
Walks of 2-2.5 miles during class, and diet and nutrition information. Includes selected activities designed to target health-related fitness.

## PRW 2114 - PRW2: Physical Fitness: Beginning Triathlon

## Credits: 1

Students train for a sprint distance triathlon (swim, bike, run) during the term. Includes selected activities designed to target health-related fitness. The $\$ 60$ activity fee covers triathlon entry.

## PRW 2115 - PRW2: Physical Fitness: Intermediate Triathlon

## Credits: 1

Prepares the student to complete an Olympic triathlon ( 1.5 km swim, 40 km bike ride, and 10 km run ). Covers bicycle care, training progressions, and race strategies. Includes selected activities designed to target health-related fitness. The $\$ 60$ activity fee covers triathlon entry. Prerequisite: Completion of a sprint distance triathlon.

PRW 2117 - PRW2: Physical Fitness: Beginning Marathon Training

## Credits: 1

Students gain the skills and endurance needed to complete the local White Rock Marathon at the end of the term. Includes selected activities designed to target health-related fitness. The $\$ 125$ activity fee covers marathon entry.

## PRW 2120 - PRW2: Physical Fitness: Spinning

## Credits: 1

Spinning utilizes specialized, stationary cycles in a controlled, group setting. This indoor class is uniquely tailored to suit a wide range of abilities. Training principles are inspired by road cycling, and the pace is self-directed. Includes selected activities designed to target health-related fitness. Special activity fee: $\$ 10$.

## PRW 2122 - PRW2: Physical Fitness: Rock Climbing

## Credits: 1

Introduces the sport and fitness of rock climbing. Students learn safety skills and techniques necessary for successful rock climbing and have opportunities to climb outdoors and indoors. Introduces selected activities designed to target health-related fitness. Special activity fee: $\$ 50$.

## PRW 2125 - PRW2: Physical Fitness: Group Fitness

## Credits: 1

This boot camp style class introduces a variety of group fitness activities such as kickboxing, jogging, Pilates, calisthenics, indoor rowing, and strength training.

## PRW 2127 - PRW2: Physical Fitness: Pilates

## Credits: 1

Pilates is a total body conditioning exercise method designed to develop the mind and body uniformly. Combines flexibility and strength activities to improve balance, flexibility, and posture and to strengthen core muscles. Aerobic components are included for a full, health-related fitness workout.

## PRW 2130 - PRW2: Physical Fitness: Power Yoga

## Credits: 1

Focuses on three main areas of yoga practice: deep breathing, exercise (postures), and meditation. Includes selected activities designed to target health-related fitness.

## PRW 2132 - PRW2: Physical Fitness: Judo

## Credits: 1

Judo ("gentle way") is a safe combat sport that applies maximum efficiency with minimum effort. Students learn the basic skills of judo and techniques for self-defense, particularly against stronger opponents. Also, presents judo's spiritual aspect of relating to others in more harmonious and effective ways.

## PRW 2133 - PRW2: Physical Fitness: Racquetball I

## Credits: 1

Classes are held on Dedman Center's racquetball courts and are designed to accommodate all levels of physical skill. Rules, safety, skill techniques, strategy, and competitive play are progressively introduced throughout the term. Activities include workouts designed to target health-related fitness.

## PRW 2135 - PRW2: Physical Fitness: Mountain Sports

## Credits: 1

Includes several hikes, a river raft trip, a mountain bike trip, a volleyball tournament, and selected activities designed to target health-related fitness. Special activity fee: $\$ 750$ to cover rafting, rock climbing, fly-fishing, horseback riding, and other mountain sports activities. (SMU-in-Taos)

## PRW 2140 - PRW2: Physical Fitness: Intermediate Swimming

Credits: 1
For the intermediate to advanced swimmer. Provides an opportunity to refine swimming stroke techniques and to gain more advanced swimming skills and aerobic fitness. Includes selected activities designed to target health-related fitness.

## PRW 2144 - PRW2: Physical Fitness: Scuba

Credits: 1
Students need only basic swimming skills to participate. Presents basic physics and physiology (in class) and practical scuba methods and techniques. Includes an introduction to animal behavior so divers can better understand their own behavior underwater. On balance, class time is divided equally among academics, pool work, fitness activities, and open-water diving at area lakes. Students earn certification as open-water scuba divers upon completion of the course. Special activity fee: $\$ 175$.

## PRW 2145 - PRW2: Physical Fitness: Advanced Scuba

## Credits: 1

Introduces several diving specialties: night diving, wreck diving, search and recovery, and overhead environments. The course is $1 / 3$ academics, $1 / 3$ pool work, and $1 / 3$ open water diving at one of the in-state, area lakes. Also introduces the use of advanced equipment such as lift bags, diver propulsion vehicles, and full-face masks. Students meet experienced and accomplished divers and earn advanced scuba certification upon completion of the class. Fitness activities designed to target health-related fitness are included. Special activity fee: $\$ 175$.

## PRW 2151 - PRW2: Physical Fitness: Self-Defense

Credits: 1
Teaches students how to prepare physically and mentally for an attack using the ancient Japanese martial art jujitsu and a mix of other martial arts techniques (aikido, judo, kickboxing, and various schools of karate). Includes lessons in blocking, striking, joint locks, release and escape, the proper method of falling, and defense while lying on the ground. Includes fitness activities designed to target health-related fitness.

## PRW 2161 - PRW2: Physical Fitness: Basketball

## Credits: 1

Teaches the fundamentals of playing basketball using team drills and offensive and defensive formations and strategy. Augments skill development with game-like conditions. Includes fitness activities designed to target health-related fitness.

## PRW 2190 - PRW2: Physical Fitness: Optional

Credits: 1
Acknowledges the fitness commitments of special groups such as athletes, cheerleaders, pompom squad members, and military service personnel. Students must demonstrate knowledge of health-related fitness concepts and produce an offseason personal fitness plan. Instructor approval required.

# Teaching and Learning 

www.smu.edu/teacher
Professor Ken Springer, Department Chair
Professors: Jill Allor, Stephanie Al Otaiba, Paige Ware, Paul Yovanoff
Associate Professor: Ken Springer
Assistant Professors: Doris Baker, Karla del Rosal, Diego Roman, Amy Gillespie Rouse, Candace Walkington, Anne Wilhelm
Clinical Professors: Anthony Cuevas, Abigail Pruitt
Clinical Associate Professors: Ann Batenburg, Nancy Montgomery, Dara Rossi
Clinical Assistant Professors: Sherril English, Amy Ferrell, Diane Gifford, Johnitha Johnson, Francesca Jones, Jan Mallet, Robert Rouse
Professor of Practice: Nancy Roberts
Research Associate Professor: Beverly Weiser
Research Assistant Professor: Brenna Rivas
Adjunct Faculty: Karen Vickery

## General Information

Home to undergraduate, postbaccalaureate and graduate programs for both aspiring and practicing educators, the Department of Teaching and Learning offers students a comprehensive curriculum of theory, research, crossdisciplinary studies and practica. The department's teaching and research practices are grounded in multiple perspectives that encompass behaviorist, cognitive, social constructivist and sociocultural approaches to scholarship. All programs serve to prepare educators who are scholars and leaders in professionalism, committed to high-quality teaching and practice, leaders in translating research into practice and experts in differentiated instruction.

The Bachelor of Science in Educational Studies degree program assists students in obtaining credentials for teaching in elementary, secondary or all-level (EC through grade 12) settings. At the graduate level, a student may pursue an M.Ed., an M.Ed. with a concentration in certification, a Master of Bilingual Education, an M.Ed. with a concentration in reading and writing, an M.Ed. in special education, or a Master of Music in music education, as well as other credentials in areas such as gifted education, special education, reading, mathematics, bilingual education, English as a second language and learning therapy.

## Teacher Preparation

Further information regarding SMU's teacher preparation opportunities is available from the Department of Teaching and Learning, Southern Methodist University, 6401 Airline Road, Harold Hall, PO Box 750455, Dallas TX 752750455; phone 214-768-2346; www.smu.edu/teacher.

Field Experience and Student Teaching. The Educator Preparation Program includes extensive field experience to help students prepare for careers in teaching. A personal/criminal background check is required prior to field experience. The student progresses from observational activities in classrooms to practice teaching. Upon completion of all coursework in the Bachelor of Science in Educational Studies degree, students have the opportunity to student teach and/or apply for an internship. The student assumes responsibility for an entire classroom in a carefully managed student-teaching experience. SMU students receive mentoring from faculty members noted for their exceptional records as both master teachers and scholars. Exemplary teachers from inner city to suburban settings also act as mentors during the field experience. Part of the field experience comes in the form of either a one-term student-teaching experience or a two-term internship. During the one-term experience, students work with an experienced teacher full-time for 15 weeks in an assigned classroom in a pre-approved Dallas-area public, private or
charter school. During this student-teaching term, the student-teaching experience, which is six credit hours, is regarded as full-time enrollment status at SMU for insurance purposes. Students receiving financial aid should meet with financial aid counselors in advance of the student-teaching term to determine aid status. Student teaching ensures that graduates of the SMU teacher education program are better able to enter the teaching profession ready to meet the dynamic learning needs of today's youth.

Eligibility for Student Teaching. Before being assigned to student teaching, candidates are reviewed by the faculty to determine whether adequate progress has been made in order to assume responsibility for school-age students. Such factors as academic performance, maturity and a demonstrated sense of responsibility are considered. Students must have a 3.000 GPA in all education courses before beginning student teaching, and all qualifier exams and state tests must be passed prior to the student-teaching/internship experience.

Eligibility for Internship. Students deemed by the director of the undergraduate program to be eligible for a firstyear teaching position may forego student teaching to seek an internship in an accredited school in the state of Texas. As an intern, students are enrolled in three credit hours of classes each term for the academic year and work under the supervision of an SMU instructor. As required by the Texas Education Agency, the principal will assign a mentor to work with the intern at the school level. The SMU supervisor will conduct six formal observations during the year and complete a midyear conference and an effectiveness evaluation at the end of the school year. The mentor is involved in this process.

TExES Exam. All students seeking teacher credentials are required to take and pass the two state-mandated Texas Examinations of Educator Standards tests in the desired teaching fields. Students must attend preparation debriefs and participate in an online preparation module. When a student does not pass the TExES qualifier, a faculty mentor will develop an individual plan of supplemental study to complement a retake of the TExES qualifier. The two TExES tests for grades EC through six include the EC-12 Pedagogy and Professional Responsibilities Test and the EC through grade six Core Subjects Test. Students preparing for teaching in fourth through eighth grade middle schools must pass the EC-12 Pedagogy and Professional Responsibilities Test and the fourth through eighth grade Core Subjects Test. Students preparing for teaching in high schools must pass the TExES Pedagogy and Professional Responsibilities Test for grades EC-12 and a TExES test in their content area. Music students must pass the music content test and the EC-12 Pedagogy and Professional Responsibility Test.

Recommendation to the Texas Education Agency. The Department of Teaching and Learning will recommend to TEA a student who has completed both the Bachelor of Science in Educational Studies and another degree major, taken six hours of a satisfactory student-teaching or internship experience, and passed the two Texas Examinations of Educator Standards tests.

## Requirements for Admission

Bachelor's Degree. Before applying to the Bachelor of Science in Educational Studies degree program, students must declare a primary grade level/teaching field and complete at least 12 credit hours in their teaching field. After meeting the requirements below, students who wish to be admitted to the program must first meet with an education adviser.
Education Courses ..... 6
EDU 2350, EDU 5327
Desired Teaching Grade Level18
EC-6th Grade or 4th-8th Grade: At least 3 hours in each of the following fields, with no grade lower than a C (2.000): English, math, social studies, and science

7th-12th Grade: At least 12 hours in the student's teaching field, with no grade lower than a C (2.000)

## 24

Educator Preparation Program. After completing at least 42 credit hours, educational studies students can apply for the Educator Preparation Program. At least a 3.000 cumulative GPA is required for admission. Students must submit a transcript, an essay, a letter of recommendation and appropriate standardized test results. In addition, students must interview with an adviser, complete a background check, complete the State of Texas Character and Dispositions Statement, and submit a signed copy of the Code of Ethics and Standard Practices for Texas Educators.

## Educational Studies, B.S.

The Department of Teaching and Learning offers a Bachelor of Science in Educational Studies degree that prepares students to teach at the elementary and secondary levels: early childhood through grade six, grades four through eight (middle school) and grades seven through 12 (high school). All of the courses in the program of study are based on the Texas standards for beginning teachers. Undergraduate students pursuing an approved academic major in Dedman College, Cox School of Business, Lyle School of Engineering or Meadows School of the Arts - or the applied physiology and sport management major with a concentration in sport performance leadership in the Simmons School - may also pursue a major in educational studies from the Simmons School. Music education students complete the Education Preparation Program requirements within the Simmons School. Students cannot graduate with only the Bachelor of Science in Educational Studies degree; they must complete both the Bachelor of Science in Educational Studies and another degree major.

Each student in the degree program has an education adviser who directs his/her program of study. The education adviser is committed to mentoring and supporting student learning. Students are expected to maintain high levels of performance and to develop habits of reflection as they acquire knowledge and skills of practice.

The program of study is comprised of courses in the Department of Teaching and Learning as well as courses in other departments. The total number of credit hours required will vary depending upon the grade level or the teaching field and educator certification requirements.

## Requirements for the Degree

## Core Courses (15 Credit Hours)

- EDU 2350 - Educational Psychology
- EDU 4300 - Foundations of Teaching English to Speakers of Other Languages
- EDU 5318 - Formative/Summative Assessment
- EDU 5327 - Integrating Teaching and Learning
- EDU 5349 - Learning Environment and Professionalism: EC-12


## Focus/Grade Level (15-18 Credit Hours)

## Early Childhood-6th Grade (15 hours)

- EDU 5121 - Field Experience I: Elementary
- EDU 5122 - Field Experience II: Elementary
- EDU 5123 - Field Experience III: Elementary
- EDU 5330 - Integrated STEM Studies
- EDU 5331 - Content Area Studies for Elementary School
- EDU 5355-Teaching Mathematics in Elementary School
- EDU 5358-Conventional Literacy

Middle School (Grades 4-8) (18 hours)

- EDU 5124 - Field Experience I: Secondary
- EDU 5125 - Field Experience II: Secondary
- EDU 5126 - Field Experience III: Secondary
- EDU 5330 - Integrated STEM Studies
- EDU 5348 - Introduction to Diverse Learners
- EDU 5367 - Creating Successful Classrooms
- EDU 5371 - Content Area Methods
- EDU 6366 - Reading and Writing in the Content Areas


## High School (Grades 7-12) (15 hours)

- EDU 5124 - Field Experience I: Secondary
- EDU 5125 - Field Experience II: Secondary
- EDU 5126 - Field Experience III: Secondary
- EDU 5348 - Introduction to Diverse Learners
- EDU 5367 - Creating Successful Classrooms
- EDU 5371 - Content Area Methods
- EDU 6366 - Reading and Writing in the Content Areas


## State Teacher Certification Requirements (6 Credit Hours)

## Clinical Teacher/Intern Courses

These courses are required by the state for teacher certification.

## Early Childhood-6th Grade

- EDU 5363 - Elementary Student Teaching
- EDU 5364 - Elementary Student Teaching or
- EDU 5385 - Internship I: EC-6
- EDU 5386 - Internship II: EC-6

Middle and High School

- EDU 5373 - Secondary Student Teaching
- EDU 5374 - Secondary Student Teaching or
- EDU 5375 - Internship I: High School and Middle School
- EDU 5376 - Internship II: High School and Middle School


## Total for Major: 30-33 Credit Hours

## Total for Major plus Teacher Certification: 36-39 Credit Hours

## Educational Studies Minor

The educational studies minor requires 15 hours selected from the courses in the Bachelor of Science with a major in Educational Studies degree program, and these hours may be applied to the degree program should the student decide to pursue the Educator Preparation Program. Note: Completion of the minor hours alone will not allow the student to become a teacher.

## Requirements for the Minor

## Core Courses (6 Credit Hours)

- EDU 2350 - Educational Psychology
- EDU 5327 - Integrating Teaching and Learning

Three from (9 Credit Hours)

- EDU 2348 - Introduction to Diverse Learners
- EDU 2349 - Psychology of Adjustment
- EDU 4300 - Foundations of Teaching English to Speakers of Other Languages
- EDU 5318 - Formative/Summative Assessment
- EDU 5348 - Introduction to Diverse Learners
- EDU 5349 - Learning Environment and Professionalism: EC-12


## Total: 15 Credit Hours

## Courses:

| Early Childhood-Grade 6 | EDU 2350, $5121-23,5318,5327,5331,5333,5349,5355,5357-$ <br> $58,5363-64,5385-86$ |
| :--- | :--- |
| Middle (Grades 4-8) and High School <br> (Grades 7-12) <br> Courses and Certification Areas | EDU 2350, $5124-26,5318,5327$, EDU 5327, 5348-49, 5367, <br> $5371,5373-76$ |
| Elective Education Courses <br> (These courses are not required by the state for <br> teacher certification.) | EDU 2355, 3301 |

## EDU 1099 - Internship

Credits: 0
This course requires a full-year assignment as the teacher of record in a public or accredited private school. Supervision by SMU faculty is required.

EDU 2348 - Introduction to Diverse Learners

Credits: 3
A study of diversity, multicultural concepts, and inclusion. Also, explores issues, policies, and professional practice relevant to teaching.

## EDU 2349 - Psychology of Adjustment

## Credits: 3

This course introduces the field of psychology, with emphasis on how people deal with the problems and challenges of everyday life. Students learn about classical and contemporary theories, recent research, and applications of the science of psychology to everyday situations.

## EDU 2350 - Educational Psychology

## Credits: 3

This course focuses on aspects related to the learning process, such as education theories, characteristics of learners, nature and measurements of abilities, motivation, and successful classroom practice.

## EDU 2355 - Literacy and Society

## Credits: 3

A structured service learning opportunity that fosters academic growth, citizenship, leadership, and civic responsibility. Readings and course activities relate to the relationship between literacy and society. Throughout the term, students tutor local elementary school students and complete related assignments.

## EDU 4099 - Full-Time Status

Credits: 0
This course provides full-time status for students placed in an internship. Students must obtain permission to enroll in this course.

## EDU 4300 - Foundations of Teaching English to Speakers of Other Languages

## Credits: 3

Students will develop/analyze lesson plans in all content areas using TESOL competencies, emphasizing language concepts, acquisition, teaching and assessment strategies, and the role of culture in language acquisition.

## EDU 5000 - TEA Data Technology Certification

Credits: 0
Satisfies TEA data technology certification requirement.

## EDU 5100-Special Topics

Credits: 1
Students work on a personalized system of instruction. Most of the work in this course is done as an independent study.

## EDU 5121 - Field Experience I: Elementary

## Credits: 1

This course gives students opportunities to work in appropriate school settings and allows them to observe a functioning classroom. Includes classroom setup, environment, organization, structure, and discipline.

## EDU 5122 - Field Experience II: Elementary

## Credits: 1

With a focus on special populations, this course places students in elementary school settings where they observe the teaching techniques used to help children with exceptional needs.

## EDU 5123 - Field Experience III: Elementary

## Credits: 1

This course gives students opportunities to work in appropriate school settings and to plan and teach lessons. Students shadow a teacher in preparation for student teaching.

## EDU 5124 - Field Experience I: Secondary

## Credits: 1

This course gives students opportunities to work in appropriate school settings and allows them to observe a functioning classroom. Includes classroom setup, environment, organization, structure, and discipline.

## EDU 5125 - Field Experience II: Secondary

Credits: 1
Places students in elementary school settings where they observe the teaching techniques used to help children with exceptional or special needs.

## EDU 5126 - Field Experience III: Secondary

Credits: 1
This course gives students opportunities to work in appropriate school settings and to plan and teach lessons. Students shadow a teacher in preparation for student teaching.

## EDU 5157 - Practicum for Teaching Early Reading and Writing

## Credits: 1

Provides experience applying evidence-based principles of literacy development and learning in young children, early childhood through second grade. Requires tutoring experiences in a local school. Corequisite: EDU 5257.

## EDU 5200 - Special Topics

Credits: 2
Students work on a personalized system of instruction. Most of the work in this course is done as an independent study.

## Credits: 2

Examines evidence-based principles of literacy development and learning in young children, early childhood through second grade. Focuses on designing, adapting, and evaluating beginning literacy instruction for children. Corequisite: EDU 5157.

## EDU 5300-Special Topics

Credits: 3
Students work on a personalized system of instruction. Most of the work in this course is done as an independent study.

## EDU 5318 - Formative/Summative Assessment

## Credits: 3

Explanation and practice of formal and informal assessment strategies, the ways assessment outcomes should inform instruction, and the methods for sharing assessment outcomes with families. All assignments relate to putting assessment skills into practice in the classroom.

## EDU 5327 - Integrating Teaching and Learning

Credits: 3
Reviews the nature and design of educational activities: theory, research, practice of unit planning, and lesson planning for active learning that meets the needs of individual students.

## EDU 5330 - Integrated STEM Studies

## Credits: 3

Provides elementary- and middle-grades teachers with strategies to integrate science, technology, engineering, and mathematics in their classrooms.

## EDU 5331 - Content Area Studies for Elementary School

## Credits: 3

Explores science, social studies, art, music, drama, and physical education content for students EC-grade six. Also, effective teaching strategies for each content area.

## EDU 5348 - Introduction to Diverse Learners

Credits: 3
A study of diversity, multicultural concepts, and inclusion. Also, explores issues, policies, and professional practice relevant to teaching.

## EDU 5349 - Learning Environment and Professionalism: EC-12

Credits: 3
This course focuses on major issues facing teachers in establishing and maintaining a positive and productive learning environment, as well as the professional roles and responsibilities of teachers.

## EDU 5355 - Teaching Mathematics in Elementary School

Credits: 3
Evaluates learning materials and teaching methods focusing on knowledge and skills required for students EC-grade six.

## EDU 5357-Emergent Literacy

## Credits: 3

This course examines principles of literacy learning in young children and predictable stages of oral language, writing, and reading development. All literacy classes require field experiences in local schools.

## EDU 5358 - Conventional Literacy

## Credits: 3

Introduces theories, practices, and materials for teaching reading and/or writing in primary grades. All literacy classes require field experiences in local schools.

## EDU 5363 - Elementary Student Teaching

## Credits: 3

Requires a 15-week assignment in an elementary school that has a diverse student population. Includes a seminar on campus every 2 weeks.

## EDU 5364 - Elementary Student Teaching

## Credits: 3

This course requirement is a 15 -week assignment in an elementary school that has a diverse student population. The course includes a seminar on campus every 2 weeks. Students are assigned an SMU supervisor who observes in the classroom at least four times a term. A portfolio is required.

## EDU 5367-Creating Successful Classrooms

## Credits: 3

Students will examine current research that promotes student-centered teaching and constructivist practices. Various teaching and learning strategies of teaching in effective classrooms will be the focus of the course.

## EDU 5371 - Content Area Methods

Credits: 3
Students refine content knowledge, methods, and strategies specific to their content area and level of certification.

## EDU 5373 - Secondary Student Teaching

Credits: 3
Requires a 15-week assignment in a middle school and/or high school that has a diverse student population. Includes a seminar on campus every 2 weeks. Students are assigned an SMU supervisor who observes in the classroom at least four times a term. A portfolio is required.

## EDU 5374 - Secondary Student Teaching

Credits: 3
Requires a 15 -week assignment in a middle school and/or high school that has a diverse student population. Includes a seminar on campus every 2 weeks. Students are assigned an SMU supervisor who observes in the classroom at least four times a term. A portfolio is required.

EDU 5375 - Internship I: High School and Middle School

Credits: 3
This course requirement is a full-year assignment as the teacher of record in a public or accredited private school. Supervision by SMU faculty is required.

## EDU 5376 - Internship II: High School and Middle School

## Credits: 3

This course requirement is a full-year assignment as the teacher of record in a public or accredited private school. Supervision by SMU faculty is required.

## EDU 5385 - Internship I: EC-6

## Credits: 3

This course requirement is a full-year assignment as the teacher of record in a public or accredited private school. Supervision by SMU faculty is required.

## EDU 5386 - Internship II: EC-6

## Credits: 3

This course requirement is a full-year assignment as the teacher of record in a public or accredited private school. Supervision by SMU faculty is required.

## EDUCATION POLICY AND LEADERSHIP

## EPL 3101-Rediscovering Leadership

## Credits: 1

Introduces first-year students to leadership opportunities at SMU and the skills they need to succeed in leadership roles.

## EPL 3301 - The American University

Credits: 3
Explores the development and organization of American colleges and universities. Examines higher education in conceptual forms from the perspective of students, faculty, and administrators.

## Administration and Faculty

## Administration

## Corporate Officers of the University

R. Gerald Turner, President

Brad E. Cheves, Vice President for Development and External Affairs
Steven C. Currall, Provost and Vice President for Academic Affairs
Rakish Dahiya, Chief Investment Officer and Treasurer
Kenechukwu (K.C.) Mmeje, Vice President for Student Affairs
Chris Regis, Vice President for Business and Finance
Harold W. Stanley, Vice President for Executive Affairs
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## Academic Deans

Marc P. Christensen, Dean of Bobby B. Lyle School of Engineering, Bobby B. Lyle Endowed Professor of Engineering Innovation

Jennifer M. Collins, Judge James Noel Dean of Dedman School of Law
Thomas DiPiero, Dean of Dedman College of Humanities and Sciences
Craig C. Hill, Dean of Joe and Lois Perkins School of Theology
Samuel S. Holland, Algur H. Meadows Dean of Algur H. Meadows School of the Arts
Elizabeth Killingsworth, Dean and Director ad interim of Central University Libraries
Stephanie L. Knight, Leon Simmons Endowed Dean of Annette Caldwell Simmons School of Education and Human Development

Matthew B. Myers, Dean of Edwin L. Cox School of Business, Tolleson Chair in Business Leadership

## Office of the President

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Rick Hart, Director of Athletics
Michael H. Hites, Chief Information Officer
Mary Jane Johnson, Executive Assistant to the President

Samantha Thomas, Executive Director of Institutional Access and Equity and Executive Assistant to the President

## Office of the Provost and Vice President for Academic Affairs

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Douglas A. Reinelt, Associate Provost for Faculty Affairs
Peter Moore, Associate Provost for Curricular Innovation and Policy
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Maria Dixon Hall, Senior Advisor to the Provost for Cultural Intelligence
Patricia Alvey, Director for Assessment and Accreditation
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Daniel Eady, Assistant Provost (Chief of Staff)
Vicki Hill, Assistant Provost for General Education
Ebonii Nelson, Assistant Provost for Strategic Initiatives and Director of Student Retention ad interim

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Robert Bucker, Assistant to the Vice President for Strategic Affairs

Charles Headley, Executive Director for Development Services
Dana Ayres, Executive Director for Program Services and Donor Relations
Open, Assistant Vice President for Public Affairs
Heather Shaw, Assistant to the Vice President for Leadership Projects

# Office of the Vice President for Legal Affairs and Government Relations, General Counsel and Secretary 

Martha Fleisher, Associate University Counsel<br>Susan Howe, Associate University Counsel<br>Kelly Thurman, Associate University Counsel<br>Jacob Becker, Higher Education Law Fellow and Assistant University Counsel<br>Mary Anne Rogers, Associate University Secretary<br>\section*{Office of the Vice President for Student Affairs}

Joanne Vogel, Associate Vice President for Student Affairs and Dean of Student Life
Adam R. Cebulski, Director of Assessment and Strategic Initiatives
Vacant, Executive Director of Residence Life and Student Housing
Vacant, Executive Director of Hegi Family Career Development Center
Stephen Rankin, Chaplain to the University

## Offices of the Academic Deans

## Dedman College of Humanities and Sciences

Thomas DiPiero, Dean of Dedman College of Humanities and Sciences
Renee McDonald, Senior Associate Dean for Research and Academic Affairs
Thomas W. Carr, Associate Dean for Curriculum
David Doyle, Jr., Assistant Dean and Director of the University Honors Program

## Cox School of Business

Matthew B. Myers, Dean of Edwin L. Cox School of Business
William R. Dillon, Senior Associate Dean for Academic Affairs

James N. Bryan, Associate Dean for BBA Admissions and Advising
Frank R. Lloyd, Associate Dean for Executive Education
Gary T. Moskowitz, Associate Dean for Strategic Planning and Accreditation
Catherine Collins, Assistant Dean for Finance, Administration and Facilities
Linda Kao, Assistant Dean for Global Operations
Kevin Knox, Assistant Dean for External Relations
Lynda Oliver, Assistant Dean for Marketing and Communications
Tom Perkowski, Assistant Dean for Executive M.B.A. Program
John Roeder, Assistant Dean for Graduate Admissions

## Lyle School of Engineering

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M. Volkan Otugen, Senior Associate Dean

Duncan L. MacFarlane, Associate Dean for Engineering Entrepreneurship
Panos Papamichalis, Associate Dean for Academic Affairs
DeeDee Conway, Assistant Dean for Operations
Ann C. Fielder, Assistant Dean for Development and Communications
Mickey Saloma, Assistant Dean for Recruitment, Retention and Alumni Relations

## Meadows School of the Arts

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Kevin Paul Hofeditz, Senior Associate Dean for Academic Affairs
David Sedman, Associate Dean for Administration
Karen Drennan, Associate Dean for Communications and Strategic Initiatives
Corinna Nash-Wnuk, Associate Dean for Admissions and Enrollment Management

## Simmons School of Education and Human Development

Stephanie L. Knight, Leon Simmons Endowed Dean of Annette Caldwell Simmons School of Education and Human Development

Frank Hernandez, Associate Dean and Annette and Harold Simmons Centennial Chair in Education Leadership Rebecca Hood, Senior Assistant Dean for Finance and Operations

Kathryn Canterbury, Assistant Dean for Research and Grants Accounting
Yolette Garcia, Assistant Dean for External Affairs and Outreach
Margaret Mahoney, Assistant Dean for Academic Affairs

## Dedman School of Law

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Jeffrey M. Gaba, Senior Associate Dean for Academic Affairs
Nathan Cortez, Associate Dean for Research
Greg Ivy, Associate Dean for Library and Technology
Martin L. Camp, Assistant Dean for Graduate and International Programs
Becca Henley, Assistant Dean for Administration
Jill Nikirk, Assistant Dean for Admissions
Karen C. Sargent, Assistant Dean and Executive Director for Career Services
Stephen B. Yeager, Assistant Dean for Students Affairs
Anne G. Beard, Director of Development
Laura G. Burstein, Director of Public Service and Academic Success
Lynn McVicker Dempsey, Director of External Relations
Kristy Offenburger, Director of Communications and Marketing
Michelle A. Ray, Director of Admissions
Rey Rodriguez, Director of Career Services
Abby Ruth, Director of Alumni Relations
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Ann M. Early, Lecturer Emeritus of English, M.A.T., Harvard
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Richard F. Gunst, Professor Emeritus of Statistical Science, Ph.D., SMU
Richard Haberman, Professor Emeritus of Mathematics, Ph.D., Massachusetts Institute of Technology
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Richard O. Hawkins, Professor Emeritus of Sociology, Ph.D., Washington
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James Kirkland Hopkins, Professor Emeritus of History, Ph.D., Texas
Richard Alan Hunt, Professor Emeritus of Psychology, Ph.D., Texas Christian
Robert G. Hunter, Professor Emeritus of English Literature, Ph.D., Columbia
Mary Alice Gordon Hurd, Professor Emeritus of Psychology, Ph.D., Texas Christian
Chandrakant Harilal Kapadia, Professor Emeritus of Statistical Science, Ph.D., Oklahoma State
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Shlomo Weber, Professor Emeritus of Economics, Ph.D., Hebrew (Jerusalem)
Ronald Knox Wetherington, Professor Emeritus of Anthropology, Ph.D., Michigan
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André Winandy, Professor Emeritus of French, Ph.D., Pittsburgh

## Cox School of Business

## Offices of the Academic Dean

Matthew B. Myers, Dean of Edwin L. Cox School of Business, Tolleson Chair in Business Leadership<br>William R. Dillon, Senior Associate Dean for Academic Affairs<br>James N. Bryan, Associate Dean for BBA Admissions and Advising<br>Frank R. Lloyd, Associate Dean for Executive Education<br>Gary T. Moskowitz, Associate Dean for Strategic Planning and Accreditation<br>Catherine Collins, Assistant Dean for Finance, Administration and Facilities<br>Linda Kao, Assistant Dean for Global Operations<br>Kevin Knox, Assistant Dean for External Relations<br>Lynda Oliver, Assistant Dean for Marketing and Communications<br>Tom Perkowski, Assistant Dean for Executive M.B.A. Program<br>John Roeder, Assistant Dean for Graduate Admissions

## Administration

Barbara P. Mohrle, Director of BBA Academic Advising and Records
Paula Hill Strasser, Director of Edwin L. Cox Business Leadership Institute
Lisa Tran, Director of Career Management Center
Mary D. Powell, Executive Assistant to the Dean

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Amit Basu, Professor of Information Technology and Operations Management, Carr P. Collins, Jr. Chair in Management Information Science, Department of Information Technology and Operations Management Chair, Ph.D., Rochester

Charles A. Besio, Senior Lecturer in Marketing, Center for Marketing Management Studies Director, M.B.A., SMU
Sreekumar R. Bhaskaran, Associate Professor of Information Technology and Operations Management and Marilyn and Leo F. Corrigan, Jr. Edowed Professor, Ph.D., Texas (Austin)

Gauri Bhat, Assistant Professor of Accounting, Ph.D., Toronto (Ontario)
Nilabhra Bhattacharya, Associate Professor of Accounting, Ph.D., Georgia (Athens)
Michael Howard Braun, Associate Professor of Marketing, Ph.D., Pennsylvania
Richard A. Briesch, Professor of Marketing and Marilyn R. and Leo F. Corrigan, Jr. Endowed Professor, Ph.D., Northwestern

William B. Brueggeman, Professor of Real Estate, Clara R. and Leo F. Corrigan, Sr. Endowed Chair in Real Estate, Ph.D., Ohio State

Barry J. Bryan, Professor of Practice in Accounting, M.S.A. Program Director, Ph.D., Texas A\&M
Marcus Butts, Associate Professor of Management and Organizations, Ph.D., University of Georgia
Jay B. Carson, Visiting Professor of Practice in Management and Organizations, Ph.D., Maryland
Chaogun Chen, Assistant Professor of Marketing, Northwestern University
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James C. Collins, Jr., Senior Lecturer in Information Technology and Operations Management, M.S.I.E., SMU William Michael Cox, Executive-in-Residence of Strategy, Entrepreneurship and Business Economics, Ph.D., Tulane

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Stacey Elizabeth Jacobsen, Assistant Professor of Finance, Ph.D., Indiana
Chotibhak Jotikasthira, Associate Professor of Finance, Ph.D., Indiana
Ruihao Ke, Assistant Professor of Accounting, Ph.D., UCLA
Barbara W. Kincaid, Senior Lecturer in Business Law, J.D., SMU
Julian Kolev, Assistant Professor of Strategy, Entrepreneurship and Business Economics, Ph.D., Harvard
Maribeth Kuenzi, Associate Professor of Management and Organizations, Endowed Professor in American Capitalism, Director of the Albert W. Niemi Center for Economic Growth and Leadership Development, Ph.D., Central Florida

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James S. Linck, Professor of Finance, Distinguished Chair in Finance, Department of Finance Chair, Ph.D., Arizona State

Joseph Magliolo, III, Professor of Accounting, Distinguished Chair in Accounting, Ph.D., Stanford
Simon S. Mak, Professor of Practice of Strategy, Entrepreneurship and Business Economics, Caruth Institute Associate Director, Ph.D., SMU

Stanimir Markov, Associate Professor of Accounting and Marilyn R. and Leo F. Corrigan, Jr. Endowed Professor, Ph.D., Rochester

William F. Maxwell, Professor of Finance, Mary Jo Vaughn Rauscher Chair in Financial Investments, Alternative Assets Management Center Director, Kitt Trading Center overseer, Don Jackson Center for Financial Studies Director, Ph.D., George Washington

Darius P. Miller, Professor of Finance, Caruth Chair of Financial Management, Ph.D., California (Irvine)
Sal Mistry, Professor of Practice in Management and Organizations, Ph.D., Texas A\&M
Milica Mormann, Visiting Assistant Professor of Marketing, Ph.D., Florida Atlantic University
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Amy V. Puelz, Clinical Professor of Information Technology and Operations Management, Ph.D., Nebraska (Lincoln)

Robert Puelz, Associate Professor of Insurance and Financial Services, Charles L. Dexter Chair of Insurance, Ph.D., Georgia

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Robert W. Rasberry, Assistant Professor of Management and Organizations, Ph.D., Kansas
McKenzie Rees, Assistant Professor of Management and Organizations, Ph.D., University of Utah
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Raj Sethuraman, Professor of Marketing, Department of Marketing Chair, Harold Simmons Chair in Marketing, Ph.D., Northwestern

Wayne H. Shaw, Professor of Accounting and Helmut Sohmen Endowed Professor in Corporate Governance, Ph.D., Texas (Austin)

Donald Shelly, Professor of Practice in Finance, Fabacher Endowed Professor of Alternative Asset Management, Alternative Assets Management Center Director, Kitt Investment \& Trading Center Director, M.B.A., Michigan (Ann Arbor)

Tasadduq Shervani, Associate Professor of Marketing, Ph.D., Southern California
James L. Smith, Professor of Finance, Maguire Chair of Oil and Gas Management, Ph.D., Harvard

Gregory A. Sommers, Professor of Practice in Accounting, Ph.D., Ohio State
Dean B. Stansel, Research Associate Professor of Strategy, Entrepreneurship and Business Economics, Ph.D., George Mason Universtity

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Jacquelyn S. Thomas, Associate Professor of Marketing, Ph.D., Northwestern
Rex W. Thompson, Professor of Finance, Ph.D., Rochester
Sorabh Tomar, Assistant Professor of Accounting, Ph.D., University of Chicago
Donald M. VandeWalle, Associate Professor of Management and Organizations, Ph.D., Minnesota
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Kumar Venkataraman, Professor of Finance, James M. Collins Chair in Finance, Ph.D., Arizona State
Michel R. Vetsuypens, Professor of Finance, Ph.D., Rochester
Glenn Voss, Professor of Marketing, Ph.D., Texas A\&M
Zannie G. Voss, Professor of Marketing, Ph.D., Institut D'Administration des Entreprises
Dimitris Vrettos, Assistant Professor of Accounting, Ph.D., Michigan State
Nathan G. Walcott, Professor of Practice in Finance, Ph.D., Washington
Gordon Walker, Professor of Strategy, Entrepreneurship and Business Economics, Bobby B. Lyle Endowed Professor of Entrepreneurial Studies, Department of Strategy, Entrepreneurship and Business Economics Chair, Ph.D., Pennsylvania

Catherine Weber, Senior Lecturer in Business Law, J.D., SMU
Kara Elyse Wells, Assistant Professor of Accounting, Ph.D., Southern California
Wendy M. Wilson, Professor of Practice in Accounting, Ph.D., North Carolina (Chapel Hill)
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Andrew H. Chen, Professor Emeritus of Finance, Ph.D., Berkeley
Alan B. Coleman, Professor Emeritus of Finance, Ph.D., Stanford
Elbert B. Greynolds, Jr., Professor Emeritus of Accounting, Ph.D., Georgia State
Richard W. Hansen, Professor Emeritus of Marketing, Ph.D., Minnesota
Thomas V. Hedges, Professor Emeritus of Accounting, D.B.A., Indiana
Roger A. Kerin, Professor Emeritus of Marketing, Ph.D., Minnesota
Chun H. Lam, Professor Emeritus of Finance, Ph.D., Duke
Richard O. Mason, Professor Emeritus of Management Sciences, Ph.D., California (Berkeley)
John W. Slocum, Jr., Professor Emeritus of Management and Organizations, Ph.D., Washington
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# Lyle School of Engineering 

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M. Volkan Otugen, Senior Associate Dean

Duncan L. MacFarlane, Associate Dean for Engineering Entrepreneurship
Panos Papamichalis, Associate Dean for Academic Affairs
DeeDee Conway, Assistant Dean of Operations
Ann C. Fielder, Assistant Dean for Development and Communications
Mickey Saloma, Assistant Dean for Recruitment, Retention and Alumni Relations

Administration<br>Frederick R. Chang, Director of the Darwin Deason Institute for Cyber Security<br>Eva Csaky, Director of the Hunt Institute for Engineering Humanity

Dee Dee Conway, Acting Director of the Caruth Institute for Engineering Education
Bruce Gnade, Executive Director of the Hart Center for Engineering Leadership
Sukumaran V.S. Nair, Director of the AT\&T Center for Visualization
Kate Canales, Director of Design and Innovation
Jim Dees, Senior Director of Graduate Student Experience and Enrollment Management

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Gyungsu Byun, Associate Professor of Electrical Engineering, Ph.D., California (Los Angeles)
Joseph D. Camp, Associate Professor of Electrical Engineering, Ph.D., Rice
Katherine Canales, Research Professor of Design and Innovation, BSME, Stanford
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Wenjie Sun, Assistant Professor of Civil and Environmental Engineering, Ph.D., Arizona
Aurelie Thiele, Associate Professor of Engineering Management, Information, and Systems, Ph.D., MIT

Mitchell A. Thornton, P.E., Professor of Computer Science and Engineering, Professor of Electrical Engineering, Cecil H. Green Chair of Engineering Ph.D., SMU

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Wei Tong, Professor of Mechanical Engineering, Ph.D., Brown
Halit Üster, Professor of Civil and Environmental Engineering, Professor of Engineering Management, Information and Systems, Ph.D., McMaster

Jianhui Wang, Associate Professor of Electrical Engineering, Ph.D., Illinois Institute of Technology
James R. Webb, Professor of Practice of Mechanical Engineering, DM, University of Maryland (University College)
David A. Willis, Associate Professor of Civil and Environmental Engineering, Associate Professor of Mechanical Engineering, Ph.D., Purdue

Jeong Ho You, Assistant Professor of Mechanical Engineering, Ph.D., Illinois (Urbana-Champaign)

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Richard Helgason, Professor Emeritus of Computer Science and Engineering, Professor Emeritus of Engineering Management, Information and Systems, Ph.D., SMU

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Bijan Mohraz, P.E., Professor Emeritus of Civil and Environmental Engineering, Professor Emeritus of Mechanical Engineering, Ph.D., Illinois (Urbana-Champaign)

David B. Johnson, P.E., Professor Emeritus of Mechanical Engineering, Ph.D., Stanford
Paul F. Packman, P.E., Professor Emeritus of Mechanical Engineering, Ph.D., Syracuse
Mandyam D. Srinath, P.E., Professor Emeritus of Electrical Engineering, Ph.D., Illinois (Urbana-Champaign)
Stephen A. Szygenda, P.E., Professor of Computer Science and Engineering, Professor of Engineering Management, Information and Systems, Ph.D., Northwestern

Hal Watson, Jr., P.E., Professor Emeritus of Mechanical Engineering, Ph.D., Texas

## Adjunct Faculty

Note: The list of faculty adjuncts provided here is advisory only. In any given term, a particular adjunct may not be able to teach because of other commitments. This is especially true because many of SMU's adjuncts are professionals and scholars who are in high demand.

Yasser Abdelhamid, Adjunct Professor of Civil and Environmental Engineering, Ph.D., SMU

Drew Aleto, Adjunct Lecturer of Civil and Environmental Engineering, M.S., SMU
Bogdan V. Antohe, Adjunct Professor of Mechanical Engineering, Ph.D., SMU (MicroFab)
Karl J. Arunski, Adjunct Lecturer of Engineering Management, Information and Systems, M.S.E.E., Washington (Raytheon)

Charles W. Beall, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., Southern California

Robert L. Bell, Adjunct Lecturer of Engineering Management, Information and Systems, M.E.E.E., Brigham Young (Lockheed Martin)

William D. Bell, Adjunct Professor of Engineering Management, Information and Systems, D.E., SMU (U.S. Department of Defense)

April Blount, Adjunct Lecturer of Civil and Environmental Engineering, M.A., Texas (Arlington) (UTA)
Whitney Boger, Adjunct Lecturer of Civil and Environmental Engineering, M.S., SMU
Samir Bougacha, P.E. Adjunct Professor of Civil and Environmental Engineering, Ph.D., Texas (Parsons Brinckerhoff)

Andrew F. Bouma, Adjunct Lecturer of Engineering Management, Information and Systems, M.S., Oklahoma State University

Mark K. Boyd, P.E., Adjunct Professor of Civil and Environmental Engineering, Ph.D., SMU (LCA Environmental)
Ben A. Calloni, P.E., Adjunct Professor of Computer Science and Engineering, Ph.D., Texas Tech (Lockheed Martin)
Hakki C. Cankaya, Adjunct Professor of Computer Science and Engineering, Adjunct Professor of Electrical Engineering, Ph.D., SMU

John P. Carbone, Adjunct Professor of Computer Science and Engineering, Ph.D., Texas Tech
Robert Casagrande, Adjunct Lecturer of Civil and Environmental Engineering, M.B.A., SMU
Sudipto Chakraborty, Adjunct Professor of Electrical Engineering, Ph.D., Georgia Institute of Technology (Texas Instruments Inc.)

Jagadeesh Chandramohan, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., Virginia Polytechnic Institute \& State University

Justin Childress, Adjunct Lecturer of Multidisciplinary Studies, MFA, Texas A\&M University at Commerce
George W. Chollar, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., Texas Tech (The Statistical Design Institute)

Christian P. Christensen, Adjunct Lecturer of Computer Science and Engineering, M.S., SMU
Randall J. Clendening, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., George Washington University (Boeing)

Joseph R. Cleveland, Adjunct Professor of Electrical Engineering, Ph.D., Iowa State (Samsung, retired)
Eric B. Cluff, Adjunct Lecturer of Mechanical Engineering, M.S., SMU (Abbott Labs)
Steven C. Currall, Adjunct Professor of Engineering Management, Information, and Systems, Ph.D., Cornell (SMU)

Weiping Dai, P.E., Adjunct Professor of Civil and Environmental Engineering, Ph.D., Carnegie Mellon (Trinity Consultants)
H. Elizabeth del Monte, Adjunct Lecturer of Civil and Environmental Engineering, M.Arch., Rice (The Return on Innovation Project)

Roger O. Dickey, P.E., Adjunct Professor of Civil and Environmental Engineering, Ph.D., SMU
Matthew L. Durchholz, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., SMU
Maya El Dayeh, Adjunct Professor of Computer Science and Engineering, Ph.D., SMU
Aaron L. Estes, Adjunct Lecturer of Computer Science and Engineering, M.S., SMU
John Fattaruso, Adjunct Professor of Electrical Engineering, Ph.D., California (Berkeley)
Edward Forest, Adjunct Professor of Civil and Environmental Engineering, Ph.D., Princeton
Dennis J. Frailey, Adjunct Professor of Computer Science and Engineering, Ph.D., Purdue (Raytheon, retired)
John R. Graham, III, Adjunct Lecturer of Engineering Management, Information and Systems, M.B.A., Wright Statue (Technisource)

Hope Hagar, Adjunct Lecturer of Civil and Environmental Engineering, M.A., SMU
Anwar Hirany, P.E., Adjunct Professor of Civil and Environmental Engineering, Ph.D., Cornell (EPRI)
Hossam H. H'mimy, Adjunct Professor of Electrical Engineering, Ph.D., SMU (Ericsson)
Michael E. Hopper, P.E., Adjunct Professor of Engineering Management, Information and Systems, D.E., SMU
Manal Houri, Adjunct Professor of Computer Science and Engineering, Ph.D., SMU
Kenneth R. Howard, Adjunct Lecturer of Computer Science and Engineering, M.B.A., Saint Mary's (Improving Enterprises)

Sina Iman, Adjunct Lecturer of Civil and Environmental Engineering, M.S.C.E., SMU (Stantec)
Mihaela Iridon, Adjunct Professor of Computer Science and Engineering, Ph.D., SMU
Robert H. Jones, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., SMU (Oncor)
Levent Kaan, Adjunct Professor of Mechanical Engineering, Ph.D., SMU
Bhanu Kapoor, Adjunct Professor of Computer Science and Engineering, Ph.D., SMU (consultant/owner, Mismasic)
Clark D. Kinnaird, P.E., Adjunct Professor of Electrical Engineering, Ph.D., SMU (Texas Instruments)
Suzanne Larkin, Adjunct Lecturer of Design and Innovation, M.F.A., Texas A\&M (Commerce)
Karl C. Lewis, Adjunct Professor of Computer Science and Engineering, D.Eng., SMU (Perot Systems)
John I. Lipp, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., Michigan Tech (Lockheed Martin)
D. Kall Loper, Adjunct Professor of Computer Science and Engineering, Ph.D., Michigan State

Mehedy Mashnad, P.E., Adjunct Professor of Civil and Environmental Engineering, Ph.D., Illinois (UrbanaChampaign) (Walter P. Moore and Associates)

Matthew R. McBride, Adjunct Lecturer of Computer Science and Engineering, M.S., SMU (Bank of America)
Steven D. McCauley, Adjunct Lecturer of Civil and Environmental Engineering, M.S., Texas Tech (El Centro College)
James K. McCloud, Adjunct Lecturer of Engineering Management, Information and Systems, M.B.A., Rollins
Lee D. McFearin, Adjunct Professor of Computer Science and Engineering, Ph.D., SMU
M. Wade Meaders, Adjunct Lecturer of Mechanical Engineering, M.S., SMU (Halliburton)

Freeman L. Moore, Adjunct Professor of Computer Science and Engineering, Ph.D., North Texas (Raytheon, retired)
Nomaan Mufti, Adjunct Professor of Datacenter Systems Engineering, Ph.D., University of Essex
Padmaraj M.V. Nair, Adjunct Professor of Computer Science and Engineering, Ph.D., SMU
Mofid Nakhaei, Adjunct Professor of Civil and Environmental Engineering, Ph.D., SMU (Parson Brinckerhoff Inc.)
William P. Nanry, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., Texas (Lockheed Martin)

David J. Nowacki, Adjunct Lecturer of Mechanical Engineering, M.B.A., M.S., Louisiana State
Oscar K. Pickels, Adjunct Lecturer of Engineering Management, Information and Systems, M.B.A., SMU
Greg Radighieri, Adjunct Lecturer of Mechanical Engineering, M.S., Massachusetts Institute of Technology
Jon D. Rauscher, Adjunct Professor of Civil and Environmental Engineering, Ph.D., Colorado State (U.S. Environmental Protection Agency)

Luis G. Resendis, Adjunct Lecturer of Computer Science and Engineering, M.S., SMU
Mark E. Sampson, Adjunct Lecturer of Engineering Management, Information and Systems, M.S., Southern California (UGS)

Nandlal M. Singh, Adjunct Professor of Engineering Management, Information and Systems, D.E., SMU (MinMax Technologies)

Stephen C. Skinner, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., SMU (Bell Helicopter)

Gheorghe M. Spiride, Adjunct Professor of Computer Science and Engineering, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., SMU (Nortel Networks)

Kamakshi Sridhar, Adjunct Professor of Electrical Engineering, Ph.D., Massachusetts Institute of Technology (Alcatel-Lucent)

Nagarajan Sridhar, Adjunct Professor of Datacenter Systems Engineering, Ph.D., State University of New York (Buffalo)

Patricia A. Taylor, Adjunct Professor of Civil and Environmental Engineering, Ph.D., SMU (U.S. Environmental Protection Agency)

Allen D. Tilley, Adjunct Lecturer of Mechanical Engineering, M.B.A., SMU
Philip K. Turner, Adjunct Professor of Civil and Environmental Engineering, Ph.D., North Texas (U.S. Environmental Protection Agency)

Raymond E. Van Dyke, Adjunct Professor of Computer Science and Engineering, J.D., North Carolina (Chapel Hill)
Xinyu (Edward) Wang, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., SMU
Andrew K. Weaver, Adjunct Lecturer of Mechanical Engineering, M.A., Navy; M.P.A., Troy State
Timothy D. Woods, Adjunct Professor of Engineering Management, Information and Systems, Ph.D., SMU (Lockheed Martin)

Rumanda K. Young, Adjunct Professor of Civil and Environmental Engineering, Ph.D., Texas (Arlington) (U.S. Army Corps of Engineers)

Natasha Zamani, Adjunct Professor of Civil and Environmental Engineering, Ph.D., SMU
Jessie Marshall Zarazaga, Adjunct Lecturer of Civil and Environmental Engineering, M.Arch., Cambridge

## Meadows School of the Arts Faculty and Staff

## Office of the Academic Dean

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Kevin Paul Hofeditz, Senior Associate Dean for Academic Affairs
David Sedman, Associate Dean for Administration
Karen Drennan, Associate Dean for Communications and Strategic Initiatives
Corinna Nash-Wnuk, Assistant Dean for Admissions and Enrollment Management

## Administration

Mark Roglán, The Linda P. and William A. Custard Director of the Meadows Museum and Centennial Chair
Deanna Johnson, Assistant to the Dean
Lisa Chou, Director of Development
Chuck Donaldson, Undergraduate Degree Counselor
Pam Henderson, Director of Scholarships and Financial Aid
Jay Hengst, Director of Operations and Events
Joe Hoselton, Graduate Admissions and Strategic Enrollment Management
Jennifer R. Smith, Student Academic Services Coordinator
Janet Stephens, Undergraduate Degree Counselor
Cynthia Watson, Financial Business Manager
Zannie Giraud Voss, Director of the National Center for Arts Research

## Meadows Faculty

Joaquín Achúcarro, Professor of Music, Joel Estes Tate Chair in Piano
Mark Allen, Lecturer of Advertising, M.A., Southern Evangelical Seminary
Sarah Allen, Associate Professor of Music Education, Ph.D., Texas
Patricia Alvey, Professor of Advertising, Ph.D., Texas
Christopher Anderson, Associate Professor of Sacred Music, Ph.D., Duke
Beatriz Balanta, Assistant Professor of Art History, Ph.D., Duke
Willie Baronet, Stan Richards Creative Chair in Advertising, M.F.A., Texas (Dallas)
Jacob Batsell, Associate Professor of Journalism, M.A., Texas
Alessio Bax, Artist-in-Residence of Piano, Artist Certificate, M.M., SMU
Amber Bemak, Assistant Professor of Film and Media Arts, M.F.A., Art Institute of Chicago
Amber Benson, Lecturer of Advertising, M.A., Savannah College
Shelley C. Berg, Professor of Dance, Ph.D., New York
Rhonda Blair, Professor of Theatre, Ph.D., Kansas
Tom Booth, Lecturer of Trumpet, Assistant Principal Trumpet DSO, M.M., Illinois
Emanuel Borok, Artist-in-Residence of Violin, Concertmaster DSO 1985-2010, B.M., Gnessin Academy of Music
Danny Buraczeski, Professor of Dance, B.A., Bucknell
Brad Cassil, Lecturer of Theatre, B.F.A., California Institute of the Arts
Lucille Chung, Artist-in-Residence of Piano, International Concert Artist, M.M., Artist Certificate, SMU
Brandi Coleman, Artist in Residence in Dance, M.F.A., Wisconsin
Michael Connolly, Associate Professor of Theatre, Ph.D., Indiana
Michael Corris, Professor of Art, Ph.D., University College London
Benard Cummings, Assistant Professor of Theatre, M.F.A., Yale
Jack Delaney, Professor of Music, Meadows Wind Ensemble Director, D.M.A., Cincinnati College Conservatory of Music

Patricia Harrington Delaney, Associate Professor of Dance, Division of Dance Chair, M.F.A., SMU
Andrés Díaz, Professor of Cello, B.M., Artist Diploma, New England Conservatory
Dale Dietert, Senior Lecturer of Voice, M.M., Texas
Maria Dixon, Associate Professor of Corporate Communication and Public Affairs, Ph.D., Missouri
Christopher Dolder, Associate Professor of Dance, M.F.A., Mills

Sandra Duhé, Associate Professor of Corporate Communication and Public Affairs, Division of Corporate Communication and Public Affairs Chair, Ph.D., Texas (Dallas)

Virginia Dupuy, Professor of Voice, M.M., Texas
Steven Edwards, Distinguished Chair and Professor of Advertising, Director of the Temerlin Advertising Institute for Education and Research, Ph.D., Texas

Stefan Engels, Professor of Music, Leah Young Fullinwider Centennial Chair in Music Performance, D.M.A., Northwestern

Valerie Evans, Professor of Practice in Journalism, B.A., Northern Illinois
Mark Feezell, Senior Lecturer in Music Theory, Ph.D., North Texas
Barnaby Fitzgerald, Professor of Art, M.F.A., Yale
Hugh Clifton Forbis, Professor of Voice, M.M., SMU
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Ira Greenberg, Professor of Creative Computation, M.F.A., Pennsylvania
Jack Greenman, Associate Professor of Theatre, M.F.A., California (Irvine)
Randall C. Griffin, University Distinguished Professor of Art History, Ph.D., Delaware
Sean Griffin, Professor of Film and Media Arts, Ph.D., Southern California
Kevin Gunter, Lecturer of Piano and Class Piano, M.M., SMU
Pam Harris Hackett, Executive-in-Residence in Journalism, B.S., Texas
Blake Hackler, Assistant Professor of Theatre, M.F.A., Yale
Hank Hammett, Senior Lecturer of Music, Opera Director, M.M., Texas
Kevin Hanlon, Associate Professor of Composition, D.M.A., Texas
Lane Harder, Lecturer of Music Theory and Composition, D.M.A., Texas
Jim Hart, Assistant Professor of Practice of Arts Management and Arts Entrepreneurship, Arts Entrepreneurship Director, M.F.A., Yale
C. Michael Hawn, Professor of Sacred Music, D.M.A., Southern Baptist Theological Seminary

Kevin Heffernan, Associate Professor of Film and Media Arts, Ph.D., Wisconsin (Madison)
Adam Herring, Associate Professor of Art History, Department of Art History Chair, Emily Rich Summers Endowed Professor in Art History, Ph.D., Yale

Kevin Paul Hofeditz, Professor of Theatre, Senior Associate Dean, Meadows School of the Arts, M.F.A., Missouri (Kansas City)

Samuel S. Holland, Professor of Music, Algur H. Meadows Dean, Meadows School of the Arts, Ph.D., Oklahoma Derrick Horne, Professor of Practice in Music, M.M., SMU

Michele Houston, Professor of Practice in Journalism, M.A., North Texas
Pamela Elrod Huffman, Associate Professor of Music, Choral Activities Director, D.M.A., Illinois
Cara Jacocks, Assistant Professor of Corporate Communication and Public Affairs, Ph.D., Texas A\&M
Adam Jasienski, Assistant Professor of Art History, Ph.D., Harvard
David Karp, Professor of Piano, D.M.A., Colorado
Alice Kendrick, Marriott Family Endowed Professor, Ph.D., Tennessee (Knoxville)
Mark Kerins, Associate Professor of Film and Media Arts, Ph.D., Northwestern
Chee-Yun Kim, Artist-in-Residence, Violinist
Eunjin Kim, Assistant Professor of Advertising, Ph.D., Missouri
Rita Kirk, Professor of Corporate Communication and Public Affairs, Ph.D., Missouri
Derek Kompare, Associate Professor of Film and Media Arts, Division of Film and Media Arts Chair, Ph.D., Wisconsin (Madison)

Camille Kraeplin, Associate Professor of Journalism, Ph.D., Texas
Robert Krout, Professor of Music Therapy, Ed.D., Columbia, MT-BC
Peter Kupfer, Assistant Professor of Music History and Literature, Ph.D., Chicago
Carrie La Ferle, Professor of Advertising and Altshuler Distinguished Teaching Professor, Ph.D., Texas
Stephanie Langin-Hooper, Assistant Professor of Art History, Karl Kilinski, II Endowed Chair in Hellenic Visual Culture, Ph.D., California (Berkeley)

Bill Lengfelder, Professor of Theatre, M.F.A., Lindenwood College
Carol Leone, Associate Professor of Piano, D.M.A., North Texas
Owen Lynch, Associate Professor of Corporate Communication and Public Affairs, Ph.D., Texas A\&M
Catharine Lysinger, Professor of Practice in Piano Pedagogy and Preparation, Piano Preparatory Department Director, D.M.A., Houston

David Mancini, Associate Professor of Music Theory, Division of Music Director, Ph.D., Yale
Stephanie Martin, Assistant Professor of Corporate Communication and Public Affairs, Ph.D., California (San Diego)
Eileen Maxson, Senior Lecturer in Photography, M.F.A., Carnegie Mellon
Cheryl Mendenhall, Senior Lecturer of Advertising, Graphic Design Minor Program Director, M.F.A., Tennessee (Knoxville)

Jamal Mohamed, Lecturer of Percussion, World Music Ensemble Director
Brian Molanphy, Assistant Professor of Art, M.F.A., Pennsylvania State
Barbara Hill Moore, Professor of Voice, M.S., Illinois
Alfred Mouledous, Professor of Piano, M.M., Eastman School of Music
Sidharth Muralidharan, Assistant Professor of Advertising, Ph.D., Southern Mississippi (Hattiesburg)
Melissa Murray, Senior Lecturer of Music Theory, M.M., SMU
Peter-J.E. Noble, Professor of Practice in Advertising, Graduate Program Coordinator, M.A., Texas
Russell Parkman, Associate Professor of Theatre, M.A., Illinois
Leslie Peck, Associate Professor of Dance, Balanchine Trust Repetiteur and Principal Dancer
Tony Pederson, Professor of Journalism, Belo Foundation Endowed Distinguished Chair in Journalism, M.A., Ohio State

Troy Perkins, Associate Professor of Film and Media Arts, M.F.A., New York
Paul Phillips, Professor of Music, Martha Raley Peak Centennial Chair and Director of the Meadows Symphony Orchestra, D.M.A., Eastman School of Music

Lisa Pon, Associate Professor of Art History, Ph.D., Harvard
Will Power, Artist-in-Residence in Theatre, B.A., San Francisco State
Sara Romersberger, Associate Professor of Theatre, M.A. (Certified in Mime), Illinois
Christopher Salinas, Senior Lecturer of Corporate Communication and Public Affairs, Ph.D., Wayne State
Anne Schilling, Associate Professor of Theatre, M.A., Central School of Speech and Drama (London)
Jared Schroeder, Assistant Professor of Journalism, Ph.D., Oklahoma
Julie Scott, Professor of Practice in Music Education, Ph.D., Eastman School of Music
David Sedman, Associate Professor of Film and Media Arts, Ph.D., Bowling Green
Noah Simblist, Associate Professor of Art, Division of Art Chair, Ph.D., Texas
Gretchen Smith, Associate Professor of Theatre, Ph.D., Indiana
Jason Smith, Lecturer of Voice, Vocal Coach, M.M., Florida State
Claudia Stephens, Associate Professor of Theatre, M.F.A., Carnegie Mellon
Eric Stryker, Visiting Assistant Professor of Art History, Ph.D., Yale
James W. Sullivan, Professor of Art, M.F.A., California State (Long Beach)
Karen Thomas, Professor of Practice in Journalism, M.S., Columbia
Thomas W. Tunks, Professor of Music, Ph.D., Michigan State
Mark N. Vamos, Journalist-in-Residence, William J. O'Neil Chair in Business Journalism, M.S., Columbia

Philip Van Keuren, Professor of Art, M.F.A., SMU
Mary Vernon, Professor of Art, M.A., New Mexico
Zannie Giraud Voss, Professor of Arts Management and Arts Entrepreneurship, Division of Arts Management and Arts Entrepreneurship Chair, Ph.D., IAE, Aix-en-Provence (France)

Ben Voth, Associate Professor of Corporate Communication and Public Affairs, Debate and Speech Director, Ph.D., Kansas

Zachary Wallmark, Assistant Professor of Music History and Literature, Ph.D., California (Los Angeles)
Xi Wang, Associate Professor of Music Theory and Composition, Ph.D., Cornell
Anne Westwick, Senior Lecturer of Dance, M.F.A., Mills College
Stanley Wojewodski, Jr., Meadows Distinguished Professor of Directing, Division of Theatre Chair, M.F.A., Catholic
Myra Woodruff, Professor of Dance, B.A., New York, International Artist, Instructor and Choreographer, Graham Technique Scholar

Steve Woods, Professor of Theatre, M.F.A., New Orleans
Rick Worland, Professor of Film and Media Arts, Ph.D., California (Los Angeles)
Hye Jin Yoon, Professor of Advertising, Ph.D., Georgia

## Meadows Emeritus Faculty

Robert Beard, Professor Emeritus of Dance, M.F.A., SMU
Janis Bergman-Carton, Professor Emeritus of Art History, Ph.D., Texas
Annemarie Weyl Carr, Professor Emeritus of Art History, Ph.D., Michigan
Robert B. Chambers, Professor Emeritus of Stage Design, M.A., Kansas
Alessandra Comini, Professor Emeritus of Art History, Ph.D., Columbia
Charles Eagle, Professor Emeritus of Music Therapy
John Gartley, Professor Emeritus of Cinema, Ph.D., Michigan
Kenneth Hart, Professor Emeritus of Sacred Music, D.M.A., Cincinnati
Charley Helfert, Professor Emeritus of Theatre, Ph.D., Wisconsin (Madison)
Debora Hunter, Professor Emeritus of Art, M.F.A., Rhode Island School of Design
Arthur B. Koch, Professor Emeritus of Art, M.S.A., Washington
Margaret Loft, Professor Emeritus of Theatre
David McHam, Professor Emeritus of Communications, M.S., Columbia
Dale Moffitt, Professor Emeritus of Theatre, Ph.D., Washington State

Jim Morris, Professor Emeritus of Communications, Ed.D., North Texas
James A. Ode, Professor Emeritus of Music Education, D.M.A., Performer's Certificate, Eastman School of Music
Cecil O'Neal, Professor Emeritus of Theatre, B.A., Wisconsin
Larry Palmer, Professor Emeritus of Organ/Harpsichord, A.Mus.D., Eastman School of Music
G. Donald Pasquella, Professor Emeritus of Communications, M.A., Iowa

Darwin Payne, Professor Emeritus of Communications, Ph.D., Texas
Simon Sargon, Professor Emeritus of Composition, M.S., Juilliard School of Music
Don Umphrey, Professor Emeritus of Advertising, Ph.D., Texas
P. Gregory Warden, Professor Emeritus of Art History, Ph.D., Bryn Mawr

Stephen D. Wilder, Professor Emeritus of Art, M.F.A., Wisconsin

## Meadows Artist Staff

Richard Abrahamson, Staff Musician, Juilliard School of Music
David Brown, Piano Technician, Division of Music Assistant Director for Operations, B.A., Coe College
Tara Emerson, Accompanist, M.M., South Carolina
Ryan Goolsby, Studio Technician, M.F.A., Texas Christian
Eliseo Gutierrez, Scene Shop Foreman
Don Hopkins, Mustang Band Director
Melissa Panzarello, Costume Shop Manager, M.F.A., Florida State
Steven Piechocki, Associate Master Electrician, M.F.A., Utah State
Mina Polevoy, Part-time Staff Musician
JT Ringer, Prop Master, B.F.A., Emerson College
Eugenie Stallings, Costumer, B.A., Texas
Tommy Tucker, Mustang Band Staff

## Meadows Adjunct Faculty

Note: The list of faculty adjuncts provided here is advisory only. In any given term, a particular adjunct may not be able to teach because of other commitments. This is especially true because many of SMU's adjuncts are professionals and scholars who are in high demand.

Christopher Adkins, Adjunct Professor of Cello, Principal Cello DSO, M.M.A., Yale
Dawn Askew, Adjunct Lecturer of Theatre, Master Electrician, B.A., Southwestern Oklahoma State

Belinda Baldwin, Adjunct Lecturer of Advertising, Ph.D., Southern California
Deborah Baron, Adjunct Assistant Professor of Flute, Assistant Principal Flute DSO, M.M., Juilliard School of Music
Brian Bentley, Adjunct Lecturer, Vocal Coach, M.M., SMU
Jason Biggs, Adjunct Lecturer of Theatre, B.M., SMU
Linda Blase, Adjunct Lecturer of Theatre, M.F.A., Trinity
Ann Marie Brink, Adjunct Associate Professor of Viola, Associate Principal Viola, DSO, M.M., Juilliard
Trey Bowles, Adjunct Lecturer of Corporate Communication and Public Affairs, M.B.A., Baylor
John Bryant, Adjunct Lecturer of Percussion
Laura Bull, Adjunct Lecturer of Advertising, B.B.A., Belmont

Danya Casey, Adjunct Lecturer of Advertising, M.A., Texas
Kalman Cherry, Adjunct Associate Professor of Percussion, Principal Timpani DSO (retired), Artist Diploma, Curtis Institute of Music

Christina Coats, Adjunct Lecturer of Corporate Communication and Public Affairs, B.S., Wyoming
Kim Corbet, Adjunct Assistant Professor of Music History and Literature, M.M., Texas Christian
Alise Cortez, Adjunct Lecturer of Corporate Communication and Public Affairs, Ph.D., Fielding Graduate
Cole Daugherty, Adjunct Lecturer of Journalism, Ph.D., Texas A\&M
Donald Fabian, Adjunct Assistant Professor of Saxophone, M.M., Michigan State
Rebecca Flores, Adjunct Lecturer of Film and Media Arts, M.F.A., University of Southern California
Paul Garner, Adjunct Associate Professor of Clarinet, Associate Principal Clarinet DSO, M.M., Kansas
Jean Larson Garver, Adjunct Professor of Flute, Principal Flute DSO (retired), M.M., Texas
Liudmila Georgievskaya, Adjunct Lecturer, Coordinator of Accompanying, Moscow State Conservatory
Matthew Good, Adjunct Associate Professor of Tuba, Principal Tuba DSO, B.M., Curtis Institute of Music
Robert Guthrie, Adjunct Professor of Guitar, Guitar Ensemble Director, B.M., North Carolina School of the Arts
David Hadeler, Adjunct Lecturer of Advertising, M.A., North Texas
John Hall, Adjunct Lecturer of Advertising, B.A., Oklahoma
Chris Ham, Adjunct Lecturer of Dance, M.F.A., SMU
Erin Hannigan, Adjunct Associate Professor of Oboe, Principal Oboe DSO, M.M., Eastman School of Music
Robert Hart, Adjunct Lecturer of Journalism, B.A., Texas (Arlington)
Sally Helppie, Adjunct Lecturer of Film and Media Arts, J.D., California (Los Angeles)
Haley Hoops, Adjunct Lecturer of Horn, DSO, M.M., Northwestern

Douglas Howard, Adjunct Professor of Percussion, Principal Percussion DSO, M.M., Catholic Gregory Hustis, Adjunct Professor of Horn, Principal Horn DSO (retired), B.M., Curtis Institute of Music Tearlach Hutcheson, Adjunct Lecturer of Film and Media Arts, M.A., Colorado

Lynne Jackson, Adjunct Assistant Professor of Music Education, M.M., Michigan
Matthew Jacob, Adjunct Lecturer of Corporate Communication and Public Affairs, M.A., Missouri JoLynne Jensen, Adjunct Lecturer of Arts Management and Arts Entrepreneurship, Ph.B., Wayne State Brian Jones, Adjunct Lecturer of Percussion, Principal Timpani DSO, Professional Certificate, Temple Elif Kavakci, Adjunct Lecturer of Journalism, M.L.S., SMU

Camille King, Adjunct Assistant Professor of Voice, B.A., California

Diane Kitzman, Adjunct Associate Professor of Violin, Principal Violin DSO, B.A., Michigan
John Kitzman, Adjunct Professor of Trombone, Principal Trombone DSO (retired), B.M., Michigan
Susan Kress, Adjunct Professor of Art, M.F.A., Southern Illinois
Drew Lang, Adjunct Lecturer of Percussion, M.M., Arizona
Suzanne Larkin, Adjunct Lecturer of Advertising, M.F.A., Texas A\&M (Commerce)
Gordon Law, Adjunct Lecturer of Advertising, B.S., Oklahoma State
Steve Leary, Adjunct Lecturer of Theatre, Assistant Technical Director, B.A., Cameron
Linda Leavell, Adjunct Lecturer of Journalism, B.A., Texas
Thomas Lederer, Adjunct Associate Professor of Double Bass, Co-principal Double Bass DSO, B.F.A., Carnegie Mellon

Jon Lee, Adjunct Assistant Professor of Music, Percussion Ensemble Director, M.M., SMU
Steve Lee, Adjunct Lecturer of Corporate Communication and Public Affairs, M.A., Texas (Arlington)
Alan Lidji, Adjunct Lecturer of Advertising, B.F.A., Colorado State
Janice Lindstrom, Adjunct Assistant Professor, Music Therapy Supervisor, M.A., M.T.-B.C., Texas Woman's
J.D. Margetts, Adjunct Lecturer of Theatre, Technical Director, M.F.A., Northern Illinois

David Matthews, Adjunct Assistant Professor of Music, B.M., North Texas
Morgan May, Adjunct Lecturer of ESL, M.Ed., SMU
Meredith McKee, Adjunct Lecturer of Corporate Communication and Public Affairs, B.A., SMU
Michele Meitl, Adjunct Lecturer of Corporate Communication and Public Affairs, J.D., Catholic
Brian Merrill, Adjunct Associate Professor of Music Education, M.M.E., North Texas
Kimberly Millea, Adjunct Lecturer of Corporate Communication and Public Affairs, M.A., New York

Maureen Mixtacki, Adjunct Lecturer of Arts Management and Arts Entrepreneurship, B.B.A., Notre Dame
Naoko Nakamura, Adjunct Lecturer of Harp, M.M., Rice
Bruce Orr, Adjunct Lecturer of Advertising, M.B.A., Illinois
Morgan Palmer, Adjunct Lecturer of Dance, B.F.A., SMU
Deborah Perkins, Adjunct Assistant Professor of Music Education, Ph.D., North Texas
Brian Perry, Adjunct Associate Professor of Double Bass, DSO, M.M., Boston
Gregory Raden, Adjunct Associate Professor of Clarinet, Principal Clarinet DSO, B.M., Curtis Institute of Music James Richman, Adjunct Lecturer of Harpsichord, Dallas Bach Society Director, M.M., Juilliard

Wilfred Roberts, Adjunct Professor of Bassoon, Principal Bassoon DSO (retired), B.M., Oberlin College Conservatory of Music

Jill Robinson, Adjunct Professor of Arts Management and Arts Entrepreneurship, MBA, University of Colorado Mark Roglán, Adjunct Associate Professor of Art History, Ph.D., Autónoma de Madrid

Ellen Rose, Adjunct Associate Professor of Viola, Principal Viola DSO, M.M., Juilliard School of Music Jennifer Schuder, Adjunct Lecturer of Arts Management and Arts Entrepreneurship, M.S., Texas Jamaison Schuler, Adjunct Lecturer of Corporate Communication and Public Affairs, B.S. Southern Indiana Jason Shipp, Adjunct Lecturer of Advertising, B.A., SMU

Lauren Smart, Adjunct Lecturer of Journalism, M.A., Syracuse
Dylan Smith, Adjunct Assistant Professor of Jazz, M.M., SMU
Edward Lee Smith, Adjunct Lecturer of Percussion
Barbara Sudweeks, Adjunct Associate Professor of Viola, Associate Principal Viola DSO, Curtis Institute of Music
Jayne Suhler, Adjunct Professor of Practice in Journalism, M.A., Texas
Jean-Jacques Taylor, Adjunct Lecturer of Journalism, B.A., Ohio State
Bruce Tomaso, Adjunct Lecturer of Journalism, B.A., Texas
Kelly Trager, Adjunct Assistant Professor of Arts Management and Arts Entrepreneurship, J.D., New York (Brooklyn)

Brittany Merrill Underwood, Adjunct Lecturer of Corporate Communication and Public Affairs, M.A., Fuller Theological Seminary

Marc Valerin, Adjunct Lecturer of Advertising, Ph.D. North Texas
Robert Ward, Adjunct Lecturer, Concert Choir Conductor, M.M., SMU
Alexandra Watson, Adjunct Lecturer of Advertising, M.A., SMU
Kara Kirkendoll Welch, Adjunct Assistant Professor of Flute, DSO, M.M., SMU

# Simmons School of Education and Human Development 

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Rebecca Hood, Senior Assistant Dean for Finance and Operations

Kathryn Canterbury, Assistant Dean for Research and Grants Accounting
Yolette Garcia, Assistant Dean for External Affairs and Outreach
Margaret Mahoney, Assistant Dean for Academic Affairs

## Administration

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Lisa Bell, Assistant to the Dean
Eric Bing, Director of the Institute for Leadership Impact
Tony Cuevas, Director of Instructional Design and Learning Technology
Suzanne Frank, Director of The Writer's Path
Akihito Kamata, Executive Director of the Center on Research and Evaluation
Michele Mrak, Director of Graduate Liberal Studies
Regina Nippert, Executive Director of The Budd Center: Involving Communities in Education

## Simmons Faculty

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Nancy Roberts, Professor of Practice of Teaching and Learning, M.Ed., North Texas<br>Laura Robinson-Doyle, Lecturer of Applied Physiology and Wellness, M.S., Texas Christian<br>Kelyn S. Rola, Lecturer of Applied Physiology and Wellness, M.S., Texas Christian<br>Diego Roman, Assistant Professor of Teaching and Learning, Ph.D., Stanford<br>Dara Rossi, Clinical Associate Professor of Teaching and Learning, Ph.D., North Texas<br>Amy Gillespie Rouse, Assistant Professor of Teaching and Learning, Ph.D., Vanderbilt<br>Robert Rouse, Clinical Assistant Professor of Teaching and Learning, Ph.D., Vanderbilt<br>Mark Rudich, Lecturer of Applied Physiology and Wellness, M.S., Baylor<br>Edita Ruzgyte, Clinical Associate Professor of Dispute Resolution and Counseling, Ph.D., Texas Woman's<br>Brandy Schumann, Clinical Associate Professor of Dispute Resolution and Counseling, Ph.D., North Texas<br>Milan Sevak, Clinical Assistant Professor of Education Policy and Leadership, Ed.D., Harvard<br>Misty Solt, Clinical Associate Professor of Dispute Resolution and Counseling, Ph.D., North Texas<br>Kenneth L. Springer, Associate Professor of Teaching and Learning, Ph.D., Cornell<br>Michael Stone, Professor of Practice of Applied Physiology and Wellness, Ph.D., Michigan<br>Ashley Tull, Clinical Associate Professor of Education Policy and Leadership, Ed.D., Florida State<br>Candace Walkington, Assistant Professor of Teaching and Learning, Ph.D., Texas (Austin)<br>Paige Ware, Professor of Teaching and Learning, Ph.D., California (Berkeley)<br>Bradley Warren, Lecturer of Applied Physiology and Wellness, M.S., West Virginia<br>Beverly Weiser, Research Associate Professor of Teaching and Learning, Ph.D., SMU<br>Peter G. Weyand, Glenn Simmons Endowed Professor, Ph.D., Georgia<br>Anne Wilhelm, Assistant Professor of Teaching and Learning, Ph.D., Vanderbilt<br>Paul Yovanoff, Professor of Teaching and Learning, Ph.D., Oregon

## Simmons Emeritus Faculty

Shirley Corbitt, Professor Emeritus of Physical Education, Ph.D., Texas Woman's
Dale E. Davis, Professor Emeritus of Teacher Preparation

Deborah Diffily, Professor Emeritus of Teaching and Learning, Ph.D., North Texas
Paul Gordon Hook, Professor Emeritus of Physical Education, Ph.D., North Texas

Jiang (JoAnn) Lan, Professor Emeritus of Teaching and Learning, Ed.D., Northern Illinois
G. Reid Lyon, Professor Emeritus of Education Policy and Leadership, Ph.D., New Mexico

Patricia Mathes, Professor Emeritus of Teaching and Learning, Ph.D., Vanderbilt
George McMillion, Professor Emeritus of Physical Education
William Pulte, Professor Emeritus of Teaching and Learning
Bryan Robbins, Professor Emeritus of Physical Education
R. Jack Roberts, Professor Emeritus of Education

Patricia K. Webb, Professor Emeritus of Teacher Preparation, Ed.D., North Texas

## Simmons Adjunct Faculty

Note: The list of faculty adjuncts provided here is advisory only. In any given term, a particular adjunct may not be able to teach because of other commitments. This is especially true because many of SMU's adjuncts are professionals and scholars who are in high demand.

Janet Harris, Adjunct Lecturer of Lifelong Learning, Ph.D., North Texas
Karen Vickery, Adjunct Lecturer of Teaching and Learning, Ed.D., Texas A\&M (Commerce)

