DEDMAN COLLEGE

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, non-degree 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. It would not only provide the basic foundations in liberal arts education to all SMU students through the General Education Curriculum but 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 Robert H. and Nancy Dedman and became Dedman College.

In addition to being the oldest academic unit at SMU, Dedman College is also the largest. In 1992, it enrolled more than 1,400 undergraduate majors and nearly 340 graduate students. More than 250 full-time faculty are based in the College. Undergraduate students in Dedman College may major in any one of 52 programs, and choose from 50 minor programs. The College offers 22 graduate programs leading to a Master's degree and 11 programs leading to a Doctor of Philosophy degree. Its 15 academic departments include: Anthropology, Biological Sciences, Chemistry, Economics, English, Foreign Languages and Literatures, Geological Sciences, History, Mathematical Sciences, Philosophy, Physics, Political Science, Psychology, Religious Studies, and Statistical Science. In addition, the College offers three part-time multidisciplinary evening degrees: Bachelor of Humanities, Bachelor of Social Science, and a Master of Liberal Arts.

ACADEMIC PROGRAMS OF STUDY

Majors in Dedman College include:

Foreign Languages and Literatures Anthropology Biochemistry Foreign Languages — French Foreign Languages — German Biological Sciences Chemistry Foreign Languages — Spanish Environmental Chemistry French Economics German Finance Applications German Area Studies Systems Analysis Italian Area Studies English Russian

Creative Writing Russian Area Studies Environmental Science Spanish

Ethnic Studies Geology
African/African American
Studies Environmental
Geophysics
Mexican-American Studies History

exicali-American studies History

German Medieval Studies
German Area Studies Philosophy
Italian Area Studies Physics
Russian Political Science
Russian Area Studies Psychology
Spanish Public Policy
Geology Religious Studies
Environmental Social Sciences
Geophysics (Evening Program)
History Sociology
Humanities (Evening Program)
Southwest Studies
Statistical Science

Individual Studies in

the Liberal Arts

International Studies

Mathematics

Latin American Studies

Minors available include:

African-American Studies Environmental Earth Sciences Mathematics Anthropology Ethics Medieval Studies Archaeological European Studies Mexican-American Studies Biomedical Foreign Languages and Literatures Modern European Studies Cultural Chinese Natural Sciences French Philosophy Asian Studies Biological Sciences German Physics German Area Studies Political Science Chemistry Classical Studies Italian American Politics, Law. Economics Italian Area Studies and Administration Econometrics Japanese Comparative and International International Economics Japanese Area Studies **Politics** Labor Economics Russian Political Thought Managerial Economics Russian Area Studies Psychology Monetary Economics Spanish Religious Studies Public Economics Geology Sociology Economics of Industrial Southwest Studies History Organization International Studies Statistical Science Latin-American Studies English Women's Studies

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

Dedman College students may also complete minors in other schools on campus, including the Edwin L. Cox School of Business, Meadows School of the Arts, and the School of Engineering and Applied Science. Interested students should contact the Office of the Dean in those schools concerning specific requirements.

HONORS PROGRAMS

During their first and second years at SMU, a number of Dedman College students participate in The University Honors Program described in the Academic Programs section of this catalog and subsequently graduate with "Honors in the Liberal Arts."

DEPARTMENTAL DISTINCTION

Students participating in the University Honors Program are encouraged to join the Departmental Distinction Program to earn the designation of "Liberal Arts Honors with Departmental Distinction" in their transcripts.

During the 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. More specific information on the programs in each department can be found in the "Courses of Study in Dedman College" section.

Successful completion of the departmental honors program earns the student "Departmental Distinction."

PROGRAMS FOR PRE-PROFESSIONAL STUDENTS

Before arranging a program in Dedman College, the pre-professional student should become familiar with the entrance requirements of the particular professional school that the student intends to enter. Requirements differ to some extent even within the same profession, and the student will find that some schools require that specific courses be included in the pre-professional training.

PRE-LAW

To be a pre-law student at SMU does not require any particular major or academic program. Pre-law seniors who go on to law school include majors in all four undergraduate schools. To be successful in law school requires skills in critical analysis,

logical reasoning, and written and oral expression. Students should keep in mind that the spoken and written word are the principal tools of the legal profession. Students who intend to study law must develop an excellent knowledge and grasp of the English language as well as a clear and concise style of expression.

Furthermore, a sound liberal arts education is generally best for most pre-law students. Courses in political science, history, economics, statistics, and anthropology help a student understand the structure of society and the problems of social ordering with which the law is concerned.

The study of philosophy, literature, fine arts, foreign languages, and other cultures imparts familiarity with traditions of universal thought and trends that have influenced or tend to influence 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 pre-law student's capacity to analyze, understand, and rationally organize his or her thoughts. And, in some fields of law practice, it is useful for a student to have a fundamental knowledge of technology, engineering, computers, and accounting.

Law School Admission Test. Candidates for admission to an American Bar Association-approved school of law must take the Law School Admission Test administered by the Law School Admission Service of Newtown, Pennsylvania. Candidates are urged to take the test on the June, October, or December testing dates preceding the fall term in which they seek admission to law school.

For additional pre-law information, undergraduate students may consult the prelaw adviser in the Dedman College Advising Center.

CREDIT REQUIREMENTS. Except in very rare circumstances, all approved law schools require that an applicant for admission have been granted a bachelor's degree from an accredited college or university.

Admission to the SMU School of Law. Admission to the SMU School of Law is by selection based upon the academic record of the applicant, the applicant's Law School Admission Test score, and other available data. Further information can be obtained by writing the Admissions Officer, SMU School of Law, PO Box 750110, Dallas TX 75275-0110. World Wide Web: www.law.smu.edu/admissions

PRE-MEDICAL/DENTAL

Medical and dental schools seek students who have demonstrated strength in their major — any major of the student's choosing — and in the sciences. There is no preferred major. Honors work is appropriate.

Students planning to pursue the study of medicine or dentistry are assigned to one of the pre-medical advisers in the Advising Center during their first year at SMU. Thereafter, they work with an adviser in their major and the Health Professions Advisory Committee.

Credit Requirements. Most medical and dental schools require the following coursework for entry:

English, six hours; Mathematics (including calculus), six hours; Biology, 8-14 hours — 14 for Texas Medical Schools; Chemistry, 16-21 hours; and Physics, eight hours. This coursework may be done as part of a major or minor in the sciences or as electives in a non-science major or minor. These courses should be completed by the end of the junior year.

students should confer with advisers in both schools at an early date in order to prepare a proposed plan of study. Students are individually responsible for knowing and complying with all regulations and requirements that may apply to their respective programs.

TRANSFER COURSES FROM OTHER INSTITUTIONS

Once matriculated at SMU, students wishing to enroll for and transfer in 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 would offer the course, and the dean of Dedman College. Approval may be denied for educational reasons. Post-matriculation transfer work from two-year institutions will not be approved.

ADMISSION

All incoming first-year students to the University are admitted to Dedman College. Please see the Admission to the University section of this catalog for requirements. Students wishing to pursue majors in the humanities or in the social or natural sciences or in various multidisciplinary programs remain 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 is open to qualified undergraduate and graduate applicants without regard to race, color, ethnic or national origin, creed, gender, or physical disability.

Admission from Other Schools Within Southern Methodist University

An individual enrolled in another school of the University may apply to the dean of the school in which the student is currently enrolled for permission to transfer into a degree-granting program in Dedman College. A student who has achieved a cumulative G.P.A. of 2.00 on all SMU work attempted will normally be admitted to candidacy for a degree in Dedman College.

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.

MEDICAL COLLEGE ADMISSION TEST. Candidates for admission to medical school must take the Medical College Admission Test (MCAT). The MCAT should be taken in the spring of the junior year. Candidates for dental school should take the Dental Admission Test (DAT), also in the spring of the junior year.

Further information concerning the program can be obtained from the Chair of the Health Professions Recommendation Committee.

UNDERGRADUATE INTERNSHIP PROGRAM

The Dedman College Undergraduate Internship Program helps students begin to prepare for employment. Internships are designed to demonstrate and reinforce the valuable and highly marketable skills that our students acquire.

The following guidelines apply:

- Credit-bearing internships are unpaid and supervised by faculty, department or program.*
- Dedman Internship Program Orientation and Standardized University Release of Liability for Education Internship are required.
- Internships 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. (Students and site supervisors will complete evaluations of the experience. These evaluations would not be considered in determination of the grade.)
- Internships require a written component based on and reflective of the experiential dimension.
 - Internships are available only through approved internship courses.
 - Internship credit may range from one to three hours.
- The maximum total internship credit that may be applied toward a degree is three hours.
 - Internships must be based on unpaid experiences.

TEACHER CERTIFICATION PROGRAMS

SMU has offered a teacher preparation program since opening in 1915. Accredited by the Texas Education Agency (TEA), SMU offers certification in elementary, secondary, and all level music education. The program enables students to be certified to teach in Texas as well as in other states.

For additional information concerning certification requirements, students should consult the section on teacher preparation in this catalog or contact the teacher preparation office.

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 School of Engineering and Applied Science; and foreign language in Dedman College and a major or minor in the Cox School of Business. Since all requirements for both degrees must be met,

^{*}Non-credit bearing internships may either be paid or unpaid and are without faculty, department or program supervision. Internship orientation is strongly suggested. A University Release of Liability is required.

DEGREE REQUIREMENTS

Dedman College offers two undergraduate degrees: the Bachelor of Arts and the Bachelor of Science. For the degree available in a specific area of study, consult the individual programs of study described elsewhere in this catalog.

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. 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 in which the major is declared, or those of a subsequent academic year. Course work counting toward a major must include at least 18 advanced hours in residence and may not be taken pass/fail. All advanced courses required in the major must be passed with a grade of C— or better. In addition, Dedman College requires a cumulative G.P.A. of 2.00 for all courses attempted for completion of a major or minor. Majors must be officially declared (or changed) through the office of the Dean.

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. Course work counting toward a minor may not be taken pass/fail. All advanced courses required in 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 residence. In addition, Dedman College requires a cumulative G.P.A. of 2.00 for all courses attempted for completion of a major or minor. Minors must be officially declared (or changed) through the Office of the Dean.

GENERAL REQUIREMENTS

STUDENT RESPONSIBILITY FOR COMPLETION OF DEGREE PLAN. Students are required to schedule a degree plan conference in the office of the Dean at the time of their acceptance into a major in the College. Detailed information concerning academic regulations and degree requirements will be provided at that time. 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 office of the Dean a formal application for graduation by the first week in October for December graduation, by the last week in January for May graduation, or by the second week in June for August graduation.

CREDITS. A candidate for a degree in Dedman College must have:

- 1. A minimum total of 122 term hours of credit, including the requirements for general education and the requirements for a major.
 - 2. A minimum total of 42 advanced hours (3000 level or above).
 - 3. A maximum total of 2 hours of Wellness.
 - 4. A maximum total of 3 hours of internship credit.

GRADES. A candidate for a degree in Dedman College must attain:

- 1. A minimum cumulative G.P.A. of 2.00 on all work attempted at SMU.
- 2. A minimum cumulative G.P.A. of 2.00 on all work attempted at SMU and all equivalent work attempted elsewhere, if any.
- 3. A minimum grade of *C* on any advanced course offered in fulfillment of major or minor requirements.

- 4. A minimum cumulative G.P.A. of 2.00 for all work attempted for completion of major or minor requirements.
 - 5. No more than 30 hours with a grade of D(D-, D, D+).
 - 6. No more than 12 hours with a grade of P.

RESIDENCY. As minimum requirements, a candidate for a degree in Dedman College must take the following hours in residence at SMU:

- 1. A total of 60 hours.
- 2. A total of 18 hours of advanced work in the major.
- 3. A 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.
 - 4. A total of 45 of the last 60 hours earned toward the degree.

REQUIREMENTS FOR OBTAINING TWO DEGREES SIMULTANEOUSLY. A student who selects two majors in Dedman College that lead to different degrees (B.A. and B.S.) may receive both degrees simultaneously by completing all requirements in each major, along with general requirements for a degree in Dedman College. However, a student may not be awarded more than one baccalaureate degree from the same department.

A student may pursue a program of study leading to a degree from Dedman College along with a degree from Cox School of Business, Meadows School of the Arts, or the School of Engineering and Applied Science. The student must obtain approval for the proposed program of study from the Deans of the schools involved.

Graduation Honors. There are three classes of graduation honors: *summa cum laude*, requiring a minimum G.P.A. of 3.90; *magna cum laude*, requiring a G.P.A. of 3.70; and *cum laude*, requiring a G.P.A. of 3.50. 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 G.P.A. For students who have transferred to SMU, two grade-point averages will be calculated, that for all work attempted, and that for work completed at SMU. Honors will be based on the lower of the two averages.

DEPARTMENTAL DISTINCTION. 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. The program of study normally will be undertaken in both the junior and senior years. This award is conferred by the major department on the basis of certain 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 may be obtained from the individual departments.

For more information about Dedman College programs and faculty, please consult the College's World Wide Web site at www.smu.edu/~dedman/.

COURSES OF STUDY IN DEDMAN COLLEGE

AEROSPACE STUDIES

Students at SMU can participate in the Air Force ROTC program at the University of North Texas. Students who participate in the UNT Air Force ROTC program are responsible for their own travel and other physical arrangements

Students register for the Aerospace Studies courses at the same time and in the same manner as they register for other SMU courses. The AFROTC courses are fully accredited, and may be taken as electives in most academic majors. Successful completion of degree requirements and the AFROTC program can lead to a commission as a second lieutenant in the United States Air Force.

For further information concerning tax-free allowances, scholarships, and application procedures, contact: AFROTC, The University of North Texas, PO Box 305400, Denton TX 76203; 940-565-2074.

THE COURSES (AERO)

1030 (FALL), 1040 (SPRING). FOUNDATIONS OF THE U.S. AIR FORCE. A survey course designed to introduce students to the USAF and the AFROTC. Featured topics include mission and organization of the Air Force; officership and professionalism; military customs and courtesies; Air Force officer opportunities, and an introduction to communication skills.

2030 (Fall), 2040 (Spring). The Evolution of USAF Air and Space Power. A course designed to examine general aspects of air and space power through a historical perspective. Using this perspective, the course covers a time period from the first balloons and dirigibles to the spaceage global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies) and missions (functions) to demonstrate the evolution of what has become today's USAF air and space power. In addition, students will continue to discuss the importance of the Air Force Core Values with the use of operational examples and historical Air Force leaders, and will continue to develop their communication skills.

2920. Cooperative Education in Aerospace Studies. Supervised work in a job directly related to the student's major, professional field of study, or career objective. One to three hours each week. *Prerequisites:* Permission of division chair; student must meet employer's requirements. May be repeated for credit.

3310 (Fall), 3320 (Spring). Air Force Leadership. 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. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical application of the concepts being studied.

4310 (FALL), 4320 (SPRING). NATIONAL SECURITY FORCES IN CONTEMPORARY AMERICAN SOCIETY/ PREPARATION FOR ACTIVE DUTY. Examines the national security process; regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to refining communication skills.

4920. Cooperative Education in Aerospace Studies. Supervised work in a job directly related to the student's major, professional field of study, or career objective. One to three 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.

ANTHROPOLOGY

Professor Brettell, Department Chair

Professors: Binford, Freidel, Kemper, Marks, Meltzer, Sampson, Sargent, Wallace, Wendorf, Wetherington; Associate Professors: Adler, Hietala, Lockwood, Pulte, D. Wilson, R. Wilson; Adjunct Professors: Barker, Cordell, Free, B. Jacobs, Lebo, Phinney; Lecturer: Kaemmerer; Emeritus Professors: Anderson, Novak.

Anthropology is divided into four subfields: I) archaeology, II) cultural/social anthropology, III) anthropological linguistics, and IV) physical anthropology.

In addition to providing the basis for careers in the subdisciplines, anthropology provides a background for professional careers in teaching, research, international affairs, medicine, or law. A grade of *C*– or better must be earned in all courses taken in fulfillment of the requirements for the Anthropology major. Students majoring in Anthropology must achieve a minimum 2.00 G.P.A. in Anthropology and are urged to consult their departmental adviser periodically to review their progress.

FOR UNDERGRADUATE STUDENTS

REQUIREMENTS FOR THE B.A. DEGREE. Intended for students who desire general training in anthropology within a liberal arts curriculum. Thirty term hours of anthropology are required, of which 21 must be advanced. Of the 30 hours, required courses are ANTH 2301 and ANTH 4366. However, all candidates for the B.A. major must take at least three term hours in each subfield of anthropology (i.e., archaeology, cultural/social anthropology, physical anthropology, and anthropological linguistics).

REQUIREMENTS FOR THE B.S. DEGREE. Intended for students who wish more specialized training in anthropology, it provides a strong foundation for students intending to pursue a graduate degree. Thirty-six term hours of anthropology are required, of which 24 must be advanced. Of the 36 hours, the following courses are required: ANTH 2301; 2315; 2363; 5334; six term hours of fieldwork-related study (generally 5381 or 5382 and 4333); one of the following–3361 or 5359; and either 4399 or three term hours of independent study (4191, 4192, 4291, 4292, or 4391). In addition, three term hours of statistics (ANTH 3322 or equivalent), and six term hours of foreign language are required.

REQUIREMENTS FOR THE MINOR. A 15-hour minor may be taken in one of three tracks: Archaeology, Cultural Anthropology, and General Anthropology; an 18-hour track may be taken in Biomedical Anthropology. ANTH 2301 is common to all four minors with the remaining courses selected from a list furnished by the department. A grade of *C*- or better must be earned in all advanced courses taken in fulfillment of the requirements for an anthropology minor.

DISTRIBUTION. Many ANTH courses are acceptable for Perspectives 6. Many anthropology courses also fulfill the co-curricular requirements.

The Departmental Distinction Program. This program is open to junior and senior anthropology 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: (a) complete the usual course work for a B.A. or B.S. degree with at least a 3.50 G.P.A. in anthropology and with at least a 3.00 G.P.A., overall; (b) with a grade of *B* or higher, pass ANTH 5334 or complete a substantial independent reading program (for three term-hours credit) on the history, conceptual foundations, or methodological problems of the discipline; (c) with a grade of *A* or *A*—, conduct a research project (for three term hours credit in ANTH 4391 or 4399); and complete a significant research paper that is a minimum of 20 pages of text, includes a bibliography, and is written in appropriate subdisciplinary professional style and format; and (d) pass an oral examination of one hour in length (with at least three departmental faculty members), covering the results of the research project and general issues and concepts in anthropology according to the subfield specialty.

NOTE: All 2000- and 3000-level anthropology courses are open to first-year students.

THE COURSES (ANTH)

2301. Introductory Cultural Anthropology. Basic theories and methods of cultural anthropology. Emphasis on the relevance of nonliterate cultures to Western society. Fulfills co-curricular requirement for Diversity.

- 2302. Prehistoric Cultures. Origins of human culture, arts of Stone Age hunting societies, earliest village farmers, and origins of urban art and architecture. Fulfills co-curricular requirement for Diversity.
- 2315. Human Evolution. Introduction to physical anthropology and human evolution: biological bases of man's social nature and organic evolution. Fossil record and genetics. Fulfills General Education Distribution requirements for Science/Technology.
- 2331 (CF 2331). THE FORMATION OF INSTITUTIONS: ROOTS OF SOCIETY. The nature of social institutions and how they change and become more complex. A case-study approach that examines selected non-Western societies at different levels of complexity. Fulfills co-curricular requirement for Diversity.
- 2345. Leadership and Race Relations. Racism, the constraints it puts on society and the relevance of racism to America's future. Fulfills co-curricular requirement for Diversity.
- 2363. Introductory Archaeology. Introduction to basic methods, theories, discoveries of prehistoric archaeology. Lab sessions give demonstrations and actual work with artifacts. Fulfills General Education Distribution requirements for Science/Technology.
- 3300 (CF 3300). RACE, GENDER, AND CULTURE IN THE AFRICAN DIASPORA. A comparative analysis of the historical, economic, social, and cultural experiences of peoples of African descent in societies in the Western hemisphere.
- 3301 (SOCI 3301). Health, Healing and Society. The examination of beliefs about health and disease in a world context. Texts plus a case history approach are used to examine medical beliefs, concepts of health, mind and body, together with ecological and ethical issues relating to our changing populations. Fulfills co-curricular requirement for Diversity.
- 3302. Monkeys and Apes: The Nonhuman Primates. This course offers an introduction to the study of nonhuman primates, from prosimians to the great apes. It explores questions of taxonomy, aspects of social behavior, and patterns of communication.
- 3303. PSYCHOLOGICAL ANTHROPOLOGY. Examines the interplay of culture and personality in various Western and non-Western societies. Perception, cognition, and dreams are analyzed in cross-cultural perspective. Fulfills co-curricular requirement for Diversity.
- 3304. NORTH AMERICAN ARCHAEOLOGY. A survey of North American cultural history from the entry of humans into the area to European contact. Fulfills co-curricular requirement for Diversity.
- 3305. THE "OTHER" IN AMERICA: POPULAR PERCEPTIONS AND GOVERNMENT POLICY THROUGH TIME. An examination of attitudes during the past 200 years towards "others" in America, as reflected in popular culture (films and fiction), as well as in national and local government policies.
- 3309 (ARHS 3309). THE ETRUSCANS IN IRON AGE ITALY. An archaeological survey of the later prehistory of the Italian peninsula, from the end of the Bronze Age to the Roman Conquest.
- 3310 (CF 3301). Gender and Sex Roles: A Global Perspective. A cross-cultural perspective on social roles of women and men in societies throughout the world. The elaboration of physiological differences into culturally significant categories is examined through ethnographic study of gender in the domestic, economic, and political domains. Fulfills co-curricular requirement for Diversity.
- 3311. Peoples of Mexico: Past and Present. An introduction to the peoples of Mexico, from pre-Conquest times to the present, with special attention to the continuities and transformations of native cultures in their encounters with other cultures. Fulfills co-curricular requirement for Diversity.
- 3312. Meso-American Archaeology. Development of civilizations from village life to the great empires of Mexico. How civilizations begin, grow, change, and collapse. Fulfills co-curricular requirement for Diversity.
- 3313. South American Indians of the Past and Present. 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. Fulfills co-curricular requirement for Diversity.
- 3314. Peoples of Africa. A contemporary study of cultures and social structures of Sub-Saharan African peoples and an examination of the dynamics of contemporary African societies. Fulfills co-curricular requirement for Diversity.
- 3315. Origins of Civilization. Considers those cultural and historic factors that led from the development of agriculture to the first urban states in Egypt and Mesopotamia. Fulfills co-curricular requirement for Diversity.
- 3316. Peoples of the Pacific. A survey of Pacific Island social systems focusing on Melanesian, Micronesian, and Polynesian culture areas. Explores the nature of precontact societies, colonial and missionary influences, and the status of contemporary populations. Fulfills cocurricular requirement for Diversity.
- 3317. Peoples of Southeast Asia. A comparative study of insular and mainland cultures of Southeast Asia, their history and development, and their social and economic structures. Fulfills co-curricular requirement for Diversity.
- 3318. Prehistory of the American Southwest. Origins and development of native Indian cultures in the American Southwest and adjacent northwestern Mexico. Ranges in time from the first appearance of humans to the time of pueblo civilization. Fulfills co-curricular requirement for Diversity.
- 3319. Human Ecology. Interactions between human populations and their environments. Relationships between population size, technology, climate, and behavior in various living societies. Fulfills co-curricular requirement for Diversity.
- 3322. STATISTICAL REASONING IN ANTHROPOLOGY. Particular aspects of statistical data processing and reasoning, including the construction of measurement scales, tabular and graphical descriptions, cross classifications, percentages and probabilities, sampling, and the expression of relationships through the use of models. Lab sessions will investigate anthropological data sets through the use of the student version of SPSS for Windows.
- 3327 (CF 3319). ECONOMIC AND POLITICAL CHANGE IN THE WORLD SYSTEM. Introduction to anthropological perspectives on global transformations: world economic integration; Third World development and sociocultural change; ethnic resurgence and nationalism; population migration; and changes in women's roles and statuses. Fulfills co-curricular requirement for Diversity.
- 3334 (CF 3334). FANTASTIC ARCHAEOLOGY AND PSEUDOSCIENCE: LOST TRIBES, SUNKEN CONTINENTS, ANCIENT ASTRONAUTS, AND OTHER STRANGE IDEAS ABOUT THE PAST. Did ancient astronauts visit the Earth? Are there secrets of the Maya calendar that archaeologists aren't revealing? Is Creation a scientific alternative to evolution of humanity? This course investigates these and other claims about our past, and how archaeologists respond to them.
- 3335 (ENGL 2321). THE DAWN OF WISDOM: ANCIENT CREATION STORIES FROM FOUR CIVILIZATIONS. Explores the visions of the cosmos expressed in the art, archaeology, and literature of Egypt, Mesopotamia, Greco-Roman civilization, and the Maya, emphasizing the role of human beings as central and responsible actors therein. *Prerequisite*: ENGL 1302 or departmental approval. Fulfills co-curricular requirement for Diversity.
- 3346. Peoples of the United States. Examination of anthropological literature on contemporary U.S. culture and society within an interdisciplinary framework. Fulfills co-curricular requirement for Diversity.
- 3348 (HIST 3348, CF 3378). Asians and the American Public Imagination. This course explores the issues of cultural identity in the 20th century through study of the Asian-American experience.
- 3353. Indians of North America. A survey of American Indian life, past and present, with emphasis on the interaction of Indians and Whites since 1492 and contemporary American Indian problems. Fulfills co-curricular requirement for Diversity.
- 3354. Peoples of Latin America. Examines the cultures of Central and South America including indigenous peasant and urban centers. Explores the history and acculturation of representative groups. Fulfills co-curricular requirement for Diversity.

- 3355. Peoples of Europe. Anthropological survey of social and cultural dimensions of Europe. Explores unity and diversity within the region, the role of gender, religion, class, and ethnicity in structuring the lives of contemporary Europeans.
- 3356. Before Civilization. A survey of the paleolithic archaeology of the first three million years of human history in the Old World. Emphasis is upon adaptation and cultural change.
- 3358. Indians of the Southwest from the 16th Century to the Present. An introduction to the non-Pueblo and Pueblo peoples of the Greater Southwest, with a focus on Indian-Indian and Indian-Euroamerican relations and the resultant transformations. Fulfills co-curricular requirement for Diversity.
- 3361. Language in Culture and Society. An investigation of social and cultural factors affecting the use of language. Topics include linguistic variation, Black English, women's language, and body language. Fulfills co-curricular requirement for Diversity.
- 3366 (RELI 3366). Magic, Myth, and Religion Across Cultures. A cross-cultural and comparative exploration of religion, ritual, magic, and supernatural belief systems. Examines how religion permeates other aspects of society and culture. Fulfills co-curricular requirement for Diversity.
- 3368 (SOCI 3368). Urban Problems: A Cross-Cultural Perspective. Evolution, development and differentiation of Western cities compared to non-Westernized ones. Fulfills co-curricular requirement for Diversity.
- 3371. NUTRITIONAL PROBLEMS OF MODERN POPULATIONS. Consumption, preferences, and dietary patterns. Nutritional requirements of developing and industrialized countries. Health problems related to malnutrition and plenty.
- 3374 (CF 3374). Cultures and Environments of the Southwest. Patterns of land use and resource use in prehistoric and early historic times in the Southwest. Focus is on the mutual influence of cultures and resources in the northern Rio Grande.

FOR UNDERGRADUATE AND GRADUATE STUDENTS

- Most 4000- and 5000-level courses in Anthropology require introductory coursework in the appropriate subdiscipline, or permission of instructor.
- 4191, 4291, 4391, 4192, 4292. INDEPENDENT STUDY AND RESEARCH. For advanced undergraduates. *Prerequisite:* Approval of the Director of Undergraduate Studies and a faculty sponsor.
- 4305. APPLIED ANTHROPOLOGY. The application of anthropological theories and methods to problems in contemporary societies, including global business, community development, health care issues, agricultural/environmental programs, urban planning tourism projects, and education policy. *Prerequisites:* Advanced standing and ANTH 2301 (or permission of instructor for non-anthropology majors).
- 4306. Anthropology and Education. The anthropological approach to the study of schools; how an anthropological framework can provide insight into the nature of education and classroom interaction.
- 4307. SEMINAR IN INTERNATIONAL HEALTH. Provides an overview of issues in international health with a focus on contributions of anthropology and anthropologists to international public health issues.
- 4309. Current Issues in Anthropology. Seminar on selected anthropological topics.
- 4311. APPLIED LINGUISTICS. Examination of linguistic theory and data in the context of diverse, especially multilingual, speech communities.
- 4314. Archaeology of the American Southwest. Twelve thousand years of prehistory from different perspectives, including cultural evolution, social and ideological subsystems, and cultural parallels to Mexico.
- 4333. Laboratory Methods in Archaeology. Classification and analysis of archaeological materials (various topics).
- 4347. Seminar in Mesoamerican Ethnology. Examination of anthropological literature on contemporary Mesoamerica within an interdisciplinary framework.

- 4350, 4351, 4352. Special Topics in Anthropology. An in-depth look at particular problems and issues in contemporary anthropology. Topics will vary.
- 4366. THEORETICAL PERSPECTIVES IN ANTHROPOLOGY. An exploration and analysis of diverse theoretical perspectives in anthropology from the founding of the discipline in the late 19th century to the present.
- 4367. Comparative Peasant Society. Economic and social institutions of contemporary peasant societies are examined with special focus on the changes they are undergoing in the 20th century. *Prerequisite:* ANTH 2301 or permission of instructor.
- 4371. THE NATURE OF THE AGING PROCESS. General considerations and theories of aging in various populations; factors affecting aging, mental and psychomotor abilities in aging, and aging of biological systems; nutrition and metabolism of aged populations; body composition changes and aging, physical activity effect on aging; diseases of aging; rehabilitation of the aged.
- 4377. THE HUMAN FOSSIL RECORD. 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 2315 or permission of instructor.
- 4381. Internship in Anthropology. This course offers students experience in varied organizations and agencies where anthropological applications are relevant. These might include a contract archaeology firm, the Natural History Museum, a zoo, health clinics, marketing or PR firms, or corporations involved in international business.
- 4384. CULTURE CHANGE AND INTERNATIONAL DEVELOPMENT. Principles of cultural dynamics, innovation, diffusion, and social movements shown by non-literate and peasant societies as they meet Western civilization.
- 4390. Current Issues in Anthropology. Seminar on selected anthropological topics.
- 4399. Senior Seminar in Anthropology. An in-depth examination of current theoretical and methodological developments in the discipline. Recommended for candidates for departmental distinction in anthropology. *Prerequisites*: Senior standing or permission of instructor and ANTH 2301.
- 5334. HISTORY OF ANTHROPOLOGY. Places the content of historical anthropological developments into related biographical, intellectual, economic, and social milieux. Prerequisite: Eighteen hours of Anthropology or permission of instructor.
- 5336. Anthropology and Medicine. Cross-cultural study of the etiology, diagnosis, and treatment of disease. Curers and patients. The life-cycle and aging. *Prerequisite:* Anthropology 2301 or 3301 or permission of instructor.
- 5344. RESEARCH METHODS IN ETHNOLOGY. Examination of methodologies and techniques appropriate for different types of ethnological research.
- 5355 (SWST 5355). HISTORY OF ARCHAEOLOGY OF THE SOUTHWEST. This course will focus on the development of archaeology in the American Southwest by placing it in historical context, discussing the social role of archaeology in general, 19th-century exploration and the impact of early archaeological finds, development of museums, tourism, national monuments, field schools, and the changing role of the Native Americans.
- 5359 (ENGL 5371). LINGUISTICS: GENERAL. An introduction to modern linguistic science. Topics include phonology, morphology, syntax, semantics, dialects, writing systems, child language, language and the brain, and language in education.
- 5381. FIELD METHODS IN ARCHAEOLOGY. Methods of excavation, recording, and interpretation used in archaeological research. Fort Burgwin Research Center. Summer only. Students may petition to have this course fulfill the Lab Science Requirement.
- 5382. FIELD METHODS IN ARCHAEOLOGY. Methods of excavation, recording, and interpretation used in archaeological research. Fort Burgwin Research Center. Summer only. Students may petition to have this course fulfill the Lab Science Requirement.

ANTHROPOLOGY COURSES BY SUBFIELD

Courses listed under 4350/51/52 or 4390/09 may count for any of the subfields, depending on the topic.

Subfield: General

- 2321 THE DAWN OF WISDOM: ANCIENT CREATION STORIES FROM FOUR CIVILIZATIONS
- 2331 THE FORMATION OF INSTITUTIONS: ROOTS OF SOCIETY
- 3319 HUMAN ECOLOGY
- 3322 STATISTICAL REASONING IN ANTHROPOLOGY
- 4191, 4291, 4391, 4392, 4292 INDEPENDENT STUDY AND RESEARCH
- 4366 THEORETICAL PERSPECTIVES IN ANTHROPOLOGY
- 4399 SENIOR SEMINAR IN ANTHROPOLOGY
- 5334 HISTORY OF ANTHROPOLOGY

Subfield I: Archaeology

- 2302 Prehistoric Cultures
- 2321 THE DAWN OF WISDOM: ANCIENT CREATION STORIES FROM FOUR CIVILIZATIONS
- 2363 Introductory Archaeology
- 3304 North American Archaeology
- 3312 Meso-American Archaeology
- 3313 SOUTH AMERICAN INDIANS OF THE PAST AND PRESENT
- 3315 ORIGINS OF CIVILIZATION
- 3318 ARCHAEOLOGY OF THE SOUTHWEST
- 3334 FANTASTIC ARCHAEOLOGY AND PSEUDOSCIENCE
- 3356 Before Civilization
- 3374 Cultures and Environments of the Southwest
- 4314 Archaeology of the American Southwest
- 4333 Laboratory Methods in Archaeology
- 4390 CURRENT ISSUES IN ANTHROPOLOGY 5381 FIELD METHODS IN ARCHAEOLOGY
- 5382 FIELD METHODS IN ARCHAEOLOGY

Subfield II: Cultural/Social Anthropology

- 2301 Introductory Cultural Anthropology
- 2345 LEADERSHIP AND RACE RELATIONS
- 3300 RACE, GENDER, AND CULTURE IN THE AFRICAN DIASPORA
- 3301 HEALTH, HEALING, AND SOCIETY
- 3303 PSYCHOLOGICAL ANTHROPOLOGY
- 3305 The "Other" in America
- 3310 GENDER AND SEX ROLES: A GLOBAL PERSPECTIVE
- 3311 Peoples of Mexico: Past and Present
- 3314 Peoples of Africa
- 3316 Peoples of the Pacific
- 3317 Peoples of Southeast Asia
- 3327 ECONOMIC AND POLITICAL CHANGE IN THE WORLD SYSTEM
- 3346 Peoples of the United States
- 3348 Asians and the American Public Imagination
- 3353 Indians of North America
- 3354 Peoples of Latin America
- 3355 Peoples of Europe
- 3358 Indians of the Southwest
- 3366 Magic, Myth, and Religion Across Cultures
- 3368 Urban Problems: A Cross-Cultural Perspective
- 4305 APPLIED ANTHROPOLOGY
- 4306 Anthropology and Education

- 4307 Seminar in International Health
- 4308 CHILDHOOD IN CROSS-CULTURAL PERSPECTIVE
- 4347 SEMINAR IN MESO-AMERICAN ETHNOLOGY
- 4367 COMPARATIVE PEASANT SOCIETY
- 4384 CULTURE CHANGE AND INTERNATIONAL DEVELOPMENT
- 5336 Anthropology and Medicine
- 5344 RESEARCH METHODS IN ETHNOLOGY

Subfield III: Anthropological Linguistics

- 3361 LANGUAGE IN CULTURE AND SOCIETY
- 5311 APPLIED LINGUISTICS
- 5359 LINGUISTICS (GENERAL)

Subfield IV: Physical Anthropology

- 2315 Human Evolution
- 3302 Monkeys and Apes: The Nonhuman Primates
- 3371 NUTRITIONAL PROBLEMS OF MODERN POPULATIONS
- 4371 THE NATURE OF THE AGING PROCESS
- 4377 THE HUMAN FOSSIL RECORD

ART HISTORY

Degree programs in art history are offered through the Meadows School of the Arts. Degrees offered in art history include the Bachelor of Arts (B.A.), Bachelor of Fine Arts (B.F.A.), and the Master of Arts (M.A.). The Bachelor of Arts degree in art history places the history of art within the wider context of such humanistic disciplines as history, religion, aesthetics, politics, language, and civilization generally. The Bachelor of Fine Arts provides a course of study that incorporates both art history and studio art. The Master of Arts degree in art history is designed to provide a broad but rigorous background in the history of art. A minor in art history enables all students to extend their study into the realm of the visual arts and architecture and so to broaden their appreciation of the cultural content of artistic form.

For further details concerning admission and program requirements, consult the Meadows School of the Arts section of this bulletin, or phone the Division of Art History (Annemarie Weyl Carr, Division Chair) at 214-768-2698.

BIOCHEMISTRY

Professor Vik, Director

The Biochemistry Program at SMU offers courses leading to a Bachelor of Science degree in Biochemistry. This program 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 entrance to professional schools such as medicine, or for graduate study leading to a Ph.D. degree.

The program at SMU includes a core of required courses but allows some flexibility in the choice of additional upper-division courses. Note that there are two options for choosing the additional courses. Option 1 is designed to meet the certification guidelines of the American Chemical Society (ACS) for professional training in biochemistry. Option 2 allows a stronger emphasis on biology, but does not qualify a student for ACS certification. Students planning to attend graduate school are advised to take at least three credits of Undergraduate Research (BIOL 3398, 4398; or CHEM 4177/4297, CHEM 4398).

Core Courses (57 credits)

Chemistry (25 credits):

CHEM 1303, 1304 (or 1307H, 1308H); 1113, 1114 GENERAL CHEMISTRY

CHEM 3351 QUANTITATIVE ANALYSIS

CHEM 3371, 3372 (or 3373H, 3374H); 3117, 3118 ORGANIC CHEMISTRY

CHEM 5383, 5384 PHYSICAL CHEMISTRY

Biological Sciences (11 credits):

BIOL 1401, 1402 Introductory Biology

BIOL 3304 GENETICS

Biochemistry (4 credits):

BIOL/CHEM 5310 BIOLOGICAL CHEMISTRY: MACROMOLECULAR STRUCTURE AND FUNCTION

BIOL 5110 BIOLOGICAL CHEMISTRY: LABORATORY

Mathematics (9 credits):

MATH 1337, 1138, 2339 CALCULUS

Physics (8 credits):

PHYS 1303, 1304, 1105, 1106 (or 1407, 1408) GENERAL PHYSICS

Additional Courses (choose either Option 1 or Option 2)

Option 1 (10 credits)

Required (4 credits):

CHEM 3359 INORGANIC LABORATORY

CHEM 5185 LABORATORY METHODS IN PHYSICAL CHEMISTRY

Electives (choose 6 credits, one of which must be BIOL/CHEM 5311 or BIOL/CHEM 5312):

BIOL/CHEM 5311 BIOLOGICAL CHEMISTRY: METABOLISM

BIOL/CHEM 5312 PHYSICAL BIOCHEMISTRY

BIOL 4321 Molecular Biology of Prokaryotes

BIOL 4322 MOLECULAR BIOLOGY OF EUKARYOTES

CHEM 5306 COMPUTATIONAL CHEMISTRY

Option 2 (9 credits)

Required (6 credits):

BIOL 3350 CELL BIOLOGY

BIOL/CHEM 5311 BIOLOGICAL CHEMISTRY: METABOLISM

Electives (choose 3 credits):

BIOL/CHEM 5312 PHYSICAL BIOCHEMISTRY

BIOL 4321 MOLECULAR BIOLOGY OF PROKARYOTES

BIOL 4322 Molecular Biology of Eukaryotes

The Departmental Distinction Program. 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. At this time the student must have completed at least 22 hours toward the biochemistry degree, with a G.P.A. of at least 3.50 in courses required for the major. Upon approval from the respective departments, the student must enroll in the following courses: BIOL 4398, 4399 or CHEM 4177, 4299, 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 the senior thesis and maintenance of a G.P.A. of at least 3.50 in courses required for the major, the B.S. degree will be awarded with departmental distinction.

BIOLOGICAL SCIENCES

Professor UBELAKER, Department Chair

Professors: Buchanan, Orr, Ruben, Sohal, Vik; Associate Professors: Allison, Jones; Assistant Professors: Gambill, Kennell; Adjunct Professors: B. Jacobs, Strecker; Professor Emeritus: McCarthy.

REQUIREMENTS FOR THE B.S. DEGREE. This degree program is designed for students who plan careers in the biological sciences or further study in graduate or professional schools. A candidate for the B.S. degree must complete a minimum of 10 courses in biological sciences, including 1401 and 1402 and eight additional courses that: 1) total at least 26 advanced term hours, 2) include at least one course at the 4000 or 5000 level, and 3) include at least two courses with laboratories. The B.S. degree also requires 16 term hours of chemistry, including CHEM 3371-72 and 3117-18; eight term hours of general physics (PHYS 1407-08); MATH 1337; and one additional course chosen from MATH 1338, STAT 2331 and STAT 5371. Although statistics is used extensively in biological research, pre-professional students should be aware that certain medical schools require a full year of calculus. A minimum grade of C— is necessary in all advanced biological sciences courses used to fulfill the B.S. degree requirements.

THE DEPARTMENTAL DISTINCTION PROGRAM. A biological sciences major with sufficiently high academic standing 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 departmental faculty. To graduate with departmental distinction, a student must be working toward the degree of Bachelor of Science and must make application to the Undergraduate Studies Committee of the department for this designation during the first term of the junior year. At the time of the application, the student must have completed at least 14 hours of biological sciences, including at least six advanced hours, with a G.P.A. in these courses of at least 3.50 and an overall G.P.A. of at least 3.50. For students who have transferred to SMU, two grade point averages will be calculated, that for all work attempted, and that for work completed 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 in the second term of the junior year. Upon completion of this course with a grade of B+ or better, the student will enroll during the senior year for BIOL 4399 in which a research project will be carried out and a senior thesis written and presented to the faculty. Performance in these courses and maintenance of a 3.50 G.P.A. for all biological sciences courses attempted will determine if the B.S. degree will be awarded "with departmental distinction."

REQUIREMENTS FOR THE B.A. DEGREE. 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 Pre-Med adviser about additional science requirements. A candidate for the B.A. degree must complete a minimum of eight courses in biological sciences, including 1401 and 1402 and six courses that: 1) total at least 18 term hours, 2) include at least one course at the 4000 or 5000 level, and 3) include at least two courses with laboratories. The B.A. degree also requires 12 term hours of chemistry, including CHEM 3371 and 3117. A minimum grade of *C*—is necessary in all advanced biological sciences courses taken to fulfill the B.A. degree requirements.

REQUIREMENTS FOR THE 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 MINOR. Students majoring in other departments may obtain a minor in Biological Sciences by completing BIOL 1401, 1402, 3304, and two additional advanced three-hour courses. One of these courses should be BIOL 3306 or 3350, and the second course must include a laboratory session. Each advanced course must be taken in residence. A minimum grade of *C*– is necessary in all advanced biological science courses taken to fulfill the minor degree requirements. CHEM 1303, 1304, 1113, and 1114 also are required for the minor. A student may not earn minors in both Biology and the Natural Sciences.

COURSES FOR NON-SCIENCE MAJORS (BIOL)

The courses outlined in this section are designed to satisfy the curricular requirements of non-science students. They are not open to students who have earned prior credit in BIOL 1401 or 1402. Non-science majors should note that BIOL 1401 and 1402 may also be taken to satisfy distribution requirements.

1303, 1304. ESSENTIALS OF BIOLOGY. An introduction to the major concepts of biological thought for the non-science major. First term: basic chemistry, cell biology, inheritance, developmental biology and human reproduction; second term: evolution, diversity of plants and animals, and ecology. Includes one laboratory session each week.

1305. Our Natural Environment. An introduction to major environments and their resident populations. Offered in summer session at Fort Burgwin, the SMU-in-Taos, NM, location. Includes equivalent of one laboratory session each week.

1308. PLANT BIOLOGY. An introduction to the economic, social, and industrial aspects of plant substances and material. Two lecture hours each week and equivalent of one three-hour laboratory each week.

COURSES FOR BIOLOGY MAJORS (BIOL)

Students who wish to earn the B.A. or B.S. degree in Biology are encouraged to complete BIOL 1401 and 1402, and CHEM 1303 and 1304 (with labs) in their freshman year. However, with the approval of an academic adviser, a student may postpone BIOL 1401 and 1402 by 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.

1401, 1402. Introductory Biology. An introduction to the study of plants and animals. First term: cell structure, metabolism, functional systems of plants and animals; second term: introduction to genetics and ecology and diversity of plants and animals. Three lecture hours and one three-hour laboratory each week. This two-term offering is a prerequisite for all advanced courses in biological sciences.

3303. EVOLUTION. 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. Three lecture hours each week. *Prerequisite:* BIOL 1401, 1402 or permission of instructor.

- 3304. Genetics. An introduction to the structure, function, and transmission of the hereditary material. Three lecture hours each week. *Prerequisite:* CHEM 1304 or permission of instructor.
- 3306. Physiology. Homeostatic control mechanisms in vertebrates. Three lecture hours each week. *Corequisite or Prerequisite:* CHEM 1304.
- 3307. Ecology. Basic principles and concepts of ecology with emphasis on population and community interactions. Three lecture hours each week.
- 3342. PLANT KINGDOM. A survey of the plant kingdom emphasizing life histories and developmental morphology. Two lecture hours and one three-hour laboratory each week.

- 3350. CELL BIOLOGY. The structure and function of cells. Three lecture hours each week. *Prerequisites:* Junior standing, BIOL 3304, CHEM 3372.
- 3354. Parasitology. Comparative study of parasitic organisms and their role in diseases. Two lecture hours and one three-hour laboratory each week.
- 3357. BIOLOGY OF INVERTEBRATES. A general survey of the invertebrates with emphasis on identification of local species, morphological adaptations, systematics, and ecology. Two lecture hours and one three-hour laboratory each week.
- 3403. MICROBIOLOGY. The biology of microorganisms, with an emphasis on bacterial metabolism and physiology. Three lecture hours and one three-hour laboratory each week. *Recommended preparation:* CHEM 3371 and CHEM 3117.
- 3420. HISTOLOGY. Microscopic anatomy of vertebrates, with emphasis on human tissues. Three lecture hours and one three-hour laboratory each week. *Prerequisite*: Junior standing.
- 4321. Molecular Biology of Prokaryotes. Molecular biology of prokaryotic cells with emphasis on molecular genetics, regulatory mechanisms and the development of recombinant DNA technology. *Prerequisites:* BIOL 3304, CHEM 3372, and junior standing.
- 4322. Molecular Biology of Eukaryotes. Structure and function of eukaryotic chromosomes as mediators of gene expression during growth, differentiation, and oncogenesis. *Prerequisites:* BIOL 3304, CHEM 3372, and junior standing.
- 4331. Developmental Biology. Developmental processes in animals. Three lecture hours each week. *Prerequisite:* BIOL 3304.
- 4380. Molecular Mechanisms of Disease. Emphasis on current advances in the understanding of disease processes at the molecular level. *Prerequisites:* Junior standing, BIOL 3350, and/or BIOL 3403.
- 5110. BIOLOGICAL CHEMISTRY LABORATORY: (CHEM 5110). One three-hour laboratory period each week. *Corequisite*: BIOL 5310.
- 5166. Vertebrate Anatomy Laboratory. (GEOL 5166). A laboratory course to accompany BIOL/GEOL 5366. Exercises include basic anatomy, dissections, and examinations of fossils. *Corequisite:* BIOL 5366 (GEOL 5366).
- 5310. BIOLOGICAL CHEMISTRY: MACROMOLECULAR STRUCTURE AND FUNCTION (CHEM 5310). Introduction to the structure and function of macromolecules of biological importance. Emphasis on nucleic acid and protein structure, enzyme kinetics, carbohydrate and lipid chemistry. Three lecture hours each week. *Prerequisites*: CHEM 3371 and 3372. The accompanying laboratory (BIOL 5110) is strongly recommended for biology majors.
- 5311 (CHEM 5311). BIOLOGICAL CHEMISTRY: METABOLISM. Introduction to the pathways and regulatory events in the metabolism of carbohydrates, lipids, amino acids, and nucleotides. Three lecture hours per week. *Prerequisites:* CHEM 3371 and 3372.
- 5312. Physical Biochemistry (CHEM 5312). 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).
- 5320. VIRUSES AND MOLECULAR EVOLUTION. Examination of the prebiotic world and current theories on the evolution of invasive elements such as plasmids, transposons, and viruses, including HIV. Three lecture/discussion hours each week. *Prerequisite:* BIOL 4321 or 4322.
- 5366. Vertebrate Origins and Evolution (GEOL 5366). An introduction to biological and geological processes that have affected the diversity of vertebrate organisms throughout Earth history, including origination, biogeography, adaptation, and extinction. Strong emphasis on vertebrate anatomy. *Prerequisites:* BIOL 1401, 1402 or GEOL 1308. The accompanying laboratory is a corequisite for biology majors and strongly recommended for all other students.

SPECIAL COURSES (BIOL)

3398. Undergraduate Research I. A minimum of nine 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. *Prerequisite:* Junior standing, and approval by the faculty sponsor and the Undergraduate Studies Committee of the Department.

3399. UNDERGRADUATE RESEARCH II. This course is offered on a pass/fail basis only, and cannot be applied toward the requirements for the major in Biological Sciences. *Prerequisite:* BIOL 3398, and approval by the faculty sponsor and the Undergraduate Studies Committee of the Department.

4132. Senior Seminar. Discussion of current problems of biological interest. One hour each week. *Prerequisite:* Senior standing in biology.

4390. Current Topics in Biology. Studies of topics in biology of current interest. Topical content will vary. Credit for this course does not apply toward the degree requirement for a 4000- or 5000-level course.

4398. Honors Research I. For students in the departmental distinction program. *Prerequisite:* Admission to the departmental distinction program.

4399. Honors Research II. For students in the departmental distinction program. *Prerequisite*: Admission to the departmental distinction program.

INTERTERM COURSES

3343. FIELD BOTANY. Identification of vascular plants with emphasis on ecological indicators. Lectures and laboratories conducted at Fort Burgwin, New Mexico, site of SMU-in-Taos.

3347. Systematic Botany. 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.

CHEMISTRY

Professor BIEHL, Department Chair

Professors: Lattman, Maguire, Wisian-Neilson; Associate Professors: Buynak, Ford, Goodson, Horsthemke, Schell; Assistant Professor: Son; Adjunct Professor: Falck.

The atmosphere of the Chemistry Department is an informal one where students have easy access to the faculty. The advanced classes are small and most advanced laboratories are taught by the professorial staff. This gives the faculty the opportunity to get to know their undergraduate majors quite well. The Department believes that this close personal contact between faculty and students is important to success in undergraduate education. Undergraduate majors are heavily involved in research, working in teams with faculty, postdoctoral, and graduate students. Our majors are accepted into the leading graduate and professional schools in the nation. On the average, two-thirds of our graduates seek advanced degrees. Those majors at the Bachelor's level who choose employment find excellent positions.

FOR UNDERGRADUATE STUDENTS

REQUIREMENTS FOR THE B.S. DEGREE. The completion of a minimum of 43 term hours in the department, including CHEM 1113, 1114, 1303, 1304 (or 1307, 1308), 3351, 3359, 3117, 3118, 3371, 3372 (or 3373, 3374), 4177/4297, 5185, 5188, 5383, 5384, 5392, 5486, and an additional 5000-level course in chemistry to be chosen in consultation with the departmental adviser. In addition, PHYS 1105, 1303, 1106, 1304, (or 1407, 1408); MATH 1337, 1338, 2339. A reading knowledge of scientific German or Russian (a minimum of six term hours) is recommended for students planning graduate work in chemistry. This degree is certified by the American Chemical Society for professional training in chemistry.

REQUIREMENTS FOR THE B.S. DEGREE IN ENVIRONMENTAL CHEMISTRY. The completion of at least 32 term hours in the department, including CHEM 1113, 1114, 1303, 1304 (or 1307, 1308), 3351, 3359, 3117, 3118, 3371, 3372 (or 3373, 3374), 5383, 5384, and 5486. In addition, PHYS 1105, 1303, 1106, 1304, (or 1407, 1408); MATH 1337, 1338, 2339; at least one introductory environmental science elective, chosen from GEOL 1301 (Earth Systems), GEOL 1305 (Oceanography), GEOL 1315 (Introduction to Environmental Sciences), GEOL 2320 (Southwestern Environments), GEOL

2321 (Southwestern Environments), or ENV 2304 (Introduction to Environmental Engineering). Also, at least one intermediate environmental science elective, chosen from BIOL 3307 (Ecology), BIOL 3343 (Field Botany), GEOL 3353 (Modern and Ancient Climates), GEOL 3366 (Environmental Geology), or ENV 2421 (Aquatic Chemistry); and at least two advanced environmental science electives, chosen from CHEM 5390 (Environmental Chemistry), GEOL 5384 (Hydrogeology), ENV 5313 (Environmental Chemistry), or ENV 5333 (Laboratory Methods in Environmental Engineering). One of the advanced electives must be CHEM 5390 or ENV 5313. Note that GEOL 2320, 2321, and BIOL 3343 are offered through the SMU-in-Taos summer program at Fort Burgwin, New Mexico. BIOL 1402 is prerequisite for BIOL 3307 and 3343.

Students planning to attend graduate school are advised to complete at least two term hours of Undergraduate Research (CHEM 4177/4297 or GEOL 4296), and MATH 2343 (Differential Equations) or a statistical science course at the 4000 or 5000 level. This degree program meets the guidelines of the American Chemical Society for professional training in environmental chemistry.

REQUIREMENTS FOR THE B.A. DEGREE. The completion of a minimum of 25 term hours in the department, including CHEM 1113, 1114, 1303, 1304 (or 1307, 1308), 3371, 3372 (or 3373 or 3374), 3117, 3118, 5381 (or 5383), plus at least seven additional hours at the advanced level, to be chosen in consultation with a departmental adviser. In addition, PHYS 1105, 1303, 1106, 1304 (or PHYS 1407, 1408), and MATH 1337 are required.

The Honors Program. The Department offers a four-year Honors B.S. degree for highly motivated students. The program begins with CHEM 1307, 1308 in the first year and culminates in a Senior Honors Thesis (4299) with special Honors courses or sections available in the intervening years. Students who have completed CHEM 1303-1304, 1113-1114 may petition the Department to enter the Honors Program after their first year.

REQUIREMENTS FOR THE 3-YEAR B.S./4-YEAR M.S. This program is designed for exceptionally well-prepared students who wish to accelerate their studies in chemistry. By combining summer research with the regular academic year, students in this program can complete the B.S. degree in three years and the M.S. degree after an additional year of study. No requirements for either degree are waived in this program. Students in this program are eligible for the department's Honors courses. For further details contact the Department of Chemistry.

REQUIREMENTS FOR THE MINOR. Students majoring in other departments may obtain a minor in chemistry by completing CHEM 1303, 1113 and CHEM 1304, 1114 plus three additional advanced three- or four-hour courses to be chosen in consultation with a Chemistry Department adviser.

THE COURSES (CHEM)

1301, 1302. CHEMISTRY FOR LIBERAL ARTS. A course designed for students with weak backgrounds in chemistry and for liberal-arts students.

1303, 1304. General Chemistry. This course is designed primarily for science majors, pre-med students, and engineering students. It offers an introduction to 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. It is a prerequisite to all advanced courses in the department.

- 1305, 1306. General Chemistry for Engineering Majors. This course is designed primarily for students majoring in engineering. It offers an introduction to the fundamental principles and theories of chemistry with coverage of some topics relating to the chemistry of materials.
- 1307, 1308. GENERAL CHEMISTRY (HONORS). An honors option to CHEM 1303, 1304 for well-prepared students with a strong interest in chemistry. *Prerequisite:* One year of high school chemistry and permission of instructor.
- 1113. GENERAL CHEMISTRY LABORATORY. One three-hour laboratory period each week. *Prerequisite* or *corequisite*: CHEM 1303.
- 1114. General Chemistry Laboratory. One three-hour laboratory period each week. *Prerequisite:* Chemistry 1113; *Prerequisite* or *corequisite:* CHEM 1304.
- 3117. Organic Chemistry Laboratory. One three-hour laboratory period each week. *Corequisite:* CHEM 3371.
- 3118. Organic Chemistry Laboratory. One three-hour laboratory period each week. *Corequisite:* CHEM 3372.
- 3117H, 3118H. Organic Chemistry Laboratory (Honors). An honors option to CHEM 3117, 3118. One three-hour laboratory period each week. *Prerequisite:* Permission of instructor.
- 3351. QUANTITATIVE ANALYSIS. A course involving the theory and practice of quantitative analytical chemistry techniques including gravimetric, volumetric, electrochemical, and spectroscopic analyses. Three hours of lecture and two four-hour laboratory periods per week for one-half term.
- 3359. INORGANIC CHEMISTRY. The study of topics in inorganic chemistry including the systematics of the chemistry of the elements, periodicity, and ionic interactions. Three hours of lecture and two four-hour laboratory periods per week for one-half term.
- 3371, 3372. Organic Chemistry. This course is 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. *Prerequisite:* CHEM 1303, 1304.
- 3373, 3374. Honors Organic Chemistry. Covers essentially the same topics as 3371, 3372. However, topics are covered in more depth with a greater theoretical emphasis. Due to the small size of the class, greater student participation is possible. *Prerequisite:* Approval of instructor.
- 4000. Research. For students who hold research fellowships but are not enrolled in any credit-hour courses. No tuition.
- 4005. Externship. A zero credit hour course intended for those students who hold externship positions in chemistry in industrial, hospital, or government laboratories. No tuition.
- 4177. Introduction to Research. A course covering aspects of laboratory safety, information retrieval, writing reports and papers, and giving oral presentations. One one-hour lecture per week. Attendance at departmental seminars required.
- 4197, 4297, 4397; 4198, 4298, 4398. Undergraduate Research. *Prerequisites:* Junior or senior classification and permission of the instructor. *Prerequisite* or *corequisite:* CHEM 4177.
- 4299. Honors Thesis. Prerequisite: Departmental approval.

Courses for Undergraduate and Graduate Students

- 5108. Special Topics in Chemistry. Special topics of current interest. Content varies from term to term.
- 5110 (BIOL 5110). BIOLOGICAL CHEMISTRY LABORATORY. One three-hour laboratory period each week. *Corequisite*: CHEM 5310.
- 5185. LABORATORY METHODS IN PHYSICAL CHEMISTRY. Laboratory experiments with emphasis on thermodynamics, chemical kinetics, and physical biochemistry. One half-hour of lecture and five-hour laboratory period each week for five weeks. *Prerequisite*: CHEM 5381 or 5383.

- 5188. ADVANCED PHYSICAL CHEMISTRY LABORATORY. Laboratory experiments with emphasis on chemical kinetics and molecular spectroscopy. One half-hour of lecture and five-hour laboratory period each week for five weeks. *Prerequisite:* CHEM 5185. *Corequisite:* CHEM 5384 or permission of instructor.
- 5306. Computational Chemistry. An introduction to the techniques of computer modeling of small to medium-sized organic molecules using advanced graphics workstations. *Prerequisite:* CHEM 3372.
- 5308. Special Topics in Chemistry. Presentation of advanced special topics in chemistry that are at the forefront of current chemical interest. Content varies from term to term.
- 5310 (BIOL 5310). BIOLOGICAL CHEMISTRY: MACROMOLECULAR STRUCTURE AND FUNCTION. Introduction to the structure and function of macromolecules of biological importance. Emphasis on nucleic acid and protein structure, enzyme kinetics, carbohydrate and lipid chemistry. Three lecture hours per week. *Prerequisites:* CHEM 3371 (3373) and 3117 (3119).
- 5311 (BIOL 5311). BIOLOGICAL CHEMISTRY: METABOLISM. Introduction to the pathways and regulatory events in the metabolism of carbohydrates, lipids, amino acids, and nucleotides. Three lecture hours per week. *Prerequisites:* CHEM 3371 and 3372.
- 5312 (BIOL 5312). Physical Biochemistry. 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.)
- 5333. Introduction to Polymer Chemistry. 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.
- 5335. Advanced Laboratory Methods and Techniques. This course introduces students to advanced techniques and methods in the synthesis of chemical compounds.
- 5381. Physical Chemistry. Introduction to chemical thermodynamics, kinetics, molecular structure, spectroscopy, and statistical mechanics. Designed for B.A. majors in chemistry. *Prerequisites:* CHEM 1304 (or 1308), PHYS 1106, 1304 (or PHYS 1408), MATH 1337.
- 5383. Physical Chemistry I. Gas laws; kinetic molecular theory; introduction to thermodynamics, with applications to phase transitions and chemical equilibrium; chemical kinetics. *Prerequisites*: PHYS 1106, 1304 (or PHYS 1408); MATH 2339 or permission of instructor.
- 5384. Physical Chemistry II. Elements of quantum mechanics and its description of manyelectron atoms, bonding, and spectroscopy; intermolecular forces; structure of solids; and transport properties of fluids. *Prerequisite*: CHEM 5383.
- 5387. THERMODYNAMICS AND STATISTICAL MECHANICS OF MATERIALS AND SOLID STATE REACTIONS. Examines the relationship between partition function and thermodynamic variables. Transport properties are derived from random-walk models and kinetic theory. Solid-state reactions, transport at interfaces, phase transformations and nucleation are studied, using techniques from both microscopic and macroscopic theories.
- 5390. Environmental Chemistry. An examination of the chemistry of Earth's environment, with emphasis on problems caused by human activity. Topics include risk analysis and toxicology, nuclear chemistry, combustion, alternative energy technologies, atmospheric chemistry. *Prerequisites:* MATH 1338, PHYS 1303 or 1407, and CHEM 1304. *Recommended:* PHYS 1304 or 1408; and CHEM 5381, CHEM 5383, GEOL 5338, or GEOL 5384.
- 5392. Advanced Inorganic Chemistry. Survey of the bonding, structure, and reactivity of inorganic compounds; coordination, organometallic, and main group element chemistry. Three hours of lecture each week. *Recommended:* CHEM 5384.
- 5393. Advanced Organic Chemistry. Three hours of lecture each week. *Prerequisites:* CHEM 3372 or 3374.
- 5395. Advanced Analytical Chemistry. Three hours of lecture each week. *Prerequisite:* CHEM 5486.

5396. Advanced Physical Chemistry. Three hours of lecture each week. *Prerequisite:* Permission of instructor.

5486. Instrumental Analysis. A course involving the theory, operation, and application of instrumentation used in the modern chemical laboratory. Two hours of lecture and two three-hour laboratory periods each week.

CLASSICAL STUDIES

Assistant Professor Dowling, Director

The Classical Studies minor offers an integrated program studying the various aspects of the civilization of ancient Greece and Rome. The minor requires 18 term 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:

A. CLASSICAL LANGUAGES (Six Hours)

LATN 2311, 2312

(Classical Greek at 2000 level, when available)

B. CLASSICAL STUDIES (At least one course from each group) (12 Hours)

Group 1 (Art History)

ARHS 3309 THE ETRUSCANS AND EARLY ITALY: ART AND CULTURE

ARHS 3312 ETRUSCAN AND ROMAN ART

ARHS 3313 ANCIENT CITIES AND SANCTUARIES

ARHS 3314 THE ART AND ARCHITECTURE OF ANCIENT POMPEIL

ARHS 3315 CLASSICAL SCULPTURE

ARHS 3317 ANCIENT PAINTING

ARHS 3320 ART OF THE ROMAN EMPIRE

ARHS 4319 CLASSICAL MYTH AND ART

ARHS 5309 Seminar in Ancient Art

ARHS 5310 Seminar in Greek Art

ARHS 5311 SEMINAR IN ROMAN ART

Group 2 (History)

HIST 2354 Ancient Foundations of Modern Civilization

HIST 3322 Plato, Poets, and Politics

HIST 3353 THE HISTORY OF ANCIENT GREECE

HIST 3354 WARFARE AND DIPLOMACY IN ANTIQUITY

HIST 3361 Roman History and the Roman Mind

HIST 5391 ATHENIAN DEMOCRACY

PHIL 3351 HISTORY OF WESTERN PHILOSOPHY (ANCIENT)

Group 3 (Other)

CLAS 2311 MYTH AND THOUGHT IN THE ANCIENT WORLD (SMU-in-Taos)

CLAS 2321 DAWN OF WISDOM

CLAS 2332 SOCIETY EXPANDING - POLIS AND EMPIRE

CLAS 3311 Myths, Monuments, and Mortals: The Art of Ancient Greece

ENGL 3315 THE DEVELOPMENT OF DRAMA I

ENGL 4362 Heroic Visions: The Epic Poetry of Homer and Vergil

HIST 3355 CLASS AND GENDER IN ANCIENT SOCIETY

THE COURSES (CLAS)

2311. MYTH AND THOUGHT IN THE ANCIENT WORLD. The goal of this course is to explore 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.

2332. Society Expanding – Polis and Empire. 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.

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ECONOMICS

Professor To be determined, Department Chair

Professors: Batra, Deb, Fomby, Hayes, Huffman, Maasoumi, Slottje, Weber; *Associate Professors:* Balke, Seo; *Assistant Professors:* Bogomolnaia, Dolmas, Fredriksson, Millimet, Osang, Saggi, Sandfort; *Lecturer:* Dadres.

REQUIREMENTS FOR MAJOR. Ordinarily, the student majoring in economics will be expected to take ECO 1311 and 1312 during the first or sophomore year. All majors must take ECO 1311, 1312, 3301, and 3302, and must have a G.P.A. of at least 2.00 in economics courses attempted. Students must receive at least a *C*—in all economics and finance classes counting toward the major or minor. Once the major is declared, due progress must be made in terms of course enrollment. If requirements change, the bulletin in force at the time the major is declared prevails.

REQUIREMENTS FOR THE B.A. DEGREE. The Bachelor of Arts degree in economics is designed primarily for students who want a liberal arts education with an emphasis on economics but with great breadth. This degree shall consist of at least 30 hours in economics, of which no more than six hours may be in courses below the 3000 level. MATH 1309 or 1337 is recommended but not required.

REQUIREMENTS FOR THE B.S. DEGREE. The Bachelor of Science degree in Economics offers more specialized training in economics and provides a firm basis for graduate study in business, economics, or law by requiring six hours of calculus (MATH 1309, 1310, 1337, or 1338); STAT 2301 or 4340 or ISOM 2305; 36 hours in economics; and a higher proportion of advanced economics courses than is required for the B.A. degree.

REQUIREMENTS FOR THE B.S. DEGREE WITH FINANCE APPLICATIONS. The degree combines specialized training in economics with a concentration in areas significant to financial markets, plus three hours each in needed tools of accounting, calculus, statistics, and computer courses. This degree is particularly suited to those seeking careers in the financial sector and requires 27 hours in advanced economics and finance courses.

REQUIREMENTS FOR THE B.S. DEGREE WITH SYSTEMS ANALYSIS. The B.S. degree in economics with systems analysis offers integrated studies in economics, operations research, and computer science. It provides excellent preparation for graduate education in economics, business, or public administration, and for service in both the public and private sectors where quantitative economists provide assistance in policy formulation. Students are required to take MATH 1337, 1338, and 2339; STAT 2301 or 4340, or ISOM 2305 or 2306; CSE 1340 or 1341 (Operations Research); and nine hours of additional courses in computer science and/or operations research consisting of any computer science course at the 3000 level or above, plus CSE 2340 or 2353.

Secondary School Certificates. Secondary school certification candidates may use economics as the principal teaching field.

Recommended or required preparation for advanced courses is indicated within the course descriptions. Questions concerning specific courses and the undergraduate program in general should be directed to Economics Department personnel. Each student majoring in economics is urged to consult a departmental adviser periodically to review the student's degree plan and progress.

A program leading to graduation with departmental distinction is available.

REQUIREMENTS FOR THE MINOR. Students majoring in other departments may obtain a minor in economics by completing ECO 1311, 1312, 3301, 3302, and two advanced courses at the 4000 or 5000 level with a G.P.A. of at least 2.00 in economics courses attempted. Non-lecture classes cannot be used toward an economics minor. No grade lower than C- will be counted.

Instead of a general minor in economics, a minor in a specialized field (International Economics, Public Economics, Labor Economics, Econometrics, Monetary Economics, Managerial Economics, and Economics of Industrial Organization) may be obtained if six hours of 4000- and 5000-level courses constitute one of the above seven fields currently approved by the Economics Department.

THE COURSES (ECO)

- 1310. EXPLORING ECONOMIC ISSUES. Discusses current economic issues and problems in a suitable manner for students not majoring in economics or related sciences. No prerequisites. No credit is allowed for students who have received credit for ECO 1311 or 1312.
- 1311. PRINCIPLES: CONSUMERS, FIRMS, AND MARKETS (MICROECONOMICS). Enables a concerned citizen to make an intelligent appraisal of current controversies relating to consumers and producers. Explains tools of economic analysis. No prerequisites.
- 1312. Principles: Inflation, Recession, and Unemployment (Macroeconomics). The second term of a liberal arts education sequence discusses issues such as inflation, unemployment, and growth from both national and global perspectives. Tools of economic analysis include models of open economies. *Prerequisite:* ECO 1311.
- 2320 (PLSC 2320). Introduction to Public Policy. This course presents the institutions and processes by which governments make public policy and examines the substance and impact of public policy in such areas as international political economy and domestic social policy. *Prerequisites:* ECO 1311 and PLSC 1320. *Recommended:* ECO 1312, and PLSC 1340 or 1380.
- 3301. PRICE THEORY (INTERMEDIATE MICROECONOMICS). Considers more advanced problems of consumption, production, and exchange than ECO 1311. *Prerequisites:* ECO 1311 and 1312.
- 3302. NATIONAL INCOME AND EMPLOYMENT (INTERMEDIATE MACROECONOMICS). Discusses alternative monetary and fiscal policies in the light of advanced macro theory. *Prerequisites:* ECO 1311 and 1312. *Corequisite:* ECO 3301.
- 3321. INTERNATIONAL ECONOMIC POLICY. This course 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. *Prerequisites*: ECO 1311 and 1312.
- 3327. AMERICAN ECONOMIC HISTORY. Explores the economic development of the United States as it moved from an agrarian-based collection of colonies to the industrial present. *Prerequisites*: ECO 1311 and 1312.
- 3355. Money and Banking. Central and commercial banking are analyzed for students majoring in economics, business, and related sciences. A student may not receive credit for both ECO 3355 (Money and Banking) and FINA 3330 (Money and Capital Markets). *Prerequisites*: ECO 1311 and 1312.
- 3368. FOUNDATIONS OF FINANCIAL ECONOMICS. Applies the tools of economic analysis to financial decision-making. Topics include the time value of money, investment decisions, risk and return, capital budgeting, capital structure, dividend policy, hedging, mergers and acquisitions, and international financial management. *Prerequisites*: ECO 3301, 3355, ACCT 2311, and STAT 2301 (cannot be taken if student has taken FINA 3320).
- 4351. Labor Economics. Survey of economic theory related to labor markets. Topics: Review of wage and employment theories, effect of unions, discrimination, wage structure, and labor migration. *Prerequisite:* ECO 3301.
- 4357. International Trade. Analyzes national and international implications of the trade policies of nations, and the roles played by international organizations. *Prerequisite:* ECO 3301.
- 4358. INTERNATIONAL MACROECONOMIC THEORY AND POLICY. (Formerly ECO 4356 International Finance and Investments.) Discusses current problems in international financial transactions by applying open-economy economic analysis. *Prerequisites:* ECO 3301 and 3302.
- 4366. Economics of the Public Sector. Focuses on theoretic principles useful in analyzing the role of government intervention. Topics: Public goods, externalities, free rider problem, voting and social choice models, and public utilities. *Prerequisite*: ECO 3301.

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- 4371. THEORY OF INDUSTRIAL STRUCTURE. (Formerly Structure of American Industry.) Development of American industry and antitrust policies. *Prerequisite*: ECO 3301.
- 4376. SPECIAL TOPICS IN ECONOMIC HISTORY AND DEVELOPMENT. Economic principles are used to explore important and controversial questions. *Prerequisite*: ECO 3301.
- 4378. FINANCIAL ECONOMICS AND INVESTMENT BEHAVIOR. An overview of investment concepts and an exposure to a range of investment alternatives that form an integral part of financial economics. (Cannot be taken if student has taken FINA 4320 or 4326.) *Prerequisite:* ECO 3368 or FINA 3320 or permission of instructor.
- 4382. Economics of Regulated Industries. Study of public utility, transportation, and other regulated industries. *Prerequisite*: ECO 3301.
- 4385. MACROECONOMICS: THEORY AND POLICY. Goes beyond "IS-LM" curves to most recent models using disequilibrium analysis, government budget constraint, rational expectations, and other approaches. *Prerequisites:* ECO 3301 and 3302.
- 4386. TOPICS IN MONETARY ECONOMICS. An in-depth look at current topics in monetary theory and policy. *Prerequisites:* ECO 3301 and 3302.
- 4388. Case Studies in Financial Economics. Gives the student experience in using economic analysis to solve financial problems and to provide a framework for financial decision-making in practice. (Cannot be taken if student has taken FINA 4325.) *Prerequisite:* ECO 3368 or FINA 3320 or permission of instructor.
- 4390. Workshop in Current Economics Issues. By arrangement with instructor and departmental director of undergraduate studies.
- 4391. Development of Economic Doctrine. Analyzes the development of modern economics. *Prerequisites:* ECO 3301 and 3302.
- 4395. Economics Internship. Student will perform an economic analysis of a particular economics problem. The project will be approved by the student, Director of Undergraduate Studies, and the interning firm prior to term registration. *Prerequisites*: 3.00 G.P.A. in economics classes and completion of those classes appropriate for the project.
- 4396. Business and Economic Forecasting Internship. Student will perform an econometric analysis appropriate to the interning firm. The project will be approved by the student, Director of Undergraduate Studies, and the interning firm prior to term registration. *Prerequisites*: ECO 5350 and 5375.
- 4397. INTERNATIONAL LAW AND ECONOMICS INTERNSHIP. Student will perform an economic analysis with an international or legal focus appropriate to the interning firm. The project will be approved by the student, Director of Undergraduate Studies, and the interning firm prior to term registration. *Prerequisites:* 3.00 G.P.A. in economics classes and completion of those classes appropriate for the project.
- 4398. Honors Readings Seminar. Senior seminar by special arrangement.
- 4399. Honors Research Seminar. Senior seminar by special arrangement.
- 5101, 5201, 5301. Topics (TO BE SPECIFIED IN TITLE). Cannot be used toward an economics major or graduate degree without departmental approval.
- 5337. Urban Economics. Analyzes current issues in urban economics from the perspective of economic theory. *Prerequisite*: ECO 3301.
- 5340. Decision-Making Under Uncertainty. Provides a basis for the modeling of decision-making under conditions of incomplete information. *Prerequisites:* ECO 3302, calculus, and basic statistics or probability.
- 5341. Strategic Behavior, Game Theory, and Applications to Economics. This course will use the tools of game theory to examine the elements of strategic behavior of various economic agents, e.g., firms, consumers, or government. *Prerequisite:* ECO 3301.
- 5350. Introductory Econometrics. Discusses the economic analysis of quantitative data and introduces computer analysis. *Prerequisites:* STAT 2301 or 4340 or ISOM 2305, and MATH 1309 or 1337, and ECO 3301 or permission of instructor.

- 5353. Law and Economics. This course provides a framework for and undertakes the analysis of the economic impact of the law. *Prerequisite*: ECO 3301 or equivalent.
- 5357. ECONOMICS OF HUMAN RESOURCES. The economics of investment in human resources such as education and health. *Prerequisite:* ECO 3301. *Recommended:* ECO 4351.
- 5360. ECONOMIC DEVELOPMENT IN THE THIRD WORLD. Theories of growth and planning and the insight they give in formulating policies to foster and regulate growth. *Prerequisites:* ECO 3301 and 3302, or permission of instructor.
- 5361. Natural Resources and Economic Growth. Natural resource supply and demand, intertemporal allocations, and relation to economic growth. *Prerequisites*: ECO 3301 and 3302.
- 5362. ECONOMIC GROWTH, TECHNOLOGICAL CHANGE, AND THE POLITICAL ECONOMY OF DEVELOPMENT. This course will examine 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:* ECO 3301 and 3302.
- 5365. Public Finance. Analyzes the financial managements of public bodies from local to federal governments. *Prerequisites:* ECO 3301. *Recommended:* ECO 3302.
- 5370. Cost-Benefit Analysis. The economic foundations of modern cost-benefit analysis in government and industry. *Prerequisite*: ECO 3301 or graduate standing.
- 5375. Economic and Business Forecasting. Presentation of methods used by economists to forecast economic and business trends and ways of evaluating the usefulness of these methods. *Prerequisite:* STAT 2301 or ISOM 2305 or equivalent course.
- 5380. Computing for Economics. Economic analysis with emphasis on the use of programs and computer packages. Topics include software assessment for use in economics, statistics software applications in economics, matrix language packages, computer algebra, and linear programming applications. *Prerequisite:* Permission of instructor.
- 6352. APPLIED ECONOMETRICS ANALYSIS. Applications of econometric methods in various branches of economics. *Prerequisite*: ECO 5350 or permission of instructor.
- 6383. New Approaches to Managerial Economics. The traditional models used in microeconomics assume perfect information, no transactions costs, and single product firms. However, recent research has greatly advanced the analysis of firms and markets under less ideal conditions than previously assumed. Developments in information theory, multiproduct analysis, and principal-agent theory are particularly relevant. *Prerequisite:* Permission of instructor.

EDUCATION (CENTER FOR TEACHER PREPARATION)

Professor Cooter, Department Chair

Assistant Professor: Perkins; Adjunct Associate Professor: Hargrove; Lecturers: Garrett, Morganfield, Skinner; Teacher Certification Administrator: Perez.

The Center for Teacher Preparation houses undergraduate, postbaccalaureate, and graduate programs for those seeking a career in the teaching professions. Programs of study assist students in obtaining credentials for teaching in elementary, secondary, or all-level (grades K-12) settings. At the graduate level, a student may pursue a Master in Bilingual Education degree.

Undergraduate and Post-Baccalaureate Programs Leading to Teacher Certification. Undergraduate students pursue an approved academic major in Dedman College or Meadows School of the Arts while seeking Texas teacher certification through the Center for Teacher Preparation in Elementary Education (grades 1-8), Secondary Education (grades 7-12), or All-Level (grades 1-12). Those who have already earned a Bachelor's degree may also obtain teacher certification credentials through the postbaccalaureate program, which essentially mirrors the undergraduate program.

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REQUIREMENTS FOR ADMISSION TO TEACHER PREPARATION PROGRAMS. SMU undergraduates and post-baccalaureate/graduate students may take up to two (2) teacher preparation courses (i.e., those having an EDU prefix) prior to making formal application for admission. Students must complete at least 60 hours of academic work with a G.P.A. of at least 2.70 and maintain grades of *C* or better and a minimum G.P.A. of at least 2.75 in all teacher preparation coursework once admitted to the program. In addition, students must have attained a grade of *C*- or better in the following areas of the General Education Curriculum: Written English, Mathematical Sciences, Science and Technology, and History. Completion of PSYC 3332, Developmental Psychology, with a grade of *C* or better is also required.

Students must pass the TASP (Texas Academic Skills Program) test or be able to document an above-average score on the SAT or ACT. Students seeking admission to the SMU Teacher Preparation Program will be asked to develop a written essay for review, and participate in an interview with selected faculty as part of the screening process. A personal/criminal background check is also required prior to admission to the student teaching experience. Applications for admission to Teacher Preparation may be obtained from the departmental office in 421 Clements Hall.

FIELD EXPERIENCES. The teacher preparation program includes extensive field experience to help students prepare for a career in teaching. The student progresses from observational activities in classrooms to teaching and learning practice sessions with individual students, small groups, and then whole class responsibilities in a carefully managed internship experience. SMU students receive mentoring from faculty noted for their exemplary records as both master teachers and scholars. Exemplary teachers from inner city to suburban settings also act as coaches during the field experiences. During the final Internship (i.e., student teaching) experience, students work full-time for 15 weeks in an assigned classroom with a master teacher in the Dallas area. (Note: Students are not permitted to take any additional coursework during the Internship semester unless approved by the department chair.) The Internship/student teaching semester, a six (6) semester course of study, is regarded as "full time" status enrollment at SMU for financial aid and academic purposes. In this way graduates of the SMU teacher preparation program are better able to enter the teaching profession ready to meet the dynamic learning needs of today's youth.

INTERVIEW AND STUDENT TEACHING REVIEW. Prior to assignment to the Internship (student teaching), candidates will be reviewed by the faculty to determine whether adequate progress has been made in order to assume responsibility for schoolage students. Such factors as academic performance, maturity, and a demonstrated sense of responsibility are among the factors considered.

EXCET PREPARATION SEMINAR. The Texas Education Agency (TEA) requires that persons seeking teacher certification take and pass the state-mandated EXCET test in the desired area(s) of endorsement. The SMU Center for Teacher Preparation requires all Internship students to take and pass the SMU EXCET Preparation Seminar prior to being given authorization to take the EXCET test. This seminar is offered at no charge to our students. In the rare instance where a student does not pass the EXCET test, a faculty mentor may be assigned to help develop an individual plan of supplemental study to complement a second taking of the SNW EXCET Preparation Seminar. (Note: Authorization to take the EXCET will only be offered twice to candidates.)

THE COURSES (EDU)

5350. EDUCATIONAL PSYCHOLOGY. Aspects related to the educational process, such as learning theories, characteristics of learners, nature and measurements of abilities, motivation, and current research about successful classroom practice.

- 5370. THE AMERICAN SCHOOL. Philosophical and historical foundations of the American school. Current issues including school governance and funding, the role of teachers, administrators, parents and the state in the development and running of our schools also the effects of current social conditions on schooling.
- 5332. Physical Geography. Deals with topics such as earth-sun relations, maps, time zones, seasons, the atmosphere, weather and climate, ecosystems, soils, landforms, and oceans. This course is excellent preparation for elementary teachers and required for those preparing for the Composite Social Studies endorsement.
- 5333. WORLD GEOGRAPHY. A survey of the Earth's geographic and cultural regions including the interrelationships between the natural environment and human societies. This course is excellent preparation for elementary teachers and required for teachers preparing for the Composite Social Studies endorsement.
- 5382. Technology for Educational Improvement. This course examines the uses of educational technology and their applications in K-12 classrooms.

ELEMENTARY EDUCATION

- 5355. MATHEMATICS IN THE ELEMENTARY SCHOOL. The use of an active learning approach in the development of understanding related to quantity, space relationships, and other mathematical and scientific concepts in demonstrated, and appropriate concepts and classroom methods are considered.
- 5363, 5364. INTERNSHIP IN THE ELEMENTARY SCHOOL. One full semester of student teaching in an accredited public or private school. The experience provides interns with an opportunity to apply educational theories and subject area content to actual teaching experience under the guidance of a master teacher or teachers.
- 5318. Orientation to Science and Social Studies. Selected strategies for teaching the disciplines of geography, history, economics, culture, government, citizenship, anthropology, and the effect of science and technology on society are explored. Scientific concepts and processes are introduced using an inquiry approach. In both sections of the course cooperative learning, integrated curriculum, and problem solving techniques are introduced. State and national standards are examined.
- 5351. TEACHING LANGUAGE ARTS AND READING IN THE ELEMENTARY SCHOOL. A survey of research-proven practices for the assessment and teaching of the language arts (listening, speaking, reading, composition) in elementary school settings. Includes a field experience at a local public school.
- 5352. CORRECTIVE READING IN THE CLASSROOM. Assessing and assisting students having special learning needs and challenges in the elementary school. Includes approaches for students having learning disabilities in reading, dyslexia, and pertinent legislation for handicapping conditions
- 5356. CHILDREN'S LITERATURE. Instructional strategies for using children's literature in the classroom, and for encouraging reading outside the classroom. Designed to familiarize the student with major genres, individual, authors, illustrators, and themes in children's literature. Additionally, the course provides various frameworks for evaluating literary selections.

SECONDARY EDUCATION

- 5360. Instructional Strategies. Provides subject-specific teaching strategies, discussion, and opportunities to enhance the student's knowledge of content area methodologies. Includes ways assess the knowledge level of students, group profiling, presentation strategies, and other research-proven practices.
- 5371. Secondary Instructional Methods. Teaching resources and methods for the middle and secondary school. Topics include development of objectives and lesson plans, and a variety of teaching models including cooperative learning, conflict resolution and inductive reasoning.

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- 5372. Reading Across Curriculum. Effective strategies for developing content literacy in students. Includes approaches to teaching content-specific vocabulary, strategies for reading content materials efficiently and with substantial comprehension, ways of improving reading fluency in nonfiction materials, establishing an effective classroom environment, composition applications, and grouping strategies. Includes a field experience with students.
- 5373, 5374. INTERNSHIP IN SECONDARY SCHOOL TEACHING. One full semester of student teaching in an accredited public or private school. The experience provides intems with an opportunity to apply educational theories and subject area content to actual teaching experience under the guidance of a master teacher or teachers.
- 5375. Internship Seminar. Designed for secondary student teachers sharing of ideas concerning such topics as assessment, classroom management, and teaching strategies with experts from area K-12 schools.

GIFTED AND TALENTED ENDORSEMENT

- 6325. EDUCATING THE GIFTED AD TALENTED. This course includes surveys of the history of the field, basic terminology and definitions, major models and theories, and effective program prototypes for gifted students. Students review characteristics of the gifted and talented and overview identification and assessment procedures for gifted students. Attention is given to analyzing the traits of effective teachers and counselors and to developing models for interaction with gifted students.
- 6347. CREATIVITY: THEORIES, MODELS, AND APPLICATIONS. This course surveys the concept of creativity. Topics covered include instruments and techniques for identifying creativity, theories and models of creativity, techniques for creativity enhancement, futuristics, and challenges unique to creative persons.
- 6397. GROWTH AND DEVELOPMENT OF THE GIFTED. This course examines the differentiated affective characteristics and needs of the gifted, including a review of general counseling theories, effective communication skills with the gifted, and the assessment of affective needs. Students will develop strategies for assisting the gifted in developing social and interpersonal skills. Issues surrounding the potential of the gifted to achieve and make significant contributions to society as a whole are reviewed.
- 6388. Curriculum Development for Gifted and Talented Learner. This course builds the foundation for development of differentiated curricula for the gifted. Students study effective teaching strategies, learn how to adapt curriculum for individual differences, study the organization of curriculum and instruction for the gifted (scope and sequence, issues related to integrated and interdisciplinary curriculum, and grouping issues). Emphasis is placed on the teaching of higher-level cognitive skills within the disciplines.
- 6374 Practicum. Either a practicum experience and two years of successful classroom teaching experience in an approved program for gifted and talented students is required for endorsement. Students in this course will meet regularly with a faculty member to develop and enhance skills in teaching the gifted.

ENGLISH

Professor Foster, Department Chair

Professors: Crusius, Murfin, Myers, Neel, Smith (Director of Creative Writing), Spiegelman, Terry; Associate Professors: Arr (Vice Chair), Daniels, Holahan, Lawhon, Lewis, Newman (Director of Undergraduate Studies), Schwartz, Shepherd (Director of Graduate Studies), Shields, Wheeler (Director of Medieval Studies); Assistant Professors: Bozorth, Haynes, Satz, Travis, Williams; Adjunct Assistant Professor: Levy; Senior Lecturers: Channell, Cooper, Goyne (Director of First-Year Writing), Innocent, Lange, Stone; Lecturers: Barry, Berliner, Grumbles, Jackman, Kassanoff, Knight, Kuenzer, Pocklington, Read, Richardson, Watts.

The B.A. degree in English is appropriate for a general, liberal education, and for pre-professional training leading to graduate degrees in English or in other areas.

REQUIREMENTS FOR THE B.A. DEGREE. The major requires a minimum of 33 term hours of English courses, distributed as follows:

I. Core Courses (12 hours total):

ENGL 2305 POETRY or ENGL 2308 Doing Things With Poems

ENGL 3304 Contemporary Approaches to Literature

ENGL 3305 Major British Authors I: Chaucer through Pope

One of the following:

ENGL 3306 Major British Authors II: Wordsworth through Yeats

ENGL 3307 Major American Authors: Emerson through Hemingway

II. Major Elective Courses (12 hours total):

Courses to be selected from any departmental offerings, with these limitations: no more than six (6) additional hours below the 3000 level, including no more than three (3) hours at the 1000 level. The following courses are not acceptable as major electives: ENGL 1300, 1301, 1302, 1303, 2301, 2303, and 2311.

III. 4000-Level Literature Courses* (nine hours total from the following):

ENGL 4320 Allegory and Romance

ENGL 4323 CHAUCER'S EARLIER WORK

ENGL 4324 CHAUCER'S CANTERBURY TALES

ENGL 4327/28 Earlier/Later Renaissance Literature

ENGL 4329 Spenser and Milton

ENGL 4331/32 Shakespeare

ENGL 4335 RESTORATION LITERATURE

ENGL 4336 Eighteenth-Century British Literature

ENGL 4339/40 Earlier/Later Romantic Literature

ENGL 4341/42 Earlier/Later Victorian Literature

ENGL 4361/62/63 WRITERS

ENGL 4371/62/63 SPECIAL TOPICS

Courses in creative writing (ENGL 4301, 4302, 4303, 4304, and 4391 through 4396) and ENGL 4305 (Modern Rhetorical Theory) are excluded.

IV. Earlier Literature Co-requirement (three hours from among those required in II or III above):

One advanced course (3000-level or above) must deal primarily with literature written before 1800. ENGL 3305 (Major British Authors I) and 4331/32 (Shakespeare) are excluded. Courses that fulfill this requirement are ENGL 3311, 3315, 3321, 3327, 3329, 4320, 4323, 4324, 4327, 4328, 4329, 4335, 4336, 4361, and 4371.

A grade of C— or better must be earned in all courses fulfilling major requirements, and English majors must attain a minimum G.P.A. of 2.00 among all courses attempted for the major.

The Department strongly recommends 12 hours of foreign language for all English majors. Students expecting to undertake graduate study in English should be advised that graduate schools require a knowledge of at least one foreign language.

Secondary-school certification candidates must fulfill the departmental requirements described above. They should consult the departmental advisers on teacher training about further non-departmental 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 DEPARTMENTAL DISTINCTION PROGRAM. Open to seniors by invitation. To enter the program, a student ordinarily must show an overall G.P.A. of at least 3.00 by the

^{*} ENGL 3305 or 3306 or 3307 (three hours total) is a prerequisite for all 4000-level literature courses. In special cases, one of the courses may be taken concurrently with the first 4000-level course taken by a major.

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middle of the junior year, and a 3.50 average or better in courses fulfilling requirements for the major. In addition to all major requirements, candidates must elect ENGL 5349 (Seminar in Literary Theory) in the fall of the senior year. Candidates completing the seminar with a grade of B+ or better will then enroll in an Independent Studies course in which they will write a senior thesis, or in Directed Studies in Poetry or Fiction Writing for creative writing specialists. With special permission, a candidate may enroll instead in a Graduate Seminar. Candidates must earn a B+ or better in either option selected and attain a 3.50 G.P.A. in all English Department courses counting toward the major. Independent Studies, Directed Studies, or Graduate Seminars may be used to fulfill advanced-hour requirements for the major.

REQUIREMENTS FOR THE MINOR IN ENGLISH. The minor in English requires 15 term hours of course work, no more than six of them in courses numbered below 3000. Minors must take one course each out of the following two groups: ENGL 2305, 2306, 2307; ENGL 3305, 3306, or 3307. (Note: ENGL 1300, 1301, 1302, 1303, and 2311 may not be offered to fulfill minor requirements.) One literature course at the 4000 level must be included in the 15 hours (ENGL 4301, 4302, 4303, 4304, 4391, and 4392 may not be used to fulfill this requirement). A grade of *C*– or better must be earned in all courses taken to fulfill the requirement for the English minor.

THE COURSES

- 1300. FOUNDATIONS FOR RHETORIC. Writing paragraphs and short, analytic, thesis-directed essays in response to texts. Work on reading comprehension, principles of effective sentence construction, and punctuation.
- 1301. Introduction to College Writing. The aims and processes of analytical-argumentative discourse. Understanding and evaluating sources. Use of M.L.A. style.
- 1302. First-Year Seminar in Rhetoric: Contemporary Issues. Introduction to public intellectual life through inquiry into texts and discursive art. Multidisciplinary and multicultural. Analytical-argumentative writing.
- 1303. Seminar in Rhetoric for Peer Tutors. Introduction to public intellectual life through inquiry into texts and discursive art. Multidisciplinary and multicultural. Analytical-argumentative writing. *Restricted to students who are Writing Center Peer Tutors. Prerequisite:* Permission of instructor.
- 1320. The World of Shakespeare's important plays, placing them in historical, intellectual, and cultural contexts.
- 1325. CHIVALRY. The development of the ideal of chivalry from its origins in the medieval legends of King Arthur to modern literature.
- 1350. Tragedy and the Family. The study of individual tragedies and kindred texts in various genres and from various periods.
- 1355. THE AMERICAN HEROINE: FICTION AND FACT. Images of the American heroine in popular and traditional literature, studied in terms of their reflection of the evolving role of American women.
- 1360. The MYTH OF THE AMERICAN WEST. 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."
- 1365. LITERATURE OF MINORITIES. Outstanding and representative works of African American, Mexican-American, Gay, Asian-American, and Native-American literature, both in their immediate cultural context and against the background of the larger American culture.
- 1370. CONTEMPORARY BRITISH AND AMERICAN DRAMA. British and American drama since World War II, from Williams, Miller, and Beckett to Stoppard, Shepard, and Mamet.
- ENGL 1302 or departmental approval is prerequisite to all of the following courses:
- $2301. \, SCIENTIFIC \, AND \, TECHNICAL \, Writing. \, Designed \, for students \, of engineering \, or \, of \, the \, natural \, and \, social \, sciences.$

- 2303. Intermediate Expository Writing. Practice in writing expository prose designed for students in any field.
- 2305. POETRY. Critical reading of selected English and American poets, with some attention to critical theory.
- 2306. Fiction. Critical reading of major works of fiction, with attention to theories of fiction.
- 2307. Drama. Critical reading of major dramatic works, with attention to theories of the drama.
- 2308. Doing Things With Poems. 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. *Restricted to students in the University Honors Program.* Satisfies Poetry requirement for English Major.
- 2311. Interpreting, Understanding, and Doubting. Insights from literature, linguistics, philosophy, psychology, and science that explore major modes of interpreting the world in the 20th century and define what constitutes knowledge as the 21st century approaches. *Restricted to students in the University Honors Program*.
- 2312. THE ETHICAL, THE CATASTROPHIC, AND HUMAN RESPONSIBILITY. Ethical questions derived from history, literature, psychology, anthropology, and philosophy, focused on what constitutes a meaningful life, historical challenges to the bases of ethics, racism, individual freedom, and community responsibility. *Restricted to students in the University Honors Program. Prerequisite:* ENGL 2311.
- 2313. PEER TUTOR WRITING: MODERN PROBLEMS. Literary representations of social problems, examining both the rights and responsibilities of individuals and the role of social contexts in determining choices. Restricted to students who are Writing Center Peer Tutors.
- 2321 (ANTH 2321, CF 2301). THE DAWN OF WISDOM: ANCIENT CREATION STORIES FROM FOUR CIVILIZATIONS. The visions of the cosmos expressed in the art, archaeology, and literature of Egyptian, Mesopotamian, Greco-Roman, and Mayan civilizations, emphasizing the role of human beings as central and responsible actors therein.
- 2322. Guilty Pleasures: Crime and Detection Through the Ages. 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.
- 2323. Female Trouble: Stories of Women. Exploring the relation between problems women find themselves faced with and a cultural perception that women are themselves a problem, and demonstrating how fiction both contributes and responds to such problems.
- 2324. Utopias in Literature and Film. The pervasive appeal of the concept of "utopia" from the 16th century to the present as displayed in literature and in film.
- 2325. Love Stories. Exploration of some of the varied ways in which love has been represented in literature and film from Shakespeare's day to our own.
- 2327. LITERARY STUDIES. An introduction to literary studies based on topics that will vary from semester to semester. Course may be taken more than once for credit.
- 2328. FORTUNE, FAME, AND SCANDAL: THE AMERICAN DREAM OF SUCCESS. 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.
- 2391. Introductory Poetry Writing. A beginning course in the writing of poetry.
- 2392. Introductory Fiction Writing. A beginning course in the writing of fiction.
- 2412. ETHICAL ISSUES AND COMMUNITY ACTION. Exploration of major ethical ideas and problems through literary texts, and testing and reflecting upon them through practical involvement in the community. Requires a commitment of time to volunteer community activities. *Restricted to students in the University Honors Program*.
- 3304. Contemporary Approaches to Literature, Language, and Culture. 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.

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- 3305. Major British Authors I: Chaucer through Pope. Introduction to earlier periods of English literature through the study of major authors in their historical context and from varied critical and thematic perspectives.
- 3306. Major British Authors II: Wordsworth through Yeats. Introduction to later periods of English literature through the study of major authors in their historical context and from varied critical and thematic perspectives.
- 3307. Major American Authors: Emerson through Hemingway. Introduction to later periods of American literature through the study of major authors in their historical context and from varied critical and thematic perspectives.
- 3309. Advanced Expository Writing. Emphasis on styles and formats appropriate to academic writing, and on individual problems and needs.
- 3310. THE DEVELOPMENT OF THE SHORT STORY. A history of the evolution of the forms and techniques of short fiction with special attention to developments in the 20th century.
- 3311. THE ENGLISH NOVEL I. A study of form and theme in selected works from the origins of the English novel to the beginning of the 19th century.
- 3312. The English Novel II. A study of form and theme in the work of selected novelists from the beginning of the 19th century through the 20th century.
- 3313. The American Novel I. A study of form and theme in the work of selected novelists from Cooper to James.
- 3314. THE AMERICAN NOVEL II. A study of form and theme in the work of selected novelists from James to Faulkner, Bellow, and beyond.
- 3315. The Development of Drama I. A study of the nature of drama and the dramatic in Western culture through representative texts from 5th-century B.C. Athens through 19th-century Germany. Some attention to contributing issues of theater history.
- 3316. THE DEVELOPMENT OF DRAMA II. American and European drama from 1880 to the present. Emphasis on literary values and movements, with cultural and historical backgrounds.
- 3317. FICTION AND FILM. Analysis of the form and technique of several novels with secondary attention to the effect upon "story" or content by selected film adaptations.
- 3318. Modern Poetry. Modern British and American poetry: Auden, Eliot, Frost, Moore, Pound, Stevens, and Yeats.
- 3319. Comedy. The development of dramatic comedy from classical models through the contemporary play, with consideration of historical influences.
- 3320. Tragedy. A critical examination and comparative study of the forms taken by the tragic drama of various cultures and historical periods.
- 3321. Medieval English Literature. Survey of a thousand years of English literature, from the Anglo-Saxon period, through the high Middle Ages and the works of Chaucer's contemporaries, to the late Middle Ages and the dawn of the Renaissance.
- 3322. LITERATURE AND MYTH. A study of myth as story, as content for literature, and as an analytic term.
- 3323. THE TALES OF WALES FROM THE TIME OF KING ARTHUR. 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.
- 3325. HEROIC VISIONS: THE EPIC POETRY OF HOMER AND VERGIL. The literature of classical heroism in works by Homer and Vergil that influenced the epic traditions of English literature.
- 3327. Renaissance Drama. Introduction to the analysis of European Renaissance drama in both text and performance. Focus on dramatic traditions and innovations that characterize the rise of the commercial, secular theater in the Renaissance.
- 3329 (CF 3302, MDVL 3329). THE WORLD OF KING ARTHUR. 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.

- 3330. Non-Western Culture and Literature. Major 20th-century "third world" literary and cultural texts with emphasis on political and economic contexts of colonialism and post-colonialism.
- 3331. Gender, RACE, AND CLASS: Non-Western Culture and Literature. Gender-oriented readings of literary and cultural/historical texts relating the category of gender to categories of race and class.
- 3341. Women in the Age of Victoria. The literature and social history of the period, exploring the received "truths" about women that prevailed in 19th-century Britain and contrasting those "truths" with the responses of contemporaries as well as with the realities that contradict them.
- 3345. British Literature From 1900 to 1939. The waning of Victorian attitudes toward literature and society; World War I and its impact on British writers; the Modernist revolution. Shaw, Forster, Woolf, Lawrence, Auden, Eliot, Yeats.
- 3346. British Literature Since World War II. The end of the British Empire; rejection of the Modernist aesthetic; feminism in politics and literature. Orwell, Waugh, Lessing, Osborne, Pinter, Bond, Churchill, Thomas, Larkin, Hughes, Amis.
- 3347 (CF 3304). WORLD WAR I: THE BRITISH EXPERIENCE. The experience of a people engaged in a modern total war that demanded, for the first time in British history, universal conscription and constant civilian involvement. The approach is cross-disciplinary.
- 3348 (CF 3305). LITERARY EXECUTIONS: IMAGINATION AND CAPITAL PUNISHMENT. The literary treatment of capital punishment in drama, poetry, novel, and biography.
- 3349 (CF 3364). ETHICAL IMPLICATIONS OF CHILDREN'S LITERATURE. Examination of the literature with emphasis on notions of morality and evil, including issues of colonialism, race, ethnicity, gender, and class.
- 3351. AMERICAN LITERATURE TO 1855. Prose and poetry from colonial times through the romantic dilemma, with emphasis on Edwards, Franklin, Poe, Emerson, Thoreau, Hawthorne, and Melville.
- 3352. American Literature from 1855 to 1900. The turn toward vernacular and the "commonplace," and the development of major voices in American literature.
- 3353. Mark Twain and the Tradition of American Humor. Readings in Mark Twain and his predecessors, with discussion of humor, the genteel tradition in America, and the vernacular scamp and the self-controlled gentleman.
- 3354. Contemporary Fiction. The contemporary response to typically "modern" dilemmas in authors such as Nabokov, Bellow, Robbe-Grillet, Borges, Pynchon, and Beckett.
- 3355. Contemporary Poetry. Major trends in American poetry since 1945, with special consideration of such representative important figures as John Ashbery, Elizabeth Bishop, Robert Lowell, James Merrill, and Adrienne Rich.
- 3356. Social Action and Social Vision in American Literature. Exploration of American social problems through imaginative literature and other writings that raise issues of race, gender, and class.
- 3357 (CF 3363, HIST 3357). JOAN OF ARC: HISTORY, LITERATURE, AND FILM. The life and later reception of the extraordinary peasant girl, Joan of Arc (ca. 1412-1431), who in two years changed the course of European history before she was burned at the stake.
- 3358. LITERATURE AND THE CONSTRUCTION OF HOMOSEXUALITY. A historical exploration of how same-sex desire has been represented and understood in modern literature, as considered in the context of philosophical, religious, and scientific texts since the ancient world.
- 3359 (FL 3359). MASCULINITIES: IMAGES AND PERSPECTIVES. The representation of male sex roles in Western literature, from Achilles to James Bond. Open to juniors and seniors; sophomores by permission of instructors.
- 3360. The Writer and Her Work. An exploration of relationships between women's experiences and their writing to identify ways that culture shapes literature and to define characteristic patterns taken by the female imagination.

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- 3361. LITERATURE AND SOCIETY. The relationship of literature to various social concerns and contexts. Themes and writers studied will vary from term to term.
- 3362. LITERATURE AND BELIEF. Study of the expression in literature of ultimate concerns, such as faith, identity, nature, time, and mortality. Themes and writers will vary from term to term.
- 3363 (CF 3345). LITERATURE OF RELIGIOUS REFLECTION. 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.
- 3364 (FL 3364). PHILOSOPHICAL AND LITERARY IDEAS OF THE OTHER: THROUGH A GLASS DARKLY. An important question in Western intellectual tradition is "Who is the Other?" This course explores both dialectical and linguistic structures of the "I" and "the Other" in philosophy, literature, and politics.
- 3365. American Literature from 1900 to 1940. Beginnings of the modern spirit and development of new literary forms in the work of such authors as James, Stevens, Eliot, Frost, Faulkner, Hemingway, Cather, Wharton, and others.
- 3366. AMERICAN LITERATURE SINCE 1940. Values and attitudes in transition in the work of major American writers of the past 50 years, such as Barth, Mailer, Pynchon, Walker, and Flannery O'Connor.
- 3367. AFRICAN AMERICAN LITERATURE. Major African American writers and their works, and various social and historical influences.
- 3368. LITERATURE OF THE SOUTHWEST. 19th- and 20th-century Anglo, Hispanic, and Native American literature of the Southwestern United States.
- 3369 (CF 3398). Jewish American Literature and Culture. 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.
- 3370 (CF 3370). Women and the Southwest. 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.
- 3371. CHICANA/CHICANO LITERATURE. 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 will be helpful to students, but is not a prerequisite for the course.
- 3372. HISTORY OF U.S. HISPANIC LITERATURE. Historical overview examining the literary heritage of Hispanics within the United States borders, beginning with Spanish colonial explorers in the 17th century and continuing into the present. Some knowledge of Spanish will be helpful to students, but is not a prerequisite for the course.
- 3380. THE LITERATURE OF VISION. An examination of the ways in which prophets and imaginative writers have sought to communicate the source, content, and meaning of "things invisible to mortal sight," whether as a confirmation of, or a challenge to, the leading ideas of their time.
- 3391. Intermediate Poetry Writing. An intermediate course for those who have demonstrated competence and promise in writing poetry. *Prerequisite:* ENGL 2391 or permission of instructor
- 3392. INTERMEDIATE FICTION WRITING. An intermediate course for those who have demonstrated competence and promise in writing fiction. *Prerequisite:* ENGL 2392 or permission of instructor.
- 3398. ENGLISH STUDIES INTERNSHIP. For junior and senior English majors only. Work experience related to English studies. Instruction in professional communication. Workshop format, one-on-one consultation with instructor. *Prerequisite:* Open to a limited number of students by permission of instructor.
- 3399. DIRECTED STUDIES. Directed readings in a coherent area of a student's choice, to be approved by the Director of Undergraduate Studies and the instructor. Written assignments will be required.

- 4000. Studies in Britain.
- 4301, 4303. Craft of Poetray I, II. Examination of various readings for their usefulness from a poet's point of view. Emphasis on observation of technique rather than on interpretation. Written work will be required. *Prerequisite 4301*: ENGL 3391. *Prerequisite 4303*: Six hours from ENGL 3391, 4301, 4391.
- 4302, 4304. Craft of Fiction I, II. Examination of various readings for their usefulness from a fiction writer's point of view. Emphasis on observation of technique rather than on interpretation. Written work will be required. *Prerequisite 4302*: ENGL 3392. *Prerequisite 4304*: Six hours from ENGL 3392, 4302, 4392.
- 4391. ADVANCED POETRY WRITING. An advanced course for students seriously interested in the composition of poetry. *Prerequisite:* ENGL 3391 or permission of instructor.
- 4392. Advanced Fiction Writing. An advanced course for students seriously interested in writing the short story or novel. *Prerequisite:* ENGL 3392 or permission of instructor.
- 4393, 4395. DIRECTED STUDIES IN POETRY WRITING. *Prerequisite:* Open to a limited number of students by permission of instructor.
- 4394, 4396. DIRECTED STUDIES IN FICTION WRITING. *Prerequisite:* Open to a limited number of students by permission of instructor.
- 5310. DISCOURSE IN THE SOCIAL SCIENCES. History, characteristics, and functions of scientific writing. Special focus: rhetoric of inquiry, science as persuasion. Practice in editing of scientific prose. *Prerequisite:* Permission of instructor.
- 5371 (ANTH 5359). LINGUISTICS: GENERAL. Introduction to the study of language as a part of human culture; basic notions of phonology, morphology, and semiology; the structure and growth of the English language.
- 5375. THE STRUCTURE OF THE ENGLISH LANGUAGE. The structure of present-day English (phonology, morphology, syntax, vocabulary, semantics).
- 5376. THE HISTORY OF THE ENGLISH LANGUAGE. The development of English from Anglo-Saxon to the present.
- 5388. SEMINAR IN TEACHING WRITING. Contemporary theory and practice of teaching writing: discourse and rhetorical theory, conferencing and small group work, designing composition curricula, writing in all disciplines. Special emphasis on argumentation and persuasion.
- ENGL 3305 or 3306 or 3307, or departmental approval, is prerequisite to all of the following courses:
- 4320. Allegory and Romance. A study of two of the most influential kinds of English literature written between the 13th and 15th centuries.
- 4323. Chaucer's Earlier Work. Introduction to the early poetry of Geoffrey Chaucer, to medieval poetics, and to reading skills in Middle English.
- 4324. CHAUCER'S CANTERBURY TALES.
- 4327. Earlier Renaissance Literature. The literature of the 16th century, from More's *Utopia* and the lyrics of Wyatt and Surrey to Shakespeare's *Sonnets* and Spenser's *The Faerie Queene*.
- 4328. Later Renaissance Literature. The poetry, prose, and drama of the first half of the 17th century, exclusive of Milton, with emphasis on Jonson, Donne, Herbert, Marvell, Browne, and Bacon.
- 4329. THE POETRY OF SPENSER AND MILTON. Two major authors of the English Renaissance and recent criticism concerning their achievements in different literary genres.
- 4331. Shakespeare. A careful study of nine or 10 plays concentrating upon the histories, comedies, and earlier tragedies.
- 4332. Shakespeare. A careful study of nine or 10 plays concentrating upon the later tragedies and the last plays.
- 4335. RESTORATION LITERATURE. Emphasis on Milton, Dryden, and the Restoration dramatists.
- 4336. Eighteenth-Century British Literature. Emphasis on Pope, Swift, Boswell, and Johnson, with some attention to minor poetry of the mid-century and to the rise of the novel.

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- 4339. Earlier Romantic Literature. An introduction to Romanticism, poetry and prose, with emphasis on Blake, Wordsworth, and Coleridge.
- 4340. LATER ROMANTIC LITERATURE. Romanticism continued, with emphasis on the poetry and prose of Byron, Keats, Shelley, Jane Austen, and Emily Brontë.
- 4341. EARLIER VICTORIAN LITERATURE. Social, intellectual, and artistic concerns in the works of Tennyson, Browning, Arnold, and selected 19th-century novelists and prose writers.
- 4342. Later Victorian Literature. The movement toward modern literature and ideas in Rossetti, Swinburne, Hopkins, and selected 19th-century novelists and prose writers.
- 4361,4362,4363. Writers. Intensive study of one or more writers. Writers will vary from term to term.
- 4371, 4372, 4373. SPECIAL TOPICS. Intensive study of a narrowly defined topic in literature. May include literary history, theory, and cultural contexts. Topics will vary from term to term.
- 5301, 5302, 5303, 5304. INDEPENDENT STUDIES. Directed readings in an area of the student's choice, to be approved by the Director of Undergraduate Studies and the instructor. A paper will be required. *Open only to candidates for departmental distinction and to graduate students*.
- 5349. SEMINAR IN LITERARY THEORY. A seminar for candidates for departmental distinction, designed to acquaint them with particular approaches to literature.

THE CREATIVE WRITING SPECIALIZATION WITHIN THE ENGLISH MAJOR

The English Department offers a Creative Writing specialization within the English major. The courses available in the Creative Writing curriculum are as follows:

- 2391 Introductory Poetry Writing
- 2392 Introductory Fiction Writing
- 3391 Intermediate Poetry Writing
- 3392 Intermediate Fiction Writing
- 4301 Craft of Poetry I
- 4302 Craft of Fiction I
- 4303 Craft of Poetry II
- 4304 CRAFT OF FICTION II
- 4391 ADVANCED POETRY WRITING
- 4392 ADVANCED FICTION WRITING
- 5393, 5395 DIRECTED STUDIES IN POETRY WRITING
- 5394, 5396 DIRECTED STUDIES IN FICTION WRITING

The prerequisites for 3391 or 3392 are 2391 or 2392, respectively, or permission of the instructor. Directed Studies courses are open only by permission of the instructor; manuscripts will be considered for admission to these courses.

Students taking a Creative Writing specialization within the English Department must fulfill all requirements for the English major. No fewer than 12 hours in Creative Writing courses, including the craft courses, must be applied toward the Creative Writing specialization, but students may take additional elective hours in writing courses as well as other English courses.

ENVIRONMENTAL SCIENCE

Coordinating Committee: Assistant Professor B. Jacobs (Geological Sciences), Chair; Professor LATTMAN (Chemistry); Professor UBELAKER (Biological Science); Professor Hansen (Geological Sciences).

CHEMISTRY: Professors: BIEHL, LATTMAN, MAGUIRE, WISIAN-NEILSON; Associate Professors: BUYNAK, FORD, GOODSON, HORSTHEMKE, SCHELL; Assistant Professor: Son. GEOLOGICAL SCIENCES: Professors: Gregory, Hansen, L. Jacobs, Stump, Walther, Yapp; Associate Professor: Goodge; Assistant Professor: B. Jacobs; Adjunct Associate Professor: D. Winkler. Biological Sci-ENCES: Professor: UBELAKER; Lecturer: GOODNIGHT.

The natural systems that constitute the 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 the 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 the 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 post-graduate 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 either an earth science or a chemistry emphasis in the upper division courses. Students choose an emphasis in either Chemistry or Earth Science for upper level course work. Students with either emphasis will come together their senior vear in a multidisciplinary seminar in Environmental Science. Seniors may do an internship (e.g., with an environmental lawyer, an assessment and remediation company, or a nonprofit agency) for course credit and by special arrangement.

A total of 122 credits is required for a Bachelors of Science in Environmental Science, including 30 credits in General Education, 24 credits as Free Electives (can be 27 credits if the Information Technology requirement is satisfied with the Environmental Sciences Program), 50 credits of core courses, and 18 credits of Environmental Science electives taken with an emphasis in either Chemistry or Earth Science.

CORE COURSES (50 course credits)

Biology (7 credits):

BIOL 1402 Introductory Biology II

BIOL 3307 Ecology

Chemistry (15 or 16 credits):

CHEM 1303 GENERAL CHEMISTRY I

CHEM 1113 GENERAL CHEMISTRY I LABORATORY

CHEM 1304 GENERAL CHEMISTRY II

CHEM 1114 GENERAL CHEMISTRY II LABORATORY

CHEM 3371 ORGANIC CHEMISTRY I

CHEM 3117 ORGANIC CHEMISTRY I LABORATORY

and either

CHEM 3372 and 3118 Organic Chemistry I and Organic Chemistry II Laboratory or CHEM 3351 QUANTITATIVE ANALYSIS

Geological Sciences (11 credits):

GEOL 1301 EARTH SYSTEMS or

GEOL 1315 ENVIRONMENTAL SCIENCES

GEOL 3451 EARTH MATERIALS I

GEOL 3452 EARTH MATERIALS II

Mathematics (6 credits):

MATH 1337 CALCULUS I

MATH 1338 CALCULUS II

Physics (8 credits):

PHYS 1303 Introductory Mechanics and

PHYS 1105 GENERAL PHYSICS LABORATORY I or

PHYS 1407 GENERAL PHYSICS I

PHYS 1304 Introductory Electricity and Magnetism and

PHYS 1106 GENERAL PHYSICS LABORATORY II or

PHYS 1408 GENERAL PHYSICS II

Environmental Science (3 credits):

GEOL 6363 Environmental Geology Seminar

CHEMISTRY EMPHASIS, UPPER-DIVISION COURSES

(18 credit hours)

Required (9 or 10 credits):

CHEM 3359 INORGANIC CHEMISTRY I

CHEM 3372 and 3118 Organic Chemistry II and Organic Chemistry II Laboratory or

CHEM 3351 QUANTITATIVE ANALYSIS

CHEM 5381 Physical Chemistry or 5383 Physical Chemistry I

Electives (choose 9 or more credits):

CHEM 4197, 4297, or 4397 RESEARCH

CHEM 5390 Environmental Chemistry

GEOL 3366 Environmental Geology and Geochemical Cycles

GEOL 5384 Hydrogeology

GEOL 5386 GEOCHEMISTRY

GEOL 3353 MODERN AND ANCIENT CLIMATES

GEOL 5338 THERMODYNAMICS AND GEOLOGIC PROCESSES ME 5317 GROUNDWATER HYDROLOGY AND CONTAMINATION

EARTH SCIENCES EMPHASIS, UPPER-DIVISION ELECTIVES

(choose 18 credit hours)

CHEM 3351 QUANTITATIVE ANALYSIS

CHEM 3359 INORGANIC CHEMISTRY

CHEM 3372 and 3118 Organic Chemistry II and Organic Chemistry II Laboratory

CHEM 5381 or 5383 Physical Chemistry or Physical Chemistry I

CHEM 5390 Environmental Chemistry

GEOL 3353 Modern and Ancient Climates

GEOL 3360 Process Geomorphology

GEOL 3366 Environmental Geology and Geochemical Cycles

GEOL 3369 PALEOBIOLOGY

GEOL 3454 STRUCTURAL GEOLOGY

GEOL 3472 SEDIMENTOLOGY

GEOL 4296 or 4298 Integrative Research

GEOL 4390 GEOPHYSICAL PROSPECTING

GEOL 5338 THERMODYNAMICS AND GEOLOGIC PROCESSES

GEOL 5368 PALEOECOLOGY

GEOL 5384 Hydrogeology

GEOL 5386 GEOCHEMISTRY

ME 5317 GROUNDWATER HYDROLOGY AND CONTAMINATION
STAT 2331 or 4340 INTRODUCTION TO STATISTICAL METHODS or
STATISTICAL METHODS FOR ENGINEERS AND APPLIED SCIENTISTS

ETHNIC STUDIES

Professor Chávez, Director

Ethnic Studies offers an interdisciplinary program that examines the African-American and Mexican-American experiences through the social sciences and humanities. The program offers instruction in important periods of African, Mexican, and American history, probing the roots of traditions beginning in early African and pre-Columbian 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 MAJORS AND MINORS. Under Ethnic Studies, the following options are offered:

The major leading to the Bachelor of Arts in Ethnic Studies with specialization in either African and African-American Studies (33 hours) or Mexican-American Studies (34 hours).

The major leading to the Bachelor of Science in Ethnic Studies with specialization in either African and African-American Studies (36 hours) or Mexican-American Studies (37 hours).

The minor in African and African-American Studies (18 hours).

The minor in Mexican-American Studies (19 hours).

Courses to fulfill the requirements for the above should be selected in consultation with the director.

- I. Bachelor of Arts. The B.A. option focuses more on the humanities than the social sciences and, consequently, requires less work in methodology and statistics.
 - A. FOUNDATION. Six hours required of all students majoring in Ethnic Studies. ETST 2301 Race and Ethnicity in the United States

SOCI 3370 MINORITY-DOMINANT RELATIONS

- B. Basic Courses. Eighteen hours comprised of the minor in African and African-American Studies, and 19 hours comprised of the minor in Mexican-American Studies form the basis of the Ethnic Studies major.
 - 1. African and African-American Studies minor (nine of the 18 hours required must be at the 3000 level or above):
 - a. Nine hours of core courses are required.

HIST 2392 Modern Africa

HIST 3313 BLACKS IN THE UNITED STATES, 1607-1877

HIST 3314 BLACKS IN THE UNITED STATES, 1877-PRESENT

 b. Nine hours of additional basic courses, of which six must be outside History.

ANTH 3314 Peoples of Africa

ARHS 3371 TRADITIONAL ARTS OF AFRICA

ENGL 3367 African-American Literature

HIST 2391 AFRICA TO THE 19TH CENTURY

HIST 3304 Blacks and the Civil Rights Movement

HIST 3379 PROBLEMS IN AFRICAN HISTORY

HIST 5341 SEMINAR IN AMERICAN HISTORY: AFRICAN SLAVERY IN THE U.S.

MUHI 3340 Jazz: Tradition and Transformation

- 2. Mexican-American Studies minor (10 of the 19 hours required must be at the 3000 level or above):
 - a. Ten hours of core courses are required.

HIST 3324 Mexican Americans, 1848 to the Present

SOCI 3372 CHICANOS IN THE SOUTHWEST

SPAN 1401 BEGINNING SPANISH (or higher level)

b. Nine hours of additional basic courses selected from the following:

ANTH 3312 Meso-American Archaeology

ARHS 3369 ANCIENT MAYA

ARHS 3379 AZTECS BEFORE AND AFTER CONQUEST

ENGL 3371 CHICANO/CHICANA LITERATURE

ENGL 3372 HISTORY OF U.S. HISPANIC LITERATURE

FL 3306 CHICANO CULTURAL HERITAGE

HIST 3305 HISPANOS OF NEW MEXICO, 1848-PRESENT

HIST 3308 HISTORY OF HISPANICS IN THE UNITED STATES THROUGH FILM

HIST 3382 HISTORY OF MEXICO

HIST 5330, 5331 Seminar in Mexican-American History

- C. Cross-Cultural Requirement. Ethnic Studies majors in the African and African-American option are required to take three hours in Mexican-American Studies. Majors in the Mexican-American Studies option are required to take three hours in African-American Studies.
 - D. Supporting Courses. Six hours of other courses related to ethnicity must be selected from the following:

ANTH 3348 ASIANS AND THE AMERICAN PUBLIC IMAGINATION

ANTH 3353 Indians of North America

ANTH 3361 LANGUAGE IN CULTURE AND SOCIETY

ANTH 3368 (SOCI 3368) Urban Problems: A Cross-Cultural Perspective

ENGL 1365 LITERATURE OF MINORITIES

ENGL 3330 Non-Western Culture and Literature: Africa, the Caribbean, South Asia

ENGL 3331 GENDER, RACE, AND CLASS: NON-WESTERN CULTURE AND LITERATURE

ENGL 3369 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 THE JEWISH EXPERIENCE IN AMERICA

II. BACHELOR OF SCIENCE. Thirty-six hours are required to complete the B.S. option in African and African-American Studies. Thirty-seven hours are required to complete the B.S. option 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:

SOCI 4311 RESEARCH METHODS and

STAT 2301 STATISTICS FOR MODERN BUSINESS DECISIONS or

STAT 2331 Introduction to Statistical Methods

EVENING BACHELOR OF HUMANITIES PROGRAM

Adjunct Professor Kosmitzki, Director

The Bachelor of Humanities is a multidisciplinary evening program designed for students who wish to complete their undergraduate education in the evening on a part-time basis. Applicants must have earned at least 45 term hours of transferable course work with a 2.50 G.P.A. and meet the University's admission requirements for transfer students.

The degree requires the completion of 36 term hours in course work taken from the following disciplines: art history, English literature, foreign languages, history, philosophy, and religious studies. Up to 45 term hours of electives may be earned.

For details concerning admission and program requirements, contact the Evening Studies Office, Southern Methodist University, 6410 Airline Road, PO Box 750382, Dallas TX 75275-0382; 214-768-6483. World Wide Web: www.smu.edu/~dess

EVENING BACHELOR OF SOCIAL SCIENCES PROGRAM

Adjunct Professor Kosmitzki, Director

The Bachelor of Social Sciences is a multidisciplinary evening program designed for students who wish to complete their undergraduate education in the evening on a part-time basis. Applicants must have earned at least 45 term hours of transferable course work with a 2.50 G.P.A. and meet the University's admission requirements for transfer students.

The degree requires the completion of 36 term hours in course work taken from the following disciplines: psychology, sociology, economics, anthropology, and political science. Up to 45 term hours of electives may be earned.

For details concerning admission and program requirements, contact the Evening Studies Office, Southern Methodist University, 6410 Airline Road, PO Box 750382, Dallas TX 75275-0382; 214-768-6483. World Wide Web: www.smu.edu/~dess

FOREIGN LANGUAGES AND LITERATURES

Associate Professor Beauchamp, Department Chair

CHINESE: Assistant Professor: Cui; Lecturer: Ahnert; Adjunct Lecturer: Sun. French: Professor: A. Winandy; Associate Professors: Beauchamp, Elton; Assistant Professor: Urbanek; Senior Lecturer: R. Winandy; Lecturer: Gantz; Adjunct Lecturers: Aaron, Bishara, Gossen, Hugley-Cook, Marston, M. Prieto. German: Associate Professors: Birrell, Gättens, Van Selm. Italian: Associate Professor: DeNardo; Senior Lecturer: D'Amico; Adjunct Lecturers: Brentegani, Mariani. Japanese: Associate Professor: Matsui; Adjunct Lecturer: Stahl. Latin: Adjunct Lecturer: Lemmon. Russian: Associate Professor: Cox; Adjunct Lecturer: Clayton. Spanish: Professor: R. Prieto; Associate Professors: LaPrade, Miller; Assistant Professors: Colbert, Kartchner, López; Senior Lecturers: Jara-Simmons, Kachmar, Nelson; Lecturers: Carvajal, Dooley, Herrera, León, Schlak; Adjunct Lecturers: Fox-Ballí, Wald, Wiegman.

The B.A. degree is offered in French, German, German Area Studies, Italian Area Studies, Russian, Russian Area Studies, Spanish, and Foreign Languages.

Academic minors are available in Chinese, French, German, German Area Studies, Italian, Italian Area Studies, Japanese, Japanese Area Studies, Russian, Russian Area Studies, and Spanish.

REQUIREMENTS FOR DEPARTMENTAL DISTINCTION

- 1. Overall 3.50 G.P.A. by the middle of the junior year.
- 2. Overall 3.75 G.P.A. in the major by the middle of the junior year.
- 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.

B.A. IN FOREIGN LANGUAGES

Students wishing to specialize in two foreign languages may receive the B.A. degree in Foreign Languages by completing the requirements for the minor plus two additional advanced courses in Language I, and by completing the requirements for the minor in Language II. Courses are to be selected in consultation with the major adviser in Language I. Minors in area studies may not be applied to this major.

CHINESE

REQUIREMENTS FOR THE MINOR IN CHINESE: Seventeen term hours, including 14 hours of language training, beginning with the intermediate level, as well as one FL course in Chinese culture, or one from History or Political Science, as follows:

- 1. CHIN 2401 and 2402
- 2. CHIN 3311 and 3312
- 3. One course from the following: FL 3310, 3312, 3325; HIST 3393; or PLSC 3352

THE COURSES (CHIN)

- 1401, 1402. Beginning Chinese. Introduction to spoken and written Mandarin Chinese. Course emphasizes intensive drills in sounds and tones, sentence structure, and a vocabulary of 500 characters. Students attend three weekly master classes plus two hours of practice in small groups. Computer, video, and audio assignments are required. Four credits per term. *Prerequisite for 1402: C-* or better in 1401 or permission of area chair.
- 2401, 2402. Intermediate Chinese. 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. Four credits per term. *Prerequisite for 2401: C-* or better in CHIN 1402 or permission of area chair. *Prerequisite for 2402: C-* or better in CHIN 2401 or permission of area chair.
- 3311. ADVANCED CHINESE. This course 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.
- 3312. ADVANCED CHINESE (SECOND TERM). This course 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.

Foreign Literature Courses in English

(See course descriptions at end of Foreign Languages and Literatures section.)

- FL 3310 Transnational Chinese Cinema
- FL 3312 Women, Writing, and Identity in 20th-Century Chinese Literature
- FL 3325 Perspectives on Modern China

FRENCH

All courses are conducted in French.

REQUIREMENTS FOR THE B.A. DEGREE IN FRENCH: Thirty-two term hours, including FREN 2401 or the equivalent, and 28 hours of advanced courses. Courses are to be selected in consultation with the major adviser and must include the following: FREN 3101, 3355, 3356, 4370; six hours chosen from 4379, 4380, and 4381; plus six hours of 5000-level courses and six hours of elective French at the 4000 level or above. Study with SMU-in-Paris or SMU-in-the-South of France is strongly recommended.

REQUIREMENTS FOR THE MINOR IN FRENCH: A total of 20 hours, including FREN 2401 or the equivalent, plus 16 advanced hours: FREN 3101, 3355, 3356, 4370, and two additional courses at the 4000 level.

THE COURSES (FREN)

Language Courses

1401, 1402. Beginning French. Stresses acquisition of basic skills: speaking, listening comprehension, reading, and writing. Five classes per week. Four credits per term. *Prerequisite for 1402: C-* or better in 1401 or permission of area chair.

- 2201. France Today: Culture, Society, Daily Life. 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)
- 2401. Intermediate French. Continues to strengthen the four language skills, with added emphasis on reading and writing. Five classes per week. Four credits per term. *Prerequisite: C-* or better in FREN 1402 or permission of area chair.
- 3101. French Phonics. Perfecting French pronunciation: individual sounds, word groups, rhythmic patterns, intonation. Use of audiocassettes and interactive software. *Corequisite:* FREN 3355. *Prerequisite:* FREN 2401.
- 3355. ADVANCED FRENCH I. Refinement of all four language skills. Special emphasis on conversation, particularly in the following areas: common social situations, narration, reporting in indirect discourse, expository oral presentation. Includes grammar review. Outside reading, compositions, use of audio and videocassettes. *Corequisite:* FREN 3101. *Prerequisite:* FREN 2401.
- 3356. Advanced French II. Refinement of all four language skills. Special emphasis on writing proficiency, particularly in the following areas: exposition, narration, description, correspondence, literary analysis. Includes grammar review, oral presentations, dictionary research, outside reading. *Prerequisites:* FREN 3101 and 3355.
- 4355. Advanced Spoken French. Practice in styles and genres of spoken French: exposé, literary explication, persuasion, recitation, formal versus informal conversation. *Prerequisites:* FREN 3355 and 3356.
- 4356. ADVANCED COMMUNICATION SKILLS: THE FRENCH-LANGUAGE MEDIA. 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. *Prerequisites:* FREN 3355 and 3356.
- 4391. COMMERCIAL FRENCH FOR INTERNATIONAL TRADE. An advanced course for international trade and communication. *Prerequisites:* FREN 3355 and 3356.
- 5361. LITERARY TRANSLATION: THEORY AND PRACTICE. Exploring the relationship between interpretation and translation. Individual projects in a workshop setting. *Prerequisites:* FREN 4370 and two of the following courses: FREN 4379, 4380, 4381.

Literature and Culture Courses

- 4370. Introduction to French Literary Texts. Strategies for reading and analyzing French and Francophone literary texts. Focus on the three principal genres: poetry, drama, and prose narrative. *Prerequisites*: FREN 3355 and 3356.
- 4373, 4374. FRENCH CIVILIZATION. The evolution of French society, with emphasis on cultural, artistic, and intellectual trends. *Prerequisites:* FREN 3355 and 3356. (SMU-in-Paris and SMU-in-the-South of France only)
- 4379. Introduction to French Cultures and Literatures I: Middle Ages to the Age of Louis XIV. Survey of French social, cultural, and literary histories from the time of Charlemagne to the end of the reign of Louis XIV. *Prerequisites:* FREN 3355, 3356, and 4370. Meets Perspectives requirement for literature.
- 4380. Introduction to French Cultures and Literatures II: Enlightenment to the Belle Epoque (1715-1900). Survey of French and francophone social, cultural, and literary histories from the death of Louis XIV to the Dreyfus Affair. *Prerequisites:* FREN 3355, 3356, and 4370. Meets Perspectives requirement for literature.
- 4381. Introduction to French Cultures and Literatures III: 1900 to the Present. Survey of French and francophone social, cultural, and literary histories from the beginning of the 20th century to the present. *Prerequisites:* FREN 3355, 3356, and 4370. Meets Perspectives requirement for literature.

5320, 5321. LITERARY PERIODS. The study of a variety of authors and works with respect to the ways in which they define and reflect the literary, political, and social aspects of a given historical period. Specific topics vary. *Prerequisites:* FREN 4370 and two of the following courses: FREN 4379, 4380, 4381.

5334, 5335, GENRE STUDIES. The examination of 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 two of the following courses: FREN 4379, 4380, 4381.

5344, 5345. LITERARY MOVEMENTS. The exploration of the conventions that shape a specific movement through a reading of representative texts by various authors. Specific topics vary. *Prerequisites*: FREN 4370 and two of the following courses: FREN 4379, 4380, 4381.

5350, 5351. PROBLEMS IN FRENCH LITERATURE. The definition of a particular theme as elaborated by a group of writers, usually covering different time periods and genres. Specific topics vary. *Prerequisites*: FREN 4370 and two of the following courses: FREN 4379, 4380, 4381.

5380, 5381. TUTORIAL FOR JUNIORS AND SENIORS. By invitation of the entire area only. Special project set up with the help of the area chair.

Foreign Literature Courses in English

(See course descriptions at end of Foreign Languages and Literatures section. These courses do not count toward the French major. They are electives.)

FL 3359. MASCULINITIES: LITERARY IMAGES AND PERSPECTIVES.

FL 3361. Special Topics: French Literature in Translation. (SMU-in-Paris only)

FL 3363 (CF 3347). FIGURING THE FEMININE.

FL 3365, 3366. Special Topics: French Literature in Translation.

GERMAN

All courses are conducted in German.

REQUIREMENTS FOR THE B.A. DEGREE: Thirty term hours, including GERM 2311 and 2312 (second-year German) and 24 term hours of advanced courses. Courses are to be selected in consultation with the major adviser and must include the following:

- 1. Proficiency in written and spoken German demonstrated by course work in GERM 3311 (German Conversation and Composition) and in GERM 3312 (German Composition and Conversation). GERM 3313 (Readings and Composition: Austrian Newspapers) may be substituted for 3312 with the approval of the major adviser. Students who consider themselves proficient in any or all of these courses may petition to substitute other courses from the offerings of the major.
 - 2. German 3320 (Contemporary German Culture).
- 3. Three courses from the following core literary sequence: 3330 (German Narrative I), 4310 (German Poetry), 4320 (German Drama), 4330 (German Narrative II).
- 4. Two courses from the following electives: 3350 (Commercial German), 4340 (The Radio Play), 5310 (Goethezeit), 5320 (Laughter and Comedy), 5330 (The Perception of Self).

Study in the SMU-in-Austria summer program or in an approved term or junioryear program in a German-speaking country is highly recommended. Suggested electives outside the German Area: a second foreign language; extradepartmental courses listed under the German Area Studies major; literary criticism; other foreign literature in translation; English and American literature; courses in linguistics, semiotics, or philology; courses in German art history, philosophy, or history.

REQUIREMENTS FOR THE B.A. DEGREE IN GERMAN AREA STUDIES: Thirty term hours, including GERM 2311 and 2312 (second-year German), and 24 hours of advanced courses. Courses are to be selected in consultation with the major adviser and must include the following:

18 hours in German:

- 1. GERM 2311, 2312
- 2. GERM 3311
- 3. GERM 3312 or GERM 3313
- 4. Two additional advanced courses

12 hours in area courses:

- 1. One of the following: FL 3367, 3368, 3369, or 3371.
- 2. HIST 4363 or 4369
- 3. Six hours from the following list of courses or from other German Area Studies courses approved by the German Area:

HIST 5373, 5374 PHIL 3370 RELI 3321, 3322 FL 3376 ARHS 2351, 3382, 4359, 5353 CAPS 3318, 3352

REQUIREMENTS FOR THE MINOR IN GERMAN: Eighteen term hours of German, including 2311 and 2312 (second-year German) and 12 advanced hours as follows:

- GERM 3311
- 2. GERM 3312 or 3313
- 3. GERM 3320 or GERM 3350
- 4. One additional advanced course chosen in consultation with the adviser.

REQUIREMENTS FOR THE MINOR IN GERMAN AREA STUDIES: Eighteen term hours, including GERM 2311 and 2312 (second-year German), and 12 advanced hours as follows:

- 1. GERM 3311
- 2. GERM 3312, GERM 3313, or GERM 3350
- 3. FL 3369 or HIST 4363 or HIST 4369
- 4. One additional advanced area studies course chosen in consultation with the adviser.

German Language Courses (GERM)

- 1101. Conversational Practice in German. An introduction to the German sound system and systematic practice of simple speech patterns. (Normally offered during the summer at the SMU-in-Austria program.)
- 1303. Basic Conversation. Systematic description of speech patterns and of carefully designed discussion models for students with no prior knowledge of German. (SMU-in-Austria only.)
- 1401, 1402. Beginning German. Stresses acquisition of basic skills: Speaking, aural comprehension, reading, and writing. Classes meet five hours a week. Computer assignments required. Four credits per term. *Prerequisite for 1402: C-* or better in 1401 or permission of area chair.
- 2101. Conversational Practice in German. Systematic practice of speech patterns and simple discussion models as well as rapidity drills and free delivery practice. *Prerequisite:* GERM 1402 or the equivalent, or permission of instructor.
- 2311, 2312. Second-Year German. Discussions and compositions based on literary and cultural texts. Review of grammar. Language laboratory. *Prerequisite for 2311: C-* or better in GERM 1402 or permission of area chair. *Prerequisite for 2312: C-* or better in 2311 or permission of area chair.
- 3311. German Conversation and Composition. An advanced course intended to increase active command of the language. Utilizes a variety of short modern texts. *Prerequisite:* GERM 2312 or the equivalent.

- 3312. German Composition and Conversation. Discussion of short contemporary texts; compositions on personal topics. Selective study of grammar. *Prerequisite*: GERM 3311 or permission of department.
- 3313. Readings and Compositions: Austrian Newspapers. A survey of selected Austrian newspapers and magazines as a means of acquainting students with Austrian culture while perfecting their German language skills. Analysis in content, form, style; written assignments and grammar review. (SMU-in-Austria only) *Prerequisite:* GERM 2312 or equivalent.
- 3350. Commercial German for International Trade. An advanced course in German for international trade and communication. *Prerequisites:* GERM 3311 and 3312 or 3313, or permission of instructor.

German Literature Courses

- 3320. Contemporary German Culture. An exploration of the German culture scene through magazine and newspaper articles, short stories, television and films from the post-war era to the present. *Prerequisite:* GERM 3312 or permission of instructor.
- 3330. 20th-Century Stories, Narratives, and Short Novels: German Narrative I. Short narrative forms from the beginning of the 20th century to the present: Mann, Kafka, Brecht, Böll, Seghers, Bachmann, Wolf, and others. Includes consideration of two post-war German literatures (the German Democratic Republic and the Federal Republic). *Prerequisite:* GERM 3312 or permission of instructor.
- 4310. German Lyric Poetry From the Middle Ages to the Present. Historical survey of poetic forms from medieval *Minnesang* through the Baroque and *Sturm und Drang* to Classicism, Romanticism, and 20th-century styles. *Prerequisite:* GERM 3312 or permission of instructor.
- 4320. THE MODERN DRAMA OF GERMANY, AUSTRIA AND SWITZERLAND. Critical reading of dramatic works by major German, Austrian and Swiss authors, with some attention to critical theory: Büchner, Schnitzler, Brecht, Dürrenmatt, Aichinger, Bachmann, Müller, Jelinek, and others. *Prerequisite:* GERM 3312 or permission of instructor.
- 4330. 19TH-CENTURY STORIES, FAIRY TALES, AND NOVELLAS: GERMAN NARRATIVE II. Short narrative forms from Romanticism through Realism to fin-de-siècle Vienna: Grimm, Eichendorff, Kleist, Storm, Schnitzler, and others. *Prerequisite*: GERM 3312 or permission of instructor.
- 4340. THE RADIO PLAY. Selections from the Golden Age of the German *Hörspiel*: Borchert, Böll, Dürrenmatt, Aichinger, Bachmann, Jandl, Mayröcker, and others. *Prerequisite*: GERM 3312 or permission of instructor.
- 5310. Goethezeit. Narrative, poetry and drama representing the German Enlightenment, *Sturm und Drang*, Classicism and Romanticism: Lessing, Goethe, Schiller, Kleist, Novalis, and others. *Prerequisite*: GERM 3320 or 3330, or permission of instructor.
- 5320. LAUGHTER AND COMEDY. Laughter and its relation to humor, wit, and satire in comic German literature. Keller, Kleist, Lessing, Busch, Tucholsky, Kästner, and others. *Prerequisite*: GERM 3320 or 3330, or permission of instructor.
- 5330. THE PERCEPTION OF SELF IN GERMAN LITERATURE. Poems, essays, and novellas dealing with the perception of self, from the middle ages to modern times. Walther, Fleming, Lichtenberg, Kleist, Goethe, Hesse, Mann, and others. *Prerequisite:* GERM 3320 or 3330, or permission of instructor
- 5380. DIRECTED STUDIES. Permission of department.

Culture and Literature Courses in English

(See course descriptions at end of Foreign Languages and Literatures section.)

- FL 3369 Perspectives on Modern Germany
- FL 3371 Trends in Austrian Literature and Culture
- FL 3376 Representations of Women in Modern Literature

ITALIAN

All courses are conducted in Italian unless otherwise noted.

REQUIREMENTS FOR THE B.A. DEGREE IN ITALIAN AREA STUDIES. 34 term hours, of which 21 must be in courses taught in Italian. Courses are to be selected in consultation with the major adviser and must include the following:

- 1. ITAL 2401 (Intermediate Italian).
- 2. ITAL 3357 (Italian Grammar and Composition) and ITAL 3373 (Italian Culture).
- 3. Nine hours in advanced courses at the 4000 level including ITAL 4324 (Contemporary Italian Literature).
- 4. Six hours of Italian literature-in-translation courses or FL courses in Italian culture or Italian cinema.
- 5. Nine hours of approved area-studies courses.

Study with an SMU-approved program in Italy is strongly recommended. A second modern foreign language and/or Latin is also recommended.

REQUIREMENTS FOR THE MINOR IN ITALIAN. Sixteen term hours, including ITAL 2401, and 12 advanced hours as follows:

- 1. ITAL 3357
- 2. ITAL 3373
- 3. Two additional advanced Italian courses (4000-level) selected in consultation with the adviser.

REQUIREMENTS FOR THE MINOR IN ITALIAN AREA STUDIES. 16 term hours, including ITAL 2401 and the following advanced or supporting courses:

- 1. ITAL 3357
- 2. ITAL 3373
- 3. One additional advanced Italian course (4000-level) chosen in consultation with the adviser
- 4. One area-studies course chosen in consultation with the adviser from the following:

FL 2395, 3390, 3391, 3392, 3395

ARHS 2325, 3309, 3312, 3314, 3326, 3331, 3339, 4345, 5311, 5330, 5334 HIST 3351, 3358, 3359, 3361, 3365, 3366, 3376, 5374

THE COURSES (ITAL)

- 1401, 1402. Beginning Italian. Stresses acquisition of basic skills, speaking, aural comprehension, reading, and writing. Students attend three weekly foundations classes plus two hours of applications classes for practice in small groups. Computer, video, and audio assignments in the Foreign Language Learning Center are required. Four credits per term. *Prerequisite for 1402: C-* or better in 1401 or permission of area chair.
- 2401. Intermediate Italian. Continues to strengthen the four language skills with added emphasis on reading and writing. Students attend three weekly foundations classes plus two hours of applications classes for practice in small groups. Computer, video, and audio assignments in the Foreign Language Learning Center are required. Four credits per term. All courses are conducted in Italian. *Prerequisite: C-* or better in ITAL 1402 or permission of area chair.
- 3357. ITALIAN GRAMMAR AND COMPOSITION. 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.
- 3373. ITALIAN CULTURE. The evolution of Italian society with emphasis on cultural, artistic, and intellectual trends. *Prerequisite:* ITAL 2401.

Literature Courses

- 4323. MODERN ITALIAN LITERATURE II. From the latter half of the 19th Century to World War I. Realism, Decadentism, and the Grotesque. Authors studied are Verga, D'Annunzio, Pirandello. Prerequisite: ITAL 2401.
- 4324. CONTEMPORARY ITALIAN LITERATURE. The Fascist Period and World War II. Introspection, society and the problem of evil: Moravia, Pavese, Bassani, Buzzati, and Ginzburg. Prerequisite: ITAL 2401.
- 4368. Italian Authors: Contemporary. Prerequisite: ITAL 2401.
- 4381, 4382. Tutorial for Juniors and Seniors: Directed Readings and Research. Directed reading and research in specific literary topics or writers. Prerequisite: ITAL 3357 or permission of instructor.

Italian Culture and Literature Courses in English

(See course descriptions at end of Foreign Languages and Literatures section.)

FL 2395, ITALIAN CULTURE.

FL 3390. (CCCN 3390) ITALIAN CINEMA.

FL 3391. Special Topics: Italian Literature in Translation.

FL 3392. Special Topics: Italian Literature in Translation.

JAPANESE

REQUIREMENTS FOR THE MINOR IN JAPANESE: 17 term hours as follows:

1.	Intermediate Japanese (2401, 2402)	8 hours
2.	Advanced Japanese (3311, 3312)	6 hours
3.	Postwar Japan: Culture and Society (FL 3320)	3 hours
REQUIREMENTS FOR THE MINOR IN JAPANESE AREA STUDIES: 17 term hours as follows:		
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1. Intermediate Japanese (2401, 2402) 8 hours 2. Postwar Japan: Culture and Society (FL 3320) 3 hours

6 hours

3. Two other Japan-related courses

THE COURSES (JAPN)

- 1401, 1402. Beginning Japanese. Emphasis on conversational skills. Introduction to reading and writing, including Hiragana and Katakana syllabaries and some basic Kanji. Three foundations classes will be accompanied by two one-hour applications sessions per week. Language laboratory required. Four credits per term. Prerequisite for 1402: C- or better in 1401 or permission of area chair.
- 2401, 2402. Intermediate Japanese. Emphasis on conversational skills. Introduction to reading and writing paragraphs with more Kanji in addition to Hiragana and Katakana. Three foundations classes will be accompanied by one one-hour applications session per week. Language laboratory required. Four credits per term. Prerequisite for 2401: C- or better in JAPN 1402 or permission of area chair. Prerequisite for 2402: C- or better in 2401 or permission of area chair.
- 3311. THIRD-YEAR JAPANESE. An introduction to contemporary Japanese society and culture through selected articles and videotapes. Students will perfect their Japanese language skills by means of discussion, oral and written assignments, and grammar review. Prerequisite: JAPN 2402.
- 3312. THIRD-YEAR JAPANESE (second term). While focusing primarily on sophistication of oral/ aural competence, the course aims at development of writing and refining skills for daily use. Through extensive conversational lessons, oral presentations, reading of authentic Japanese scripts, students acquire communicative strategies as well as ability to use refined honorific forms in appropriate cultural context. Three hours per week and one hour language laboratory. Three credits per term. Prerequisite: JAPN 3311 or equivalent.

Japanese Culture and Literature Courses in English

(See course descriptions at end of Foreign Languages and Literatures Section.)

- FL 3320. Postwar Japan: Culture and Society.
- FL 3348. Women in Japanese Culture and Society.

LATIN

- 1401, 1402. Beginning Latin. Structures of the Latin language vocabulary, grammar, syntax. Introduction to Roman history and culture. Simple readings from Latin authors. *Prerequisite for 1402: C-* or better in 1401.
- 2311, 2312. Second-Year Latin. Readings from Cicero, Livy, Ovid, and Pliny. Passages from the Vulgate, excerpts from medieval authors. *Prerequisite for 2311: C-* or better in LATN 1402. *Prerequisite for 2312: C-* or better in 2311.

RUSSIAN

REQUIREMENTS FOR THE B.A. DEGREE IN RUSSIAN LANGUAGE: Thirty term hours, including RUSS 2341, 2351, 3341, 3351, 4311, and 15 hours of elective upper-level Russian language credit, at least nine hours of which must be taken through one of SMU's exchange programs in Russia.

REQUIREMENTS FOR THE B.A. DEGREE IN RUSSIAN AREA STUDIES: Thirty term hours, including RUSS 2341, 2351, 3341 (or 3361), 3351 (or 3362), 4311; FL 3323 (or RUSS 3323); FL3311; HIST 5367; one of the following: HIST 3340, 3341, or 5368; one of the following: PLSC 3358, PLSC 3359, or PLSC 3384.

REQUIREMENTS FOR THE MINOR IN RUSSIAN LANGUAGE: 15 term hours in Russian, as follows: RUSS 2341, 2351, 3341 (or 3361), 3351 (or 3362), 4311.

REQUIREMENTS FOR THE MINOR IN RUSSIAN AREA STUDIES: 15 term hours, including RUSS 2341, 2351; and three advanced area courses, one each in the areas of Literature (FL 3323 or 3331), History (HIST 3340, 3341, 5367, or 5368), and Political Science (PLSC 3358, 3359, or 3384).

THE COURSES (RUSS)

- 1401, 1402. Beginning Russian. 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) will aim at understanding concepts and grammatical structures, while "Applications" sections (three 50-minute classes per week) will concentrate on oral drill and conversation practice. *Prerequisite for 1402: C-* or better in 1401 or permission of area chair.
- 2341. Russian Reading and Conversation. Russian language work beyond the first-year level is done in multi-level 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. The Reading/Conversation Workshop targets skills of oral and textual comprehension and active conversational skill. *Prerequisite: C-* or better in RUSS 1402 or permission of area chair.
- 2351. Russian Syntax and Composition. This workshop undertakes a review of grammatical and syntactic structures and seeks to employ them in writing, using a text and materials from everyday life in today's Russia. (See RUSS 2341 for a description of the multi-level workshop system). *Prerequisite: C-* or better in RUSS 1402 or permission of area chair.
- 3302. Practicum in Russian Conversation and Phonetics. (Russia, summer)
- 3304. Russian Grammar Practicum. (Russia, summer)
- 3323. Practicum in Russian Culture. (St. Petersburg, summer)
- 3341. Russian Reading and Conversation. Continuation of RUSS 2341.
- 3351. Russian Syntax and Composition. Continuation of RUSS 2351.

- 3361, 3362. Comparative Grammar of Russian and English. For students who are fully bilingual in Russian and English, these courses provide a practical analysis of the similarities and differences between the two languages. Special problems of native speakers of Russian speaking English. Translation in both directions. Weekly compositions and translations, essay exams. *Prerequisite* (3361): 16 hours of Russian by examination. *Prerequisite* (3362): RUSS 3361 or permission of area chair.
- 4301. Advanced Conversation. (Moscow or St. Petersburg, term)
- 4302. Advanced Phonetics. (Moscow or St. Petersburg, term)
- 4311. Advanced Readings in Russian Literature I. *Prerequisite or Corequisite:* RUSS 3341 and 3351 or permission of instructor.
- 4312. Advanced Readings in Russian Literature II. *Prerequisite*: RUSS 4311 or permission of instructor.
- 4313. ADVANCED COMPOSITION. (Moscow or St. Petersburg, term)
- 4314. Translation. (Moscow or St. Petersburg, term)
- 4324. The Soviet Press. (Moscow or St. Petersburg, term)
- 4332. ADVANCED RUSSIAN LITERATURE. (Moscow or St. Petersburg, term)
- 4380, 4381. DIRECTED STUDIES.

Russian Culture and Literature Courses in English

(See course descriptions at end of Foreign Languages and Literatures section.)

FL 2343. AFTER COMMUNISM.

- FL 3323 (HIST 2323). Russian Culture.
- FL 3331. Survey of Russian Literature in Translation.
- FL 3332. Special Topics: Russian Literature in Translation.

SPANISH

REQUIREMENTS FOR THE B.A. DEGREE IN SPANISH. Twenty-eight term hours, including SPAN 2401 or equivalent, and 24 term hours of advanced courses. Courses are to be selected in consultation with the major adviser and must include the following:

- 1. Proficiency in written and spoken Spanish demonstrated by course work in SPAN 3358 (Advanced Spanish Grammar) and either SPAN 3355 (Spanish Conversation) or SPAN 4355 (Advanced Spoken Spanish). Students who consider themselves proficient in these areas may petition to substitute other courses from the offerings for the major.
 - 2. SPAN 4395.
- 3. A minimum of nine hours in 5000-level literature courses, including at least one course in Spanish literature and one course in Spanish-American literature.

Study with SMU-in-Spain, SMU-in-Xalapa, or another Hispanic program abroad is strongly recommended. Suggested electives outside the Spanish area are a second foreign language, courses listed under the Latin American Studies major, literary criticism, other foreign literature in translation, English and American literature.

REQUIREMENTS FOR THE MINOR IN SPANISH. SPAN 2401 or equivalent; 3355 or 4355; 3358; and two additional advanced courses.

PREREQUISITES FOR ADVANCED COURSES.

Prerequisite for 3000-level courses: SPAN 2312 or 2401, or as stated in individual course descriptions.

Prerequisite for 4000-level courses: see individual course descriptions.

Prerequisite for 5000-level courses in literature: SPAN 4395.

THE COURSES (SPAN)

- 1401. Beginning Spanish. Stresses acquisition of basic skills: speaking, aural comprehension, reading, and writing. Students attend three one-hour fundamentals classes plus two one-hour practice sessions per week. Computer, video, and audio assignments in the Foreign Language Learning Center (FLLC) are required. Four credits per term.
- 1402. Beginning Spanish (second term). Continuing focus on the four basic language skills. Students attend three one-hour fundamentals classes plus two one-hour practice sessions per week. Computer, video, and audio assignments in the FLLC are required. Four credits per term. *Prerequisite: C-* or better in SPAN 1401.
- 2311, 2312. Second-Year Spanish. Review of grammar. Discussions and compositions based on literary and journalistic texts. Language laboratory. (Offered abroad; replaced on campus by SPAN 2401.) *Prerequisite: C-* or better in SPAN 1402.
- 2401. Intermediate Spanish. The third term or intermediate level will continue to strengthen the four language skills with added emphasis on reading and writing. Students attend two one-hour fundamentals classes plus three one-hour practice sessions per week. Computer, video and audio assignments in the FLLC are required. Four credits per term. All classes are conducted in Spanish. *Prerequisite: C-* or better in SPAN 1402.
- 3310. Readings in Spanish and Spanish American Literature. Refinement of oral and written proficiency based on extensive reading and discussion of literary texts.
- 3355. Spanish Conversation. An advanced course for majors and non-majors intended to increase active command of the language. Limited enrollment. *Prerequisite:* SPAN 2401 or equivalent. Not for students who score "Advanced" on Oral Proficiency exam. (See SPAN 4355.)
- 3357. Spanish Phonetics. A detailed analysis both in theory and practice of Spanish speech patterns, vowels, consonants, and intonation.
- 3358. Advanced Spanish Grammar. A thorough study of Spanish grammar. Practice in writing short compositions. Limited enrollment.
- 3373. Spanish Civilization. A survey of Spanish culture and societies with particular emphasis on artistic and sociological aspects. *Prerequisite*: One 3000-level Spanish course.
- 3374. Spanish-American Civilization. A survey of Spanish-American culture and societies with particular emphasis on artistic and sociological aspects. *Prerequisite:* One 3000-level Spanish course.
- 4355. Advanced Spoken Spanish. An advanced course in spoken Spanish for those students who score advanced to superior on a departmentally administered oral exam based on ACTFL Oral Proficiency levels. (Students who score below "Advanced" level on the departmental exam may enroll in SPAN 3355.) *Prerequisite*: SPAN 2401 and advanced oral proficiency in Spanish. Not open to students who have taken SPAN 3355. Limited emrollment.
- 4361. Translation: Theory and Practice. Through readings and exercises in literary texts and an individual term project, students explore the multiple disciplinary aspects of the process of translation. *Prerequisite:* SPAN 3358.
- 4391. COMMERCIAL SPANISH FOR INTERNATIONAL TRADE. An advanced course in Spanish for international trade and communication. *Prerequisites:* SPAN 3355 and 3358, or permission of instructor.
- 4395. Introduction to Hispanic Literature. Study of the tools necessary for analysis and understanding of literature. Application of these tools through reading of Hispanic texts. *Prerequisite:* SPAN 3358 or permission of the department. Limited enrollment. Meets Perspectives requirement for Literature and Human Diversity co-requirement.

General Survey Courses

- 5310. Spanish Literature Before 1700. An introduction to Spanish prose, drama, lyric, and narrative poetry through the Golden Age.
- 5311. Spanish Literature Since 1700. Major writers and movements from 1700 to the present.
- 5315. Spanish American Literature to 1888. Literary figures and trends from the Conquest to Modernism. Meets Human Diversity co-requirement.
- 5316. Spanish American Literature Since 1888. Literary figures and trends from Modernism to the present. Meets Human Diversity co-requirement.
- 5317. THE LITERATURE OF MEXICO. Readings and discussions of the works of major Mexican writers. Meets Human Diversity co-requirement.

Period Survey Courses

- 5320. THE RENAISSANCE AND GOLDEN AGE: DRAMA. A study of the early development of Spanish drama and of the flourishing of the theater with Lope de Vega, Calderón de la Barca, and their contemporaries.
- 5321. THE RENAISSANCE AND GOLDEN AGE: PROSE FICTION. An exploration of the development of Spanish narrative through various modes of idealism, realism, and self-reflection. Readings include works from Cervantes, Zayas, their contemporaries, and their literary predecessors.
- 5323. NINETEENTH-CENTURY PROSE FICTION OF SPAIN. Major prose writers of the Realistic and Naturalistic movements in the context of 19th-century political, social, and economic development.

Genre Studies

- 5334. THE NOVEL OF THE POST CIVIL WAR PERIOD. The development of the novel and short story in Spain from 1940 to the present. Readings from Cela, Delibes, Sánchez Ferlosio, Goytisolo, etc.
- 5335. GENRE STUDIES IN SPAIN.
- 5336. THE SPANISH AMERICAN NOVEL. The evolution of the Spanish American novel and analysis of master works of the 19th and 20th centuries. Meets Human Diversity co-requirement.
- 5337. THE SPANISH AMERICAN ESSAY. Students explore the intellectual climate of Spanish America in the last two centuries as revealed in the works of famous essayists such as José Martí and Octavio Paz. Meets Human Diversity co-requirement.
- 5338. THE SPANISH AMERICAN SHORT STORY. Evolution of the short story in Spanish America: Palma, Quiroga, Borges, Carpentier, Asturias. Cortázar, Rulfo, García Márquez, and others. Meets Human Diversity co-requirement.
- 5339. Spanish American Poetry. Major Spanish American poets, with emphasis on the 20th century: Octavio Paz, Nicolás Guillén, Gabriela Mistral, Pablo Neruda, and others. Meets Human Diversity co-requirement.

Other Literary Studies

5380, 5381. TUTORIAL FOR JUNIORS AND SENIORS. Special project arranged by the student with the help of a faculty adviser and the approval of the chair of the department.

Culture and Literature Courses in English

(See Course Descriptions following.)

- FL 3303. Spanish Civilization.
- FL 3305. Special Topics: Latin American Literature in Translation.
- FL 3306. THE HEART OF AZTLÁN: CHICANO LITERATURE OF THE SOUTHWEST.

FOREIGN LITERATURE COURSES IN ENGLISH

FL 2321. Surrealism and the State in Eastern Europe. Statehood in 20th-century Eastern Europe is an institution susceptible to collective "madness," especially with regard to its bureaucratic machinery. The course explores the intellectual response to "insane" bureaucracy

and the unique body of literature it has produced, including its very high proportion of surrealist, absurdist art and unique types of fantasy and science fiction literature. Departmental writing-intensive seminar.

- FL 2343. AFTER COMMUNISM. Examines changes in Russian and East European culture since the mid-1980s, when openness and restructuring prepared the ground for the fall of the Soviet Union.
- FL 2395. ITALIAN CULTURE. 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. There are no prerequisites for the course.
- FL 3303. Spanish Civilization. Significant aspects of Spanish culture are presented and illustrated by examples from Spain's history, music, art, architecture, literature, folklore, and contemporary life. Course may be taken as SPAN 3373 if the student does his or her work in Spanish. (Offered at SMU-in-Spain.)
- FL 3305. Special Topics: Latin American Literature in Translation. Reading of masterworks of Latin American authors. Readings will vary from term to term and will be selected for their relevance to a particular period, genre, or theme. Meets Human Diversity co-requirement.
- FL 3306. The Heart of Aztlán: Chicano Literature of the Southwest. A study of the Chicano/mestizo cultural identity in the Southwest, the course includes readings from selected contemporary authors as well as from the early recorded contacts between Native Americans and their European conquerors. Meets Perspectives requirement for Literature and Human Diversity co-requirement.
- FL 3307 (CF 3329). THE BELLE EPOQUE AND THE BIRTH OF MODERNITY. Through a series of lectures, readings, and visits, the course will present an in-depth study of society, culture, art and literature in Paris and in the provinces. (Offered at SMU-in-Paris.)
- FL 3310 (CF 3390). Transnational Chinese Cinema. Introduces students to 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 will learn to understand non-Western cultural texts and to analyze cinematic representations. No prerequisites. Meets Human Diversity co-requirement.
- FL 3312. Women, Writing, and Identity in 20th-Century Chinese Literature. Critical examination of major 20th-century Chinese women writers and their texts from literary and gender perspectives. Meets Human Diversity co-requirement. Meets Perspectives requirement for literature.
- FL 3320 (CF 3337, HIST 3337). Postwar Japan: Culture and Society. The purpose of this course is to provide a critical knowledge of postwar Japanese society and culture by examining issues that have shaped contemporary Japan from the perspectives of such disciplines as history, sociology, anthropology, and cultural studies, including literary works and films. Meets Human Diversity co-requirement.
- FL 3323 (CF 2320, HIST 2323). Russian Culture. 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. Meets Human Diversity co-requirement.
- FL 3325 (CF 3365). Perspectives on Modern China. Survey of China in the 20th century in terms of cultural trends, literature, and cinema. The course stresses the interactions between reality and representation, between author and reader/audience, and between text and interpretation. Close reading of texts or viewing of films, followed by critical analysis, is emphasized. Meets Human Diversity co-requirement.
- FL 3331. Survey of Russian Literature in Translation. Russian literature from the 18th century to the present. Works by Tolstoy, Dostoevsky, Chekhov, Solzhenitsyn, others. No prerequisite. Meets Perspectives requirement for literature.
- FL 3332. Special Topics: Russian Literature in Translation. Texts, periods, and thematic and critical approaches will vary from term to term. No prerequisite.

- FL 3335 (CF 3335, HIST 3335). One King, One Law: France 1500-1789. This course examines the culture of France through its history and literature. It emphasizes historical developments, ideas and literary texts that define and illuminate French Classicism and absolutism. The course focuses on the early modern period, when France set the cultural tone and made significant contributions to the transformation of Western civilization. The course also provides a foundation for understanding subsequent European history and literary movements.
- FL 3340. Semiotics and Interpretation. 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. Meets Perspectives requirement for literature.
- FL 3348 (CF 3348, SOCI 3348). Women in Japanese Culture and Society. Examines various women's issues in Japan through social science, literature, literary works, and contemporary films from interdisciplinary perspectives. Assesses changing women's status and roles in family, education, employment, mass media, and political organizations in the context of the contemporary feminist movement. Meets Human Diversity co-requirement.
- FL 3349 (CF 3349, HIST 3392). LITERATURES OF NEGRITUDE AND HISTORIES OF THE STRUGGLE FOR BLACK LIBERATION. 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. This course explores links between literature and politics, literature and history, and thought and action in 20th-century Africa and the Caribbean. Readings and lectures will be supplemented by class discussion, films, and videotapes about the Caribbean and Africa. Meets Human Diversity co-requirement.
- FL 3359. MASCULINITIES: LITERARY IMAGES AND PERSPECTIVES. The representation of male sex roles in Western literature, from Achilles to James Bond. Open to juniors and seniors; sophomores by permission of instructor. Meets Perspectives requirement for Literature.
- FL 3361. Special Topics: French Literature in Translation. Texts, periods, and thematic and critical approaches will vary from term to term. (SMU-in-Paris only)
- FL 3363 (CF 3347, WS 3347). FIGURING THE FEMININE. 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. Meets Human Diversity co-requirement.
- FL 3364 (ENGL 3364). Philosophical and Literary Ideas of "The Other." An important question in Western intellectual tradition is "who is the Other?" This course explores both dialectical and linguistic structures of the "I" and "the Other" in philosophy, literature, and politics.
- FL 3365, 3366. Special Topics: French Literature in Translation. Texts, periods, and thematic and critical approaches will vary from term to term.
- FL 3369 (CF 3369). Perspectives on Modern Germany. A multidisciplinary survey of the German heritage, with emphasis on Germany's quest for identity and unity. *Prerequisite:* Sophomore standing or permission of instructor.
- FL 3371. Trends in Austrian Literature and Culture. A brief survey of Austrian history and culture, followed by an analysis of three short literary works that open a perspective on the consciousness of modern Austria.
- FL 3376. Representations of Women in Modern Literature. An investigation of the changing image of modern woman in literature from the late19th century to the present day. *Prerequisite:* Sophomore standing or permission of instructor. Meets Perspectives requirement for literature and Diversity co-requirement.
- FL 3390 (CCCN 3390). ITALIAN CINEMA. 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 socio-political trends.
- FL 3391, 3392. Special Topics: Italian Literature in Translation. Texts, periods, and thematic and critical approaches will vary from term to term. Meets Perspectives requirement for literature.

GEOLOGICAL SCIENCES

Professor McAlester, Department Chair

Professors: Blackwell, Gregory, Hansen, Herrin, Holdaway, L. Jacobs, Stump, Walther, Yapp; Associate Professor: Goodge; Assistant Professor: B. Jacobs; Adjunct Associate Professors: Fiorillo, A. Winkler, D. Winkler; Adjunct Assistant Professor: Oliver.

The Geological Sciences provide ways of understanding and appreciating dynamic earth processes, our physical environment, and our place in the long and complex history of the planet and solar system. They also provide the background for rewarding careers in industry, government, and academia. Our faculty offer exceptional learning and research opportunities in geology, geochemistry, geophysics, environmental geology, planetary geology, and paleontology.

The geosciences attract students with broad interests in earth science, chemistry, biology, environmental science, archaeology, physics, astronomy, oceanography, applied mathematics, or engineering. Our department strongly encourages combined majors. In addition to combinations with the above fields, many of our undergraduate geoscience majors have double majors or minors in business (especially finance, real estate, or marketing), economics, pre-law, computer science, archaeology, foreign languages, English, history, journalism, and pre-medical. Geology is an interdisciplinary, applied science that integrates well with other fields.

Academic programs in the geosciences are tailor-made to the educational and career objectives of each student. Because of the heavily funded active research programs within the Department and our close ties with the Dallas geological community, students often receive excellent pre- and post-graduation employment opportunities in the geological sciences. The Department also has a substantial amount of financial aid available for undergraduate majors in the geological sciences, including Department scholarships, appointments as teaching assistants, and support for off-campus field programs.

We offer three majors in the Geological Sciences: Geology, Geophysics, and Environmental Geology. The B.A. degree is offered in Geology, and B.S. degree is offered in all three disciplines. We coordinate a Minor in Environmental Earth Science that can be combined with virtually any other degree program on campus. We also advise students in the Geoscience track of the Environmental Science Program (see the degree program listing in the Dedman College section for details).

MAJOR IN GEOLOGY

The B.A. or B.S. degrees in Geology typically follow one of three primary tracks: hard-rock geology and geochemistry, soft-rock geology and resource exploration, and paleontology and paleoenvironments. Each of these areas integrates classroom learning with field and laboratory experience. Consult a faculty adviser for recommendations.

Requirements for the B.A. Degree: A minimum of 28 hours in Geology, selected from the following:

- 1. One course chosen from GEOL 1301, 1305, 1307, 1308, 1313, or 1315 3 hours
- 2. GEOL 3340 (Face of the Earth); 3451, 3452 (Earth Materials I and II) 11 hours
- 3. Four geology electives at the 3000 level or above 12 hours minimum
- 4. Geology Field Studies (one course chosen from GEOL 3240, 3241, 3242, or 3243) 2 hours

Required support courses – 9 hours minimum:

- 1. CHEM 1301 or 1303 3 hours
- 2. PHYS 1301, 1303 (recommended), 1313, or 1407 3 hours minimum
- 3. MATH 1337 3 hours

NOTE: Participation in a recognized geology summer field camp is strongly recommended for *all* majors (B.A. and B.S.). Most geology graduate programs in the United States require that a field course be completed.

REQUIREMENTS FOR THE B.S. DEGREE. A minimum of 36 or 38 hours in geology, selected from the following:

- 1. One course chosen from GEOL 1301, 1305, 1307, 1308, 1313, or 1315 3 hours
- 2. GEOL 3340 (Face of the Earth); 3451, 3452 (Earth Materials I and II); 3454 (Structural Geology) 15 hours
- 3. Four geology electives at the 3000 level or above 12 hours minimum
- 4. Geology Field Studies (one course chosen from GEOL 3240, 3241, 3242, or 3243) 2 hours
- 5. GEOL 4296 and 4298 (Integrative Research), or 4657 (Field Geology) 4 or 6 hours

Required support courses – 17 hours minimum:

- 1. CHEM 1303, 1113, 1304, 1114; or 1307, 1113, 1308, 1114 8 hours
- 2. PHYS 1303 (recommended) or 1407 3 hours minimum
- 3. MATH 1337, 1338 (CALCULUS I and II) 6 hours

NOTES:

- 1. Participation in a recognized geology summer field camp is strongly recommended for *all* majors (B.A. and B.S.). Most geology graduate programs in the United States require that a field course be completed.
- Experience with a modern scientific computing language is essential. This
 experience can be gained in a course such as GEOL 3159 (COMPUTER METHODS
 IN THE GEOLOGICAL SCIENCES).
- The requirements for the major are considered minimal. Students planning careers in the earth sciences should take additional course work according to the geoscience emphasis that best fits their goals. Consult a faculty adviser for suggestions.

MINOR IN GEOLOGY

REQUIREMENTS FOR THE MINOR. A minimum of 17 hours in Geology, selected from the following:

- 1. One course chosen from GEOL 1301 (Introduction to Geology), 1305 (Oceanography), 1307 (Solar System), 1308 (Evolution and Life History), or 1315 (Introduction to Environmental Sciences) – 3 hours
- 2. Four geology electives at the 3000 level or above 12 hours minimum
- 3. Geology Field Studies (one course chosen from GEOL 3240, 3241, 3242, or 3243) or a geology elective at the 3300 level or higher, if not used to meet the requirement listed above -2 to 3 hours

MAJOR IN GEOPHYSICS

Geophysical techniques are used to understand the physical behavior of planet 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 B.S. DEGREE: A minimum of 33 hours in Geological Sciences, selected from the following:

- 1. One course chosen from GEOL 1301, 1305, 1307, 1308, or 1315 3 hours
- 2. GEOL 3451, 3452 (EARTH MATERIALS I and II) 8 hours
- 3. GEOL 3454 (Structural Geology), 5320 (Dynamic Earth I), and 5392 (Introduction to Seismology) 10 hours
- 4. Four Geological Science electives at the 3000 level or above, one of which must be in Geophysics 12 hours minimum

Required support courses – 30 hours minimum:

- 1. CHEM 1303, 1113; or 1307, 1113 4 hours
- 2. PHYS 1303, 1105; 1304, 1106 (recommended); or 1407, 1408 8 hours
- 3. MATH 1337, 1338, 2339 (CALCULUS I, II, III); 2343 (DIFFERENTIAL EQUATIONS); 3337 (ADVANCED MATH FOR SCIENCE AND ENGINEERING I); and 3353 (LINEAR ALGEBRA) 18 hours

NOTE:

- 1. Participation in a recognized geology or geophysics summer field camp is strongly recommended for all geophysics majors.
- 2. Experience with a modern scientific computing language is essential. This experience can be gained in a course such as GEOL 3159 (COMPUTER METHODS IN THE GEOLOGICAL SCIENCES).
- The requirements for the Geophysics major are considered minimal. Consult a faculty adviser for recommendations on additional course work that best fits your goals.

MAJOR IN ENVIRONMENTAL GEOLOGY

Environmental problems today 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 Environmental Geology is intended to provide students with a quantitative understanding of the chemical and physical processes of environmental change. Because of its multidisciplinary scope, students are strongly encouraged to take appropriate courses in other departments.

REQUIREMENTS FOR THE B.S. DEGREE: A minimum of 35 hours in Geology, selected from the following:

- One course chosen from GEOL 1301 (recommended), 1305, 1307, 1308, or 1315 – 3 hours
- 2. GEOL 3340 (Face of the Earth); 3451, 3452 (Earth Materials I and II) 11 hours
- 3. GEOL 3366 (Environmental Geology and Geochemical Cycles), 5384 (Hydrogeology), and 5386 (Geochemistry) 9 hours
- 4. Two GEOL electives selected from 3353 (Modern and Ancient Climates), 3454 (Structural Geology), 3472 (Sedimentology), or 4390 (Geophysical Prospecting) 6 to 8 hours minimum
- 5. GEOL 4296 and 4298 (Integrative Research), or 4657 (Field Geology) 6 hours

Required support courses – 26 hours minimum:

- 1. CHEM 1303, 1113, 1304, 1114; or 1307, 1113, 1308, 1114 8 hours
- 2. PHYS 1303 (recommended) or 1407 3 hours minimum
- 3. MATH 1337, 1338, 2339 (CALCULUS I, II, III); and 2343 (DIFFERENTIAL EQUATIONS) 12 hours
- 4. SEAS: SSH 5311 (Environmental and Hazardous Waste Law) 3 hours

NOTES:

- Experience with a modern scientific computing language is essential. This
 experience can be gained in a course such as GEOL 3159 (Computer Methods
 in the Geological Sciences).
- The requirements for the Environmental Geology major are considered minimal. Consult a faculty adviser for recommendations on additional course work that best fits your goals.

MINOR IN ENVIRONMENTAL EARTH SCIENCES

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 feed into a major. 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 in the Geological Sciences. The Department of Geological Sciences is responsible for administration of this minor.

REQUIREMENTS FOR THE MINOR: A minimum of 18 hours, to be selected from the following*:

- 1. One course chosen from GEOL 1301 (EARTH SYSTEMS), 1305 (OCEANOGRAPHY), 1307 (SOLAR SYSTEM), or 1308 (EVOLUTION AND LIFE HISTORY) 3 hours
- 2. One course chosen from GEOL 1315 (Introduction to Environmental Science), $3340^{\rm l}$ (Face of the Earth), $3353^{\rm l}$ (Modern and Ancient Climates), 3363 (Environmental Geology Seminar), or $3366^{\rm l}$ (Environmental Geology and Geochemical Cycles) 3 hours
- 3. Four courses to be selected from the following list -12 hours:

GEOL 3330, 3340, 3353, 3363, 3366 (if not used to meet the requirement listed above)

BIOL 1305 Our Natural Environment**

BIOL 3307³ Ecology

BIOL 33423 THE PLANT KINGDOM

BIOL 33433 FIELD BOTANY**

SEAS: ME 1304 CONTROL OF ENVIRONMENTAL POLLUTION

SEAS: SSH 5311 Environmental and Hazardous Waste Law

CF 2317 GLOBAL PERSPECTIVES ON ENVIRONMENTAL ISSUES

CF 3396 SCIENCE AND POLITICS IN THE NUCLEAR AGE

NOTES:

- * At least 9 of the 18 term hours must be taken at the 3000 level or above.
- ** Course is taught only at SMU-in-Taos.

COURSE PREREQUISITES:

- ¹One 1300-level GEOL course or permission of instructor.
- ² High school chemistry and algebra.
- ³BIOL 1401 and 1402, or permission of instructor.

THE COURSES (GEOL)

1301. Earth Systems. Examines geologic change within the Earth as governed by physical, chemical, and biological processes, and interactions between the solid earth, oceans, atmosphere, and biosphere. Two lectures and one two-hour laboratory each week. Recommended for all geology tracks.

1305. Oceanography: A study of the physical (geological), biological, and chemical processes responsible for the existence of the ocean as we know it today. Examines the impact of man on the oceans and oceanography's role in resource development, climatic and environmental modification, and other human concerns. Two lectures and one two-hour laboratory each week.

- 1307. THE SOLAR SYSTEM. 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. Two lectures and one two-hour laboratory each week.
- 1308. EVOLUTION AND LIFE HISTORY. Evolution as observed in the fossil record in light of biological principles. Evolution as a process, origins of life, adaptation, extinction, emphasizing examples from geological record. One four-hour field trip each week. Recommended for the paleontology track.
- 1313. Earthquakes and Volcanoes. 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 will emphasize the geologic insights provided by earthquakes and volcanoes, and their impact on society.
- 1315. Introduction to Environmental Sciences. Fundamental principles of ecology, hydrology, geology, population dynamics, land-use management, and related fields will be used as the basis for understanding many of the major environmental issues that face our 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. Two lectures and one two-hour laboratory. Field trips will take the place of some laboratory classes.
- 2320, 2321. SOUTHWESTERN ENVIRONMENTS: A GEOLOGIC APPROACH. Practice of the scientific method by investigation of the processes affecting geologic and environmental change in the southwestern United States. Offered only through the SMU-in-Taos program. Course will satisfy either the laboratory science requirement (2320) or the second-term writing requirement (2321). Either course can fulfill a 1300-level geology major or minor course requirement. No prerequisites.
- 3159. Computer Methods in Geological Sciences. Elements of high-level computer programming applied to geological and geophysical problems. Designed to give the student sufficient skill to efficiently program geoscience problems using the application of computer languages such as MATLAB. *Prerequisite:* Geoscience major or permission of instructor.
- 3240, 3241, 3242, 3243, 3343. GEOLOGY FIELD STUDIES. Project- and mapping-oriented, two-week field trips to classical geological localities in or outside of the United States. Trips will normally be conducted either during the May Interterm or between terms. Examples of trips planned are to the Caribbean, Hawaii, Grand Canyon, Lake Superior/Canada, and New Mexico/Colorado. *Prerequisites*: One 1300-level course in Geological Sciences and permission of instructor.
- 3330. RESOURCES AND THE ENVIRONMENT. A study of earth materials and processes and how they bear on planning, resource, conservation, and pollution problems arising from humankind's intense use of the planet earth. Class projects and/or field trips are an integral part of this timely course. *Prerequisite*: 1300-level course in Geological Sciences or permission of instructor.
- 3340. Face of the Earth. A study of the theory of plate tectonics on understanding earthquake, volcano, and mountain belt formations. Specific application of the theory is illustrated in terms of its application to understanding features of the regional geology of North America such as the Coastal Region and the San Andreas fault. *Prerequisite*: One 1300-level course in Geological Sciences or permission of instructor.
- 3353. Modern and Ancient Climates. 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 Geological Sciences or permission of instructor.
- 3360. PROCESS GEOMORPHOLOGY. Analysis of geological processes and other factors that influence or control the origin and development of landforms of the earth. Laboratory exercises and field trips are included. *Prerequisite:* One 1300-level course in Geological Sciences or permission of instructor.

- 3363. Environmental Geology Seminar. This seminar will focus on timely geoscience-based environmental problems and address scientific, environmental, political, economic, legal, and social aspects of potential "solutions" through selected readings, seminars, guest speakers, and research projects. *Prerequisites*: One 1300-level Geology course or permission of instructor.
- 3366. Environmental Geology and Geochemical Cycles. An introduction to the physical and chemical processes occurring in the earth's atmosphere, oceans, rivers, and groundwater at both a local and a global scale. *Prerequisites*: High school algebra and chemistry and one 1300-level course in Geological Sciences.
- 3369. Paleobiology. A survey of biological diversity, phylogenetic analysis, rates of evolution, extinction, biogeography, taphonomy and paleoecology. *Prerequisite:* One 1300-level course in Geological Sciences or permission of instructor. BIOL 1401 is also a suitable prerequisite.
- 3374. Introduction to Petroleum Geology. An introduction to stratigraphy, sedimentation, and petroleum geology. *Prerequisite:* One 1300-level course in Geological Sciences or permission of instructor.
- 3451, 3452. EARTH MATERIALS I AND II. The study of minerals and rocks: elementary crystal-lography, 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, introduction to relationships among rock textures, origins, and rock-forming processes. *Prerequisites:* One 1300-level course in Geological Sciences and credit or registration in CHEM 1301 or 1303 (for 3451); credit or registration in GEOL 3340 (for 3452).
- 3454. STRUCTURAL GEOLOGY. Introduction to the stress-strain relations of rocks, the origin of faults, the brittle to ductile transition, mechanics of thrusting and folding. Laboratory problems in structure contouring, fault solutions, stereonet manipulation, analysis of folded terrains. *Prerequisite:* Credit or registration in GEOL 3452, or permission of instructor.
- 3472. Principles of Sedimentation. 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 fieldtrips. *Prerequisite*: Credit or registration for GEOL 3451 or permission of instructor.
- 4296, 4298. Integrative Research. 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.
- 4390. Introduction to Geophysical Prospecting. Introduction to geophysical exploration techniques. Lecture and laboratory. *Prerequisite:* MATH 1338 or permission of instructor.
- 4657. FIELD GEOLOGY. Geologic mapping and field trips. Taught at Fort Burgwin during the first summer session. *Prerequisites:* GEOL 3454, 3472, or 5380 or permission of instructor.
- 5110, 5210, 5310. INDEPENDENT STUDY IN GEOSCIENCE. Independent study of a selected topic in geoscience. Individual study under direction of a faculty member allowed for 5110 or 5210; group projects allowed for 5310.
- 5166. (BIOL 5166) VERTEBRATE ANATOMY LABORATORY. A laboratory course to accompany GEOL 5366. Exercises include basic anatomy, dissections, and examination of fossils. *Corequisite*: GEOL 5366.
- 5320. DYNAMIC EARTH I. Physical and chemical structure of the Earth and its evolution through geologic time. Dynamic processes in the mantle and crust. Development of the theory of plate tectonics as a unifying mechanism for large-scale geologic processes. Implications of plate tectonics, and contemporary applications to geological and geophysical problems. *Prerequisite:* Permission of instructor.
- 5366 (BIOL 5366). Vertebrate Origins and Evolution. An introduction to biological and geological processes that have affected the diversity of vertebrate organisms throughout Earth history, including origination, biogeography, adaptation, and extinction. Strong emphasis on vertebrate anatomy. *Prerequisite:* GEOL 1308 or permission of instructor. The accompanying laboratory is strongly recommended.

- 5368. PALEOECOLOGY. Interactions between the living world and the earth's changing environments through geologic time. *Prerequisite*: GEOL 3369 or permission of instructor.
- 5370. Global Change. An introduction to relatively short-term geologic changes in Earth's environments. Tempo and mode in the three principal sources of such changes extraterrestrial events, variations in the earth's internal dynamo, and the evolving ocean-atmosphere-biosphere system will be emphasized. *Prerequisite*: GEOL 3452 or permission of instructor.
- 5380. Principles of Stratigraphy. 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. *Prerequisite:* GEOL 3452 or permission of instructor.
- 5384. Hydrogeology. An introduction to the chemical and physical behavior of natural waters and the role of fluids in geologic processes. The course will stress 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.
- 5386. Geochemistry. 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 solution of geochemical problems. *Prerequisite:* GEOL 3452 or permission of instructor.
- 5389. THEORY OF DIGITAL DATA PROCESSING IN GEOPHYSICS. 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 2343 or permission of instructor.
- 5391. POTENTIAL FIELD METHODS IN GEOPHYSICAL EXPLORATION. 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.
- 5392. Introduction to Seismology. Basic principles of seismology. *Prerequisites:* MATH 2343 and permission of instructor.
- 5394. GEOPHYSICAL PROBLEM SOLVING. 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. Using models in the real world. Term project. *Prerequisites*: MATH 2343, 5353; knowledge of a programming language.
- 5481. IGNEOUS AND METAMORPHIC PETROLOGY. The origin, occurrence, and classification of igneous and metamorphic rocks. Problems of genesis are considered in the light of chemical equilibria and features of geological occurrence. Lecture and laboratory. *Prerequisite*: GEOL 3452 or permission of instructor.

HISTORY

Professor Breeden, Department Chair

Professors: Adams, Bakewell, Chávez, Cordell, Countryman, Davis, Hopkins, Niewyk, Orlovsky, Weber, Williams; Associate Professors: Hamilton, Hargrave, Knock, Linden, Mears, Smith, Wellman; Assistant Professors: DeLuzio, Dowling, McCrossen, Schneewind.

Departmental courses are of three types: 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.

REQUIREMENTS FOR THE B.A. DEGREE. Thirty-three term hours in history are required for the major, including a Junior Seminar in Research and Writing (HIST 4300) and one three-hour course at the 5000 level. In addition, majors must take at least six term

hours in each of the following three areas: (1) United States, (2) Europe, and (3) Africa, Asia, or Latin America. Any combination of courses in these areas is acceptable (History 4300 will not fulfill these area requirements). At least 18 term hours in courses at the 3000 and higher levels are required. History majors must earn 2.00 minimum G.P.A.s in their history coursework.

Twelve term hours of foreign language are recommended.

The Departmental Distinction Program. A history major with sufficiently high standing may graduate with honors in history by applying for the degree "with departmental distinction." 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-level seminar or HIST 4300, the junior seminar. The 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.

REQUIREMENTS FOR THE MINOR. Students with a general interest in history may pursue a minor by taking 15 term hours of departmental course work. Nine term hours must be taken at the 3000-5000 level. Students intending to take a minor in the department should design a program of study in consultation with the Director of Undergraduate Studies.

PRE-LAW ADVISER. A department adviser is available to advise students interested in legal careers on appropriate course work and the law school application process.

FOUNDATION AND SPECIAL COURSES (HIST)

- 1301,1302. WORLD CULTURES AND CIVILIZATION. A survey of world cultures from the earliest times to the present. The development of individual civilization will be studied within a comparative framework emphasizing the themes common to all human history.
- 1311. WESTERN CIVILIZATION TO 1527 A.D. A survey of the cultural phenomenon often called *Western Civilization*, from its prehistoric roots in western Asia as well as Europe, through ancient Mesopotamian and Egyptian civilization to the Greeks, the Romans, and the medieval experience up to the "Renaissance." Lecture course, with much reference to literature and visual arts.
- 1312. Western Civilization Since 1527. An introductory survey of Western civilization from about the time of the Reformation to the present.
- 2300. THE VISION OF HISTORY: THE WESTERN TRADITION.
- 2301. THE VISION OF HISTORY: THE AMERICAN EXPERIENCE.
- 4300. JUNIOR SEMINAR IN RESEARCH AND WRITING. The Junior Seminar will consist of a common body of readings on research methods and writing and a relatively small core of required readings that will be different in each section and organized around a topic chosen by the instructor. Closely supervised writing assignments, based upon the required readings, will grow into a major research project by the end of the term.
- 4375, 4376. Departmental Distinction. Honors program open to qualified seniors by invitation of the department.
- 4397, 4398, 4399. INDEPENDENT STUDY. 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.

UNITED STATES HISTORY

Majors planning a concentration in the U.S. history field are advised to begin their program with one of the "Problems" or *advanced* survey courses (at the 3000-4000 level), *not* HIST 2311, 2312.

THE COURSES (HIST)

- 2311. Out of Many: U.S. History to 1877. Growth of American civilization. General survey, with particular attention to social and political aspects. Open to first-year students.
- 2312. Unfinished Nation: U.S. History Since 1877. Growth of American civilization. General survey, with particular attention to social and political aspects. Open to first-year students.
- 2380 (CF 2380). ETHNIC REGIONS IN THE "WESTERN WORLD." An interdisciplinary course that examines the ways regional ethnic minorities such as the Basques, Québecois, and Chicanos have functioned within larger societies in Western Europe and North America.
- 2398. American Politics and Culture, FDR to Clinton. Examines life and culture in modern America.
- 3301 (CF 3317). Human Rights: America's Dilemma. Examines certain violations of human rights within their historical context and explores America's commission and prevention of human rights violations.
- 3304. Blacks and the Civil Rights Movement. African Americans and the Civil Rights Movement with a focus on post-World War II migration, changing conceptions of race, increasing black prosperity, integration and black nationalism, and the lives of significant black leaders of the Civil Rights Movement.
- 3305 (CF 3318). THE HISPANOS OF NEW MEXICO, 1848-PRESENT. History of the Mexican-American subculture of New Mexico. Field trips to historical sites. SMU-in-Taos. Summer only.
- 3306 (CF 3309). COLONY TO EMPIRE: U.S. DIPLOMACY 1789-1941. 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.
- 3307. THE U.S. AND THE COLD WAR, 1945-1989. 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.
- 3308 (CF 3320). HISTORY OF HISPANICS IN THE U.S. THROUGH FILM. An examination of selected events and developments in the histories of Mexican Americans, Puerto Ricans, Cuban Americans, and other Latinos as depicted in film and video, in movies and television.
- 3310. Problems in American History. Historical issues or trends in U.S. history will be explored using a case study or comparative format.
- 3312. Women in American History. This course will analyze women's changing social, economic, and political roles in American society from colonial times to the present.
- 3313. AFRICAN AMERICANS IN THE UNITED STATES, 1607-1877. 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 our concern.
- 3314. AFRICAN AMERICANS IN THE UNITED STATES, 1877 TO THE PRESENT. 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.
- 3315. Representative Americans: A Biographical Approach to American History. Applies a "great lives" approach to the study of American history, examining the entire course of our nation's development from the colonial times to the present.
- 3316. Urban America. The physical, social, and institutional development of modern U.S. cities, from the later 19th century. Topics include industrialization of the central city, the suburban periphery, the shift of population and wealth from older Northern cities to the Sunbelt.
- 3318. AMERICAN SOCIETY THROUGH FILM, 1915 TO THE PRESENT. An investigation of American history, society, and culture through a close scrutiny of film.

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- 3319. Texas History. Texas as a crossroad of cultures from the 16th century to the present.
- 3320. THE SPANISH FRONTIER IN NORTH AMERICA, 1513-1821. (Also listed under Latin American History.) The exploration, colonization, and development of the South and Southwest under Spanish rule, 1513 to 1821, including interaction with Indian peoples.
- 3321. THE AMERICAN SOUTHWEST. (Also listed under Latin American History.) History of the American Southwest, from the initial penetration in 1821 to the present.
- 3323. CULTURE ON THE AMERICAN FRONTIER: SOPRANOS AND SIX GUNS. The Trans-Mississippi West: native populations, the Spanish experience, the fur trade, the mining frontier, the cattle kingdom, outlawry, the Indian wars, the sod house frontier; and the glorification of the symbolic West
- 3324. THE MEXICAN AMERICANS, 1848 TO THE PRESENT. 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.
- 3325. Frontier America. A survey of the frontier experience of the Anglo-American people from the colonial period to 20th-century Alaska, with special consideration of Anglo-Indian relations and of interrelationship of the frontier in emergence of the urban-industrial complex.
- 3327 (ECO 3327). ECONOMIC HISTORY OF THE UNITED STATES. Development of the United States economy from colonial times until the present. Causes and consequences of American economic growth and instability.
- 3336 (CF 3366). CULTURAL HISTORY OF THE UNITED STATES. Analysis of the literature, art, architecture, music, drama, popular amusements, and social customs of America since 1877.
- 3338. U.S. SOCIAL HISTORY TO 1877. Viewing history from the bottom up, this course offers a comparative examination of the American social experience (colonial era to 1877) in terms of race, class, ethnicity, and gender.
- 3339. U.S. SOCIAL HISTORY, SINCE 1877. Viewing history from the bottom up, this course offers a comparative examination of the American social experience (1877 to the present) in terms of race, class, ethnicity, and gender. Completion of HIST 3338 is recommended.
- 3346. The 20-Century American West. Examines the American West in the 20th century, emphasizing major social, cultural, economic, and political themes of the region's last one hundred years. Explores the characteristics that distinguish the West from other American regions and investigates its continued significance to American history.
- 3347. CIVIL WAR AND RECONSTRUCTION. Examines the institution of slavery, the events leading to the Civil War, the War itself, and the subsequent efforts at Reconstruction.
- 3362. SEARCHING FOR THE AMERICAN DREAM: U.S. IMMIGRATION/MIGRATION. Focus on American identity through the history of immigration and migration. Topics include the slave trade; European, Asian, and Latin-American immigration; the Overland Trail; illegal immigration; and "the melting pot."
- 3364. Consumer Culture in the United States, 1700-1990. The business, cultural, and political history of the rise of the consumer culture in the United States. Focus on the development of institutions, ideas, and practices centered on consumption.
- 3369. COLONIAL AMERICA. A study of the transfer of Europeans and Africans to the British mainland provinces and the development of a multi-cultural and multi-regional colonial society.
- 3370. The American Revolution. 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.
- 3371. Early Republic 1790-1850. Topics include early industrialization, commercial agriculture, environmental change, and the formation of new regions and social classes.
- $3372.\ The\ South\ In\ American\ History.$ Explores the origin, development, and present and future status of the South's position in America.
- 3377. THE AGE OF JEFFERSON. An examination of the contributions of Thomas Jefferson to the founding and shaping of the American Republic and analysis of the impact of Jeffersonianism on subsequent American development.

- 3384. Social Action in Urban America. An examination of the historical devel-opment of social action in American cities and communities, from religious charity organizations of the 19th century to present-day community organizing projects. The course is taught in conjunction with the SMU Inter-Community Experience (ICE) Program and includes a three-hour-per-week community service requirement. *Prerequisite:* Permission of instructor.
- 3388. THE AFRICAN-AMERICAN URBAN EXPERIENCE, 1865-1980. A history of blacks in American cities during the post-Civil War era. Investigates the forces that inspired blacks to relocate to urban areas and surveys the dynamic lifestyles created within evolving black urban communities, the long periods of major African-American rural-to-city migration, institution building, black politics, African-American economics, race relations, and social life.
- 3391 (CF 3330). From Pew to Bleacher: American Culture and Institutions. 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.
- 3399. U.S. FOREIGN POLICY FROM THE SPANISH AMERICAN WAR TO VIETNAM. A broad survey of American foreign relations in the 20th century, this course 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.
- 3401 (CF 3401). The Good Society. Examines the values and ideals that have been fundamental to the historical concept of the "good society," with an emphasis on themes to aid in understanding issues of race, gender, ethics, and power essential to any meaningful evaluation of the society in which one lives.
- 4353, 4354. HISTORY OF IDEAS IN AMERICA. Studies the main themes of American public thought from the colonial period to the Civil War and from the Civil War to the present.

FOR UNDERGRADUATE AND GRADUATE STUDENTS

- 5320. THE HISTORY OF THE AMERICAN FAMILY. Functional and structural evolution of the American family from colonial times to the present. Topics: sex roles and sexual behavior, methods of child rearing, and the role of death in the family's life, as well as emergence of the new lifestage of adolescence, and old age.
- 5330, 5331. SEMINAR IN MEXICAN-AMERICAN HISTORY. An examination of the growing historiography on Mexican-Americans, focusing on the relationship between their ethnic identity and the Southwest. (Also listed under Latin American History.)
- 5340,5341. Seminar in American History. Intensive examination of major topics in American history.
- 5345. INDUSTRIALISM AND REFORM IN U.S., 1877-1919. An investigation of life in Gilded Age and Progressive-period America, including industrialization, urbanization, and social conflict.
- 5350. Twentieth-Century America: A Seminar. Intensive examination of major developments in recent American history.

EUROPEAN HISTORY

- 1303. MILLENNIALISM THROUGH THE AGES. 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.
- 2321. PHILOSOPHICAL AND RELIGIOUS THOUGHT IN THE MEDIEVAL WEST. A study of the key issues in Western thought, and of their temporary resolutions, in the "medieval" millenium and of the shifting balance between Greek and Hebrew elements in that evolving tradition.
- 2323 (CF 2320, FL 3323). Russian Culture. Significant aspects of Russian thought and culture at its various stages of development, illustrated by examples from poetry, prose, drama, journalism, architecture, the fine arts, and music.
- 2346. Modern England, 1714 to the Present. 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)

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- 2354. Ancient Foundations of Modern Civilization. An introduction to the study of the ancient world embracing both the ancient Near East and classical Greek and Roman civilization.
- 2355. HISTORY OF THE ANCIENT NEAR EAST AND EGYPT. 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.
- 2365. Europe in the Modern World, Renaissance to 1760. An introductory survey of the growth of European civilization.
- 2366. Europe in the Modern World, 1760 to Present. A continuation of History 2365.
- 3302. GEORGIAN AND VICTORIAN ENGLAND, 1714-1867. The political, social, and economic institutions of Britain and their development in the 18th and 19th centuries.
- 3303. Modern England, 1867 to the Present. Britain in the 20th century, with social and cutural emphasis; traces the changes in outlook and Empire to the present day.
- 3328. Economic History of Europe: 1000 A.D. to the Present. Survey of the development of the European economy from 1000 A.D. to the present. Sources of growth and institutional changes will be explored.
- 3329 (CF 3322). Women in Early Modern European society and intellectual movements from the Renaissance through the Enlightenment.
- 3330. Women in Modern European History. An exploration of the role of women in European society, from the cultures of Crete and Sumer to the present.
- 3332. Ancient and Medieval France. 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.
- 3333. Early Modern France to 1789. 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.
- 3334. France Since 1789. 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.
- 3335 (CF 3335, FL 3335). ONE KING, ONE LAW: FRANCE 1500-1789. 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.
- 3340. THE REVOLUTIONARY EXPERIENCE IN RUSSIA, 1900-1930. 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.
- 3341. Soviet/Post-Soviet Society and Politics 1917 to Present. Soviet/Russian/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, 1917-21.
- 3342. Atomic Energy and the Modern World. An examination of the development of atomic energy and how it has affected the way we have lived in the 20th century.
- 3344 (CF 3394). THE OXFORD LANDSCAPE: FROM THE STONE AGE TO THE TUDORS. 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)
- 3345. England in Medieval and Early Modern Times. 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)
- $3350.\,L$ IFE in the Medieval World, A.D. 306 to $1095.\,A$ survey of the political, religious, and cultural history of Western Europe from Constantine the Great to the First Crusade.

- 3351. LIFE IN THE MEDIEVAL WORLD, 1095 TO 1350. A survey of the political, social, and intellectual structures that characterized the civilization of Western Europe between the First Crusade and the Black Death.
- 3352. The Age of the Crusades. 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.
- 3353. THE HISTORY OF ANCIENT GREECE. 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.
- 3354. WARFARE AND DIPLOMACY IN ANTIQUITY. A study of the methods both of waging and of averting war in antiquity.
- 3355 (CF 3325). CLASS AND GENDER IN ANCIENT SOCIETY. An examination of class and gender in the ancient world with special emphases on changing definitions of masculinity and femininity in Greek and Roman culture and the position, rights, and interaction of different groups (e.g., free and slave, citizen and foreigner, soldier and civilian).
- 3356. The Individual and Society in Antiquity. A study of different concepts of the nature of the individual and his relation to society in Homeric and classical Greece and republican and imperial Rome.
- 3357 (CF 3363, ENGL 3357). JOAN OF ARC: HISTORY, LITERATURE, AND FILM. The life and later reception of the extraordinary peasant girl, Joan of Arc (ca. 1412-1431), who in two years changed the course of European history before she was burned at the stake.
- 3358. Europe in the Age of the Renaissance, 1300-1520. The political, economic, religious, and cultural history of Europe, with emphasis on the work of the Humanists in Italy and Northern Europe.
- 3359. EUROPE IN THE AGE OF THE REFORMATION, 1520-1598. The political, economic, religious, and cultural history of Europe, including the impact of the Protestant and Catholic reform movements.
- 3360. ENGLISH SOCIETY IN THE AGE OF ELIZABETH THE GREAT. This course will focus 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.
- 3361. ROMAN HISTORY AND THE ROMAN MIND. The development of Roman civilization from its earliest beginnings to the dawn of the Middle Ages.
- 3363 (CF 3306). The Holocaust. Examines the destruction of the European Jews as it emerged from pre-World War I anti-Semitism and Nazi racism. Considers Jewish responses to genocide, the behavior of bystanders, and possibilities of rescue.
- 3365, 3366. Problems in European History. 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.
- 3367. Revolutions in European History. Traces the impact of revolutionary explosions on European civilization from the peasant revolts of the late Middle Ages through the rebellions of the 1560s and 1640s and the great upheavals of the Age of Democratic Revolution to the events of 1917 in Russia. *Recommended preparation:* HIST 2365, 2366.
- 3368 (CF 3312). WARFARE IN THE MODERN WORLD. 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.
- 3373 (CF 3327). SCIENCE, RELIGION, AND MAGIC IN EARLY MODERN ENGLAND. 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.
- 3374 (CF 3328). DIPLOMACY IN EUROPE: NAPOLEON TO THE EUROPEAN UNION. 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.
- 3375. SOCIAL HISTORY OF EARLY MODERN EUROPE. Studies European social and cultural development from the Renaissance to the French Revolution.
- 3376 (CF 3314). Social and Intellectual History of Europe. Studies European social, cultural, and intellectual development from 1848 to the present.
- 3383. Habsburg Monarchy: Making of East Central Europe. 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.
- 3385. THE BALKAN PENINSULA IN ITS EUROPEAN CONTEXT. 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.
- 3397 (CF 3336). Modernity and Crises of Identity. Drawing on the works of major intellectuals and artists, this course explores crises of identity in Western culture during the decades prior to World War I.
- 4363. INSIDE NAZI GERMANY. The reality beneath the spectacle of the Nuremberg rallies and the efficiency of the totalitarian state.
- 4369. HISTORY OF MODERN GERMANY. 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.
- 4380. HISTORY OF SPAIN TO 1492. (Also listed under Latin American History.) 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.
- 4381. HISTORY OF SPAIN, 1469 TO THE PRESENT. (Also listed under Latin American History.) The main social, political, and cultural topics of the history of the Iberian Peninsula from Columbus to the present.
- 4384. Early and Medieval England, from the Beginning to 1485. The early historical heritage of the English peoples, from prehistoric times through the end of the Middle Ages.
- 4385. TUDOR AND STUART ENGLAND, 1485 to 1714. The emergence of the modern British state and societies in the 16th and 17th centuries.

FOR UNDERGRADUATE AND GRADUATE STUDENTS

- 5364. THE CITY OF GOD: UTOPIAS IN CHRISTIAN TRADITION. An examination of St. Augustine's masterpiece, along with several of its models and analogues from the Greco-Roman and Hebrew traditions.
- 5367. Russia from the Kievan Era to 1881. Surveys the development of state and society from the beginnings of history in East Slavic territory through the era of the Great Reforms.
- 5368. IMPERIAL AND SOVIET RUSSIA, 1881 TO 1991. The breakdown of the Old Regime, revolution and civil war, and the evolution of Soviet political and social institutions, culture, and foreign policy to the present day.
- 5370. SEMINAR IN FRENCH HISTORY. An examination of key historians and of the several modes of history-writing that shape our vision of pre-modern France.
- 5371. THE FRENCH REVOLUTION AND NAPOLEON, 1789-1815. The nature and causes of revolution, the French Revolution, and the career of Napoleon Bonaparte.
- 5372. EUROPE FROM NAPOLEON TO BISMARCK, 1815-1870. Examines the aftermath of Napoleon's empire, with special consideration of the revolutions of 1848.

- 5373. EUROPE FROM BISMARCK TO WORLD WAR I, 1870-1918. Studies some of the modern world's most potent ideas: imperialism, social Darwinism, Marxism, racism, and positivism in the context of Europe at the peak of its influence.
- 5374. RECENT EUROPEAN HISTORY, 1918 TO THE PRESENT. 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 last 30 years.
- 5375. EUROPE IN THE AGE OF LOUIS XIV. The Scientific Revolution, the culture of the Baroque, and development of the European state system under the impact of the Thirty Years' War and the wars of Louis XIV.
- 5376. EUROPE IN THE AGE OF ENLIGHTENMENT, 1715-1789. A study of society and culture in 18th-century Europe, the Enlightenment philosophies, Rococo art, the classical age of music, Enlightened Despotism, and the coming of the French Revolution.
- 5378 Medieval Renaissances. A reading-and-discussion seminar in two bursts of medieval cultural activity, the Carolingian and 12th-Century Renaissances. Focus on two case studies (Alcuin and John of Salisbury).
- 5390. SEMINAR IN RUSSIAN HISTORY. This advanced seminar covers in depth selected topics in late Imperial and Soviet history. *Prerequisite:* HIST 3340 or 3341, or permission of instructor.
- 5391. ATHENIAN DEMOCRACY. This seminar will examine the development of democratic government in Athens and study the functioning of that government in peace and in war.
- 5392. Seminar in European History. Intensive examination of major topics in European history. *Prerequisite:* Junior standing or permission of instructor.

LATIN AMERICAN HISTORY

Students planning a concentration in Latin American History are urged to take HIST 2384 and 2385, followed by HIST 4380 and 4381.

- 2384 (CF 2318). LATIN AMERICA: THE COLONIAL PERIOD. An introductory survey covering the evolution of Latin American society from pre-discovery to the late 18th century.
- 2385 (CF 2319). LATIN AMERICA IN THE MODERN ERA. 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.
- 3317. Women in Latin-American Societies. The female experience in the formation of Latin American colonial societies. The theoretical explanation of womanhood within the ideology of the Spanish Counter-Reformation and its application to the daily life of women will be studied.
- 3320. THE SPANISH FRONTIER IN NORTH AMERICA, 1513-1821. (Also listed under United States History.) The exploration, colonization, and development of the Southwest under Spanish rule, 1513 to 1821, including interaction with Indian peoples. (For History majors, fulfills United States or Latin American requirement.)
- 3321. THE AMERICAN SOUTHWEST. (Also listed under United States History.) History of the American Southwest, from the initial penetration in 1821 to the present.
- 3380. Problems in Ibero-American History. This course allows students to study special topics on a comparative or thematic basis. The strictly national, chronological approach to history will be avoided in favor of topical organization.
- 3382. HISTORY OF MEXICO. Studies pre-Columbian, colonial, and independent Mexico. Culture and social developments are stressed.
- 3386. HISTORY OF THE CARIBBEAN. A survey of Caribbean history aimed at identifying common and contrasting themes in this very diverse part of the world. Topics include the Caribbean before 1492, the slave trade, sugar and the plantation economy, abolition, the dependent Caribbean, and the false promise of independence.
- 4380. HISTORY OF SPAIN TO 1492. (Also listed under European History.) The main social, political, and cultural topics of the history of the Iberian Peninsula before Ferdinand and

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Isabella, focusing on the Roman and Medieval periods. (For History majors, fulfills only European requirement.)

4381. HISTORY OF SPAIN, 1469 TO THE PRESENT. (Also listed under European History.) The main social, political, and cultural topics of the history of the Iberian Peninsula from Columbus to the present. (For History majors, fulfills only European requirement.)

FOR UNDERGRADUATE AND GRADUATE STUDENTS

5330, 5331. Seminar in Mexican American History. (Also listed under United States History.)

5382. SEMINAR IN LATIN AMERICAN HISTORY. Intensive examination of major topics in Latin America history.

AFRICAN, ASIAN, AND WORLD HISTORY

- 2391. AFRICA TO THE 19TH CENTURY. 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.
- 2392. Modern Africa. 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.
- 2393. Japan Before 1850. 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.
- 2394. China Before 1850. 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.
- 2395. Modern East Asia. 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.
- 3326 (CF 3310). THE VENTURE OF ISLAM. An introduction to Islamic civilization through an examination of Islamic history and society, arts and letters, and science, as well as philosophy and the legal order. Considers the response of Islam to the challenge posed by the West.
- 3378. Problems in African History. 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.
- 3387 (CF 3315). ASIA AND THE WEST: MUTUAL IMAGES, 1800-1920. With the establishment of diplomatic relations between the Western nations and the countries of East Asia, there evolved in the 19th century a fascinating history of how Westerners and Asians mutually viewed each other. This history of the "representations of the other" in the 19th-century encounter between Asia and the West is the subject of this course.
- 3389. Problems in Middle Eastern History. A contemporary topic is treated in historical perspective. Sample topics include the Arab-Israeli conflict, oil and the politics of energy, and Islamic fundamentalism.
- 3390. THE MODERN MIDDLE EAST: FROM THE OTTOMAN EMPIRE TO OPEC. History of the Middle East since the 19th century focusing on the decline of the Ottoman Empire, the Western challenge, the rise of national states, the Arab-Israeli dilemma, and the politics of energy.
- 3392 (CF 3349, FL 3349). THE LITERATURE OF NEGRITUDE: THE STRUGGLE FOR BLACK LIBERATION. 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

3393. China in Revolution. 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.

3395. Problems in Asian History. Historical issues, trends or special topics in Asian history will be explored using a thematic or comparative format.

3396. Modern Japan. The transformation of an isolationist, agricultural nation into one of the great economic and military powers of the 20th century.

3398. Women in Chinese History. 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.

4334. SLAVERY AND REVOLUTION IN ISLAMIC AFRICA. The spread of Islam to Africa, its interaction with classical African religions, the Islamic revolutions of the early modern period, the spread of Sufi mystic orders, and the Muslim slave trade.

4364. HISTORY OF SOUTH AFRICA: BACKGROUND TO CONFLICT. 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 have produced the current crisis.

INDIVIDUALIZED STUDIES IN THE LIBERAL ARTS

Professor Hayes, Director

The Individualized Studies major in the Liberal Arts provides students an opportunity to design an interdisciplinary program of study that brings fields of inquiry together in unique combinations not currently offered as a program in the curriculum.

Interested and academically qualified students are invited to explore this possibility with the Director of the Program, Dr. Kathy Hayes, Associate Dean of Dedman College, 214-768-2168. If the Plan of Study appears to have merit, Dr. Hayes will suggest faculty persons 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.

PROGRAM DESCRIPTION

Students with at least a 3.50 G.P.A. in the first 24 term hours taken in residence at SMU are eligible to pursue the program in Individualized Studies.

The program consists of individually designed majors in the liberal arts of at least 36 term hours, with a minimum of at least 24 term hours of advanced courses (3000 level or above). The program must satisfy the General Education Curriculum (GEC) 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 Bachelor of Arts. The transcript will refer to the major as "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.

The following should be submitted to the program's director, Dr. Kathy Hayes:

- 1. Formal Plan of Study (including goal statement and major plan).
- 2. Transcript.

With the director's approval and written approval of the Faculty Supervisory Committee, materials will be submitted to the College Undergraduate Council for action.

ADMINISTRATIVE PROCEDURES

The Dedman College Undergraduate Council shall have the final authority to approve all individualized programs. The Chair of the Council (or a designee) will act as the Director of Individual Studies.

Prior to declaring the major, a number of steps must be completed:

- 1. The student and chair of the program 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 Dedman College faculty.
- 2. The student will submit a Plan of Study to the director and to each Supervisory Committee member. If the committee and the director approve the Plan of Study, the Plan is then submitted for approval by the Undergraduate Council.
- 3. The Plan is transmitted to the office of the Associate Dean for Student Academic Affairs and to the Dedman College Dean's office.

The Plan of Study normally should be submitted to the Dedman College Undergraduate Council for approval before the completion of 60 total term hours of course work.

The chair of the Supervisory Committee and the College Dean's Office will recommend candidates for graduation. The Associate Dean for Student Academic Affairs will be responsible for verifying and certifying graduation requirements.

INTERNATIONAL AND AREA STUDIES

International and Area Studies provides students with the opportunity to design interdisciplinary programs of study that will give them 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 specific geographical areas. These programs include (1) a major or minor in International Studies, (2) a minor in Asian Studies, (3) a minor in European Studies, and (4) a major or minor in Latin American Studies. Descriptions of each of these programs along with their degree requirements are listed below.

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 programs are designed to provide students with a foundation for this expertise, requiring course work in the social sciences, business, language, and humanities. To maximize the educational experience in these degree programs, all majors 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 majors and minors. For more information, see the "Study Abroad" section in this bulletin, as well as the requirements for each of the programs listed below.

INTERNATIONAL STUDIES

Associate Professor Wegren, Acting Director

The major in International Studies requires 33 hours of study in specific courses in addition to prerequisites for certain courses; this includes 15 hours of study from the basic curriculum. At least 18 hours from the Basic and Area Studies Curricula must be in courses at the 3000 level or above. A co-curricular requirement for the B.A. degree in International Studies is two years of college-level study of a foreign language or equivalent. The language requirement may be met through examination,

the transfer of language study credit from another university, or by taking courses on campus.

The minor in International Studies requires 15 hours of study from the Basic Curriculum, nine hours of which must be in courses at the 3000 level or above. A cocurricular requirement for the minor is one year of college-level study of a foreign language or equivalent.

BASIC CURRICULUM

The first 15 hours (constituting a minor in International Studies) must include one course from Introduction to World Cultures; one course from International Politics; one course from International Economics; and two courses from The Global Perspective. Of the 15 hours required in the Basic Curriculum, at least six hours must be in courses at the 3000 level and above. A total of five classes must be taken from the Basic Curriculum.

Introduction to World Cultures

ANTH 2301 Introduction to Cultural Anthropology

HIST 1302 WORLD CULTURES AND CIVILIZATION

International Politics

PLSC 1340 Introduction to Comparative Politics

PLSC 1380 Introduction to International Relations

International Economics

ECO 3321 International Economic Policy (Prerequisites: ECO 1311 and 1312	ECO 3321	INTERNATIONAL.	ECONOMIC	POLICY (Prerequisites:	ECO	1311	and 1312
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ECO 4357 International Trade (*Prerequisite*: ECO 3301)

ECO 4358 International Macro Theory and Price (Prerequisite: ECO 3302)

The Global Perspective

ANTH 3301 HEALTH, HEALING, AND SOCIETY

ANTH 3310 GENDER AND SEX ROLES: A GLOBAL PERSPECTIVE

ANTH 3327 ECONOMIC AND POLITICAL CHANGE IN THE WORLD SYSTEM

ANTH 3368 Urban Problems: A Cross-Cultural Perspective

ARHS 1307 Non-Western Art Tradition

CCAC 3354 International Communications

CCAC 3354 International Communications (SMU-in-London)

CCAC 4397 Mass Media and National Development

CCAD 5301 International Advertising (SMU-in-London)

CCPA 3321 International Public Relations (SMU-in-London)

ECO 5360 ECONOMIC DEVELOPMENT IN THE THIRD WORLD (*Prerequisites*: ECO 3301

and 3302)

ECO 5361 NATURAL RESOURCES

ECO 5362 ECONOMIC GROWTH

ENGL 3331 GENDER, RACE, AND CLASS: NON-WESTERN CULTURE AND LITERATURE

FINA 4329* International Finance (Prerequisite: FINA 3320)

HIST 3306 U.S. DIPLOMACY, 1789-1941

HIST 3397 Modernity and Crises of Identity

HIST 3399 U.S. FOREIGN POLICY FROM THE SPANISH-AMERICAN WAR TO VIETNAM

MKTG 3300 MARKETING MANAGEMENT FIELD PROJECT (SMU-in-Copenhagen)

MKTG 3348* International Marketing (Prerequisite: MKTG 3340)

OBBP 4300 Environmental Business Strategy (SMU-in-Copenhagen)

OBBP 4375* International and Comparative Management (*Prerequisite*: OBBP 3370

PLSC 3354 THE THIRD WORLD AND NORTH-SOUTH RELATIONS

PLSC 3365 COMMUNISM AND POST-COMMUNISM

PLSC 3382 International Law and Organization

PLSC 3383 THE AMERICAN FOREIGN POLICY PROCESS

PLSC 3387 POLITICAL GEOGRAPHY

PLSC 3389 International Political Economy (also SMU-in-Oxford)

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PLSC 4342
             COMPARATIVE REVOLUTIONS: WHY NATIONS REVOLT
PLSC 4380
            CURRENT ISSUES IN INTERNATIONAL RELATIONS
PLSC 4380
             From Marx to Market (SMU-in-Paris)
PLSC 4381
            NATIONAL SECURITY POLICY
PLSC 4382
            THE POLITICS OF MILITARY FORCE
PLSC 4391
             NAFTA AND FREE TRADE IN THE AMERICAS
RELI 3366
             MAGIC, MYTH, AND RELIGION ACROSS CULTURES
(ANTH 3366)
SOCI 3340
            GLOBAL SOCIETY
SOCI 5321
             POPULATION PROBLEMS
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*Only available to Business majors with a minor or second major in International Studies.

AREA STUDIES CURRICULUM

The Area Studies Curriculum requires International Studies majors to specialize in a particular geographical region, defined by a common historical and cultural experience. Students may choose to specialize in Asian, Latin American, European, or African and Middle Eastern Studies. A total of 15 hours must be taken in one of the Area Studies programs listed below. Three courses (nine hours) must be taken from Group I (Social Sciences) and two courses (six hours) must be taken from Group II (Humanities and Arts) in the same geographical area. The final three-hour requirement for the B.A. in International Studies is the Senior Seminar (IS 4388). The seminar, which must be taken on campus by all students, is designed as a capstone course where the students can integrate and apply what they have learned. The topic of the seminar will vary, depending upon the instructor.

ASIAN STUDIES

Lecturer Ahnert, Director

The minor in Asian Studies provides students with an opportunity to design an interdisciplinary program of study that will give them an in-depth knowledge of the history, politics, society, and culture of traditional and contemporary Asia. The program embraces all of the sub-regions of Asia, including East Asia (China, Japan, and Korea), South Asia (India, Pakistan, and Bangladesh), and the many countries of Southeast Asia. With such a diverse region it is especially important to take account of specific national cultures and traditions. 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.

The minor in Asian Studies requires 15 hours of study in specific courses. The first 6 hours (two courses) must be chosen from the three categories of the International Studies Basic Curriculum (see above). Each of the two courses must be from a separate category: either World Cultures, International Politics, or International Economics. The next nine hours (three courses) must be chosen from the Asian Studies curriculum (below), with at least one course from each of the two groups: Group I (Social Sciences) or Group II (Humanities and Arts). 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. A co-curricular requirement for the minor in Asian Studies is one year of college-level study of an Asian language. This requirement may be met through examination, the transfer of language study credit from another university, or by taking courses on campus.

Group I: Social Sciences

ANTH 3316 Peoples of the Pacific

ANTH 3317 Peoples of Southeast Asia

ANTH 5390 ASIAN STUDY TOUR AND SEMINAR (SMU-in-Australia)

	BA 3300	Japanese Business (SMU-in-Japan)
	ECO 4357	Japanese Economy (SMU-in-Japan)
	FL 3320	POST-WAR JAPANESE CULTURE AND SOCIETY
	(HIST 3337)	
	FL 3350	PERSPECTIVES ON THE EAST ASIAN WOMAN
	(SOCI 3341)	
	HIST 2394	Traditional East Asia (also SMU-in-Japan)
	HIST 2395	Modern East Asia
	HIST 3387	Asia and the West
	HIST 3393	CHINA IN REVOLUTION
	HIST 3394/5	PROBLEMS IN ASIAN HISTORY
	HIST 3395	Early Asia (SMU-in-Australia)
	HIST 3395	Traditional South Asia (SMU-in-Australia)
	HIST 3396	Modern Japan (also SMU-in-Japan)
	PLSC 3346	GOVERNMENT AND POLITICS OF JAPAN AND KOREA
	PLSC 3346	GOVERNMENT AND POLITICS OF JAPAN (SMU-in-Japan)
	PLSC 3352	CHINESE POLITICS
	PLSC 3353	SOCIAL CHANGE AND POLITICAL ORDER IN CONTEMPORARY ASIA
	PLSC 3386	Issues of U.SEast Asia Relations
	PLSC 4340	Australian Government (SMU-in-Australia)
	SOCI 3300	JAPANESE SOCIETY (SMU-in-Japan)
	SOCI 4365	Australian Society (SMU-in-Australia)
Gro	oup II: Humar	nities and Arts
	ARHS 1305	Far Eastern Art
	ARHS 3374	Arts of Japan
	ARHS 3375	Arts of India
	FL 3310	CHINESE CINEMA
	FL 3312	Women, Writing, and Identity in 20th-Century Chinese Literature
	FL 3325	Perspectives on Modern China
	FL 3348	Women in Japanese Culture and Society
	RELI 1303	Introduction to Eastern Religions
	RELI 3306	Introduction to Hinduism
	RELI 3307	Introduction to Buddhism
	RELI 3365	Understanding the Self: East and West
	RELI 3367	RELIGIOUS LIFE OF CHINA, JAPAN, AND SOUTH AND SOUTHEAST ASIA
	RELI 3367	Religious Life of China and Japan (SMU-in-Japan)
	RELI 3376	Constructions of Gender: Sexuality and the Family in South Asian
		Religions
	RELI 3382	Mysticism, East and West
	RELI 3385	PHILOSOPHIES OF INDIA

EUROPEAN STUDIES

Professor Orlovsky, Director

The minor in European Studies provides students with an opportunity to design an interdisciplinary program of study that will give them an in-depth knowledge of European history, culture, politics, and society. The program embraces all of Europe, from the Atlantic (including Great Britain and Ireland) to the Urals (including Russia) from 1700 to the present. In the last half of the 20th century, but especially since the end of the Cold War, Europe has been integrating economically, culturally, and politically. At the same time, the program is designed to take account of specific national cultures and traditions. To maximize the educational experience, students are strongly encouraged to spend at least one semester 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.

The minor in European Studies requires 15 hours of study in specific courses. The first six hours (two courses) must be chosen from the three categories of the International Studies Basic Curriculum (see above). Each of the two courses must be from a separate category: either World Cultures, International Politics, or International Economics. The next 9 hours (three courses) must be chosen from the European Studies curriculum (below), with at least one course from each of the two groups: Group I (Social Sciences) or Group II (Humanities and Arts). 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. A cocurricular requirement for the minor in European Studies is two years of collegelevel study of a European language, other than English. This requirement may be met through examination, the transfer of language study credit from another university, or by taking courses on campus.

oup I: Social S	Sciences
ANTH 3355	PEOPLES OF EUROPE
ANTH 3355	NATIONALISM IN EUROPE (SMU-in-Copenhagen)
(PLSC 4343)	
BA 3300	EUROPEAN BUSINESS ENVIRONMENT: THE EU (SMU-in-Copenhagen)
BA 4315	EU Seminar (SMU-in-Copenhagen)
HIST 2365	EUROPE IN THE MODERN WORLD
HIST 3303	Modern England, 1867 to the Present
HIST 3328	ECONOMIC HISTORY OF EUROPE
HIST 3330	Women in Modern European History
HIST 3334	France Since 1789
HIST 3340	THE REVOLUTIONARY EXPERIENCE IN RUSSIA
HIST 3341	SOVIET/POST-SOVIET SOCIETY AND POLITICS, 1917 TO THE PRESENT
HIST 3343	20th-Century European History (SMU-in-Copenhagen)
HIST 3346	Modern England, 1714 to the Present
HIST 3363	THE HOLOCAUST
HIST 3365/6	
HIST 3365	THE MAKING OF MODERN EUROPE (SMU-in-Spain)
HIST 3366	France, America, and the Atlantic World (SMU-in-Paris)
HIST 3367	REVOLUTIONS IN EUROPEAN HISTORY
HIST 3374	DIPLOMACY IN EUROPE: NAPOLEON TO THE EUROPEAN UNION
	(also SMU-in-Paris)
HIST 3376	SOCIAL AND INTELLECTUAL HISTORY OF EUROPE
HIST 3381	POLITICAL HISTORY OF CONTEMPORARY SPAIN (SMU-in-Spain)
(PLSC 4340)	
HIST 3383	HABSBURG MONARCHY: MAKING OF EAST CENTRAL EUROPE
HIST 3385	THE BALKAN PENINSULA IN ITS EUROPEAN CONTEXT
HIST 4314	THE JEWS IN EUROPE (SMU-in-Copenhagen)
HIST 4363	Inside Nazi Germany
HIST 4381	HISTORY OF SPAIN, 1469 TO THE PRESENT
HIST 4388	GEORGIAN AND VICTORIAN ENGLAND, 1714-1867 (also SMU-in-Oxford)
HIST 5367	Russia From the Kievan Era to 1881
HIST 5371	The French Revolution and Napoleon, 1789-1815
HIST 5376	Europe in the Age of Enlightenment, 1715-1789
HIST 5390	Seminar in Russian History
HIST 5392	Seminar in European History
OBBP 3300	BUSINESS RELATIONS WITH RUSSIA AND CENTRAL EUROPE
	(SMU-in-Copenhagen)
PLSC 3340	WESTERN EUROPEAN POLITICS
PLSC 3351	Russia: Politics and Society (SMU-in-Copenhagen)
PLSC 3358	GOVERNMENT AND POLITICS OF RUSSIA

	PLSC 3359	From Communism to Democracy
	PLSC 4340	Anglo-American Democracy (SMU-in-Oxford)
	PLSC 4358	Soviet Politics: Revolution to Revolution
	PLSC 4384	SOVIET AND RUSSIAN FOREIGN POLICY
	PLSC 5341	Western European Politics: The EU
	PLSC 5383	EUROPEAN CONFLICT AND SECURITY ISSUES (SMU-in-Copenhagen)
	SOCI 5363	CRIMINAL JUSTICE IN SCANDINAVIA (SMU-in-Copenhagen)
Gr	oun II: Humai	nities and Arts
-	ARHS 2351	Nineteenth-Century Art
	ARHS 2352	TWENTIETH-CENTURY ART
	ARHS 2352	From Impressionism to Abstract: European Art, 1870-1920
	7110115 2552	(SMU-in-Copenhagen)
	ARHS 3332	MASTERS OF EUROPEAN ART (SMU-in-Copenhagen)
	ARHS 3333	ART AND ARCHITECTURE IN ITALY (SMU-in-Italy)
	ARHS 3335	Paris Art and Architecture I (SMU-in-Paris)
	ARHS 3337	Paris Art and Architecture II (SMU-in-Paris)
	ARHS 3342	Spanish Art II: El Greco to Goya
	ARHS 3355	ORIGINS OF IMPRESSIONISM (SMU-in-Paris)
	ARHS 3357	IMPRESSIONISM IN CONTEXT (SMU-in-Paris)
	ARHS 3357	ART IN THE AGE OF REVOLUTION
	ARHS 3383	French Painting From Pucelle to Puvis
	ARHS 4344	IMAGES OF POWER: KINGS, NOBLES, AND ELITES (SMU-in-Paris)
	(HIST 3349)	
	CCCN 2352	HISTORY OF EUROPEAN FILM (SMU-in-Copenhagen)
	CCCN 3310	THEMES IN EUROPEAN FILM (SMU-in-Copenhagen)
	CCCN 3310	SCREEN ARTISTS (SMU-in-Italy)
	CCCN 4305	MOTION PICTURES OF PARIS (SMU-in-Paris)
	ENGL 3306	Major British Authors II
	ENGL 3312	THE ENGLISH NOVEL II
	ENGL 3341	Women in the Age of Victoria
	ENGL 3345	British Literature From 1900 to 1939
	ENGL 3346	British Literature Since World War I
	ENGL 3347	World War I: The British Experience
	(CF 3304)	
	ENGL 3360	WRITERS IN PARIS: THE INVENTION OF MODERNISM (SMU-in-Paris)
	FL 2343	AFTER COMMUNISM
	FL 3301 (CF 2330)	SPANISH CIVILIZATION (SMU-in-Spain)
	FL 3323	Russian Culture
	(HIST 2323)	RUSSIAN CULTURE
	FL 3331	Survey of Russian Literature in Translation
	FL 3365/6	French Literature
	FL 3390	ITALIAN CINEMA
	FL 3391/2	Italian Literature
	PHIL 3333	EUROPEAN THOUGHT: FROM MODERNISM TO POSTMODERNISM
	77112 3333	(SMU-in-Copenhagen)
	PHIL 3352	HISTORY OF WESTERN PHILOSOPHY – MODERN
	PHIL 3370	NINETEENTH-CENTURY PHILOSOPHY
	PHIL 3370	KIERKEGAARD: PHILOSOPHY AND THE MEANING OF LIFE
		(SMU-in-Copenhagen)
	PHIL 3372	Marx
	PHIL 3382	TWENTIETH-CENTURY EUROPEAN PHILOSOPHY

LATIN AMERICAN STUDIES

Assistant Professor Manzetti, Director

Latin American Studies provides students with an opportunity to design an interdisciplinary program of study that will give them an in-depth knowledge of Ibero-American history, culture, politics, and society. The program embraces all of the countries of Latin America and the Iberian Peninsula. It is designed to take account not only of specific national cultures and traditions, as they have developed in Latin America, but also the importance of Latin cultures and Hispanic traditions in the United States. To maximize the educational experience, students are strongly encouraged to spend at least one semester or summer studying in Latin America, Spain, or Portugal. Most of the courses taught in University study-abroad programs in Spain and Latin America may be applied to the Latin American Studies minor.

The major in Latin American Studies requires 27 hours of study in specific courses. The first 6 hours (two courses) must be chosen from the three categories of the International Studies Basic Curriculum (see above). The two courses must be from a separate category: either World Cultures, International Politics, or International Economics. The next 18 hours (six courses) must be chosen from the Latin American Studies curriculum (below), with at least two courses from each of the two groups: Group I (Social Sciences) or Group II (Humanities and Arts). At least 15 hours (five courses) must be in courses at the 3000 level or above. If a student is also majoring in International Studies, only two courses from the Area Studies curriculum may be double-counted. A co-curricular requirement for the major in Latin American Studies is three years of college-level study of either Spanish or Portuguese. This requirement may be met through examination, the transfer of language study credit from another university, or by taking courses on campus. The final three-hour requirement for the B.A. in Latin American Studies is the Senior Seminar. The seminar, which must be taken on campus by all students, is designed as a capstone course where the students can integrate and apply what they have learned. The topic of the seminar will vary, depending upon the instructor.

The minor in Latin American Studies requires 15 hours of study in specific courses. The first 6 hours (two courses) must be chosen from the three categories of the International Studies Basic Curriculum (see above). Each of the two courses must be from a separate category: either World Cultures, International Politics, or International Economics. The next nine hours (three courses) must be chosen from the Latin American Studies curriculum (below), with at least one course from each of the two groups: Group I (Social Sciences) or Group II (Humanities and Arts). 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. A co-curricular requirement for the minor in Latin American Studies is two years of college-level study of Spanish or Portuguese.

Group I: Social Sciences

ANTH 3311	Peoples of Mexico – Past and Present
ANTH 3313	SOUTH AMERICAN INDIANS OF THE PAST AND PRESENT
ANTH 3354	PEOPLES OF LATIN AMERICA
ANTH 5347	Seminar in Mesoamerican Ethnology
HIST 2384	LATIN AMERICA: THE COLONIAL PERIOD
HIST 2385	LATIN AMERICA IN THE MODERN ERA
HIST 3317	WOMEN IN LATIN AMERICAN SOCIETIES
HIST 3324	THE MEXICAN AMERICANS, 1848 TO THE PRESENT
HIST 3380	HISTORY OF LATIN AMERICA (SMU-in-Spain)
HIST 3382	HISTORY OF MEXICO

HIST 5355	PROBLEMS IN LATIN AMERICAN HISTORY
HIST 5357	PROBLEMS IN MEXICAN HISTORY
PLSC 3348	GOVERNMENTS AND POLITICS OF LATIN AMERICA
PLSC 3349	POLITICS OF MAJOR LATIN AMERICAN COUNTRIES
PLSC 3385	Inter-American Relations
PLSC 4340	SPECIAL STUDIES IN COMPARATIVE GOVERNMENT AND POLITICS
	(SMU-in-Spain)
PLSC 4356	LATIN AMERICAN POLITICAL ECONOMY
PLSC 4357	SOUTH AMERICAN POLITICS
PLSC 4391	NAFTA AND FREE TRADE IN THE AMERICAS
SOCI 3370	MINORITY-DOMINANT RELATIONS
SOCI 3372	CHICANOS IN THE SOUTHWEST
Group II: Humai	
	e courses are restricted to Latin American Studies majors and minors.
	lies majors may not take these courses for International Studies credit.)
	MESOAMERICAN ARCHAEOLOGY
	BAROQUE ART IN ITALY, SPAIN, AND THE NEW WORLD
	ALTAMIRA TO EL ESCORIAL: SPANISH ART I
(6341)	
	EL GRECO TO GOYA: SPANISH ART II
(6342)	Communication of the Trans
ANTH 3343	
ANTH 3351 ARHS 3365	ARTS OF PRE-COLUMBIAN MIDDLE AMERICA
ARHS 3366	ARTS OF FRE-COLUMBIAN MIDDLE AMERICA ARTS OF THE ANCIENT ANDEAN TRADITION: CHAVIN TO INCA
ARHS 3369	ART AND ARCHITECTURE OF THE MAYA
ARHS 3376	
ARHS 3379	THE AZTECS BEFORE AND AFTER THE CONQUEST
ARHS 4348	SPANISH ART IN THE AGE OF COLUMBUS
(6348)	
ARHS 5331	Seminar in Baroque Art
ARHS 5340	
ARHS 5341	SEMINAR ON GOYA AND SPANISH CULTURE IN THE AGE OF REASON
ARHS 5355	Seminar on Picasso
ARHS 5390	SPANISH ART IN THE MEADOWS MUSEUM
ENGL 3371	CHICANA/CHICANO LITERATURE
ENGL 3372	HISTORY OF U.S. HISPANIC LITERATURE
FL 3301	Spanish Civilization (SMU-in-Spain)
FL 3305	LATIN AMERICAN LITERATURE IN TRANSLATION
FL 3306	THE HEART OF AZTLÁN: CHICANO LITERATURE OF THE SOUTHWEST
SPAN 3373	SPANISH CIVILIZATION*
SPAN 3374	SPANISH AMERICAN CIVILIZATION (also SMU-in-Xalapa)*
SPAN 4361	TRANSLATION: THEORY AND PRACTICE*
SPAN 4391	COMMERCIAL SPANISH FOR INTERNATIONAL TRADE*
SPAN 4395	Introduction to Hispanic Literature*
SPAN 5310	SPANISH LITERATURE BEFORE 1700*
SPAN 5311	Spanish Literature After 1700* Spanish Literature After 1700*
SPAN 5315 SPAN 5316	SPANISH AMERICAN LITERATURE TO 1888* SPANISH AMERICAN LITERATURE SINCE 1888*
SPAN 5316 SPAN 5317	LITERATURE OF MEXICO*
SPAN 5317 SPAN 5320	THE RENAISSANCE AND GOLDEN AGE: DRAMA*
SPAN 5321	THE RENAISSANCE AND GOLDEN AGE: PROSE FICTION*
SPAN 5323	NINETEENTH-CENTURY PENINSULAR LITERATURE: PROSE FICTION*
SPAN 5324	NINETEENTH-CENTURY PENINSULAR LITERATURE: DRAMA AND POETRY*
SPAN 5334	THE NOVEL OF THE POST-CIVIL WAR*
SPAN 5335	Peninsular Genre Studies*

SPAN 5336	THE SPANISH AMERICAN NOVEL (also SMU-in-Xalapa)*
SPAN 5338	THE SPANISH AMERICAN SHORT STORY (also SMU-in-Xalapa)*
SPAN 5339	SPANISH AMERICAN POETRY*

^{*} Restricted to the Latin American Studies major and minor.

AFRICAN AND MIDDLE EASTERN STUDIES

Professor Cordell, Coordinator

This course of study is offered as an area specialization for International Studies majors only.

Group I: Social Sciences

FL 3307 FL 3349

RELI 3372

(CF 3349, HIST 3392) RELI 3362 ISLAM AN

ANTH 3314 Peoples of Africa

HIST 2355	HISTORY OF THE ANCIENT NEAR EAST AND EGYPT			
HIST 2391	Africa to the 19th Century			
HIST 2392	Modern Africa			
HIST 3326	THE VENTURE OF ISLAM			
HIST 3378/9	PROBLEMS IN AFRICAN HISTORY			
HIST 3382	ORIENT AND OCCIDENT (SMU Summer-in-Paris)			
HIST 3386	HISTORY OF THE CARIBBEAN			
HIST 3389	PROBLEMS IN MIDDLE EASTERN HISTORY			
HIST 3390	THE MODERN MIDDLE EAST			
HIST 4334	SLAVERY AND REVOLUTION IN ISLAMIC AFRICA			
HIST 4364	HISTORY OF SOUTH AFRICA: BACKGROUND TO CONFLICT			
PLSC 3345	GOVERNMENT AND POLITICS OF THE MIDDLE EAST			
PLSC 3347	GOVERNMENT AND POLITICS OF AFRICA			
Group II: Humanities and Arts				
ARHS 3306	DEATH AND IMMORTALITY: THE ART OF ANCIENT EGYPT			
ARHS 3322	ISLAMIC ART			
ARHS 3328	BYZANTINE ART: MIDDLE EAST CONCENTRATION			
ARHS 3371	Traditional Arts of Africa			
ENGL 3331	GENDER, RACE, AND CLASS: NON-WESTERN CULTURE AND LITERATURE			

BIBLICAL INTERPRETATION AND THE STATE OF ISRAEL MATHEMATICS

WOMEN IN MIDDLE EASTERN LITERATURE

LITERATURES OF NEGRITUDE

ISLAM AND THE WEST

Professor Reinelt, Department Chair

Professors: Ferguson, Gladwell, Haberman, Reddien, Shampine, Williams; Associate Professors: Brattkus, Chen, Davis, Melander, Monzingo; Assistant Professors: Carr, Fabionas; Tausch; Lecturers: Lyerly, Neal, Seets; Visiting Assistant Professors: Agnew, Kern.

THE BACHELOR OF SCIENCE DEGREE WITH A MAJOR 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:

F January J. Mayleron et al., MATH 1227, 1229, 2220, 2242	Term Hours
Fundamental Mathematics: MATH 1337, 1338, 2339, 2343	12
Natural Science: Choose two from PHYS 1303, 1304;	_
CHEM 1303, 1304; BIOL 1401, 1402; GEOL 1301	6
Computer Science: CSE 1341	3
Statistics: STAT 4340/CSE 4340 (Student may substitute	
STAT 5340/CSE 5370)	3
Advanced Mathematics Elective: MATH 3000+ course	3
Specialization in one of the following six areas:	15

In each specialization, at least five courses must be taken with at least two courses at the 4000+ level, including at least one MATH 4000+ course.

Applied and/or Numerical Mathematics:

MATH 3315/CSE 3365 (mandatory), at least four from MATH 3334, 3337, 3353, 5315/CSE 5365, 5316/CSE 5366, 5317/CSE 5317, 5325, 5331, 5332, 5334, 5336, 5353, CSE 3360

Computer Science and Computer Engineering:

MATH 3315/CSE 3365 (mandatory), CSE 4381 (mandatory); three from MATH 3353, 5315/CSE 5365, 5316/CSE 5366, 5317/CSE 5317

Engineering:

MATH 3315/CSE 3365 (mandatory), MATH 3337 (mandatory); MATH 3334, 3353; at least one from MATH 5315/CSE 5365, 5325, 5331, 5332, 5334; at least one from EE 3322, 3330, 3370, 5330, 5350, 5360, 5372, ME 4360, 5320, 5322, 5336/MATH 5336.

Operations Research:

MATH 3315/CSE 3365 (mandatory); two from MATH 3353, 5315/CSE 5365, 5316/CSE 5366, 5317/CSE 5317, 5353; two from CSE 3360, 5361, 5362, 5369, STAT 5344/CSE 5364

Pure Mathematics:

Five from MATH 3308, 3337, 3353, 4338, 4351, 4355, 5331, 5332, 5353, 5381 Statistics:

MATH 3315/CSE 3365 (mandatory); two from MATH 3353, 5315/CSE 5365, 5316/CSE 5366, 5317/CSE 5317, 5332, 5353; two from STAT 4370, 5344/CSE 5364, 5374, CSE 5369

REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE WITH A MAJOR IN MATHEMATICS. 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 Bachelor of Science degree except that there is no special natural science requirement. In exceptional circumstances, the Department of Mathematics may choose to waive one course (three term-credit hours) in mathematics.

MATH 6000-level courses may also be taken for either major by students who have fulfilled the prerequisites and have departmental permission.

NOTE: All mathematics majors, either B.S. or B.A., must receive a grade of at least *C*- in all mathematics courses taken in fulfillment of the requirements for the mathematics major.

REQUIREMENTS FOR THE MATHEMATICS MINOR. MATH 1337, 1338, 2339, and nine hours selected from mathematics courses at the advanced (3000+) level. MATH 2343 (Elementary Differential Equations) may replace an advanced-level mathematics course. All courses in the minor must be passed with a grade of C- or higher.

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For ALL UNDERGRADUATES: After a student matriculates to SMU, transfer credit for neither MATH 1309 nor MATH 1337 will be approved.

THE COURSES (MATH)

- 1303. Precalculus for Business. Inequalities, absolute value, graphs, functions, basic analytic geometry, polynomials, logarithms, exponentials, linear equations, and mathematics of finance. *Prerequisite:* High school algebra. No credit given if taken after any calculus course. Credit not given for both 1303 and 1304. Intended for students planning to take MATH 1309.
- 1304. Precalculus Mathematics. Graphs, functions, basic analytic geometry, exponentials, logarithms, trigonometry, inverse functions. *Prerequisites:* High school algebra and trigonometry. No credit given if taken after any calculus course. Credit not given for both MATH 1303 and 1304. Intended for students planning to take MATH 1337.
- 1307. Introduction to Mathematical Sciences. Permutations and combinations, probability, Markov chains, linear programming, elementary statistics, and mathematics of finance. *Prerequisite:* High school algebra.
- 1309. Introduction to Calculus for Business and Social Science. 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 1337.) *Prerequisite:* Placement out of MATH 1303 or a grade of C- or higher in MATH 1303.
- 1310. APPLIED CALCULUS FOR BUSINESS AND SOCIAL SCIENCE. Techniques of integration, multivariable calculus, and differential equations. Applications to business economics, life sciences, and social sciences. (Credit not allowed for both MATH 1310 and 1338.) *Prerequisite:* A grade of *C* or higher in MATH 1309 or 1337.
- 1337. CALCULUS WITH ANALYTIC GEOMETRY I. Differential and integral calculus for algebraic and some trigonometric functions with applications to curve sketching, velocity, maximum-minimum problems, areas, and volumes. (Credit not allowed for both MATH 1309 and 1337.) *Prerequisite:* Placement out of MATH 1304 or a grade of C— or higher in MATH 1304.
- 1338. Calculus with Analytic Geometry II. A continuation of MATH 1337 through differential and integral calculus of transcendental functions, techniques of integration, improper integrals, and infinite sequences and series, including Taylor series. (Credit not allowed for both MATH 1310 and 1338.) *Prerequisite:* A grade of *C*—or higher in MATH 1337 (or MATH 1309 and departmental permission).2339. Calculus with Analytic Geometry III. A continuation of MATH 1338 including parametric equations, polar coordinates, partial differentiation, multiple integrals, and vector analysis. *Prerequisite:* A grade of *C*—or higher in MATH 1338.
- 2343. ELEMENTARY DIFFERENTIAL EQUATIONS. First order equations, linear equations, Laplace transforms, power series solutions, and applications. *Prerequisite*: MATH 2339 (may be taken concurrently).
- 3308. Introduction to Discrete Mathematics. An introduction to logic, set theory, graph theory, recurrence relations, and combinatorics. Mathematical foundations and applications of these subjects are presented. (Credit not allowed for both CSE 2353 and MATH 3308.) *Prerequisite:* A grade of *C* or higher in MATH 1338.
- 3315 (CSE 3365). INTRODUCTION TO SCIENTIFIC COMPUTING. An elementary survey course that includes techniques for root-finding, interpolation, functional approximation, linear equations, and numerical integration. Special attention is given to FORTRAN or C programming, algorithm implementations, and library codes. *Prerequisites*: CSE 1316, 1317, or 1341; and a grade of *C* or higher in MATH 1338. Students registering for this course must also register for an associated computer laboratory.
- 3334. An Introduction to Applied Mathematics. Formulation, solution, and interpretation of mathematical models used in populations dynamics and traffic flow. Equilibrium, stability, and phase-plane analysis of nonlinear ordinary differential equations from ecology. Method of

- characteristics for nonlinear partial differential equations of traffic flow yielding density waves and shocks. *Prerequisite:* A grade of *C* or higher in MATH 2343.
- 3337. Advanced Mathematics for Science and Engineering. Elements of vector integral calculus, Fourier series, and boundary-value problems in partial differential equations. (No credit given if taken after MATH 5334.) *Prerequisites:* Grades of *C* or higher in MATH 2343 and 2339.
- 3353. INTRODUCTION TO LINEAR ALGEBRA. Matrices and linear equations, Gaussian elimination, determinants, rank, geometrical notions, eigenvalue problems, and coordinate transformations, norms, inner products, orthogonal projections, Gram-Schmidt and least squares. (No credit given if taken after MATH 5353.) *Prerequisite:* A grade of *C* or higher in MATH 1338.
- 4338. Analysis. Sequences and series of real numbers and functions, properties of continuous functions, differentiation and integration with some attention paid to higher dimensions. *Prerequisite:* MATH 2339.
- 4351. THEORY OF NUMBERS. Classical number theory, including divisibility, congruences, quadratic reciprocity, Diophantine equations, and number theoretic functions. *Prerequisite:* Senior standing in mathematics.
- 4355. Groups and Rings. Basic properties of groups, rings and fields, homomorphisms, normal subgroups, integral domains, ideals, algebraic extension fields, geometric constructions. *Prerequisite:* MATH 3308 or 3353.
- 5315 (CSE 5365). INTRODUCTION TO NUMERICAL ANALYSIS. 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 3315/CSE 3365 and MATH 2343; a programming course (e.g., C, FORTRAN, or MATLAB).
- 5316 (CSE 5366). Numerical Linear Algebra. The efficient solution of linear systems by both direct and iterative methods and least-squares problems by direct methods. Elementary and orthogonal matrix transformations provide a unified treatment of direct methods. Stationary and conjugate direction methods for efficiently solving sparse linear systems. *Prerequisites:* A programming course (e.g., C, FORTRAN, or MATLAB); MATH 3353; and MATH 3315/CSE 3365 or MATH 5315/CSE 5365.
- 5317 (CSE 5317). Mathematical Software. Design and construction of numerical and symbolic software as stand-alone segments, packages, and libraries. Examples: linear algebra, quadrature, optimization; MATLAB; MAPLE; NAG and IMSL libraries. Impact of computer architecture, including parallelism. *Prerequisites:* MATH 3315/CSE 3365 or MATH 5316/CSE 5366; a programming course (e.g., C or FORTRAN); and some knowledge of linear algebra.
- 5325. Introduction to Dynamical Systems. Nonlinear ordinary differential equations: equilibrium, stability, phase-plane methods, limit-cycles, and oscillations. Linear systems, diagonalization. Periodic coefficients (Floquet theory), Poincaré map. Difference equations (maps), period doubling, bifurcations, chaos. *Prerequisites:* MATH 2343 and 3353.
- 5331. Functions of a Complex Variable. Complex numbers, analytic functions, mapping by elementary functions, complex integration. Cauchy-Goursat theorem, Cauchy integral formulas. Taylor and Laurent series, residues, evaluation of improper integrals. Applications of conformal mapping and analytic functions. *Prerequisite:* MATH 3337.
- 5332. WAVELET TRANSFORMS. A mathematical introduction to sampling, data compression, multiresolution analysis, Fourier analysis and wavelet theory, including biorthogonal wavelets and spline wavelets. *Prerequisites:* MATH 1338, 2339, 3353, and 3315/CSE 3365.
- 5334. INTRODUCTION TO PARTIAL DIFFERENTIAL EQUATIONS. 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, Bessel functions, Fourier transforms. *Prerequisite:* MATH 3337.
- 5336 (ME 5336). FLUID DYNAMICS. Preliminaries, concepts from vector calculus. The transport theorem, the Navier-Stokes and other governing equations. Dynamical similarity and Reynolds

number. Vorticity theorems. Ideal and potential flow. The influence of viscosity, and the boundary layer approximation. *Prerequisite:* MATH 3337.

5353. LINEAR ALGEBRA. Norms, inner products, orthogonal projections, Gram-Schmidt, and least squares. Linear transformations. Eigenvalues and eigenvectors, similarity and unitary transformations, Schur and diagonal forms, singular value decomposition, and Jordan form. Discrete and continuous systems, matrix exponentials. Quadratic forms, Rayleigh's principle, and a minimum-maximum principle. *Prerequisites:* MATH 2343 and 3353, or permission of instructor.

5381. Introduction to General Topology. Elementary topology of the line and plane, metric spaces, and general topological spaces; continuity of mappings, connectedness, compactness, completeness, and fixed-point theorems. *Prerequisite:* MATH 3353.

MEDIEVAL STUDIES

Associate Professor Wheeler, Director

Ranging from the 4th century A.D. to 1485, from Celtic Britain to Visigothic and Islamic Spain, Byzantium to Persia and the Caliphate, from script to print, from feast to fast, from fine arts to liberal arts, from Augustine to Abélard and beyond; this program offers an intense and condensed liberal education. 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.

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. It is appropriate for pre-professional training in multiple fields, ranging from business to religious studies and from biology to music theory and foreign languages and literatures. It can also lead to graduate work in medieval studies or in such disciplines as literature, history, and art/music history.

THE DALLAS MEDIEVAL CONSORTIUM makes it possible for students at SMU, the University of Dallas, and the University of Texas-Dallas to enroll in selected medieval studies courses on the other campuses. Through the Consortium, SMU students can elect no more than a total of 15 hours in medieval subject courses at any other Consortium college.

REQUIREMENTS FOR THE B.A. DEGREE. Medieval Studies is an interdisciplinary major of 30 hours in medieval subjects, and 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 less than six hours in each area. Latin language and literature courses after the second year may count toward hours for the Medieval Studies major. Students are encouraged to take courses in philosophy, religious studies, and church history as they are available. Individual student programs are approved by the Director of Medieval Studies and a committee of two other members of the SMU Medieval Studies faculty.

REQUIREMENTS FOR THE MINOR. A student must complete 15 hours from the courses listed, 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 Medieval Studies.

As a model, the following is a typical Medieval Studies major sequence for SMU students:

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Sophomore year
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Fall term:

CF 3351 (Cultural Formations)*

LATN 1301 Elementary Latin

Spring term:

ENGL 3321 Medieval English Literature*

LATN 1302 Elementary Latin

Junior year

Fall term:

ARHS 3321 Medieval Art*

HIST 3350 Medieval History I*

LATN 2301 Intermediate Latin

Spring term:

ENGL 4324 Chaucer's Canterbury Tales*

HIST 3351 Medieval History II*

LATN 2302 Intermediate Latin

Senior year

Fall term:

HIST 4322 Constitutional and Legal History of Medieval England (University of Dallas)*

HIST 4325 Islam to A.D. 1453 (University of Texas-Dallas)*

MDVL 3327 The Unicorn*

Spring term:

ARHS 3325 Art of the Crusades*

HIST 3352 History of the Crusades*

LATN 3324 Advanced Latin Grammar and Composition*, or

LATN 3325 Roman Philosophy (University of Dallas)*

Many courses are offered each year; with rare exceptions, the remainder are available at least every other year. Consult with the director about offerings and frequency.

Medieval Studies

ARHS 3321 MEDIEVAL ART

ARHS 3322 (CF 2313) ISLAMIC ART AND ARCHITECTURE: THE CREATION OF A NEW ART

ARHS 3324 CAROLINGIAN AND OTTONIAN ART

ARHS 3325 Age of the Crusades

ARHS 3326 Art and the Italian Commune, 1250-1348

ARHS 3328 BYZANTINE ART

ARHS 3330 French Romanesque Architecture

ARHS 3341 Spanish Art I: Altamira to Alhambra

ARHS 4327 French Gothic Architecture of the 12th and 13th Centuries

ARHS 4329 (HX 4329) EARLY CHRISTIAN ART

ARHS 4345 THE CITY OF FLORENCE: 1300-1450

ARHS 5320 Seminar in Medieval Art: The Romanesoue Cloister in Spain and France

ARHS 5321 Studies in Medieval Art: Aspects of Late Gothic Architecture, A Survey

CF 3302 (ENGL 3329, MDVL 3329) THE WORLD OF KING ARTHUR

CF 3321 (MDVL 3321) THE BIRTH OF THE INDIVIDUAL

CF 3351 (MDVL 3351) THE PILGRIMAGE: IMAGES OF MEDIEVAL CULTURE

^{*} Credit toward Medieval Studies major.

CF 3352 (MDVL 3352) IDEAS AND IDEALS OF GENDER IN THE MIDDLE AGES

CF 3353 (MDVL 3353) MEDIEVAL THOUGHT

CF 3363 (ENGL 3357, HIST 3357) JOAN OF ARC IN HISTORY, LITERATURE, AND FILM

CF 3394 (HIST 3344) THE OXFORD LANDSCAPE: FROM THE STONE AGE TO THE TUDORS (SMUin-Oxford)

ENGL 1325 CHIVALRY

ENGL 3321 Medieval English Literature

ENGL 3323 Tales of Wales from Arthur to the Present Day

ENGL 4320 Allegory and Romance

ENGL 4323 CHAUCER'S EARLIER WORKS

ENGL 4324 CHAUCER'S CANTERBURY TALES

ENGL 5376 THE HISTORY OF THE ENGLISH LANGUAGE

FL 3365 French Literature in Translation (When applicable)

FL 3366 French Literature in Translation (When applicable)

FL 3381 DANTE: THE DIVINE COMEDY

FL 3382 Medieval Literature

FL 3391 ITALIAN LITERATURE IN TRANSLATION (When applicable)

FL 3392 ITALIAN LITERATURE IN TRANSLATION (When applicable)

FREN 4379 Introduction to French Literature and Culture I: Middle Ages to Louis XIV

FREN 5320 LITERARY PERIODS (When applicable)

FREN 5334 GENDER STUDIES (When applicable)

FREN 5335 GENDER STUDIES (When applicable)

FREN 5370 Seminar in French Literature: The Quest (When applicable)

GRE 1301 ELEMENTARY GREEK

GRE 1302 ELEMENTARY GREEK

GRE 2312 INTERMEDIATE GREEK

GRE 3325 Greek Historians: Herodotus

GRE 3328 Plato. The Phaedrus

HIST 2321 PHILOSOPHICAL AND RELIGIOUS THOUGHT IN THE MEDIEVAL WEST

HIST 3332 ANCIENT AND MEDIEVAL FRANCE

HIST 3345 ENGLAND IN MEDIEVAL AND EARLY MODERN TIMES (SMU-in-Oxford)

HIST 3350 Life in the Medieval World, A.D. 306-1095

HIST 3351 Life in the Medieval World, A.D. 1095-1350

HIST 3352 Age of the Crusades

HIST 4320 MEDIEVAL EUROPE I

HIST 4321 MEDIEVAL EUROPE II

HIST 4322 Constitutional and Legal

HIST 4323 HISTORY OF IRELAND

HIST 4324 MEDIEVAL SPIRITUALITY

HIST 4325 ISLAM TO A.D. 1453

HIST 4326 Anglo-Saxon England to A.D. 1160

HIST 4380 HISTORY OF SPAIN TO 1492

HIST 4384 Early and Medieval England from the Beginning to 1485

HIST 5364 CITY OF GOD: UTOPIAS IN THE CHRISTIAN TRADITION

HIST 5378 Medieval Renaissances

HIST 5392 Seminar in European History: The Confessions and the Western Autobiographical Tradition

LATN 1301, 1302 First-Year Latin

LATN 2311, 2312 SECOND-YEAR LATIN

LATN 3324 ADVANCED LATIN GRAMMAR AND COMPOSITION

LATN 3325 ROMAN PHILOSOPHY

LATN 3335 MEDIEVAL LATIN

MDVL 3327 THE UNICORN: UNDERSTANDING VARIETIES OF TRUTH IN THE MIDDLE AGES

MDVL 3398 DIRECTED STUDIES

MDVL 3399 DIRECTED STUDIES

MDVL 4371 SPECIAL TOPICS

MDVL 5301 INDEPENDENT STUDIES

MDVL 5302 INDEPENDENT STUDIES

MDVL 5398 INDEPENDENT STUDIES

MDVL 5399 INDEPENDENT STUDIES

MUHI 3253 Survey of Medieval and Renaissance Music

MUHI 4392 DIRECTED STUDIES IN MUSIC HISTORY: THE MIDDLE AGES

MUHI 5339 Seminar in Medieval Music

MUHI 6309 Seminar in Medieval and Renaissance Sources and Styles

PERE 3075 COLLEGIUM MUSICUM

PERE 3175 COLLEGIUM MUSICUM

PHIL 3355 HISTORY OF WESTERN PHILOSOPHY: MEDIEVAL

PLSC 4361 POLITICAL REGIMES: UNDERSTANDINGS OF ROME

PLSC 4362 MEDIEVAL POLITICAL PHILOSOPHY

RELI 3320 Introduction to Classical Judaism

RELI 3326 Introduction to the New Testament

RELI 3328 Medieval Judaism

RELI 3349 EARLY CHRISTIANITY

SPAN 5310 Spanish Literature Before 1700

NATURAL SCIENCES

Professor Buchanan, Director

A minor in the Natural Sciences offers students a systematic exposure to biology and chemistry. It is particularly suitable for Engineering 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.

REQUIRED COURSES

BIOL 1401, 1402 Introductory Biology

CHEM 1301, 1113, 1304, 1114 GENERAL CHEMISTRY

CHEM 3371, 3117, 3372, 3118 ORGANIC CHEMISTRY

Select two courses from the following: BIOL 3304 GENETICS
BIOL 3306 PHYSIOLOGY

BIOL 3350 CELL BIOLOGY

PHILOSOPHY

Professor Ehring, Department Chair

Professor: Hausman; Associate Professors: Heller, Norcross, Sverdlik; Assistant Professors: Barnes, McCullagh, Sutton; Adjunct Professors: Anderson, Hiltz, Kazez, Lamb, May; Adjunct Associate Professor Emeritus: Petty.

REQUIREMENTS FOR THE B.A. DEGREE. At least 30 term hours in the department, including at least 21 term hours of advanced work (courses 3000 and above). The 30 hours must include PHIL 3351, 3352, 1301, and at least one course from 3310-3319. At least 12 hours of a foreign language are strongly recommended.

THE DEPARTMENTAL DISTINCTION PROGRAM. Departmental distinction is awarded to philosophy majors graduating with at least a 3.50 G.P.A. in philosophy and who successfully complete a writing project under the guidance of a faculty member.

REQUIREMENTS FOR THE MINOR IN PHILOSOPHY. Students majoring in other departments may obtain a minor in philosophy. The minor will consist of 15 hours of work in the department. No more than six hours may be from 1000-level courses, and at least one course (three hours) must be chosen from the History of Philosophy sequence (3351, 3352, 3355, or 3370). It is *recommended* that each student minoring in Philosophy take *one* of the department's general introductory courses.

REQUIREMENTS FOR THE MINOR IN ETHICS. Students majoring in departments other than the Philosophy Department may obtain a minor in Ethics. The minor consists of at least 15 hours, which must include the following philosophy courses: 1) PHIL 1305 or 1306 (Introduction to Philosophy); 2) one of PHIL 1316 (Introduction to Ethics), 1317 (Business Ethics), or 1318 (Contemporary Moral Problems); and 3) three from the sequence of PHIL 3371 through 3381.

THE COURSES (PHIL)

1300. An Introduction to Practical Reasoning. Learning to analyze, evaluate, and present information in order to assess better one's own beliefs and to persuade others more effectively.

1301. ELEMENTARY LOGIC. 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.

1305. Introduction to Philosophy. 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.

1306. Introduction to Philosophy: Minds, Machines, and Persons. A focused introduction to the central questions of philosophy, with an emphasis on the mind and the self. Typical questions might include: 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 we understand experiences radically different from our own? What is the self? Can we survive the death of our body? The focus of the course will be on arguments for and against proposed solutions to philosophical problems concerning mind, machines and persons.

1316. Introduction to Ethics. A survey of leading theories of value and right conduct and exploration of some of their applications.

1317. Business Ethics. A discussion of the moral and political issues surrounding a free-enterprise system. Students will be introduced to basic moral theory. Further topics will include distributive (or economic) justice, the moral preferability of capitalism and socialism, and selected concrete moral issues such as truth in advertising, worker safety, and affirmative action.

1318. Contemporary Moral Problems. An examination of current moral and legal issues. Topics may include abortion, euthanasia, animal rights, affirmative action, racism, sexism, drug legalization, censorship, and homosexuality.

3301. Intermediate Logic. Students are introduced to the formal theory of the logical systems they have already learned to use: namely, Sentential Logic and Predicate Logic. Students will learn to prove the completeness and soundness of both of these systems. In addition, they may also learn some simple non-standard logical systems, such as Modal, Epistemic or Deontic logic, if time permits. *Prerequisite:* PHIL 1301, or its equivalent.

- 3302 (RELI 3302). PROBLEMS IN THE PHILOSOPHY OF RELIGION. The philosophy of religion, considering such problems as religious experience, human freedom, good and evil, belief in God, and immortality.
- 3305. Philosophy and Gender. A consideration of whether or not there are differences between the sexes; whether or not western science, philosophy, and ethics have been dominated by "male thinking;" and current issues such as pornography, censorship, rape, reproductive technologies, etc. Writings by feminist philosophers as well as their critics will be examined.
- 3310. Advanced Topics in Philosophy. (May be repeated for credit.)
- 3311. 20th Century Philosophical Analysis. An examination of the method of philosophical analysis as practiced by such 20th century philosophers as Moore, Russell, Wittgenstein, Ouine, Austin, and others.
- 3312. Introduction to the Philosophy of Language. A systematic treatment of such topics as the nature of linguistic reference, meaning, synonymity, truth, vagueness, and metaphor. The course will also examine 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.
- 3313. Epistemology. 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.
- 3314. METAPHYSICS. A study to acquaint the student with traditional metaphysical issues such as the problem of universals, the existence of other minds, continuants, the mind-body problem, and the existence of God.
- 3315. Philosophy of Mind. A systematic treatment of the nature of consciousness, self, and person.
- 3325. Philosophy and Technology. A philosophical examination of the rationale and values underlying technology, bureaucracy, and urbanization. Positive and negative views of technology will be critically discussed.
- 3333. Topics in Philosophy. (May be repeated for credit.)
- 3351. HISTORY OF WESTERN PHILOSOPHY (ANCIENT). A study of the major philosophers from Thales to Plotinus, including Plato and Aristotle.
- 3352. HISTORY OF WESTERN PHILOSOPHY (MODERN). A study of major developments in modern western philosophy from Descartes to Kant.
- 3355. HISTORY OF WESTERN PHILOSOPHY (MEDIEVAL). A study of the major philosophical theories and movements from the 4th century to the 14th.
- 3360. Introduction to the Philosophy of the Social Sciences. An explication of the foundational issues of social science: presuppositions, modes of theory construction, models and methods, and comparative analysis with natural and biological science.
- 3362 (CF 3341). HISTORY AND PHILOSOPHY OF SCIENCE. An investigation into the nature of science and of scientific reasoning. Central questions to be considered include: What is the nature of scientific method? Is science rational? What is the nature of evidence and explanation? To what extent do social realities (e.g., religious faith, prevailing politics, gender issues) play a role in influencing the outcome of scientific disputes? The course will combine philosophical analysis with studies in the history of science to investigate these and other questions.
- 3363 (CF 3308). Aesthetic Experience and Judgment. A good deal of attention is devoted to these 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? The course will also consider the role of emotion in art, the problem of correct interpretation, and the nature of tragedy.
- 3366. Philosophy in Literature. A non-technical introduction to philosophy by an examination of traditional philosophical problems embodied in great works of fiction.
- 3370. NINETEENTH-CENTURY PHILOSOPHY. A detailed study of selected major thinkers from the 19th century, such as Kant, Hegel, Kierkegaard, Nietzsche, Schoepenhauer, Fichte, Feuerbach, and Marx.

- 3371 (CF 3342). Social and Political Philosophy. A historical study of philosophical formulation of the individual good (ethics) in its relation to the public good (social philosophy).
- 3372. Marx. What did Marx mean by alienation? Are capitalists as well as workers alienated under capitalism? Is there alienation under socialism? In what sense are workers exploited? Does their exploitation differ in kind from that of serfs or slaves? Why did Marx think that capitalism was less efficient than socialism? What is a class, according to Marx? What explains historical change? These and other questions about Marx's thought will be the focus of this course. We will seek to present a rational reconstruction of Marx based on his writings, as well as recent interpretations of Marx by "analytical Marxists." Anyone interested in understanding Marx will find this course useful.
- 3373. Punishment and Responsibility. By what right does society punish some people? What is the correct amount of punishment? Who ought to be punished? Various philosophical responses to these questions are examined. Other topics include the morality of capital punishment, excuse and justification, the morality of self defense, and the justifiability of punishing "self-regarding" acts such as drug use.
- 3374 (CF 3307). Philosophy of Law. An analysis of the foundations and nature of law.
- $3375.\ Topics$ in Moral Philosophy. A topics offering that seeks to take advantage of the wide variety of issues that can be fruitfully explored in a course on moral philosophy.
- 3376. MEDICAL ETHICS. An introduction to the moral dimensions of decision-making in medical contexts.
- 3380. Doing the Right Thing: Contemporary Views of Morality. A study of contemporary ethical theory.
- 3382. TWENTIETH-CENTURY EUROPEAN PHILOSOPHY. An examination of some methods and principles of European philosophies in the 20th century. Philosophical schools studied: phenomenology, existentialism, Neo-Kantianism, life-philosophy, hermeneutics, and Neo-Marxist critical theory.
- 3383. AMERICAN PHILOSOPHY. Historical development and contemporary themes in American philosophy. Varying emphasis may be placed on trends (e.g., pragmatism), historical figures (e.g., Dewey), or influential contemporary figures (e.g., Quine).
- 4381. Philosophy in the Ibero-American World. A survey of Latin-American philosophy as it relates to the social and cultural development of Latin-America. (SMU-in-Madrid only.)
- 4393, 4394. Independent Study and Research. Special topics to be selected by the student in consultation with the department. *Prerequisites:* Senior standing and departmental approval.
- 5310. Phenomenology. An explication of the main features, concepts and methods of phenomenology, and its relation to the history and problems of philosophy and other disciplines. *Prerequisite:* PHIL 3352 or permission of instructor.
- 5357. Symbolic Logic. A theoretic investigation of the propositional and predicate calculi, the two systems of logic presented in PHIL 1301. *Prerequisite*: PHIL 1301, MATH 3308, or permission of instructor.
- 5391, 5392. Great Philosophers. In-depth study from various points of view of one of the major disputed questions of philosophy, or of the thoughts of one or two of the world's greatest philosophers. (May be repeated for credit.) *Prerequisite:* Six advanced hours of philosophy or permission of instructor.
- 6311, 6312. PHILOSOPHICAL STUDIES. Independent work on special topics.

PHYSICS

Professor McCartor, Department Chair

Professors: Stroynowski, Teplitz; Associate Professors: Olness, Vega; Assistant Professors: Coan, Hornbostel; Visiting Assistant Professor: Scalise; Scholar-in-Residence: Rosenbaum; Adjunct Professors: Cotton, Palmer; Emeritus Professors: Chalk, Crawford.

The Physics Department offers a program consisting of course studies in broad areas of classical and modern physics, and research studies in both experimental and theoretical physics.

The research activities of the faculty are focused primarily in high energy, elementary particle physics and related fields. The advanced classes are small, so there is ample opportunity for students to work closely with the Physics 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.

Bachelor of Science Degree. This degree program is designed for students who plan careers in physics in industry, laboratories, or academia. A candidate for the B.S. degree must complete a minimum of 38 term hours in physics, including PHYS 1105*, 1106*, 1303†, 1304† (or 1407 and 1408), 3305, 3344, 3345, 3374, 4211, 4392, 5382, and 5383. A student's program will normally include the additional laboratory course PHYS 4112, which is strongly recommended. Additional courses may be chosen from a variety of physics electives or in related fields with departmental permission. A candidate for the B.S. degree must also complete 18 term hours of courses in mathematics, including MATH 1337, 1338, 2339, 2343, 3337, and 3353. Students planning to pursue graduate studies are encouraged to complete more than the minimum 38 credit hours in physics and 18 credit hours in mathematics.

Bachelor of Arts Degree. This degree program is appropriate for students who wish to combine a physics curriculum with a broad liberal arts program with the aim of pursuing careers in medicine, teaching, business, and government. A candidate for the B.A. degree must complete a minimum of 30 term hours in physics, including PHYS 1105*, 1106*, 1303†, 1304† (or 1407 and 1408), 3305, 3344, 4211, 4392, and 5382. Additional courses may be chosen from the available physics electives or in related fields with departmental permission. Additionally, a candidate for the B.A. degree must complete 15 term hours of courses in mathematics, including MATH 1337, 1338, 2339, 2343, 3353, and one advanced mathematics course.

MINOR IN PHYSICS. A minor in physics is particularly appropriate for majors in the natural sciences, including pre-med, mathematics, and engineering. The departmental requirement for a minor in physics is 17 term hours in physics, including PHYS 1105*, 1106*, 1303†, 1304†, or 1407 and 1408, and nine hours of advanced course work.

THE DEPARTMENTAL DISTINCTION PROGRAM. 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 G.P.A. of 3.50. The special program consists of independent reading, research, and senior thesis under the direction of a member of the departmental faculty. The student must apply to the Department for this designation during his or her junior year. The student will enroll in either PHYS 4375 or 4390 during the project, and a senior thesis is to be written and presented to the faculty.

SIMULTANEOUS DEGREE PROGRAMS. It is also possible to earn simultaneously a B.S. degree in physics from Dedman College and a degree in engineering from the School

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of Engineering and Applied Science. The chairman of the Department of Physics should be consulted for detailed information on the simultaneous degree programs.

THE COURSES (PHYS)

- 1105, 1106. General Physics Laboratory. One three-hour laboratory period per week. Taken with PHYS 1303, 1304 if eight hours of credit, including laboratory, are needed. PHYS 1105 prerequisite for PHYS 1106.
- 1301. THE IDEAS OF MODERN PHYSICS. Presents cosmology, relativity, quantum mechanics, and particle physics in an essentially descriptive, nonmathematical framework accessible to all SMU students.
- 1303. Introductory Mechanics. For science and engineering majors. Vectors kinematics, Newtonian mechanics, gravitation, rotational motion, vibrations, waves, and fluids. *Prerequisite:* MATH 1337 or high school calculus course recommended.
- 1304. Introductory Electricity and Magnetism. For science and engineering majors. Electricity, magnetism, electromagnetic radiation, optics, special relativity. *Prerequisite:* PHYS 1303. MATH 1338 recommended.
- 1311. ELEMENTS OF ASTRONOMY. A course in planetary and stellar astronomy including laboratory and observations.
- 1313. Fundamentals of Physics. Contemporary concepts of physics including Newtonian mechanics, gravitation, rotational motion, fluids, the gas laws, vibrations and waves, sound. Intended for the non-science major. No prior knowledge of physics is assumed.
- 1314. THE PHYSICAL PERSPECTIVE. Principles and concepts of physics including electricity, magnetism, the nature of light, Einsteins's theory of relativity, quantum theory, atomic physics, and the Big Bang. Intended for the non-science major. No prior knowledge of physics is assumed.
- 1320. Musical Acoustics. Covers both the acoustics (physical sound properties) and the psychoacoustics (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.
- 1403. GENERAL PHYSICS. Equivalent of PHYS 1303 and 1105.
- 1404. GENERAL PHYSICS. Equivalent of PHYS 1304 and 1106.
- 1407, 1408. GENERAL PHYSICS. Principles and concepts of physics; applications in the life sciences. Mechanics, thermodynamics, sound, optics, electricity, magnetism, modern physics. *Prerequisite*: MATH 1337.
- 3320. Physics of Music. Covers the acoustics (physical sound properties) of music. Topics include sound in general, sound of musical instruments, acoustics, electronic synthesis, Fourier transforms, interference, diffraction, resonance. *Prerequisites:* PHYS 1303 and 1304 or equivalent. PHYS 3344 recommended.
- 3305. Introduction to Modern Physics. For science and engineering majors. Special relativity. Elements of quantum physics. Structure of atoms, molecules, and solids. Nuclear physics. Elementary particles. *Prerequisite:* PHYS 1304.
- 3344. Classical Mechanics. The motion of a particle and of systems of particles, including oscillatory systems, accelerated coordinate systems, central-force motion, rigid-body dynamics, gravitation, and Lagrangian mechanics. *Prerequisite:* PHYS 1303.

^{*}Students with substantial laboratory experience may petition the Department to waive the requirement of PHYS 1105 and/or 1106.

[†]Students with a strong high school preparation in physics may take a departmental examination to acquire credit for either PHYS 1303 or 1304.

- 3345. Advanced Mechanics. Topics in classical mechanics including the motion of a system of particles, the two-body central-force problem, small oscillations of coupled systems, collision theory, Lagrange's and Hamilton's formulations, the vibrating string, and the special theory of relativity. *Prerequisite:* PHYS 3344.
- 3368. Principles of Astrophysics and Cosmology. Cosmic distance scales. Physics of stars. Expansion of the Universe. Cosmic nucleosynthesis. Selected other topics as appropriate. *Prerequisite:* PHYS 3305.
- 3374. THERMODYNAMICS AND STATISTICAL MECHANICS. Basic concepts of thermodynamics and statistical mechanics with emphasis on quantum statistics. The laws of thermodynamics, entropy, Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac statistics. *Prerequisites:* PHYS 3305. MATH 2343 recommended.
- 4112. LABORATORY PHYSICS II. Intermediate level experimental physics. Approximately one experiment per week. One three-hour laboratory period per week.
- 4190, 4290, 4390. Special Projects in Physics. Directed study of special topics. For physics majors only. *Prerequisites:* Junior or senior classification and permission of department.
- 4211. LABORATORY PHYSICS I. Introduction to experimental physics. Approximately one experiment per week. One three-hour laboratory period per week.
- 4321. METHODS OF THEORETICAL PHYSICS. Matrices, determinants, linear algebra, complex variables, inhomogeneous equations, Sturm-Liouville theory, partial differential equations, special functions, Fourier series and integral transforms, integral equations, calculus of variations, applications. Three lecture hours. *Prerequisites:* MATH 2339, 2343.
- 4375. Research. For physics majors. Students will participate in physics research with a member of the Faculty of the Department of Physics. *Prerequisite:* Permission of instructor.
- 4392. Introduction to Electromagnetic Theory. A development of electromagnetic theory from the experimental laws; Maxwell's equations for the electromagnetic field. Electrostatics, magnetostatics, steady currents, boundary-value problems, time-varying electric and magnetic fields.

FOR UNDERGRADUATE AND GRADUATE STUDENTS

- 5337. Introduction to Solid State Physics. Crystal lattices and the reciprocal lattice. The free-electron model of metals. Crystal binding. Lattice vibrations phonons. Thermal properties of solids. Energy bands in solids.
- 5380. CONCEPTS OF EXPERIMENTAL PARTICLE PHYSICS. Principles of elementary particle physics and the experiments by which we learn laws obeyed by these particles, with reading of scientific articles. *Prerequisite:* PHYS 3305 or equivalent; PHYS 5382 recommended.
- 5382. Introduction to Quantum Mechanics. A study of the development of quantum theory including blackbody radiation, the Bohr atom, and the photoelectric effect. Wave-mechanics and matrix-mechanics approaches will be studied, as well as a brief introduction to the Dirac formalism. Solutions to the Schrödinger equation for a variety of one-dimensional problems and for the hydrogen atom are discussed. *Prerequisite:* PHYS 3305 and MATH 3353.
- 5383. Advanced Quantum Mechanics. Applications and approximation methods in quantum mechanics. Applications to laser physics, solid-state physics, molecular physics, and scattering are included. *Prerequisite:* PHYS 5382.
- 5393. ELECTROMAGNETIC WAVES AND OPTICS. Theory and applications of electromagnetic wave radiation, propagation, and scattering. Geometrical and physical optics. Guided waves. Lasers. Coherent optics, interferometry, and holography *Prerequisite:* PHYS 4392 or equivalent, or permission of instructor.
- 5395. Introduction to Elementary Particles. Modern theories of elementary particles including relativistic kinematics, Feynman diagrams, quantum electrodynamics, quarks, weak interactions, and gauge theories. *Prerequisite*: PHYS 5383.

POLITICAL SCIENCE

Professor Jillson, Department Chair

Professors: Hollifield, Ippolito; Associate Professors: Carter, Hunt, Kobylka, Manzetti, Simon, Wegren; Assistant Professors: Lusztig, Palmer, Wilson; Emeritus Professors: Balch, Gerhardt.

FOR UNDERGRADUATE STUDENTS

The department offers undergraduate courses of three types. Introductory courses (at the 1000 level) 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 following.

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:

Independent Study	00-19
American Government and Politics	20-39
Comparative Politics	40-59
Political Theory	60-79
International Relations	80-99

REQUIREMENTS FOR THE B.A. DEGREE. The B.A. degree in political science requires a total of 33 term hours with two introductory courses (six hours) of choice and 27 advanced hours (3000 and above). Advanced course work must include at least six hours (two courses) in each of two distribution fields, and three hours (one course) in a third.

MINORS IN POLITICAL SCIENCE. Four minor concentrations are offered, a general program in Political Science and three specifically focused programs in Political Thought, Comparative and International Politics, and American Politics. Each concentration requires 18 term hours of political science courses, including three or six hours (one or two courses) at the introductory level and 12 or 15 advanced hours.

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 completed 24 hours of departmental credit before applying for candidacy.

Criteria for graduating with Departmental Distinction include the following:

- 1. A minimum 3.00 overall G.P.A. at graduation.
- 2. A minimum 3.50 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 and will be in addition to all other requirements for the major.
- 4. Passing "with distinction" an oral examination of at least one hour, conducted by a faculty distinction examination committee, which reviews the candidate thesis and major curriculum.
- 5. A minimum 3.50 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.

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.

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 Research Design and Data Analysis (PLSC 3376), but strongly advises students interested in empirical research to do so.

Notes of Importance. No course in which the grade received is lower than *C*—may be counted toward departmental major or minor requirements.

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.

THE COURSES (PLSC)

AMERICAN GOVERNMENT AND POLITICS

1320. Introduction to American Government and Politics. The organization, functions, and processes of our national government, with particular attention to parties, pressure groups, and other forces that influence its course. Attention will also be given to the Texas Constitution.

2320 (ECO 2320). Introduction to Public Policy. This course presents the institutions and processes by which governments make public policy and examines the substance and impact of public policy in such areas as international political economy and domestic social policy. *Prerequisites:* ECO 1311 and PLSC 1320. *Recommended:* ECO 1312 and either PLSC 1340 or PLSC 1380.

- 3321. Congress AND THE LEGISLATIVE PROCESS. 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.
- 3322. The American Presidency. An evaluation of the office of president in the American political system with emphasis placed upon the functional and institutional development of the office and presidential leadership in policy making.

- 3326. STATE GOVERNMENT AND POLITICS. A comparative study of the structure, procedure, and functional services of state, county, and municipal governments with emphasis upon intergovernmental relations in the federal government and Texas government.
- 3329. Public Administration. Survey of administrative behavior and administrative action in government.
- 3330. Law, POLITICS, AND THE SUPREME COURT. 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.
- 3334. Public Opinion and American Politics. Focuses upon the influence of public opinion on American politics and policy making. Topics for the course will 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.
- 3335. Judicial Process. Examines the role played by courts in the American system of government. Its coverage ranges from the generation of disputes, to the tools used by the judiciary to resolve them, to the ways judges are selected and make decisions, and to the impact of those decisions on society and government.
- 3336. Congress, the President, and the Constitution. 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.
- 4320. Special Studies in American Government and Politics.
- 4321. Basic Issues in American Democracy. An analysis of current American public policy issues within a theoretical framework. The foundations of concepts and value orientations within which policy considerations are made will be studied.
- 4324. POLITICAL DYNAMICS. Use of political parties in formulating political opinions; pressure groups; propaganda; measurement of mass opinions; political leadership.
- 4325. Practical Electoral Politics. An exploration of techniques of political organization drawing on studies of recent campaigns and examining the political pressures that affect policy making in government.
- 4327. Urban Politics. This course traces ideas and beliefs about the nature and purpose of local political arenas in the American experience from New England townships to modern metropolises.
- 4328. SEMINAR: AMERICAN GOVERNMENT AND POLITICS. An overview of the central questions in the study of American Government and Politics.
- 4329. THE POLITICS OF ECONOMIC POLICY. Analysis of interactions among political beliefs, economic theories, political processes, and public policies that shape and change the American political economy.
- 4331. GOVERNMENT AND BUSINESS. Analysis of the roles of business in American policies and the impacts of political and governmental decisions on business activity.
- 4332. POLITICS OF LITIGATION. An examination of the interaction between law and politics and, in particular, of the role interest groups have played in the litigation process.
- 4333. POLICY, POLITICS, AND THE BUDGET. Examines the federal budget's historical evolution and contemporary significance. 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.
- 4335. Constitutional Law. 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.
- 4336. CIVIL LIBERTIES: FIRST AMENDMENT AND PRIVACY. 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.

- 4337. CIVIL RIGHTS. Examines changes wrought in the American system of governance by addition of the Fourteenth 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.
- 4338. Criminal Process Rights. Examines the application of the principles of "ordered liberty" and the Bill of Rights to criminal process disputes. Its concerns extend through initial police investigation, trial preparation, trial and jury concerns, and the post-trial determination of punishment.
- 4339. Women and the Law. The status of women in the American legal system, including an assessment of women defined as a legal category and the impact of increasing numbers of women lawyers, judges, and criminals.

Comparative Politics

- 1340. Introduction to Comparative Politics. 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.
- 3340. WESTERN EUROPEAN POLITICS. 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; extraparliamentary oppositions.
- 3341. POLITICS OF PARTICIPATION AND REPRESENTATION IN WESTERN DEMOCRACIES. This course focuses on the numerous avenues through which citizens influence politics and policy making in advanced industrial democracies. The course will consider the implications of formal institutional structures, such as electoral and party systems, the impact of organized groups, as well as more informal forms of participation, such as protest movements and citizen initiatives.
- 3342. MAKING DEMOCRACY WORK. This course 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.
- 3345. GOVERNMENTS AND POLITICS OF THE MIDDLE EAST. A survey of modern Middle East governments and politics; historical, ideological, and economic and social influences on their domestic and foreign policies; analysis of emerging political forms; some emphasis on modernization problems.
- 3346. GOVERNMENTS AND POLITICS OF JAPAN AND KOREA. A study of political institutions, foreign policies and international relations, and the economic and social problems of Japan and Korea.
- 3347. GOVERNMENTS AND POLITICS OF AFRICA. The politics of Black Africa in an international context, emphasizing the problems of race, nationalism, and economic development.
- 3348. GOVERNMENTS AND POLITICS OF LATIN AMERICA. The structure, functions, and operations of government in Latin American countries with emphasis on political practices and institutions.
- 3349. POLITICS OF MAJOR LATIN AMERICAN COUNTRIES. An introduction to the problems of political development in some of the major countries of Latin America: Argentina, Brazil, Chile, and Mexico.
- 3352. Chinese Politics. Chinese contributions to Marxist-Leninist theory; analysis of Chinese institutions and policy making, with emphasis on recent political developments.
- 3355. THE POLITICAL ECONOMY OF THE WELFARE STATE. Focuses on the origins, evolution, and management of industrial democracy in Europe and America. It emphasizes the interconnections between political and economic challenges inherent in policy making, and the economic implications of public policy.
- 3358. GOVERNMENT AND POLITICS OF RUSSIA. Examines attempts to reform the former Soviet Union since 1985. In particular, it 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.
- 3359. From Communism to Democracy. 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.

- 4340. Special Studies in Comparative Governments and Politics.
- 4341. Comparative Rights and Representation. This course will examine the tension that exists between rights and democratic representation. Issues explored include judicial social-policy making, individual versus collective rights, aboriginal rights, and affirmative action.
- 4342. Why Nations Revolt. This course provides an introduction to revolutions by surveying the major theories that have been developed to explain the occurrence of revolutions. Various revolutions will be examined as case studies, including the French, Russian, Nazi, and Chinese revolutions. In addition, at least one peasant revolution in the Third World will be covered.
- 4348. SEMINAR: COMPARATIVE GOVERNMENT AND POLITICS. An overview of the central questions in the study of comparative government and politics.
- 4353. GOVERNMENT/POLITICS: SOUTH AND SOUTHEAST ASIA. Analysis of various aspects of social change and modernization and their effects on mass and elite political behavior and political processes in selected countries of South and Southeast Asia.
- 4354. THE THIRD WORLD AND NORTH-SOUTH RELATIONS. An inquiry into problems and theories of political economy of development and dependency in the third world countries.
- 4356. LATIN AMERICAN POLITICAL ECONOMY. This course focuses on the challenges facing public policy in the Latin American region and how to interpret that region's politics and economic frustrations. Attention is paid to the basic rules of the Latin American political game and the lack of agreement on them.
- 4358. SOVIET POLITICS: REVOLUTION TO REVOLUTION. A survey of Soviet political history from 1917-1991. Special attention is devoted to the way in which each Soviet leader attempted to change the political and economic system.

POLITICAL THEORY

- 1360. Introduction to Political Theory. An introduction to political theory through an examination of classical and modern approaches to the study of politics. Questions concerning how we get knowledge about politics and what we do with that knowledge will be addressed.
- 3360. FOUNDATIONS OF POLITICAL THOUGHT. 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.
- $3361.\,Modern\,Political\,Thought.\,Main\,currents$ of political thought in their historical setting from the 17th century to the present.
- 3362. TWENTIETH-CENTURY POLITICAL THOUGHT. Analysis of the political implications of selected responses to the problems of modern mass society.
- 3363. AMERICAN POLITICAL THOUGHT. 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.
- 3365. COMMUNISM AND POST-COMMUNISM. Theoretical foundations of communism and its variant forms in practice, explanations for the collapse of Eastern European communist systems, and possible futures of communism.
- 3370. Women AND POLITICS. An analysis and critique of women's role in politics, theories on women's status and power, political activities, ideologies, and programs of feminists, past and present.
- 4360. Special Studies in Political Theory.
- 4361. POLITICAL REGIMES: UNDERSTANDINGS OF ROME. This course is concerned with the various understandings of "Rome" as developed in the writings of Plutarch, St. Augustine, and Machiavelli. It addresses three fundamentally different conceptions of the regime beginning with the Roman Empire, considering the effects of the Christian Order, and addressing the new modes and orders introduced by Machiavelli.
- 4362. MEDIEVAL POLITICAL PHILOSOPHY. This course introduces students to the tradition of political philosophy represented by various thinkers of the medieval period. Through an analysis

- of Islamic, Jewish, and Christian authors, students attempt to come to an understanding of the fundamental issues at stake in their works. The course also examines closely the alternative solutions proposed for solving what has been termed the "theological-political problem."
- 4368. SEMINAR: POLITICAL THEORY AND PHILOSOPHY. An overview of the central questions in the study of political theory and philosophy.
- 4371. JURISPRUDENCE. 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.
- 4376. RESEARCH DESIGN AND DATA ANALYSIS IN POLITICAL SCIENCE. Focuses on the "art" and "science" of designing and conducting empirical research in political science. The topics covered include research design, measurement, data analysis, and hypothesis testing. This course will satisfy the requirement for PLSC 3375, Quantitative Methods, for the B.S. degree in Political Science.

INTERNATIONAL RELATIONS

- 1380. Introduction to International Relations. 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.
- 3382. International Organizations: Global and Regional. A study of the United Nations and other international agencies in their attempts to deal with the great international political problems of our times.
- 3383. THE AMERICAN FOREIGN POLICY PROCESS. A survey of the contemporary content and the conduct of American foreign policy.
- 3387. POLITICAL GEOGRAPHY. 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.
- 3389. International Political Economy. This course introduces students to the study of international political economy. The expansion of trade and foreign direct investment, and the increase in international migration, are indicators of a new interdependence and globalization. How do nation-states respond to globalization and manage international economic relations?
- 4380. Special Studies in International Relations.
- 4381. NATIONAL SECURITY POLICY. The historical background and development of national security policy in the United States. Emphasizes war powers and defense policy: the constitutional framework, precedents, and presidential-congressional authority; and Cold War and post-Cold War national security strategies and defense policy issues.
- 4382. The Politics of Military Force. An examination of uses of U.S. military force as a political instrument and an attempt to judge its effectiveness as a tool of American foreign policy since the end of the Second World War.
- 4384. Soviet and Russian Foreign Policy. A comprehensive overview of Soviet and post-Soviet foreign policy from 1917 to the present, with particular emphasis on postwar developments. Special attention to the role of ideology and how motivations for foreign policy have changed over time. Russian foreign policy in the post-Cold War era and prospects for East-West cooperation will also be discussed.
- 4385. Inter-American Relations. A survey of the diplomatic and commercial relations between the United States and the republics of the western hemisphere with particular attention to involvement in the Caribbean area.
- 4386. Issues of U.S.-East Asia Relations. Analysis of politics of trade imbalance, regional collective security, technology transfer and other problems of bilateral and multilateral relations between the United States and East Asian countries.
- 4388. SEMINAR: INTERNATIONAL GOVERNMENT AND POLITICS. An overview of the central questions in the study of international government and politics.

4391. NAFTA AND FREE TRADE IN THE AMERICAS. Exploration of the domestic politics of the three NAFTA countries leading to the North American Free Trade Agreement, the effects of the agreement, and possibilities for expanding free trade in the Americas.

4398. Nuclear Weapons and World Politics. 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.

SPECIAL UNDERGRADUATE OFFERINGS

Opportunities for independent study and research are available to majors in political science. Students must have departmental approval prior to registering for these courses. Prerequisites are stated for each independent study course below. Such courses may not be counted toward departmental distribution requirements, and no more than two such courses may be counted toward overall major or minor requirements. 4102, 4202, 4302. DIRECTED READINGS. Students develop and execute independent reading or research projects under the guidance of a departmental faculty member, culminating in a written

- 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.
- 4301, 4401, 4402, 4403, 4404. Washington Term. Intensive study of national political institutions. Includes a four-hour research project (4401), a four-hour internship (4402), and an eight-hour seminar (4403 and 4404). *Prerequisites:* Two courses in political science, at least one at the upper level, that are relevant to the selected program.
- 4304. DEPARTMENTAL SEMINAR: SCOPE AND METHODS OF POLITICAL SCIENCE. 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.
- 4306. Internship in Political Science. Undergraduate students who arrange for part- 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.
- 4307. DEPARTMENTAL DISTINCTION THESIS. 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.

PSYCHOLOGY

Professor Brown, Department Chair

Associate Professors: Berry, Drigotas, Fernandez, Hampson, King, McIntyre, Springer; Assistant Professors: Ansfield, Eckhardt, Hatch, Mulligan; Adjunct Professors: Beavers, Brown, Denton, Gancarz, Kosmitzski, Murray, Rosenfield, Soutter, Tedford, Williams.

REQUIREMENTS FOR THE BACHELOR OF ARTS DEGREE IN PSYCHOLOGY

- 1. PSYC 1300 (Introduction)
- 2. PSYC 3382 (Experimental)
- 3. STAT 2331
- 4. Five courses chosen from the following (15 hours):
 - a. Developmental Psychology (3332)
 - b. Social Psychology (3341)
 - c. Health Psychology (3380)
 - d. Sensation and Perception (3383)
 - e. Personality (5354)

- f. Abnormal Psychology (5355)
- g. Psychology of Learning (5384)
- h. Physiological Psychology (5385)
- i. Memory and Cognition (5388)
- j. History of Psychology (5390)
- 5. Nine additional hours at the 3000 level or above.

Total number of hours: 33

Practicum, individual research, and independent study courses (4161, 4172, 4261, 4272, 4361, 4372, 5100, 5200, and 5300) may be taken only on a pass-fail basis. Such courses will not count toward the major.

The successful completion of PSYC 1300 (Introduction), 3382 (Experimental) and STAT 2331 is required prior to declaring a Psychology major.

REOUIREMENTS FOR THE MINOR IN PSYCHOLOGY

PSYC 1300 (Introduction to Psychology) must be successfully completed before declaring a Psychology minor. The minor requires three PSYC courses chosen from the following: 3332 (Developmental Psychology), 3341 (Social Psychology); 3380 (Health Psychology), 3382 (Experimental Psychology), 3383 (Sensation and Perception), 5354 (Personality), 5355 (Abnormal Psychology), 5384 (Psychology of Learning), 5385 (Physiological Psychology), 5388 (Memory and Cognition), and 5390 (History of Psychology).

The student must also complete two elective courses in Psychology (six hours), excluding Independent Research, Human Relations Seminar, and Practicum.

THE COURSES (PSYC)

- 1300. Introduction to Psychology. Broad introduction to psychology as a behavioral science with special emphasis on cognition, development, learning, social, personality, physiological, and clinical psychology (psychopathology and psychotherapy).
- 3332. Developmental Psychology. A survey of the processes and variables that influence the development of the child, adolescent, and young adult. Emphasis is on research in such areas as perceptual, cognitive, language, and social/emotional development.
- 3337. THE PERSON IN PSYCHOLOGY AND LITERATURE. This course explores issues in personality, from psychoanalysis to contemporary research, through literature. Discussion will center on readings from psychology and literature on topics such as motivation, emotion, and madness.
- 3341. Social Psychology. Effect of social conditions on individual behavior; includes topics such as attitude change, conformity, attraction, aggression, and small-group behavior. *Prerequisite:* PSYC 1300 or permission of instructor.
- 3350. PSYCHOLOGY OF WOMEN. A study of the origin and development of supposed sex differences and their psychological consequences. Emphasis on which sex differences are supported by research and which are not. Also covered are the social and personal conflicts encountered by women today, particularly in the business world.
- 3380. Health Psychology. An overview of psychological factors affecting the body. Topics include emotion, stress, disease of the immune and cardiovascular systems, eating disorders, and aging.
- 3382. EXPERIMENTAL PSYCHOLOGY. Design and evaluation of psychological research with emphasis on scientific method, data collection, experimentation, control procedures, validity, reliability, and report-writing skills.
- 3383. Sensation and Perception. Characteristics of external stimuli, physiology of receptor mechanisms, and information processing. Emphasis on vision and hearing with some coverage of other sensory modalities.
- 4161, 4261, 4361. Individual Research in Psychology. Supervised individual empirical research and/or library research on selected problems. The proposed research must be submitted to and approved by the instructor before admission. Pass/fail only.

- 4172, 4272, 4372. Human Relations Seminar/Practicum. An intensive study of interpersonal helping relationships based upon psychological theories and research findings. The emphasis will be upon supervised personal involvement with others as a helper. Pass/fail only.
- 4398. SEMINAR FOR DISTINCTION CANDIDATES. Each prospective distinction student will write and defend a research proposal for their distinction thesis.
- 4399. DEPARTMENTAL DISTINCTION THESIS. Each distinction student will write and defend a research thesis. Students defending their thesis before an examining committee selected from within SMU's Department of Psychology will receive Distinction in Psychology at graduation.

FOR UNDERGRADUATE AND GRADUATE STUDENTS

- 5100, 5200, 5300. Advanced Individual Research in Psychology. Supervised individual empirical research and/or library research on selected problems. The proposed research must be submitted to and approved by the instructor before admission. Pass/fail only.
- 5334. PSYCHOLOGICAL DISORDERS OF CHILDREN. A study of the nature and causes of abnormal behavior in childhood. Included are theories, case studies, and therapeutic approaches; emphasis is on understanding the relationship between normal and abnormal behavior. *Prerequisites:* Sophomore standing, six hours PSYC including 3332.
- 5336. Cognitive Development. A survey of the psychological literature concerned with the child's development of cognitive skills, structures, and processes. *Prerequisite:* PSYC 3332.
- 5337. Social and Personality Development. An examination of theories of development of personality, with emphasis on those aspects that affect the individual's interaction in a social world.
- 5338. PSYCHOLOGY OF THE FAMILY. An in-depth exploration of current research and theories dealing with psychodynamics of family life, developmental nature of the family, and family pathology. *Prerequisite*: Six term hours in psychology or permission of instructor.
- 5340. Gender and Ethnicity. Considers recent empirical research and analyses in order to integrate emerging knowledge about gender, ethnicity, and power, and to examine the influences affecting these issues in contemporary psychology. *Prerequisite:* Senior or graduate standing.
- 5341. RESEARCH DESIGN IN PSYCHOLOGY. A background in the tactics of research design is provided. The focus is on nonstatistical issues; unobtrusive measures, reactivity, causal relationships, experimental and quasi-experimental design, internal and external validity.
- 5342. RESEARCH METHODS IN SOCIAL PSYCHOLOGY. An introduction to the techniques of social psychological investigation, concentrating on the procedures of field and laboratory experiments. *Prerequisites:* PSYC 3341 and 3382, or permission of instructor.
- 5343. Organizational Psychology. Psychological principles applied to organizations, both business and volunteer, emphasizing a systems approach and including selection and assignment of personnel, leadership, motivation, communication, groups, and an overview of organizational developments.
- 5351. Social Perception. Surveys social perception and cognition, including topics such as person perception, nonverbal communication, emotional expression, accuracy, and sterotyping. Ecological, evolutionary and cognitive theoretical approaches to social knowledge acquisition are considered. *Prerequisites:* PSYC 1300, 3342, and 3382; or permission of instructor.
- 5354. Personality. An examination of theories that attempt to explain the underlying bases of personality and the causes of individual differences. Emphasis is placed on the normal personality, but the causes of abnormal personality development, as outlined by each theory, are discussed as well. *Prerequisites:* Sophomore standing and six hours of Psychology.
- 5355. ABNORMAL PSYCHOLOGY. An examination of the causes, correlates, consequences, and treatment of abnormal behavior and mental states. Emphasis placed on findings from empirical research.
- 5356. Introduction to Clinical Psychology. A survey of the important issues and subfields of clinical psychology from the viewpoint of the scientist-practitioner model. Research, assessment, diagnosis, and theories in the area of psychotherapy are covered. Primarily designed for students contemplating graduate school in clinical psychology or related fields. *Prerequisite*: PSYC 3382, or permission of instructor.

- 5359. DEATH AND DYING. An intensive study of topics related to mortality including sociocultural attitudes, funeral practices, loss and mourning, suicide, death across the lifespan, legal and ethical issues, and spiritual aspects of death.
- 5361, 5362, 5363. Special Topics in Psychology. This course is designed to cover topics that may have temporary or limited interest.
- 5371. PSYCHOLOGICAL TESTING. Statistics and theories underlying the construction of psychological tests and inventories; emphasis upon concepts of reliability, validity, and other procedures for utilizing and evaluating psychological tests. *Prerequisite:* PSYC 3382.
- 5381. Psychosomatic Processes. Explorations into the links between mind and body. Theories and recent findings concerning psychological influences on emotion, stress, immune system function, and selected diseases are discussed. *Prerequisite:* Permission of instructor.
- 5382. ADVANCED EXPERIMENTAL PSYCHOLOGY. Topics include descriptive and inferential statistics, experimental design, correlational design, and quasi-experimental design.
- 5383. Behavioral Medicine. Biopsychosocial bases of problems in physical health ranging from acute illness to chronic diseases and addictive disorders. Emphasis is on psychological assessment and treatment of these conditions. *Prerequisites:* PSYC 1300 or permission of instructor.
- 5384. Psychology of Learning. A survey of the general principles, concepts, and current developments in the empirical analysis of learning. Topics include conditioning modes of addiction, learned helplessness, and the contribution of evolution to the expression of behavior change.
- 5385. Physiological Psychology. A survey of the neural bases of behavior. Primary emphasis will be given to mammalian brain structure and function and their relationships to psychological and behavioral processes.
- 5386. Behavioral Action of Drugs. Principles of drugs and behavior. Classification and chemical effects of behaviorally active drugs. Influences of environmental, response, and task variables, as well as evaluation and treatment of addiction.
- 5387. PSYCHOLOGY OF MOTIVATION. A study of current theories of motivation, with attention to the methods used in studying motivation and the effects of motivation on selected behaviors in human beings and animals.
- 5388. Memory and Cognition. A study of how information is encoded, stored, and retrieved in adults. Topics may include attentional processes, verbal learning, memory, comprehension, and problem solving.
- 5390. HISTORY OF PSYCHOLOGY. A coverage of the most important movements and individuals contributing to the development of modern psychology.
- 5392. Comparative Cognition. Comparative cognition studies the higher mental abilities (e.g., learning, remembering, problem-solving, language) of humans and animals. These abilities are examined from cognitive, learning, developmental, and evolutionary viewpoints. *Prerequisites*: PSYC 1300 and 3382.

PUBLIC POLICY

Associate Professor Hunt (Political Science), Director, and Professor Weber (Economics), Director

The Public Policy major is an interdisciplinary program with emphasis in economics and political science. The B.A. degree in Public Policy is designed to provide students with the analytical skills and institutional knowledge to understand contemporary social policy issues. The major in Public Policy is useful as preparation for work as an analyst in government and business and as preparation for postgraduate study in law, public policy, and the social sciences.

MAJOR REQUIREMENTS. The B.A. degree in Public Policy requires a total of 33 hours. The degree consists of two components:

- I. Eighteen (18) hours of core courses:
 - a. ECO 1311, 1312, and 3301.
 - b. PLSC 1320, and PLSC 1340 or 1380.
 - c. ECO 2320 (cross-listed as PLSC 2320).
- II. At least 15 hours of advanced courses in Economics and Political Science with no fewer than six hours in any one discipline.

Students must complete two of the fields listed below, with at least six hours in each field, as well as at least three hours from the quantitative methods field. Although not a requirement, students are advised to take at least one term of calculus (MATH 1309 or 1337) and one term of statistics (STAT 2301 or ISOM 2305).

List of fields and acceptable courses (additional prerequisites not contained in the core are listed in parentheses):

POLITICAL ECONOMY

ECO 4366 Economics of the Public Sector

ECO 4371 ECONOMICS OF INDUSTRIAL STRUCTURE

ECO 4382 Economics of Regulated Industries

ECO 4385 Macroeconomic Theory and Policy (prerequisite: ECO 3302)

ECO 5361 NATURAL RESOURCES AND ECONOMIC GROWTH (prerequisite: ECO 3302)

ECO 5365 Public Finance

PLSC 3329 Public Administration

PLSC 3355 POLITICAL ECONOMY OF THE WELFARE STATE

PLSC 3389 International Political Economy

PLSC 4333 Federal Budget Politics

LAW AND SOCIAL POLICY

ECO 4351 LABOR ECONOMICS

ECO 5337 URBAN ECONOMICS

ECO 5353 LAW AND ECONOMICS

ECO 5357 ECONOMICS OF HUMAN RESOURCES

PLSC 3335 JUDICIAL PROCESS

PLSC 3370 Women and Politics

PLSC 4337 CIVIL RIGHTS

PLSC 4338 CRIMINAL PROCESS

PLSC 4339 Women and the Law

INTERNATIONAL

ECO 3321 International Economic Policy

ECO 4357 International Trade

ECO 4358 International Macroeconomic Theory and Policy

(prerequisite: ECO 3302)

ECO 5360 ECONOMIC DEVELOPMENT IN THE THIRD WORLD

(prerequisite: ECO 3302)

PLSC 3340 WESTERN EUROPEAN POLITICS

PLSC 3345 GOVERNMENT AND POLITICS OF THE MIDDLE EAST

PLSC 3383 THE AMERICAN FOREIGN POLICY PROCESS

PLSC 3389 International Political Economy

PLSC 4356 LATIN AMERICAN POLITICAL DEVELOPMENT

PLSC 4381 NATIONAL SECURITY POLICY

PLSC 4386 Issues of U.S.-East Asia Relations

PLSC 4391 NAFTA AND FREE TRADE IN THE AMERICAS

Internships

PP 4306 Internship in Public Policy Directed Readings (*Prerequisite:* Approval by Director)

PP 4102, 4202, 4302 DIRECTED READINGS

QUANTITATIVE METHODS

ECO 5350 Econometrics (Prerequisites: STAT 2301 or ISOM 2305,

MATH 1309 or 1337)

ECO 5352 APPLIED ECONOMETRICS (Prerequisite: ECO 5350)

ECO 5370 Cost-Benefit Analysis

ECO 5375 Business and Economic Forecasting (*Prerequisite:* STAT 2301 or ISOM 2305)

Internships and directed readings in Public Policy can be substituted for one of the courses in the Political Economy, Law and Social Policy, and International fields.

RELIGIOUS STUDIES

Professor Cogley, Department Chair

Professors: Curran, Kliever, May; *Assistant Professors:* Barnard, Chancey, Elverskog, Lamoreaux.

Degree Program. The B.A. degree in Religious Studies is appropriate for a general liberal arts education and for pre-professional training leading to graduate degrees in religious studies, 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, *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 graduate studies are strongly encouraged to take the major "with departmental distinction" and to complete twelve term hours in either French or German.

Major Requirements. Thirty term hours in the department. Twenty-four must be completed in courses numbered above 3000 and must include RELI 3306 or 3307 and 3319 or 3326.

DEPARTMENTAL DISTINCTION. A Religious Studies majors with minimum overall G.P.A. of 3.00 and a 3.50 G.P.A. 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.

MINOR REQUIREMENTS. Students majoring in other departments or schools may obtain a minor in Religious Studies by completing 15 term hours in the department. Nine hours must be completed in courses numbered above 3000 and including one course chosen from RELI 3306, 3307, 3319, or 3326.

THE COURSES (RELI)

1301. WAYS OF BEING RELIGIOUS. A comparative study of the beliefs and practices of a wide variety of religious traditions. Special attention to such perennial themes as God, salvation, evil, morality, and death.

1303. Introduction to Eastern Religions. A introductory historical overview of the major religious traditions of Asia. The course will explore developments in religious and cultural trends expressed in South Asia (Hinduism, Buddhism, Jainism, and Sikhism) and in East Asia (Confucianism, Taoism, and Shinto).

- 1304. Introduction to Western Religions. 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.
- 1305. Introduction to Primal Religions. 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, as well as the significance of the resurgence of neo-paganism in the West.
- 3302. Problems in the Philosophy of Religion (PHIL 3302). The philosophy of religion, considering such problems as religious experience, human freedom, good and evil, belief in God, and immortality.
- 3303. Beyond the Death of God. Exploration of contemporary loss of belief in God as supernatural problem-solver and need-fulfiller, with special attention to the search for non-theistic models of reality and techniques of transcendence.
- 3304. Introduction to Christian Theology. 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 the light of the biblical heritage and contemporary thought.
- 3305 (CF 3331). Religion As Story. An interpretation of stories as modes of religious discernment as well as means of religious communication, with special attention to selected narrative forms such as myth, fairy tale, novel, and autobiography.
- 3306. Introduction to the Hindu Tradition. An exploration of the major attitudes and institutions that define the Hindu tradition, with attention to ideology, social organization, and ritual in light of both historical development and contemporary practice.
- 3307. Introduction to Buddhist. 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.
- 3308. CHRISTIAN ETHICS AND MORAL ISSUES. 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.
- 3309 (CF 3361). BIOETHICS FROM A CHRISTIAN PERSPECTIVE. This course will examine 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.
- 3310 (SOCI 3320). THE SOCIAL-SCIENTIFIC STUDY OF RELIGION. 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.
- 3311. THE RELIGIOUS IMPULSE IN THE SECULAR ARTS. An examination of the secular arts in contemporary Western culture as unconventional expressions of the religious impulse. A reevaluation of the significance of the arts in terms of their potency to transcend and transform everyday life. Special attention to painting, sculpture, theater, and film.
- 3312. RITUAL, RELIGION, AND THEATER. An examination of the link betwen ritual and theater with attention to their common spiritual dimensions and sociocultural functions. Examples are drawn from a wide variety of cultures and historical periods, with special attention to the modern age.
- 3313, 3314. STUDIES IN COMPARATIVE RELIGION. 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.
- 3315. Religion in Politics. 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. The course introduces the social-scientific study of religion to aid in the analysis of current and recent case studies, ranging from the conservatism of the "Far Right" to the revolution of the "Left," and involving Christian, Jewish, Muslim, Hindu, and Buddhist traditions.

- 3317 (CF 3357). Human Meaning and Value in Personal Life. An exploration of the two positive marks of a productive life love and work and the two threats to an abundant life suffering and death.
- 3318 (CF 3316). THE HERO IN THE BIBLE AND THE ANCIENT NEAR EAST. 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.
- 3319. Introduction to the Hebrew Bible. An introduction to the Old Testament and to the religion and history of ancient Israel. Special emphasis will be given to the ancient Near Eastern roots of biblical religion and to the modern interpretation of biblical myth, epic, and prophecy.
- 3320. Introduction to Classical Judaism. An introduction to the study of religion through examination of Judaism. The course will look at central Jewish religious ideas and how they developed within the rabbinic and medieval periods. Special attention will be given to conflicts and controversies, such as Judaism's rejection of early Christianity; heretical movements within medieval Judaism; and Jewish attitudes toward other religions.
- 3321 (CF 3332). Religion and the Holocaust. A study of responses to the Holocaust by Jews and Christians. The course will begin with an overview of the history of the Holocaust as it affected the Jewish communities of Central and Eastern Europe. Students will then read personal memoirs of survivors of ghettos, concentration camps, and Nazi Germany. Post-war responses will 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 post-war relations between Jews and Germans.
- 3322. Jews and Christians in Germany. A study of Jewish and Christian self-understandings and attitudes toward each other in Germany from the late 18th century to the present.
- 3323. Modern Jewish Thought. A study of Jewish thought since the 18th century, with the focus on religious reform movements, Zionist theory, and formulations of Jewish identity.
- 3324. THE JEWISH EXPERIENCE IN AMERICA. An examination of Jewish life in America, including history, literature, cultural expressions, and religious beliefs from the 17th century to the present.
- 3326. Introduction to the New Testament. An introduction to the writings of the New Testament, the formative events, and the persons who played leading roles in the origin of Christianity.
- 3328. Medieval Judaism. A study of Judaism as it developed during the middle ages, with special attention to popular religion, mysticism, and philosophy.
- 3329. Introduction to Islam. An examination of the history, doctrines, and rituals of the Muslim community, treating Islam in both the past and the present, and in its global context.
- 3330. THE HISTORY OF CHRISTIANITY. 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.
- 3331. RENEWAL OF ROMAN CATHOLICISM AT THE SECOND VATICAN COUNCIL. The main section of the course will concentrate on a study of the more significant documents of the Second Vatican Council (1962-1965). An introductory part will consider the background prior to the Second Vatican Council and the changes that helped bring it about. A concluding part will deal with the more significant developments in Roman Catholicism in the last 30 years.
- 3333. Religion in America. 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.
- 3334. Conservatism and Liberalism in American Christianity. 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.
- 3335. Religious Sects and Cults in America. An examination of new religious movements that have originated in America (such as Mormonism, Seventh-Day Adventism, Scientology, Christian Science, and the Nation of Islam) or have been transplanted here from abroad (e.g., Hasidic Judaism, Theosophy, the Unification Church, the Hare Krishna movement, and Baha'i).

- 3336. AFRICAN-AMERICAN RELIGIOUS HISTORY. An examination of the major movements, figures, and critical issues in African-American religious history. The focus is on the United States, although West Africa, Caribbean, and South American materials are included. Special attention is given to slave religion, the civil rights movement, and Black criticism of Christianity.
- 3337 (CF 3356). Christianity and American Public Life. The objectives of this course include these: 1) to acquaint students with some recent criticisms of the dangers of individualism permeating American understanding and life; 2) to propose the communitarian dimensions of human existence from the Christian perspective; and 3) to help students enter more critically into the dialogue about the role of religion in pluralistic contemporary American society.
- 3338 (CFA 3338). Christ as Cultural Hero. An exploration of the impact of Jesus on the history of Western culture, not only in religion and philosophy, but in the fine arts, literature, and politics.
- 3340. Religious Experience. 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.
- 3349. Early Christianity. Major developments in the history of Christianity from 100-600. Emphasis is placed on institutional and ideological developments.
- 3350. HISTORY OF BIBLICAL INTERPRETATION. A survey of the interpretive approaches to the Bible in Jewish and Christian traditions from ancient times to the modern era. Topics will 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 will be key concerns of the course.
- 3352 (CF 3346). LOVE AND DEATH IN ANCIENT MYTHOLOGY. 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.
- 3360. The History of Judaism. An overview of both the historical development of the Jewish tradition and its central laws, religious practices, and theology.
- 3362. ISLAM AND THE WEST. 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.
- 3364. NATIVE AMERICAN RELIGIONS. An investigation of the mythologies of North America, centering on Southwestern and Northern Plains cultures. Native texts will be 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.
- 3365 (CF 3339). Understanding the Self: East and West. An examination of several basic notions pertaining to selfhood, including consciousness, cognition, motivation, personal identity and decision, as found in Eastern and Western sources.
- 3366 (ANTH 3366). MAGIC, MYTH, AND RELIGION ACROSS CULTURES. A cross-cultural and comparative exploration of religion, ritual, magic, and supernatural belief systems among peoples of the world. Examines how religion permeates other aspects of society and culture.
- 3367. THE RELIGIOUS LIFE OF CHINA AND JAPAN. An introduction to the history, thought, and religious practices of Taoism, Confucianism, Shinto, and Mahayana Buddhism.
- 3368 (CF 3368). Wholeness and Holiness: Religion and Healing Across Cultures. 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.

- 3370. Great Religious Leaders. A comparative study of the life and thought of outstanding representatives of diverse religious traditions, with special attention to founders and revitalizers of the world religions.
- 3372. BIBLICAL INTERPRETATION AND THE STATE OF ISRAEL. An examination of the ways in which the Bible has been interpreted both in support of and in opposition to the modern state of Israel.
- 3374. Female and Male in Religion and Culture. How does the study of gender differences affect our understanding of history, religion, and culture? This course will take a critical look at current discussions in the field of women's studies and their impact on contemporary thought.
- 3375 (CF 3343). Wives, Mothers, Lovers, Queens: Expressions of the Feminine Divine in World Religions and Cultures. 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.
- 3376 (CF 3344). Constructions of Gender, Sexuality, and the Family in South Asian Religions. A comprehensive historical overview of gender issues as they are represented in the great textual traditions of South Asia. To make these classical texts more relevant, readings in recent anthropological studies of religion will also be included to enable the student to trace recurring gender themes, images, and symbols.
- 3380. Women and Religion in America. 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.
- 3382. Mysticism, East and West. 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.
- 3385. Philosophies of India. An examination of some of the major traditions of Indian systematic philosophy. Attention to the analysis of consciousness, perception, language, and the problems of validation.
- $4332. \ Religion \ And \ Modernity. \ An exploration of the development of Christian thought in relation to modern culture with special emphasis on the emergence of "polysymbolic" religiosity.$
- 4352. Jesus and the Gospels. An examination of canonical and non-canonical Christian Gospels, with special attention to methods of gospel research and to the study of the historical Jesus.
- 4353. WISDOM LITERATURE IN THE BIBLICAL WORLD. An introduction to the traditions of "wisdom" in Egypt, Mesopotamia, and Israel. Texts will include the biblical books of Proverbs, Job, Ecclesiastes, and Song of Songs, as well as selected Egyptian and Mesopotamian material. Topics will include the proper conduct of life, the pursuit of wisdom, and ubiquity of folly, and various opinions on God and the gods.
- 4354. THE PROPHETS OF THE OLD TESTAMENT. 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.
- 4355. MYTH AND CREATION IN GENESIS. A detailed examination of the mythological narratives of Genesis 1-11. Of special interest will be the ancient Near Eastern background of various symbols and concepts, the authorial intentions of the Genesis composers, and the literary qualities of the text. The goal of the course is to gain an understanding of the nature of ancient Israelite cosmology and traditions.
- 4371. Pauline Christianity. A study of Paul and Pauline Christianity, drawing on Paul's letters, the Acts of the Apostles, and other documents of the New Testament.
- 4198, 4199, 4298, 4299, 4388, 4389, 4396, 4397, 4498, 4499. INDEPENDENT STUDY.
- 4398, 4399. DIRECTED READING AND RESEARCH. Special topics to be selected by the student in consultation with the department. Open to seniors upon departmental approval.

SOCIOLOGY

Associate Professor Hawkins, Director of Undergraduate Studies

Associate Professors: Cortese; Adjunct Professor: Patterson; Adjunct Associate Professor: R. Wilson; Visiting Assistant Professor: Mobasher; Adjunct Instructors: Fawns, McDanel.

SOCI 2310 is prerequisite to all courses numbered 4000 and above, except for upper-division students who have obtained permission of the instructor. Note additional prerequisites for some courses. Courses below 4000 are open to students at each level without other prerequisite.

Students wishing to work for distinction in sociology should consult the Director of Undergraduate Studies as soon as possible in the junior year.

REQUIREMENTS FOR THE B.A. DEGREE. A program of study for students who want a broad liberal education with an emphasis on sociology, but adequate preparation for graduate work in the social sciences or social work. Thirty term hours that shall include 2310 and two of these three courses: 4311, 5313, 5314; 21 additional hours, of which six hours must be at the 4000 or 5000 level. STAT 2331 or PHIL 3360 may be substituted for any 3000-level course in sociology. Twelve hours of foreign language are recommended.

REQUIREMENTS FOR THE B.S. DEGREE. A more specialized program than the B.A., providing a sound foundation for doctoral study. Thirty-six term hours, to include 2310, 4311, 5313, and 5314. SOCI 3322 or an equivalent statistics course is required. Twenty-one additional hours of sociology, of which nine hours must be at the 4000 or 5000 level. Twelve term hours of foreign language are recommended.

REQUIREMENTS FOR MINOR IN SOCIOLOGY. Students majoring in other departments may obtain a minor in sociology by completing 2310; one of the following: 4311, 5313, 5314; one additional course at the 5000 level; and two courses at any level for a total of 15 hours.

THE COURSES (SOCI)

- 2310. Introduction to Sociology. The perspective and basic content of sociology, emphasizing the ways in which values and other beliefs influence social behavior.
- 3300. Social Problems. Selected problems of modern urban life analyzed with an emphasis on American values, the nature of "community," and the manifest and latent functions of proposed solutions to social problems.
- 3301 (ANTH 3301). Health, Healing, and Society. An examination of beliefs about health and disease in a world context. Texts plus a case history approach are used to examine medical beliefs, concepts of health, mind, and body, together with ecological and ethical issues relating to our changing populations. Fulfills co-curricular requirement for Diversity.
- 3305 (CF 3310, ETST 3301). RACE AND ETHNICITY IN THE UNITED STATES. An interdisciplinary seminar designed to introduce students to the analysis of race and ethnicity in the United States within a global context. No prerequisites.
- 3310. Wealth, Status, and Power. A study of the social order of privileges and deprivations in American society. Focus on radical and conservative theories of social class, history of the "WASP" establishment, use and abuse of power.
- 3320 (RELI 3310). THE SOCIAL-SCIENTIFIC STUDY OF RELIGION. 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.
- 3322 (ANTH 3322). Statistical Reasoning in Sociology. Particular aspects of statistical data processing and reasoning, including the construction of measurement scales, tabular and graphical descriptions, cross-classifications, percentages and probabilities, sampling, and the

- expression of relationships through the use of models. Lab sessions will investigate sociological data sets through the use of the student version of SPSS for Windows.
- 3330. Person vs. Society? Social-psychological examination of causes and consequences of conformity and loss of individuality; emphasis on strategies for countering pressures to conform and for achieving personal autonomy.
- 3340. Global Society. This course intends to provide students with a sociological orientation to the contemporary world, viewed as an evolving network of nation-states. Focusing on the global interdependence of countries, the position of societies in the world system will be related to their internal patterns of social stratification.
- 3348 (CF 3348, FL 3348). Women in Japanese Culture and Society. Examines various women's issues in Japan through social science, literature, literary works, and contemporary films from interdisciplinary perspectives. Assesses changing women's status and roles in family, education, employment, mass media, and political organizations in the context of the contemporary feminist movement.
- 3350. Social Welfare. Problems of poverty, insecurity, and opportunity; critique of social programs and agencies.
- 3351. Marriage and Family. Husband-wife and parent-child relations in the United States; traditions and alternatives.
- 3360. Law and Society. This course is designed to give students a broad overview of the history and functions of our major legal institutions and their relationship to American culture and social structure.
- 3363. CRIME AND DELINQUENCY. Extent of the problem; casual theories; prevention and public policy.
- 3368 (ANTH 3368). URBAN PROBLEMS: A CROSS-CULTURAL PERSPECTIVE. Evolution, development, and differentiation of Western cities compared to non-Westernized cities. Fulfills co-curricular requirement for Diversity.
- 3370. MINORITY-DOMINANT RELATIONS. The nature, origins, and consequences of relationships between unequal groups; U.S. and other societies compared. Fulfills co-curricular requirement for Diversity.
- 3371. Changing Sex Roles. Roles of men and women in American Society; analysis of the acquisition, content, and consequences of sex roles; social movements and implications for social change. Fulfills co-curricular requirement for Diversity.
- 3372. CHICANOS IN THE SOUTHWEST. Contemporary Chicano life and culture in the Southwest; effects of racism and rapid urbanization.
- 3383 (CF 3385). RACE, CULTURE, AND SOCIAL POLICY IN THE SOUTHWEST. This interdisciplinary seminar introduces students to conceptualizing social problems. Focus is on the distinctive conditions defined and treated as social problems in the American Southwest.
- 4311. Research Methods. Integration of conceptual models, methodology, and statistical analysis of sociology. *Prerequisite*: SOCI 2310 or permission of instructor.
- 4198, 4298, 4398. INDIVIDUAL RESEARCH. Prerequisite: SOCI 2310 or permission of instructor.
- 4360 (CCAC 4360). Social Effects of Mass Media. Critical analysis of research on the influence of mass media messages on individuals and groups. Attention is focused on communication theory and how society puts such theories into practice in using the media for information, entertainment, and persuasion. Upper division.
- 4399. HONORS SEMINAR. Prerequisite: Permission of director of undergraduate studies.
- 5313. The Sociological Tradition. Introduction to ideas and theories of 19th- and early 20th-century sociologists.
- 5314. CONTEMPORARY SOCIOLOGICAL THEORY. Recent trends in sociological theory and research.

- 5321. POPULATION PROBLEMS. Causes and consequences of population growth and change in the United States and the world. SOCI 4311 and STAT 3312 suggested but not required.
- 5331. Human Behavior in Groups. Processes through which groups develop structure, and change; factors affecting morale and efficiency.
- 5335. COLLECTIVE BEHAVIOR. Nature, causes, and consequences of crowds, riots, fads, public opinion, social movements, revolution.
- 5363. THE ADMINISTRATION OF JUSTICE. Law enforcement and criminal court systems; the ideal of justice and public policy.
- 5364. CORRECTIONAL SYSTEMS. The history of punishment, adjustment to incarceration, and comparison of prisons for men and women. Constitutional issues of criminal punishment discussed.
- 5366. Deviant Behavior. Causes and consequences of deviant behavior; evaluation of leading theories.
- 5373. Social Inequality. Unequal distribution of power, prestige, and opportunity within society; causes and consequences.
- 5374. Social Change. Review of major social change theories emphasizing: technology, modernization, social power, impact of change on individuals and institutions; possible solutions to resulting problems. Seminar format.
- 5375. Organizational Change. Changes within bureaucracies and in their relationships with other social structures.
- 5398, 5399. PRACTICUM. Prerequisite: Permission of director of undergraduate studies.

SOUTHWEST STUDIES

Professor Weber, Director

Southwest Studies offers an interdisciplinary approach to the study of the American Southwest. Understanding the region's distinct environments and diverse cultures will enhance the lives and careers of graduates, many of whom will live and work in the Southwest. To assure breadth of understanding of the region and its peoples, a varied selection of courses from the natural sciences, the humanities, and the social sciences are offered. Southwest Studies should be especially valuable to students with second majors in such diverse disciplines as journalism, Spanish, marketing, and geology, since the combination of innovative and traditional fields enhances career opportunities.

Courses are coordinated by the William P. Clements Center for Southwest Studies, which offers advisers to students interested in a major or minor in Southwest Studies.

REQUIREMENTS FOR THE MAJOR. Majors must complete 33 hours. Six of those hours are required seminars: SWST 2322 and SWST 5355. The remaining 27 hours must be chosen from three areas: Historical Perspectives, The Natural and Pre-Columbian Worlds, and Societies and Representations. Majors will take at least six hours in each area. Eighteen of these hours must be at the advanced level, 3000 or above.

To be eligible to graduate with this major, students must demonstrate proficiency in Spanish equivalent to one year at the college level (other appropriate languages may be substituted by petition). Majors must take at least six of their 33 hours at SMU-in-Taos (or an equivalent six-hour field experience, subject to approval).

REQUIREMENTS FOR THE MINOR. Eighteen hours are required for a minor in Southwestern Studies. Six of those hours are required seminars: SWST 2322 and SWST 5355. The remaining twelve hours must be chosen from the following three areas (see below): Historical Dimensions, the Natural and Pre-Columbian Worlds, and Societies and Representations. Nine of these hours must be at the advanced level, 3000 or above.

CORE REQUIREMENTS (SWST)

The following six hours are required of all students majoring or minoring in Southwest Studies:

2322 (CF 3338). Defining the Southwest: From the Alamo to Hollywood. An interdisciplinary seminar designed to introduce students to the idea of regionalism in American life, to identify the distinctive features that make the Southwest a region, and to suggest the variety of ways in which different disciplines understand the regional distinctiveness of the Southwest.

5355. Seminar in Southwest Studies. A research seminar designed to introduce advanced undergraduates to the challenges and rewards of doing original interdisciplinary work on Southwestern themes. Topics to be determined by the instructor.

PERSPECTIVES ON THE REGION

I. HISTORICAL DIMENSIONS

HIST 3321 THE AMERICAN SOUTHWEST

*HIST 3305 THE HISPANOS OF NEW MEXICO, 1848-PRESENT

HIST 3319 Texas History

HIST 3320 THE SPANISH FRONTIER IN NORTH AMERICA, 1513-1821

HIST 3324 THE MEXICAN AMERICANS, 1848-PRESENT

HIST 3382 HISTORY OF MEXICO

HIST 5331 SEMINAR IN MEXICAN-AMERICAN HISTORY

HIST 5341 SEMINAR IN AMERICAN HISTORY: HISTORICAL APPROACHES TO THE SPANISH SOUTHWEST

II. THE NATURAL AND PRE-COLUMBIAN WORLDS

ANTH 3318 Prehistory of the Southwest

*ANTH 5681 FIELD METHODS IN ARCHAEOLOGY

ANTH 6310 Prehistory of the American Southwest (with permission of instructor)

*BIOL 1305 Our Natural Environment

*BIOL 3343 FIELD BOTANY (prerequisite: BIOL 1401 and 1402)

*/*BIOL 3347 Systematic Botany (prerequisite: BIOL 1401 and 1402)

*BIOL 3368 THE AVIAN WAY (prerequisite: BIOL 1401 and 1402)

*/*GEOL 1301 Introduction to Geology

*GEOL 2320, 2321 SOUTHWESTERN ENVIRONMENTS: A GEOLOGIC APPROACH

*GEOL 4657 FIELD GEOLOGY

ME 1304 CONTROL OF ENVIRONMENTAL POLLUTION (acceptable for the major or minor only when taught with Southwestern focus)

III. SOCIETIES AND REPRESENTATIONS

*-*ANTH 3358 Indians of the Southwest from the 16th Century to Present.

*-*ARHS 2368 THE AMERICAN WEST: ART, PHOTOGRAPHY, AND CULTURE

*ARHS 3370 AMERICAN ART: THE SOUTHWESTERN TRADITIONS

*CF 3357 (RELI 3317) HUMAN MEANING AND VALUE IN PERSONAL LIFE (acceptable for the major and minor only when taken at Fort Burgwin)

CF 3370 (CF 3370) Women and the Southwest

^{*}Taught only at SMU-in-Taos.

^{*/*}Taught at SMU-in-Taos and on the main campus; acceptable for the major or minor only when taught at SMU-in-Taos.

^{*-*}Taught at SMU-in-Taos and on the main campus; may be taken at either place.

CCTR 3301 TOPICS IN TV-RADIO: ETHNIC MEDIA AND REPRESENTATION: THE VIEW FROM THE SOUTHWEST

ENGL 3361 LITERATURE AND SOCIETY (acceptable for the major or minor only when taught with Southwestern focus)

ENGL 3368 LITERATURE OF THE SOUTHWEST

*ENGL 3370 (CAPS 3370) Women and the Southwest

ENGL 3371 CHICANA/CHICANO LITERATURE

ENGL 3372 HISTORY OF U.S. HISPANIC LITERATURE

ENGL 3399 DIRECTED STUDIES (acceptable for the major or minor only when taught with Southwestern focus)

ENGL 4362 OR 4363 WRITERS (acceptable for the major or minor only when focus is on one or more Southwestern writers)

ENGL 4372 OR 4373 SPECIAL TOPICS (acceptable for the major or minor only when taught with Southwestern focus)

PLSC 3326 STATE GOVERNMENT AND POLITICS (acceptable for the major or minor only when taught with Texas focus)

SOCI 3300 CONTEMPORARY URBAN PROBLEMS: THE AMERICAN SOUTHWEST

SOCI 3372 CHICANOS IN THE SOUTHWEST

*PNTG 3306 Painting in Taos

Under category three, a student may take a graduate-level course or courses selected from the following:

***HH-8023, 8323 The Church and the Mexican American Community

***HH 8356 POPULAR PIETY IN MEXICO AND THE SOUTHWEST

***HH 8027, 8327 CHRISTIANITY AND SOCIAL JUSTICE IN THE SOUTHWEST

**** [*-*] SOSC 6321 New Mexico and the Southwest: Cultural Influences of the Artists' and Writers' Colonies in the Early 20th Century

**** [*-*] HUMN 6365 NORTHERN NEW MEXICO – ITS TRI-ETHNIC HERITAGE IN HISTORY AND FICTION

STATISTICAL SCIENCE

Professor Schucany, Department Chair

Professors: Bhat, Gray, Gunst, Kapadia, Woodward; Associate Professors: Guerra, Hietala; Assistant Professors: Christensen, Natarajan, Sain; Emeritus Professor: Read.

Statistics is the science that specializes in the collection, analysis, and interpretation of data. Statistics is an exacting science, a discipline based on precise mathematical formulation and careful adherence to underlying theoretical principles. Applications of statistics are as diverse as the many disciplines that collect and analyze data, including business, engineering, and the natural, physical, and social sciences. From selecting the best medical treatment for a particular cancer to ascertaining whether or not there is a greenhouse-induced global warming trend, proper statistical analysis of data provides critical information needed for making important decisions. Because of its interdisciplinary nature, Statistical Science is an excellent double major or minor.

^{*}Taught only at SMU-in-Taos.

^{*-*}Taught at SMU-in-Taos and on the main campus; may be taken at either place.

^{***}Graduate-level course offered in Perkins School of Theology. Open to undergraduates with junior or senior standing and a *B* average, with permission of the instructor and adviser. ****Graduate-level course offered in the M.L.A. Program. Open to undergraduates with junior or senior standing and a *B* average, with permission of the instructor and adviser.

REQUIREMENTS FOR THE B.S. DEGREE. The curriculum is designed to serve students seeking challenging careers in industry, government, and business as well as those preparing for graduate study in statistical science. The primary focus of the required coursework is an enhancement of an individual's skills in data analysis and the proper interpretation of quantitative information. With a proper choice of electives, the program permits a student to obtain sufficient preparation for graduate school admission.

Prerequisite Courses

MATH: 1337, 1338, 2339

One of the following: CSE 1340, ISOM 2308

Advanced Departmental Courses

STAT: 4340 or 5340, 4370, 5344, 5371, 5372, 5374, 5377, 5385

Electives – 12 hours selected from the following

STAT: 2301 or 2331 (no more than one)

MATH: 2343 and courses numbered above 3000 (except Math Education and History)

CSE: 3360, 5361, 5369 ECON: 5350, 5352

Special Comments – STAT 2301 or STAT 2331 should not be taken after any of the required Statistics courses.

The following courses are recommended for students intending to do graduate study in Statistics: MATH: 3353, 5338

REQUIREMENTS FOR THE MINOR. The Statistical Science major is particularly useful to individuals in the sciences, engineering or applied sciences, social sciences, and business. More generally, those planning careers that involve the processing, description, and/or analysis of bodies of information or data will find a minor in statistics beneficial.

A minor in Statistical Science requires 15 or more hours of statistics selected as indicated from the categories listed below.

- 1) No more than two of the following three courses: STAT 1301, 2301, 2331. PSYC 3382 may be used for this category by non-psychology majors. STAT 1301 may not be taken concurrently with or following any 4000 or 5000 level course listed in 2) or 3) below.
- 2) At least one of STAT 4340, 4370, 5344, 5374, 5377, or 5385.
- 3) STAT 5371 and 5372.

THE COURSES (STAT)

- 1301. Introduction to Statistics. Introduction to collecting observations and measurements, organizing data, variability, and fundamental concepts and principles of decision-making. Emphasis is placed on statistical reasoning and the uses and misuses of statistics.
- 2301. STATISTICS FOR MODERN BUSINESS DECISIONS. A foundation in data analysis and probability models is followed by elementary applications of confidence intervals, hypothesis testing, correlation, and regression. *Prerequisite*: CEE Math Fundamentals or equivalent.
- 2331. Introduction to Statistical Methods. An introduction to statistics for behavioral, biological, and social scientists. Topics include descriptive statistics, probability and inferential statistics including hypothesis testing, analysis of variance, and contingency tables.
- 4340 (CSE 4340). STATISTICAL METHODS FOR ENGINEERS AND APPLIED SCIENTISTS. Basic concepts of probability and statistics useful in the solution of engineering and applied science problems. Topics: probability, probability distributions, data analysis, sampling distributions, estimation, and simple tests of hypothesis. *Prerequisites:* MATH 1337 and 1338.
- 4370. Sampling Statistics. Simple random sampling; stratified, systematic, subsampling; means, variances, confidence limits; finite population correction; sampling from binominal populations. Principles of planning and conducting surveys. *Prerequisite:* STAT 2301 or 2331, or permission of instructor.

FOR UNDERGRADUATE AND GRADUATE STUDENTS

These courses do not carry graduate credit for students in the M.S. program or in the Ph.D. program in statistics.

5340 (CSE 5370). Probability and Statistics for Scientists and Engineers. 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, 1338, and 2339, or equivalent.

5344 (CSE 5364). STATISTICAL QUALITY CONTROL. 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. *Prerequisite:* STAT (CSE) 4340 or STAT 5340 (CSE 5370).

5371. EXPERIMENTAL STATISTICS. A non-calculus development of the fundamental procedures of applied experimental statistics, including tests of hypotheses and interval estimation for the normal, binomial, chi-square and other distributions, and nonparametric tests. *Prerequisite:* Junior standing or permission of instructor.

5372. EXPERIMENTAL STATISTICS. Analysis of variance, completely randomized design, randomized complete block designs-nested classifications, factorials; analysis of covariance, simple and multiple linear regressions, and correlation. *Prerequisite*: STAT 5371.

5374. THEORY OF PROBABILITY AND STATISTICS. Sums of random variables, sampling distributions, order statistics, estimation, hypothesis testing and its applications. *Prerequisite:* STAT (CSE) 4340 or STAT 5340 (CSE 5370).

5377. STATISTICAL DESIGN AND ANALYSIS OF EXPERIMENTS. 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 or 5371, or permission of instructor.

5385. Introductory Nonparametric Statistics. Introduction to nonparametric statistics with examples in the behavioral sciences, including choice and use of rank tests, runs tests and rank order correlation with tests given for one-sample and two-sample cases. *Prerequisite:* STAT 4340 or 5371 or 5340, or equivalent.

WOMEN'S STUDIES

Professor Sargent, Director

The Women's Studies Program offers multidisciplinary courses having special focus on the traditional and changing roles of women in this and other societies. By learning about the particular difficulties and achievements of women—subjects often neglected in traditional courses—both men and women students should gain new understanding of the social, political, and economic implications of gender roles.

Courses are coordinated by the Women's Studies Council, composed of faculty, staff, and students representing several schools. The Council promotes the development of new courses, of research, and of scholarship about women. It works with the departments to improve curricula, library and media holdings, and cooperates with other women's groups on campus.

To minor in Women's Studies a student must complete 15 term hours from the courses listed, including the introductory course WS 2322 or an approved substitute. At least nine hours must be completed in advanced courses. Students may also pursue an individualized major in the liberal arts with a focus in Women's Studies.

THE COURSES (WS)

2308 (CF 2308). REVISIONS: WOMAN AS THINKER, ARTIST, AND CITIZEN. This course is designed to discover how an emphasis on the particular experiences of women can enhance and complicate traditionally conceived areas of scholarship and critical endeavor. It also explores areas of women's experience traditionally undervalued, such as friendship, sexuality, motherhood, and old age.

2309 (CF 2309). Lesbian and Gay Literature and Film: Minority Discourse and Social Power. 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.

2315 (CF 2315). GENDER, CULTURE, AND SOCIETY. An interdisciplinary study of gender ideology stressing anthropological and literary perspectives, this course analyzes gender difference as a structuring principle in all societies and explores some of its representations in literature, film, and contemporary discourse.

2322 (CF 2302). Women: IMAGES AND PERSPECTIVES. An examination of the constant and changing understanding of women reflected in myths, research, and theories of biology, history, religion, the social sciences, literature, and language.

2380 (CF 2303). Human Sexuality. 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.

3300. THE Two-Career Couple. This course investigates economic, sociological, and psychological implications arising from the increasing incidence of two-career couples in modern society.

4309. Independent Studies. A supervised practicum and/or directed readings on special problems or themes formulated by the student with faculty guidance and the approval of the director of Women's Studies.

ANTH 3310 (CF 3301) GENDER AND SEX ROLES: A GLOBAL PERSPECTIVE

ARHS 3389/6389 BOTH SIDES OF THE EASEL: WOMEN IN THE VISUAL ARTS

ARHS 4385 WOMEN ARTISTS

ARHS 5330 Women and Renaissance Art

CF 3325 (HIST 3355) CLASS AND GENDER IN ANCIENT SOCIETY

CF 3344 (RELI 3376) Constructions of Gender, Sexuality, and the Family in South Asian Religions

CF 3347 (FL 3363, WS 3347) FIGURING THE FEMININE

CF 3349 (FL 3349, HIST 3382) THE LITERATURE OF NEGRITUDE AND THE STRUGGLE FOR BLACK LIBERATION

CF 3352 (MDVL 3352) IDEAS AND IDEALS OF GENDER IN THE MIDDLE AGES

CF 3370 (WS 3370, ENGL 3370) Women in the Southwest

CF 3381 (WS 3381, ARHS 5381) MODERN MYTH-MAKING

CCAC 4350 GENDER ISSUES IN COMMUNICATION

CCCN 3310 SCREEN ARTISTS (subject to approval)

CCCN 3360 (CF 3371) GENDER AND REPRESENTATION IN WORLD CINEMA

CCJN 4360 Women in Journalism

CCTR 3302/5302 Topics: Images of Women in Television

ECO 4351 LABOR ECONOMICS

ECO 5357 Human Resources

ENGL 2355 THE AMERICAN HEROINE: FICTION AND FACT

ENGL 3331 GENDER, RACE, AND CLASS: NON-WESTERN CULTURE AND LITERATURE

ENGL 3341 Women in the Age of Victoria

ENGL 3349 (CF 3364) Ethical Implications of Children's Literature

ENGL 3357 (CF 3363, HIST 3357) JOAN OF ARC: HISTORY, LITERATURE, AND FILM

ENGL 3358 LITERATURE AND THE CONSTRUCTION OF HOMOSEXUALITY

ENGL 3359 (FL 3359) MASCULINITIES: LITERARY IMAGES AND PERSPECTIVES

ENGL 3360 THE WRITER AND HER WORK

ENGL 3361 LITERATURE AND SOCIETY: WOMEN'S LIVES IN WOMEN'S NOVELS

ENGL 4361, 4362, 4363 Writers (subject to approval)

ENGL 4371, 4372, 4373 Special Topics (subject to approval)

ENGL 6391, 6392, 6393, 6394 Seminars (subject to approval)

FL 3307 Women in Middle East Literature

FL 3312 Women, Writing, and Identity in 20th-Century Chinese Literature

FL 3348 (CF 3348, SOCI 3348) Women in Japanese Culture and Society

FL 3376 Representations of Women in Modern Literature

FREN 5321 Women Writers of the French Renaissance

FREN 5350 Women in Francophone Literature and Film, 1950-Present

HIST 3310 Problems in American History: The American Family

HIST 3312 Women in American History

HIST 3317 Women in Latin American Societies

HIST 3329 Women in Early Modern Europe

HIST 3330 Women in Modern European History

HIST 3365 Problems in European History: The Education of Women in England and America

HIST 3379 AFRICAN WOMEN IN HISTORY

HIST 3388 Women in Modern East Asia

HIST 3394 Women in Chinese History

HIST 5320 THE AMERICAN FAMILY: A GENDER APPROACH

HIST 5341 SEMINAR (subject to approval)

HR 8331 Women in World Religions

HX 7327 Women in the History of Christianity

HX 8329 MARY AND CHRISTIAN TRADITION

MUHI 3341 Women and Music "Like a Virgin": From Hildegard to Madonna

MUHI 4341 Women Composers and Performers in the 19th and 20th Centuries (majors only)

PHIL 3305 PHILOSOPHY AND GENDER

PLSC 3370 Women and Politics

PLSC 4339 Women and the Law

PS 8360 Women's Spiritual Quest

PSYC 3350 PSYCHOLOGY OF WOMEN

RELI 3375 (CF 3343) Wives, Mothers, Lovers, Queens: Expressions of the Feminine Divine in World Religions and Cultures

SOCI 3351 MARRIAGE AND THE FAMILY

SOCI 3371 CHANGING SEX ROLES

ST 8375 FEMINIST AND WOMANIST THEOLOGIES

THEA 4380 Topics in Theatre History: Staging Gender in Contemporary Performance

WO 8308 WOMEN AND WORSHIP