

TRINITY UNIVERSITY

Courses of Study 2014–2015

Undergraduate and Graduate Studies Effective

June 2014

FOR THE 146th ACADEMIC YEAR

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Additional Information

The statements set forth in this bulletin are for informational purposes only and do not create a contract between a student and Trinity University. The University reserves the right to change provisions listed in this catalogue in event of emergency circumstances without notice to individual students. Trinity University reserves the right to change, cancel, or add to the courses or faculty assignments listed in this bulletin at any time without prior notice.

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2014–2015 Academic Calendar

Summer 2014 Academic Calendar

MAY 2014

- 21–27 Orientation, advising of new students: 9:00 a.m.-noon. Registration: 8:30 a.m.-noon
- 26 Memorial Day; University holiday; offices closed; no classes
- 28 Beginning of classes
- 28 Add/drop begins

JUNE 2014

- 3 Add/drop ends
- 16 Last day an undergraduate student may withdraw from a course

JULY 2014

- 4 Independence Day; University holiday; offices closed; no classes
- 10–11 Final examinations
- 15 Grades due: 5:00 p.m.

Fall 2014 Academic Calendar

AUGUST 2014

- 18-22 Faculty Orientation
- 21 New undergraduate student orientation begins
- 25–26 Registration (see Fall 2014 Class Schedule for registration information)
- 27 Beginning of classes: 8:30 a.m.
- 27 Add/Drop and late registration begin

SEPTEMBER 2014

- 1 First day to apply for May 2015 graduation
- 1 Labor Day; no classes; offices closed
- 4 Add/Drop ends and last day to register
- 5 Faculty retreat; classes cancelled
- 17 Last day to change Pass/Fail
- 26-28 Fall Family Weekend

OCTOBER 2014

- 17 Mid-semester recess; no classes; offices open
- 21 Last day a graduate student may withdraw from a course without approval
- 21 Mid-semester grades due: 5:00 p.m.
- 30 Last day an undergraduate student may withdraw from a course with a "W"

NOVEMBER 2014

- 10–25 Pre-registration for Spring semester 2015
- 25 Last day for graduate degree candidates to submit theses or projects to Academic Affairs (Winter Commencement)
- 25 Honors theses due in Office of Academic Affairs for December degree candidates
- 26–28 Thanksgiving holidays; no classes; offices closed

DECEMBER 2014

1	Last day to apply for May 2015 graduation
10–11	Reading Days
12–18	Final examinations
18	Grades due for degree candidates: noon
20	Winter Commencement: 10:00 a.m.
22	Fall semester grades due: 5:00 p.m.
24–31	Christmas holidays; offices closed

Spring 2015 Academic Calendar

JANUARY 2015

1-2	New Year's Day; offices closed
2	First day to apply for December 2015 graduation
7	Registration for Spring semester (see Spring Class Schedule for registration information)
7	Add/Drop and late registration begin
11-13	New Student Orientation
14	Beginning of classes: 8:30 a.m.
19	Martin Luther King, Jr., Day; no classes; offices closed
22	Add/Drop ends and last day to register

FEBRUARY 2015

4	Last day to change Pass/Fail
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MARCH 2015

7–15	Spring Break; no classes
17	Mid-semester grades due: 5:00 p.m.
17	Last day a graduate student may withdraw from a course without approval
26	Last day an undergraduate student may withdraw from a course with a "W"
27–29	Spring Family Weekend

APRIL 2015

3	Good Friday; no classes; offices closed
13–28	Pre-registration for Summer 2015 and Fall 2015 semesters
16	Last day for graduate degree candidates to submit theses or projects to Academic Affairs (Spring Commencement)
16	Honors theses due in Office of Academic Affairs for May degree candidates
30	Last day to apply for December 2015 graduation

MAY 2015

4–5	Reading Days
6–12	Final examinations
14	Grades due for graduating seniors: noon
16	Spring Commencement: Graduate Commencement, 9:00 a.m.; Undergraduate Commencement, 10:30 a.m.
18	Spring semester grades due: 5:00 p.m.
25	Memorial Day; no classes; offices closed

Summer 2015 Undergraduate

MAY 2015

- 20–26 Advising and Registration
- 25 Memorial Day; no classes; offices closed
- 27 Beginning of classes
- 27 Add/drop begins

JUNE 2015

- 2 Add/drop ends
- 15 Last day an undergraduate student may withdraw from a course with a “W”

JULY 2015

- 3 Independence Day; no classes; offices closed
- 9–10 Final examinations
- 14 Grades due: 5:00 p.m.

General Information

The Mission of Trinity University: Statement of Institutional Identity and Strategic Objectives

Trinity University is an independent coeducational university whose mission is excellence in the interrelated areas of teaching, research, and service. Trinity seeks to provide broad and intensive educational opportunities primarily to undergraduates in liberal arts and sciences, and in selected professional and pre-professional fields. It also offers a small number of selected high quality graduate programs.

Trinity University is dedicated to creating a superior intellectual environment by: recruiting, developing, and retaining outstanding faculty members dedicated to teaching, to scholarship and creative endeavor, and to service to the University and its community; identifying, and attracting talented and highly motivated students to its predominantly full-time, residential student body; and providing a supportive and challenging experience wherein students, faculty, and staff can realize the potential of their abilities and engage their responsibilities to others. Trinity respects its historic ties to the Presbyterian Church, with which it continues to have a covenant relationship.

Independent Status, Charter, Covenant

Trinity University is an independent university founded in 1869 by Presbyterians, an institution that served a full century as “the college of The Synod of Texas.” In 1969 a covenant was adopted between the Synod and the University, and the previous legal ties were dissolved. Trinity’s covenant with The Synod of Texas was reaffirmed in 1973 by the newly organized Synod of the Sun. The covenant is one of mutual trust and obligation in which the Board of Trustees commits itself to continue to pursue the purposes for which Trinity University was founded. The church pledges itself to continue its interest in and support of the University. The covenant was reaffirmed with the Presbyterian Church (U.S.A.) in 1983, 1989, and again in 2000.

The amended charter creates a self-perpetuating Board of Trustees consisting of thirty-six persons who have complete control and management of the institution. The legal purpose of the corporation is to maintain and operate a coeducational institution and to confer degrees upon graduating students and other deserving persons.

Accreditation

Trinity University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award bachelors and masters degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia 30033-4097, or call 404-679-4500 for questions about the accreditation of Trinity University. The Commission requests that they be contacted only if there is evidence that appears to support an institution’s significant non-compliance with a requirement or standard. Normal inquiries about Trinity University, including inquiries regarding admissions requirements, financial aid, and educational programs, should be addressed directly to Trinity University and not to the Commission’s office. For more information about the Commission, please visit their web site at <http://www.sacscoc.org/>.

Texas state teachers’ certificates are issued to those students who fulfill the requirements of the Texas Education Agency. The University is a member of The American Association of Colleges for Teacher Education and is accredited by the National Council for Accreditation of Teacher Education for the preparation of elementary teachers, secondary teachers, and school service personnel, with the master’s degree.

A chapter of Phi Beta Kappa is active on the Trinity campus. In addition, Trinity University is approved and accredited by the Texas Education Agency and the United States Office of Education. The Department of Chemistry is approved by the American Chemical Society. The Bachelor of Science degree in Chemistry and the Bachelor of Science degree in Biochemistry are certified by the American Chemical Society.

Trinity's undergraduate Engineering Science Program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET). EAC/ABET is the only national agency that accredits engineering programs.

The Department of Business Administration is accredited by the Association to Advance Collegiate Schools of Business International (AACSB International).

The Department of Health Care Administration is accredited by the Commission on Accreditation Healthcare Management Education (CAHME) for its health care administration program.

The University is a corporate member of the American Association of University Women, and its women graduates are eligible for membership in this organization.

Non-Discrimination and Diversity Policy

Within published requirements for admission, Trinity University does not and will not discriminate in admission of students to study at the University, enrollment in classes, housing, or use of facilities in the academic program because of race, color, religion, sex, age, national origin, disability (if otherwise qualified for admission), military/veteran status, sexual orientation, gender identity, gender expression, or any status protected by federal, state, or local laws.

Trinity University does not and will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, national origin, disability (if otherwise qualified for the job), military/veteran status, sexual orientation, or any other status protected by federal, state, or local laws. The University is committed to making employment-related decisions according to an applicant or employee's experience, talent, and qualifications, without regard to his/her race, color, religion, sex, age, national origin, disability (if otherwise qualified for the job), military/veteran status, sexual orientation, gender identity, gender expression, or any status protected by federal, state, or local laws.

The Compliance Officer of the University is the Director of Human Resources. Any questions or complaints relative to discrimination should be referred to the Office of Human Resources. The Section 504/Americans with Disabilities Act Compliance Officer is the Associate Vice President for Fiscal Affairs. Students with disabilities who desire accommodations should contact Disability Services for Students in Counseling Services, preferably before the beginning of each semester. Any questions or complaints relative to facilities, services, and accessibility should be referred to the Office of Fiscal Affairs.

Security Policy Statement

Trinity University's campus security program is an ongoing process that includes the development and enforcement of regulations, procedures, and practices to provide a reasonable level of security for property, information, and for the personal safety of employees, students, and visitors.

Administrative and supervisory personnel are responsible for the incorporation of security principles and procedures in their respective areas of operations.

Each member of the faculty, staff, and student body is responsible for carrying out campus regulations, procedures, and practices and shall comply with federal, state, and local laws related to security matters while on the campus or in the course of representing or conducting University activities.

In compliance with the Crime Awareness and Security Act of 1990, the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act, additional information regarding security policies and crime statistics is available from the Office of the Director of Campus Security, Trinity University, (210) 999-7070. This information is also available at the internet website:

Electronic Communication

Trinity University supplies every student and employee with an e-mail address. Students, faculty, and all employees of the university are expected to monitor their e-mail on a regular basis. E-mail is an official means of communication and will be utilized to conduct business and to supply information to students, staff, and faculty. E-mail is also a critical and primary communication tool for faculty, staff, and students in the event of a university emergency.

Enrollment Information

Admission Policy

Trinity University's admission policy, established by the Board of Trustees upon recommendation of the administration, is to attract academically gifted and highly motivated undergraduate men and women students of varied geographic, racial, ethnic, socioeconomic, religious, and national backgrounds who are eager to learn and develop their talents and leadership qualities.

Factors that influence the admission decision include grade point average unweighted on academic solids, course rigor, class rank if reported, high school quality, writing, standardized test scores, recommendations from high school counselors and teachers, special talent and creativity, and contributions to school and community. Students who have attended other institutions of higher learning wishing to transfer to Trinity University will be evaluated also on their academic achievement and courses completed at the prior institution. Final transcripts including any work in progress at the time of admission or done subsequent to admission (such as summer school) must be submitted as soon as available.

Within published requirements for admission, Trinity University does not and will not discriminate in admission of students to study at the University, enrollment in classes, housing, or use of facilities in the academic program because of race, color, religion, sex, age, national origin, disability (if otherwise qualified for admissions), military/veteran status, sexual orientation, or any other status protected by federal, state, or local law.

Students who have never attended Trinity University should contact the Office of Admissions at Trinity University, One Trinity Place, San Antonio TX 78212-7200; (210) 999-7207; 1-800-TRINITY; or admissions@trinity.edu.

Admission Minimum Course Expectations

Minimum secondary school course expectations include four years/credits of English; three years/credits of college preparatory mathematics including algebra II and either trigonometry, precalculus, statistics, or other advanced mathematics course approved by the Office of Admissions and the Department of Mathematics; three years/credits of natural science (including two years of laboratory science); three years/credits of social science; and two years/credits of a single foreign language. An average of C- or better is expected in each course.

International Student Requirements

Citizens of countries other than the United States, whose first language is not English, are encouraged to submit results from the TOEFL (with a recommended score of 250 CBT, 600 Paper, or 100 iBT). In addition, international applicants must submit International Student Financial Certification demonstrating one's ability to fund a Trinity education (contact International Programs Office for current demonstrated funds requirements). Students should submit certified English translation of documents. Trinity University will issue Form I-20, Certificate for Eligibility for Nonimmigrant (F-1) Student Status, only upon receipt of a non-refundable deposit indicating acceptance of an offer of admission and required financial certification.

Temporary Withdrawal

A student may request a temporary withdrawal from the university for one or two semesters. The form applying for temporary withdrawal must be obtained from the Office of the Registrar and filed with the Registrar following consultation with the student's faculty adviser and the Associate Vice President for Student Affairs and Dean of Students or the Vice President for Faculty and Student Affairs. Temporary withdrawal for more than two semesters can be taken only with approval of both the Associate Vice President for Student Affairs and Dean of Students and the Vice President for Faculty and Student Affairs and will be granted only for compelling reason. A student on temporary withdrawal may register for the semester of return at the time of the November or April registration, but the student is responsible for establishing contact with the Office of the Registrar and the faculty adviser in order to achieve such registration.

If the purpose of the temporary withdrawal includes study at another college or university, permission for the temporary withdrawal requires the approval of the Office of the Vice President for Faculty and Student Affairs, and the justification must be the student's access to curricula not available at Trinity that is central/critical to the student's program of study. Permission to transfer credit is to be sought in the same manner as for summer school at another institution, and the student is not eligible to receive financial aid, including state or federally funded programs, through Trinity University. Reenrollment at Trinity for students on this type of term is dependent on satisfactory performance at the college attended. Behavior that would be deemed grounds for dismissal from Trinity will also be grounds for denial of reenrollment. A temporary withdrawal that includes study elsewhere is not to be confused with approved Study Abroad or approved specialized Special Studies: U.S. semesters for which credit approval and eligibility for financial aid is arranged through the International Programs Office. Note: Students receiving aid from Trinity, particularly students who have borrowed student loans, should consult with the Office of Financial Aid prior to taking a temporary withdrawal to determine what impact a temporary withdrawal may have on aid eligibility.

Readmission to the University

Former Trinity students who have not been in attendance for one or more regular semesters must file an application for readmission. Readmission forms may be requested from the Registrar.

Applications for readmission must be submitted to the Office of the Registrar at least two months prior to the beginning of the semester in which the student applying for readmission wishes to enroll. The Committee on Academic Standing reviews applications for readmission from students who are not in good standing. Students readmitted to the University are responsible for making arrangements for housing and financial aid. Contact the Offices of Student Affairs and Financial Aid for more information.

Students on approved temporary withdrawal from the University or doing approved study abroad or special studies semesters are not required to apply for readmission.

Registration

Registration for continuing students will take place during the preceding semester. All continuing students planning to enroll for the upcoming semester must register during this period. Undergraduate students who miss this period may register late during the late registration or add/drop period of the new semester upon payment of a \$100 late registration fee.

Registration for new students will be held on the opening days indicated on the Academic calendar. The late registration fee will be charged after the close of regular new student registration.

Registered students may enter modular classes starting after the beginning of the semester on or

before the fourth day of the modular class by filling out the appropriate form in the Office of the Registrar. Permission of the instructor of the class is required.

Add/Drop Period

Students may add courses to their schedule through the sixth day of classes of a regular semester and through the fifth day of classes of a summer term. Students enrolled in a course that has not officially met before the end of the drop period (e.g., Monday only courses) have until 5:00 p.m. on the day following the first meeting of that course to drop a course. After those dates, which are specified in the Academic calendar, a student may not enter a new course and no further registration for the term will be accepted.

Students may drop courses from their schedule through the sixth day of classes of a regular semester and through the fifth day of classes of a summer term. Students enrolled in a course that has not officially met before the end of the drop period (for instance, Monday-only courses) have until 5:00 p.m. on the day following the first meeting of that course to drop the course. After those dates, which are specified in the Academic calendar, a student may only withdraw from a class with a grade of W.

Withdrawal From a Course

The University Registrar establishes a course withdrawal deadline for each semester and summer session. The last day to withdraw from a course shall be during the ninth full week of classes in fall and spring semesters and during the third full week of classes in the summer term. If a student withdraws from a course after the Add/Drop period, a grade of W will be entered on the student's transcript.

Withdrawal deadlines for classes offered for a portion of a semester are established as follows. A student may withdraw from such a class with a grade of W until the end of the third week of the course during the fall or spring semester, or the first week during the summer semester. After these dates, withdrawal may be made only with approval from the Office of Academic Affairs. The Associate Vice President for Academic Affairs: Student Academic Issues shall consult with the instructor before approving exceptions to withdrawal policies.

Withdrawal forms are available in the Office of the Registrar. Students failing to file proper withdrawal forms by the appropriate deadline must complete classes for which they are registered or receive an F.

The date of the withdrawal is important with regard to deadlines for tuition refunds as indicated in the Student Expenses section of this bulletin.

After the withdrawal deadline no student may withdraw from a class except in an emergency such as hospitalization.

Withdrawal From the University

An honorable dismissal will be granted to any student who may desire to withdraw from the University if he/she is in good academic standing, is not subject to discipline, has made satisfactory arrangements for settling his/her financial account, and has had the requisite exit interviews by the residential life staff and student loan officer (if applicable).

After the established withdrawal deadline, students who withdraw from the University will receive grades of F in all courses for which they are registered except for students withdrawing as a result of an emergency such as hospitalization as certified by the Associate Vice President for Student Affairs

and Dean of Students or Vice President for Faculty and Student Affairs.

A student who wishes to withdraw from the University must submit an application for complete withdrawal, signed by his or her adviser, to the Registrar. Official withdrawal from the University for an upcoming semester must be completed by the last day of add/drop in order to receive full refund of tuition. Refund of tuition and other charges will be in accordance with the schedule of reduced costs. (See Student Expenses and Financial Aid.)

Students who stop attending classes without officially withdrawing will forfeit claim to honorable dismissal and will be given failing grades.

Students who have registered for classes but then choose not to attend the University must notify the Office of the Registrar in writing or submit an application for complete withdrawal prior to the start of classes. If written notification is not received by the Office of the Registrar prior to the end of the Add/Drop period, grades of W will be recorded on the official transcript.

Students who withdraw from the University during a term will have their financial aid reviewed and adjusted as applicable in accordance with federal, state, institutional, and external regulations, rules, and policies.

Health Services, Health Record, and Insurance

Upon admission to Trinity University, students are required to file a health record form which includes the student's medical history, documentation of a physical examination, immunization records, and a statement authorizing medical and dental procedures in emergencies. They must also provide information about current health and hospitalization insurance.

Students admitted for the fall may obtain the required Health Record and Insurance forms from the Tiger's Lair under the "Forms and Info" tab. January admissions will receive these forms by mail. The Health Record and Insurance forms should be completed by the student and their healthcare provider and returned to Health Services before moving onto campus. Students who fail to meet these requirements may not be permitted to register for classes.

The Trinity University Health Services is a health care facility to be used by students in need of medical consultation. The service is staffed by registered nurses, and a family physician holds tri-weekly clinics by appointment. The range of service includes nursing assessment and care of illness, injuries and minor emergencies; throat cultures; administration of prescribed medications; limited laboratory testing; medical evaluation and treatment by a physician during clinic hours; and appropriate medical and dental referrals.

All students enrolled for nine or more hours of study must show proof of health and hospitalization insurance. This ensures that students can be treated in an emergency and minimizes the financial risk associated with serious illness or injury. Students who do not have a personal health insurance policy are required to purchase the group health insurance plan endorsed by the University. Continuing students are required to submit health insurance information annually in the spring and to update their insurance information with Health Services whenever changes occur.

Credit From Other Institutions and by Examination

TRANSFER CREDIT

Trinity University evaluates, and may accept, credit earned at other regionally accredited educational institutions. The basis for approval of transfer credit is that the courses are appropriate to the Trinity curriculum. Thus credit may be given to courses whose content is such that they are or could be appropriately offered at Trinity University. Transfer credit will be evaluated and posted to the academic record only for students currently enrolled at Trinity University. Courses with a grade of D+ or lower will

not be accepted for transfer credit. Courses completed at another institution at the lower-division level, including all courses completed at a community or junior college, will transfer as lower-division credit even if the closest equivalent Trinity University course is at the upper division.

The University does not recognize the Associate of Arts degree for a set number of hours of credit. Each course is evaluated separately to determine if it can apply toward a Trinity degree.

Transfer credit must be reported on official transcripts sent directly to Trinity University by the other institution. Hand carried transcripts are not accepted as official documents.

Trinity students who plan to take courses at another institution during the summer or during a semester's absence and wish to transfer credit to apply toward a degree must have signed approval in advance from their faculty adviser, the chair of the department for the course being transferred, and the Registrar. Approval forms are available from the Registrar. In the case of foreign institutions, see the procedure under Study Abroad (below).

A maximum of 18 semester hours of external credit may be used to satisfy the Understandings of the Common Curriculum. Common Curriculum transfer credit is subject to the policy and procedure for credit from other institutions and by examination as stated in this bulletin. Transfer credit shall satisfy the Common Curriculum requirements for the same Understanding as the equivalent Trinity University course shown on the current list of courses approved for the Common Curriculum. Transfer credit may also be approved if a course not offered at Trinity University substantially satisfies the criteria for an Understanding.

Students should be aware of the following residency requirements:

- At least 62 credit hours must be earned in residence to complete a baccalaureate degree.
- At least 15 credit hours of each major must be earned in residence, and at least 12 of those hours must be upper division.
- The last 30 credit hours before graduation must be earned in residence.

Exceptions for study abroad: Students with 62 or more semester hours earned at Trinity who wish to enroll in an approved study abroad program in their senior year may be exempted from the last 30 hours-in-residence requirement. Students who transfer to Trinity with 50 or more credit hours may count up to 15 semester hours of approved study abroad credit toward the 62-hour residency requirement. These same exceptions apply to special semester domestic programs approved by the Office of Study Abroad.

STUDY ABROAD AND OFF-CAMPUS STUDY

Trinity University believes that living and studying in another culture can be an essential part of a liberal arts education. Opportunities for such study are available to all Trinity students including those in the natural sciences and professional disciplines. Approximately 40 percent of Trinity students in the most recent graduating classes have spent a semester or academic year abroad.

Most academic majors are directly enriched through foreign study. This is the case for professionally oriented majors such as business, communication, music, theater, and even engineering, as well as for disciplines more traditionally associated with overseas study such as history and languages. Natural science students may take advantage of the opportunity to approach their disciplines through a different, more specialized, educational system in foreign universities (usually in English-speaking countries), although some natural science majors choose instead to focus for a semester on language or cultural studies. A growing number of specialized programs, internship programs, and field studies programs offer additional opportunities.

A wide choice of Trinity approved programs (many taught in English) allow for a semester or year abroad in the United Kingdom, France, Germany, Austria, Spain, Italy, Ireland, Russia, and other European countries, in Mexico, Costa Rica, and South America, in China, Japan, and other Asian countries, in Africa, in Australia and New Zealand, and in Israel and Egypt. Trinity is an affiliate of

the distinguished Institute for the International Education of Students (IES), a coordinating institution for Denmark's International Studies Program (DIS), a member of the Intercollegiate Center for Classical Studies (Rome) and of the Council on International Education Exchange (CIEE), and maintains close relationships with a number of other programs and universities. Trinity most directly sponsors programs as a member of Associated Colleges of the South (ACS). Trinity also has direct exchanges with the TEC de Monterrey in Mexico and several schools in East Asia, including Lingnan University in Hong Kong, National Cheng Kung University in Taiwan, and Ewha and Yonsei Universities in Korea.

What particularly distinguishes Trinity's program for study abroad, however, is its determination to place each individual student in whatever program is most appropriate to the specific needs, interest, and abilities of that individual. To that end Trinity provides a comprehensive set of resources for information and advising. Any interested student should begin by visiting the International Programs Office, preferably as early as possible in his or her academic career. Most forms of financial aid may be applied toward the costs of the semester abroad. Students with financial aid should consult the Study Abroad Office and the Office of Financial Aid.

A Trinity student planning to study abroad and transfer the credits to Trinity must obtain approval for the program in advance. The deadline for processing program applications and approval is October 25, for Spring semester applicants; March 25, for Fall semester, Summer term, and Academic Year applicants. Students intending to study abroad should discuss this interest with their academic advisers as well as with the Study Abroad Counselors. In addition to providing for transfer of credit, approval to study abroad maintains one's status as a currently enrolled Trinity student during the period abroad and provides for residence hall eligibility and arrangements for registration.

Study Abroad policies and procedures apply to a number of special programs that a Trinity student may pursue in the United States. These include the American University Washington Semester and the Semester in Environmental Sciences at Marine Biological Laboratory at Woods Hole in Massachusetts (both of them formal Trinity affiliates), a United Nations semester, urban semesters in Chicago or Philadelphia, an art semester in New York, and semesters at major national research laboratories in several of the physical and biological sciences.

DUAL CREDIT

Trinity University accepts dual credit (college courses taken as part of the secondary school curriculum) only if the courses taken were not used to satisfy Trinity's expectations for admission as outlined in the Admission Minimum Course Expectations section and have met all other mandated transfer requirements as stated in the Transfer Credit section.

Credit by Examination

All credit by examination is recorded on the student's permanent record as credit (CR) without a grade and becomes part of the official transcript. No credit is valid without the student's enrollment for credit at Trinity University. Transfer credit will not be allowed for credit by examination which does not meet Trinity's own requirements.

All credit by examination must be earned in disciplines in which the student does not already have credit more advanced than the level of the examination. Credit by examination may not be duplicated by subsequent enrollment in an equivalent course for credit. Upon recommendation of the student's faculty advisor and with the approval of the appropriate department, the Registrar may delete credit by examination from the permanent record to allow the student to take the equivalent course for credit. Credit earned by examination satisfies degree requirements in the same way as does credit earned by passing the course, except that it does not count as credit earned in residence. Trinity does not accept credit earned by examination at another institution.

College Board Advanced Placement Program

Trinity University allows students to earn credit prior to entrance through the College Board Advanced Placement Program. Trinity awards credit for most AP examination scores of 4 or 5. A current list of AP examinations showing the equivalent credit awarded by Trinity is available from the Registrar. The granting of credit is automatic upon receipt of official score reports.

Cambridge University International Examinations

Trinity University recognizes some Cambridge University International Examinations, and students may contact the Registrar for further details regarding placement credits in individual academic disciplines.

International Baccalaureate Program

Trinity University allows students to earn credit prior to entrance through the International Baccalaureate Program sponsored by the International Baccalaureate Organization of Geneva, Switzerland and the International Baccalaureate North American regional office in New York. Trinity awards credit for most IB Higher Level Examination scores of 5, 6, or 7. A current list of IB examinations showing the equivalent credit awarded by Trinity is available from the Registrar. Credit will be granted upon receipt of an official IB transcript.

Departmental Examinations

Departmental examinations in specific courses are available to qualified students upon approval of the chair of the department in which the examination is to be taken. Approval forms are available from the Registrar. After approval, but prior to taking the examination, the student must pay the nonrefundable departmental examination fee (see Fees for Special Purposes) to the Business Office. The appropriate faculty member then administers and grades the examination. Credit for the course will be granted provided the student passes the examination with a grade of B or higher and completes 24 semester hours in residence. The student must be in good standing when the examination is requested.

Air Force Reserve Officer Training Corps Program

General:

The Air Force Reserve Officer Training Corps (ROTC) program is offered at Trinity University through a Crosstown Agreement with the University of Texas at San Antonio (UTSA). Trinity students may attend Air Force ROTC classes at UTSA as part of their Trinity curriculum. Students who meet all Air Force ROTC standards will be commissioned as officers in the United States Air Force upon degree completion from Trinity. The Air Force ROTC program is offered regardless of a student's major and does not of itself lead to a degree. A maximum of 16 credit hours may be taken.

The Air Force ROTC program provides management and leadership training to prepare students to serve as officers in the U.S. Air Force. The program is open to any U.S. citizen who meets the academic and physical standards.

The Air Force ROTC curriculum is comprised of four courses each semester conducted at the first year, sophomore, junior, and senior levels. Speaking and writing skills are progressively developed in all four levels of instruction.

"The Foundation of the United States Air Force" is the one-hour first-year-level course. It introduces students to the United States Air Force and provides an overview of the basic characteristics, missions, and organization of the Air Force as well as introduction to communication skills. A mandatory Leadership Laboratory must be taken in conjunction with the course. "The Evolution of

USAF Air and Space Power” is the one-hour sophomore-level course. It features topics on Air Force heritage and leaders; introduction to air and space power through examination of competencies and functions; and continued application of communication skills. A mandatory Leadership Laboratory must be taken in conjunction with the course. “Air Force Leadership Studies” is the three-hour junior-level course. Students learn advanced skills and knowledge in management and leadership. Special emphasis is placed on enhancing leadership skills. A mandatory Leadership Laboratory must be taken in conjunction with the course. “National Security Affairs/Preparation for Active Duty” is the three-hour senior-level course. It provides students with the foundation to understand their role as military officers in American society. It is an overview of the complex social and political issues facing the military profession. As with the previous courses, a mandatory Leadership Laboratory must be taken in conjunction with the course. The Leadership Laboratory is approximately one hour and forty-five minutes; all cadets attend the laboratory, which is held once a week during the semester.

Four-Year Program:

The GENERAL MILITARY COURSE (GMC) is open to all Trinity students, and is generally taken during the first and second years. There is no obligation incurred by nonscholarship GMC cadets. Cadets will learn the history, role and structure of the U.S. Air Force, and basic military skills. Veterans who have been honorably discharged may be granted credit for part or all of the GMC.

The PROFESSIONAL OFFICERS COURSE (POC) is the upper division portion of the Air Force ROTC program. Admittance to the POC is based on competitive criteria and the needs of the Air Force. Prior to entering the POC, applicants will normally attend a four-week field training encampment. The POC is normally taken during the junior and senior years. All POC students are enlisted in the Air Force Reserve and receive a subsistence allowance. Upon completion of the POC and all degree requirements, cadets are commissioned in the U.S. Air Force and serve a minimum of four years on active duty. A maximum of 12 hours is allowed for the POC.

Flight Training:

The AFROTC has a very competitive program for qualified people who desire to become a pilot or navigator. There are particular physical qualifications, which include vision, height/weight, Air Force Officer Qualifying Test scores, and health history. AFROTC pilot candidates attend Introductory Flight Training, which pays for a private pilot’s license if the member does not have one already.

Scholarships and Remuneration:

Air Force ROTC offers 4-, 3.5-, 3-, 2.5-, and 2-year competitive scholarships. Four-Year Program cadets may compete for all scholarships, while Two-Year Program applicants can apply for 2-year scholarships. All scholarships provide tuition and fee assistance, a book allotment, plus \$250-\$400 a month subsistence allowance. These scholarships are awarded solely on academic merit. Students interested in applying for a scholarship should contact the Professor of Aerospace Studies at UTSA.

All students enrolled in the POC and contracted to the U.S. Air Force will be paid a \$350-\$400 a month subsistence allowance.

Uniforms and Equipment:

All uniforms, textbooks, and other equipment will be issued to students enrolled in Air Force ROTC courses. Students are responsible for the maintenance and upkeep of all items issued them.

Air Force ROTC Offices (210-458-4624) are located in the North Paseo Building (1.220) on the University of Texas at San Antonio campus.

Army Reserve Officer Training Corps Program

The Army Reserve Officer Training Corps (ROTC) program is offered at Trinity University through a

crosstown agreement with St. Mary's University. Trinity students may attend Army ROTC classes at St. Mary's as part of their Trinity curriculum. Students who meet all Army ROTC standards will be commissioned as officers in the United States Army upon degree completion from Trinity. The Army ROTC program is offered regardless of a student's major and does not of itself lead to a degree. A maximum of 18 credit hours may be taken.

In addition to the courses described below, a Leadership Laboratory is held every Wednesday afternoon for two hours to further the development of leadership skills through a varied program consisting of field trips, practical exercises, and visits to military installations.

The Professor of Military Science at St. Mary's University and the Army ROTC offices are located at the bottom floor of Treadaway Hall at St. Mary's. The telephone numbers are 210-436-3415 (ROTC Recruiting Operations Officer) and 210-379-1997 (ROTC Enrollment Officer). The e-mail address is <mailto:rotc@stmarytx.edu>.

Four-Year Program:

The Basic Course, usually pursued concurrently with the freshman and sophomore years, is voluntary for students who are physically qualified for military training. There is no obligation incurred by nonscholarship cadets. Veterans who have served on active duty for a period of over one year and who have received an honorable discharge, or High School students who have completed 3 or 4 years of JROTC, may be granted credit for the basic course with concurrence of the Professor of Military Science.

The Advanced Course may be pursued by students who are physically qualified and have met the standards prescribed by the Professor of Military Science in scholastic achievement and demonstrated leadership. Cadets are normally enrolled in the Advanced Course during their Junior and Senior Year or Graduate students pursuing a Master's Degree. They are required to attend a five-week ROTC Leadership Development Assessment Course (LDAC) the summer following their junior year. Upon satisfactory completion of LDAC and the academic work required for a degree, students are commissioned as Second Lieutenants in the United States Regular Army, the Army Reserves, or the Army National Guard.

The Basic Course consists of MS courses at the 1000 and 2000 level. The Advanced Course consists of MS courses at the 3000, 4000, or 5000 level.

Two-Year Program:

In addition to the standard four-year course outlined above, the St. Mary's University Military Science Department offers a two-year program for those who did not have or take the opportunity to complete the normal Basic Course. In order to enroll in the Advanced Course, a student must successfully complete four weeks of leadership training, provided at the Leadership Training Course (LTC) during the summer months prior to beginning their junior year or their first year in graduate school. If students desire to take advantage of this opportunity, they should communicate directly with the Professor of Military Science not later than March 1 of the year preceding the last two years at Trinity University.

Scholarship and Remuneration:

The Department of the Army offers 4-, 3-, and 2-year competitive scholarship assistance to qualifying ROTC students. This assistance consists of payment of 100% of tuition and fees and a \$1,200 a year book allotment, plus a grant to the ROTC cadet of \$300 to \$500 a month during the period of enrollment (not to exceed 40 months). The student need not be enrolled in the ROTC program prior to competing for a scholarship. Students interested in competing for scholarship assistance under this program should contact the Army ROTC Enrollment Officer.

Formally enrolled Advanced Course students who are not under the scholarship program will be given a grant at the rate announced annually by the Secretary of the Army (currently this rate is \$450 to \$500 per month) not to exceed 20 months. During LDAC, all students are paid at the rate of one-half of the base pay per month of a second lieutenant in lieu of subsistence allowance.

Uniforms and Equipment:

All uniforms, textbooks, and other equipment will be issued to students enrolled in Army ROTC courses. Students are responsible for the maintenance and upkeep of all items issued to them.

Courses:

Students may register for the following courses through St. Mary's University and other participating colleges and universities.

MS 1101 Fundamentals of Leadership and Management 1 sem. hour

Organization of the Army and ROTC; career opportunities for ROTC graduates, and the military as a profession. Customs and traditions of the service. Development of leadership potential, First Aid, and Introduction to Map Reading.

MS 1102 Fundamentals of Leadership and Management 1 sem. hour

Leadership studies of problems facing junior leaders in today's Army in non-combat situations. Effects of technological and sociological change on the military. Continuation of customs and traditions of the service. Development of leadership potential. Basic military skills training.

MS 2201 Self/Team Development 2 sem. hours

Learn/apply ethics-based leadership skills that develop individual abilities and contribute to the building of effective teams of people. Develop skills in oral presentations, writing concisely, planning events, coordination of group efforts, advanced first aid, land navigation, and basic military tactics.

MS 2202 Applied Leadership and Management 2 sem. hours

Military use of maps and terrain analysis with emphasis on practical experiences. Introduction to the leadership techniques required to conduct patrolling, offensive and defensive tactical missions.

MS 3301 Advanced Leadership and Management 3 sem. hours

Performance oriented instruction in preparation for Advanced Camp. Analysis of psychological, physiological, and sociological factors which affect human behavior. Analysis of leadership and management processes. Techniques in planning, presenting, and evaluating performance-oriented instruction.

Prerequisites: MS 1101, 1102, 2201, and 2202, or permission of the Professor of Military Science.

MS 3302 Advanced Leadership and Management 3 sem. hours

Performance-oriented instruction in preparation for Advanced Camp. Development of the student's ability to express him/herself clearly and accurately, with emphasis on the analysis of military problems, and the preparation and delivery of logical solutions. Analysis of the leader's role in planning, directing, and coordinating the efforts of individuals and small units in the execution of offensive and defensive tactical missions.

Prerequisites: MS 3301 or permission of the Professor of Military Science.

MS 4301 Seminar in Leadership and Management 3 sem. hours

Analysis of selected leadership and management problems. Responsibilities of the Commander and staff in the areas of administration, personnel, operations and logistics. Introduction to military justice and the Army training system.

Prerequisites: MS 3302 or permission of the Professor of Military Science.

MS 4302 Seminar in Leadership and Management 3 sem. hours

Analysis of selected leadership and management problems with a concentration on management problem analysis and decision making, planning and organizing, delegation and control, and interpersonal skills required for effective management. Seminars in the role of the officer in the conduct of personal affairs and ethics.

Prerequisite: MS 4301 or permission of the Professor of Military Science.

MS 5301, 5302 Advanced Seminar in Military Issues I, II 6 sem. hours

Analysis of various topics concerning the principles of war and the contemporary operating environment. Analysis and discussion of various topics pertaining to the duties and responsibilities of

a 2nd Lieutenant. Additional course options are special projects and Ranger Challenge participation based on guidance and approval of the Professor of Military Science.
Prerequisite: MS 4301 or 4302 or permission of the Professor of Military Science.

Correspondence Study

Trinity University does not offer undergraduate academic work by correspondence and does not accept such work.

Degree Requirements

The Trinity Curriculum

Trinity University offers undergraduate programs leading to the Bachelor of Arts, Bachelor of Science, and Bachelor of Music degrees, with majors in 26 departments and programs. Students are thus offered a wide variety of options, broadened further by the great number of individual choices open to them in fulfilling the requirements of their chosen degree programs. At the same time, the University is fundamentally committed to ensuring that all Trinity undergraduate degrees represent the broad and solid base of general learning with an underlying commitment to responsible participation in human affairs, which is called a liberal education.

The Trinity Curriculum has three components. The first is called the Common Curriculum because it provides the foundation in the liberal arts and sciences of all the bachelor's degrees awarded by the University. Through it, all students are introduced to the common life of learning, reflection, and discussion in which they are expected to share during their University years.

A second component of the Trinity Curriculum is the major. This component provides for in-depth study of a field of specialization. The requirements for each major are found in this bulletin in the departmental listings. Students may elect multiple disciplinary majors and/or construct a second, interdisciplinary major in consultation with their major advisers.

The third component of the Trinity Curriculum, the elective courses, enables the student to pursue other personal interests, to explore new areas of learning, or to pursue a minor or a second major.

To receive an undergraduate degree a student must:

- Complete at least 124 semester hours (129 semester hours for a Bachelor of Science in Engineering Science; 132 for a Bachelor of Music, Major in Choral or Instrumental Music, or 141 semester hours for a Bachelor of Music, Major in Performance or Composition). At least 60 hours must be taken outside the major.
- Complete the Common Curriculum.
- Complete at least one major.
- Complete 30 upper-division hours.
- Earn a minimum grade point average of 2.0 in both the major and the entire program of study.
- Satisfy the residency requirement. (See "Residency Requirement" in this section.)

To become eligible for a second, and different, bachelor's degree, a student must earn a minimum of 30 additional semester hours of work in residence beyond the requirements for one degree, 18 of which must be upper division. He/she must also complete courses necessary to meet the specified requirements for the second degree and major. In all the additional courses the student must have at least a 2.0 cumulative grade point average. Two undergraduate degrees can be awarded simultaneously to the same person. However, the two degrees must be of different types, such as a B.A. and a B.S.

A student who completes the requirements for two majors without earning the additional credit required for a second degree will receive a single degree with a double major.

Residency Requirement

Trinity believes that its students should fulfill at least half of their degree requirements in residence. With this principle in mind, the University establishes the following minimum residency requirements:

- At least 62 credit hours must be earned in residence to complete a baccalaureate degree.
- At least 15 credit hours of each major must be earned in residence, and at least 12 of those hours must be upper division.
- The last 30 credit hours before graduation must be earned in residence.

Exceptions for study abroad: Students with 62 or more semester hours earned at Trinity who wish to enroll in an approved study abroad program in their senior year may be exempted from the last 30 hours-in-residence requirement. Students who transfer to Trinity with 50 or more credit hours may count up to 15 semester hours of approved study abroad credit toward the 62-hour residency requirement. These same exceptions apply to special semester domestic programs approved by the Office of Study Abroad.

Information Literacy at Trinity University

Information literacy is the ability to gather, critically evaluate, and use information creatively and ethically. During their academic careers, Trinity students will receive systematic guidance and practical experience in order to prepare them for the knowledge economy of the twenty-first century. Students will learn to access information efficiently and to use it critically and competently. A systematic and coherent education in information literacy teaches students to understand the information cycle, be aware of search tools and strategies across disciplines, and to use the major resources in their majors.

Student Responsibility

This Bulletin is designed to assist the student and academic adviser in planning and scheduling a degree program. Each student at Trinity University should keep in mind, however, that he or she alone is ultimately responsible for understanding and fulfilling all degree requirements.

The Common Curriculum

The Purpose of the Curriculum

The Common Curriculum reflects Trinity's commitment to the liberal arts and sciences. The Curriculum is meant to establish for each Trinity student a basis for understanding the varied domains of human knowledge and experience. The Curriculum also includes skills necessary for active, critical, and creative participation in the academic life of the University. Paramount among those skills are the abilities to think creatively and critically, and to express such thinking effectively both orally and in writing. Together, those understandings and skills are necessary for the personal, lifelong quest for understanding of oneself and one's place in the world, and the serious commitment to respond to the opportunities and needs of society and self, which are true marks of a liberally educated person. The Common Curriculum consists of the following:

I. The First-Year Seminar and Writing Workshop

A. The First-Year Seminar (FYS)

Every new student must enroll in a First-Year Seminar (GNED 1300 or GNED 1301) in the first year at Trinity. Major primary works in any of the fields traditionally included in the liberal arts and sciences are assigned for study and discussion in the seminars, which serve both to induct the students into an intellectual discussion of substantive issues, and to enhance their speaking, writing, and bibliographic skills. A new transfer student with 26 semester hours of transfer credit or whose high school graduation date is a year or more prior to his or her matriculation at Trinity is exempted from the First-Year Seminar

requirements. The total number of hours required for any Trinity degree shall not be reduced by an exemption from the First-Year Seminar.

B. The Writing Workshop

The Writing Workshop addresses itself to the refinement and enhancement of skills in critical reading, analysis, judgment, and written composition, making sure that students are proficient in the use of these essential tools early in their academic careers.

With few exceptions, first-year students will enroll, during their first year at Trinity, in a section of the Writing Workshop. The exceptions are: (1) students who have a score of 5 on the Advanced Placement Test in English Language and Composition, or the Advanced Placement Test in English Literature and Composition; or (2) students who transfer an equivalent course from another institution.

C. Four Options for Fulfilling these Requirements

- i. First-Year Seminar and Writing Workshop in consecutive semesters with separate topics/foci.
- ii. Conjoined sections of First-Year Seminar and Writing Workshop under a single topic with multiple sections, each section earning six hours of academic credit (for example, HUMA 1600).
- iii. First-Year Seminar under a single topic with multiple sections and a consecutive, nonaligned section of Writing Workshop (for example, the First-Year Seminar in Science and Religion in the fall/Writing Workshop in the spring).
- iv. Individual sections of First-Year Seminar conjoined with individual sections of Writing Workshop in a given semester -- fall or spring.

II. Foreign Language, Information Technology, and Mathematical Skills

Given the importance of skill in the use of foreign languages, of proficiency in the use of information technology, and of an understanding of mathematical reasoning for contemporary liberally educated graduates, the Common Curriculum sets these standards. Students are encouraged to go beyond the minimum in all these areas.

A. Foreign Languages

Study of a foreign language is an essential part of a liberal arts education. Students are encouraged to continue their study of a foreign language and to study new languages. The University requires two years of a foreign language (either ancient or modern) for admission. To graduate from Trinity, students must reach a minimum level of competence corresponding to that attained after successful completion of the first semester of the second year of college foreign language study (courses number "2301"). Students can fulfill this graduation requirement by:

- Successfully completing a third-semester (intermediate) language course or higher at Trinity University, or receiving transfer credit for such a course
- Successfully completing an approved intermediate language course while studying abroad for at least one semester in a non-English speaking country
- Receiving an acceptable score on the Advanced Placement (AP) Test, the International Baccalaureate (IB) Exam, or the SAT II Language Exam
- Taking the third year of a single language in high school and receiving a B or better in the final semester of the last year
- Passing a language placement exam offered by the Department of Modern Languages and Literatures or the Department of Classical Studies

B. Information Technology (IT)

Students must be able to use information technology to collect, organize, analyze, create, and

communicate information in an academic environment. We expect all students to augment their IT skills in the following areas, since a Trinity curricular emphasis is information literacy:

1. Basic computing (hardware, software, files, and formats);
2. Text production (using, e.g., desktop publishing software);
3. Quantitative analysis (using, e.g., spreadsheet software);
4. Information management (using, e.g., database software);
5. Image processing (using, e.g., graphics/drawing/photo software);
6. Communications (using, e.g., networks, wikis, and the Internet); and
7. Information Ethics (e.g., privacy, legal use and citation of software and data, etc.).

There are approved courses designed around the above activities and including both instruction in, and hands-on use of, computers, network resources, and related technologies. Students must fulfill this requirement by successful completion of one of the approved courses or of the IT Skills exam given during their first year. Students must complete the IT Skills requirement by the end of the first semester of the sophomore year.

C. Mathematics

The University requires completion of three years of college preparatory mathematics, including either trigonometry or pre-calculus for admission as a first-year student.

Further development of the quantitative ability of all students is required as part of Understanding Quantitative Reasoning.

III. Fitness Education

Students should possess basic knowledge, understanding, or skills that will help them to make good decisions relating to health throughout life. The premise underlying this objective is that students will be more likely to engage in a healthy lifestyle of exercise and physical activity throughout their lives if they

- a. possess the necessary skills to participate in a lifetime sport or activity, or
- b. understand fitness and its importance, or
- c. understand exercise and physical activity, and their importance.

This requirement must be satisfied by the completion of one approved course.

IV. The Understandings

- Understanding Cultural Heritage
- Understanding the Arts and Literature
- Understanding Human Social Interaction
- Understanding Quantitative Reasoning
- Understanding Natural Science and Technology

The Common Curriculum is designed to involve all students in learning in these fundamental areas, which represent the essentials of a liberal arts education. The courses will, where appropriate, include the development and demonstration of writing and speaking skills.

In order to ensure breadth in the Common Curriculum, the following restrictions apply:

1. A student may take no more than seven hours in a single department to satisfy these requirements.

2. In no case may a student apply a single course to satisfy more than one of the Understandings.
3. Should a given course be certified as meeting the criteria of more than one of the Understandings, students taking that course for Common Curriculum purposes must decide, in consultation with their advisers, the Understanding to which it will actually apply.
4. Neither the First-Year Seminar nor the Writing Workshop may be used to meet the requirements of any of the Understandings.

Understanding Cultural Heritage

Understanding the traditions that underlie the world's cultures. Three courses, at least one from each of the following two categories:

- Traditions Indigenous to Africa, Asia, the Americas, Australia, and Oceania
- Greco-Roman, Jewish, and Christian Traditions through the Early Modern Period

(9 hours) Rationale:

The primary emphasis in these courses is on culture, how individuals and societies have defined themselves and the world through their ideas, beliefs, and customs. To encourage students to enlarge their horizons in both time and space, the Understanding is subdivided between "western" and "nonwestern" cultures, and includes courses that concentrate on the past. This Understanding requires students to have an understanding of at least one culture indigenous to Africa, Asia, the Americas, and Oceania and to have an understanding of the formation of western culture from the ancient Greeks through the early modern period. The goal of this Understanding is to encourage the development of a historically informed, critical understanding of various cultures.

Criteria:

Traditions Indigenous to Africa, Asia, the Americas, Australia, and Oceania

- Courses emphasize the cultural traditions indigenous to Africa, Asia, the Americas, Australia, or Oceania.
- Courses emphasize larger historical and cultural processes, with an emphasis on cultural character.

Greco-Roman, Jewish, and Christian Traditions through the Early Modern Period

- Courses address the foundations of Western culture, from the ancient Greeks through the early modern period.
- Courses emphasize larger historical and cultural processes, with an emphasis on cultural character.

Understanding the Arts and Literature

Understanding the arts and literature as principal ways of expressing and enriching the human spirit, approached through involvement with artistic creation, performance, and theories of production and critique; and with the critical analysis of literary texts. Three courses, at least one from each of the following categories:

- Visual Arts, Music, Performance, and Aesthetic Production
- Literary Studies

(9 hours) Rationale:

This Understanding reflects the fundamental importance of the arts and literature to a liberal arts education. The courses in this category approach the arts and literature from multiple perspectives. The first subdivision, "Visual Arts, Music, Performance, and Aesthetic Production," emphasizes the production of art as well as theories of production, performance, and historical/cultural analysis. The second subdivision, "Literary Studies," emphasizes the analysis of literary texts in a range of

historical/cultural and rhetorical contexts. The goal of courses in both subdivisions is for students to cultivate contextual awareness, intellectual independence, and creative insight through a process of aesthetic engagement.

Criteria:

Visual Arts, Music, Performance, and Aesthetic Production Courses

emphasize at least one of the following:

- close study of art work in a range of contexts
- theories and techniques of aesthetic production and performance active participation in aesthetic production and performance

Literary Studies

Courses emphasize at least one of the following:

- close study of the literary text in a range of contexts
- theories and techniques of literature and literary production

Understanding Human Social Interaction

Understanding the behavior of individuals and groups within social, historical, and institutional contexts, focusing on the ways in which the social sciences and humanities seek to understand human behavior and social cultures, and providing an in-depth investigation of significant social issues and cultural values that help shape individual and social choice. Three courses are required to satisfy this Understanding:

- Approaches to the Social Sciences (2 courses)
- Social Issues and Values (1 course)

(9 hours) Rationale:

This Understanding addresses the broad range of human behavior, along with its causes and consequences. The goals of this Understanding are (1) to explain the behavior of humans in their capacity as individuals as well as social agents through the theoretical and methodological approaches of social sciences disciplines; and (2) to reflect upon formation of cultural values and their complex interplay with human choices and actions.

Criteria:

Approaches to the Social Sciences

- Courses utilize at least one of the basic theoretical, analytical, or methodological approaches of one of the social sciences; and
- Courses impart the substantive character of its discipline, elucidating the selected approach or approaches within the broader context of the chosen discipline.

Social Issues and Values

Courses emphasize at least one of the following:

- Ways of comparing, critically assessing, and choosing social values
- Application of values to human choice, social issues, and/or society itself
- Application of the methods of at least one of the social sciences in understanding a significant social issue or institution

Understanding Quantitative Reasoning

Understanding mathematics, symbolic abstraction, and quantitative analysis as modes of cognition and tools in problem solving. (1 course, 3 hours)

Rationale:

This Understanding introduces students to methods of thought and language indispensable to a liberal education, to enlightened citizenship in an increasingly technological age, and to understanding of scientific and social phenomena. The goals of this Understanding are (1) to give students an appreciation of the cognitive power of quantitative methods and their applications; (2) to provide them with a framework for problem solving; and (3) to endow them with tools to organize and interpret information and to make informed decisions.

Criteria:

- Courses explore complex problems mathematically and teach problem solving within a structured mathematical framework.
- Courses include symbolic formulation and analysis.
- Courses interpret quantitative results and strive for the understanding of the mathematical apparatus.

Understanding Natural Science and Technology

Understanding the foundations and methods of the natural sciences and technology. Understanding ways that natural science and technology impact humans, society, and the environment. Two courses are required to fulfill this Understanding. One course must focus on the fundamentals of a natural science, and one course must actively involve the student in using scientific methods to explore physical or biological phenomena or technology. One of the two courses may fulfill both the natural science and use of scientific methods requirements. (2 courses, at least 6 hours)

Rationale:

This Understanding addresses the need of all students to understand the implications and benefits of science and technology, along with an appreciation of the potential and the limits of science and technology to address societal needs. The goal of the courses in this category is to promote greater literacy in science and technology by teaching students to understand the fundamental nature of science, the methods and results of the natural sciences, the methodologies of science and technology, and the relationship between science and technology.

Criteria:

All courses study the methods and results of the scientific study of the natural universe or the methods and results of applied science, engineering, and technology. Courses may also focus on the impacts of science and technology on humans, society, and our world. These impacts may include ethical, environmental, social, or philosophical issues. Courses satisfying the natural science and using scientific methods requirements must also meet the following additional criteria:

Natural Science

- Courses relate scientific results and methods to phenomena in the natural universe. These phenomena include physical, biological, chemical, and geological processes.
- Courses use the theories, results, and methods concerning one or more of these classes of phenomena.

Using Scientific Methods

- These courses actively involve the student in using scientific methods to study physical or biological phenomena or technology.
- Activities should include understanding the design of experiments, acquisition of data, analysis of data, drawing conclusions, and the testing of conclusions.
- These activities may be integrated in the course or may take place in a coupled laboratory course.

The Major

The candidate for a baccalaureate degree must fulfill the requirements for a major in one of the departments or in one of the interdisciplinary majors listed in the Courses of Study Bulletin. Official admission to a major program occurs in the sophomore year, although the student may begin taking courses in the major department before official admission. A student may apply to major in two departments.

After students achieve sophomore standing and before achieving junior standing (58 credit hours completed), they must apply for admission to the chair of the department in which they wish to major or to the chair of the committee administering the chosen interdepartmental major. Students may be accepted without conditions or accepted on a provisional basis. Provisional status, if imposed, should be noted on the form. At the end of the provisional period, the chair will notify the student and the Office of the Registrar of the final decision of the department.

Application forms for declaring a major are available in the Office of the Registrar. As part of the application process, students are strongly encouraged to complete an online evaluation of the first-year advising program.

Interdisciplinary Second Major

Students may create their own second major. This interdisciplinary major is designed and pursued in close conjunction with faculty in the relevant departments and approved in advance by the beginning of the junior year by the interdisciplinary second major program (ISMP) council on individually designed majors. It is the responsibility of the student to select the courses that will make up his or her interdisciplinary second major and to demonstrate that these courses construct a rigorous and comprehensive learning path not possible under a currently existing major.

Beyond the Classroom: Trinity University's Intensive Learning Experience

Students may earn credit for intensive academic experiences that take place outside of the normal classroom environment, and outside the conventional academic schedule. Examples include, but are not limited to, research projects, field trips, theater productions, and travel for musical performance or language study. They involve close guidance, supervision, or collaboration with individual faculty who organize and administer the courses. For policies governing these courses, consult the [Proposal to Create a Beyond the Classroom Experience](#).

The Minor

A minor consists of at least 18 semester hours, no fewer than nine of which must be taken at Trinity, and no fewer than nine of which must be upper division. (Exception: for the requirements for a minor in French, German, Russian, or Spanish, see the Modern Languages and Literatures section of this bulletin; for the requirements for a minor in Greek or Latin, see the Classical Studies section.) Consult the appropriate departmental section of this bulletin for specific courses required for each minor. Courses counted toward a minor may not be taken Pass/Fail unless the course is offered exclusively on a Pass/Fail basis. A minor is not required for the completion of any Trinity degree.

Graduation With Honors

Departmental/Major Honors

Students who have maintained their scholastic standing on high levels and who complete a thesis supervised by a faculty member in the department of the major may be candidates for Departmental Honors. Not all departments offer the opportunity for Departmental Honors; consult the course listings of the individual department or program in this Courses of Study Bulletin.

The minimum requirements qualifying a student for Departmental Honors include a 3.33 grade point average, both cumulatively and in the major. Individual departments may require a higher grade point average in departmental courses, but not a higher overall grade-point average.

In addition to the grade-point requirements, a minimum of 6 hours of thesis credit must be acquired during the last three semesters before graduation. This curricular option, entitled Thesis, may also be available to students who are not candidates for Departmental Honors. In all cases the thesis provides students with the opportunity for independent scholarly, scientific, or artistic work. Students may enroll for thesis credit only with the permission of the instructor who will be the adviser. Grounds for faculty decisions may include faculty load, appropriate expertise to guide the particular project, and the willingness of the faculty member to serve as adviser.

In anticipation of completion of the 6 hours of Thesis and the grade-point requirements, the student may become a candidate for Departmental Honors by addressing a written request for consideration to the chair of the department. The request must be received no later than the end of the first full week of the student's final semester at Trinity.

Additional requirements for candidacy vary according to the department but minimally include the oral and written presentation of the thesis to a committee of no fewer than two members of the faculty: the adviser and a reader with appropriate expertise in the area of the thesis. Based on the quality of these presentations, the committee makes the recommendation to award Departmental Honors to the department chair. If the award is made by the department, copies of the thesis are submitted to the Office of Academic Affairs. Students have three options for depositing their theses with the University, and each student should discuss these options with their thesis adviser. The first option is the submission of the thesis in electronic format for deposit in the Trinity Digital Commons. It will be accessible through the Internet to anyone and indexed by search engines like Google. For those who would prefer that their theses not be viewable outside the Trinity campus, there are two other options. (This may be a concern, for instance, if the student intends to submit the thesis for publication to a journal which considers digital archiving to be "previous publication.") One is for the library staff to add the thesis to the Digital Commons but restrict its viewing to campus computers only, thereby treating the thesis as a traditional library print copy. Only the thesis title and abstract will be available to Internet users off-campus. The final option is to submit a traditional print thesis. The costs of binding will be paid by the student. The student can provide the University with two bound copies of the thesis. The award will be indicated by a designation of Departmental Honors on the student's transcript. If the award of honors is denied, the thesis will be considered for non-honors thesis credit.

University Honors

Students who have maintained their scholastic standing on high levels will graduate with Honors. Students acquiring a grade-point average of 3.875 will receive their degrees summa cum laude; students acquiring a grade point average of 3.750 will receive their degrees magna cum laude; and students acquiring a grade-point average of 3.500 will receive their degrees cum laude. The grade-point average is determined by dividing the total number of grade points earned by the total number of semester hours attempted and the average is not rounded. Honors will be determined on the basis of four years of undergraduate work, 60 semester hours of which must be taken at Trinity University.

Students transferring from other institutions will be required to submit all of their grades, but the average grade for the purpose of determining honors shall not exceed the average of their work taken at Trinity University. (Exception: Grades earned in approved Study Abroad programs are not included in the calculation for graduation with Honors.)

Phi Beta Kappa

Phi Beta Kappa, the nation's oldest and most prestigious academic honor society, founded in 1776, elects students with broad cultural interests and scholastic achievement. The Epsilon of Texas Chapter at Trinity University, installed in 1974, is one of 280 chapters at distinguished colleges and universities in the United States. Selection of student members, or members-in-course, is generally made in the student's senior year, although a few juniors (usually three or four) are elected each year. The names of those elected are announced prior to graduation in the spring semester. Students do not apply for election to Phi Beta Kappa; the Chapter screens student records.

Criteria for election to Phi Beta Kappa are determined by the Chapter under the guidelines of the national organization. To be eligible for election, the student must satisfy certain minimum criteria:

1. Candidates pursuing a single major in Business Administration or a Bachelor of Music degree are not eligible. Those pursuing a single Bachelor of Arts degree with a major in Music ARE eligible.
2. Candidates must have completed a minimum of 60 hours of primarily liberal arts coursework at Trinity by graduation. Candidates for election as juniors must have completed a minimum of 75 hours of primarily liberal arts coursework at Trinity at the time of the election.
3. Candidates must have completed at least one three-hour course in Mathematics at the level of calculus or higher. Pass/Fail work is not accepted.
4. Candidates must have completed at least one course in a foreign language at the intermediate level or higher. Pass/Fail work is not accepted.

Criteria 3 and 4 are not satisfied by high school experience. Advanced Placement and transfer credit are accepted. Those who are eligible, based on the above minimum standards, are ranked on the basis of grade point average. Those who do not meet the minimum criteria may be nominated for membership by individual members of the chapter.

Contact the Office of Academic Affairs for further information.

Preprofessional Programs

Trinity University offers preprofessional programs in health professions and law. Many of the professions require or recommend the completion of a liberal arts degree before the student begins his or her specialized work. Variations in programs can be arranged to meet individual needs. Students who plan graduate work are urged to make early selection of the graduate or professional school in order to meet the entrance requirements of the chosen institutions. Current catalogs of graduate and professional schools are on file in the reference section of the library.

Trinity University provides individual guidance for students who plan to enter professional schools. Students are invited to contact the chair of the appropriate committee.

Health Professions Advisory Committee

The Health Professions Advisory Committee (HPAC) develops plans for students to progress through sequences of preparatory work required for postgraduate study in the professions of medicine, dentistry, and certain allied health fields. Dr. James Shinkle is the chair of the committee, and Dr. Jonathan King serves as associate chair.

The Health Professions Advisory Committee establishes the policies and procedures for students who plan to enter the medically oriented professional schools. Applications to medical, dental, and veterinary schools are routinely made through the HPAC administrative office. Certain other allied health schools also require that applications be made through the HPAC. Students indicating preprofessional interests in medicine or related fields will be assigned to a faculty member familiar with health professions curricula starting with the first advisement.

Though medical schools and medically related professional schools do not require their entering students to have majors in any particular fields, they do have specific entrance requirements and great care is exercised by the committee in advising preprofessional students. For example, Texas state medical schools list the following prerequisites: one year of college English; one-half year of college calculus; two years of biology; one year of general and one year of organic chemistry; and one year of physics.

The science courses (biology, chemistry, physics) must be those designed for science majors and must include laboratory work. A premedical or predental student should plan on taking two of these courses per semester for one or two years of college, often beginning in the first year. All of the prerequisite science courses are usually completed in six semesters. Admissions committees may waive some of these course requirements if competency can be established on the basis of previous work. These decisions are made by individual professional schools on a case-by-case basis, and the preparation of a request for waiver is done in consultation with the student's premedical adviser and the chair of the HPAC.

Prelaw Advisory Committee

The Prelaw Advisory Committee provides individual guidance and counseling for Trinity students who plan to enter law schools. Students currently enrolled at Trinity who become interested in applying to law schools late in their academic careers can request an appointment with the committee member closest to their major for review of their academic achievements. Dr. John Hermann is the chair of the committee.

Law schools do not usually require specific courses as prerequisites to application. Therefore, advisers will recommend courses that they consider useful for success in law school and law-related careers in light of each student's particular academic background.

Guidance for Students Interested in Ministry

The University Chaplain, Reverend Stephen Nickle, supports a program of exploration, guidance, and counsel for Trinity students who are interested in careers in ministry. The program is one of vocational clarification tailored to the needs and questions of individual students. It consists of exercises in faith development, participation in initiatives in ministry, reflection on interactions with congregations, and accessing national resources for students intrigued by such professions.

Seminaries and rabbinic schools do not usually require specific courses as prerequisites to application. Therefore, the Chaplain will discuss disciplines that will prepare students for success in ministerial education and careers in light of each student's particular academic background.

General Degree Regulations

AWARDING OF DEGREES

Upon the recommendation of the faculty and the approval of the Board of Trustees, Trinity University confers the degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Music. (For graduate degrees, see the section on Graduate Studies.) Only those candidates who have fulfilled all scholastic requirements for a degree and who have met their financial obligations to the University will be recommended for the degree.

APPLICATION FOR A DEGREE

A candidate for an undergraduate degree must file an application for the degree in the Office of the Registrar. Dates are specified in the University calendar as deadlines for applying for degrees. Candidates for degrees at winter commencement must apply by the last class day in April; candidates for spring commencement must apply by the first day of classes in December; and candidates for summer graduation must apply by the last day in June.

Candidacy for a degree is not complete until all financial obligations are met. A degree candidate must be registered in the semester or summer term in which the degree will be awarded. If the student is not registered for credit or for study abroad, the student will register for SPCL 4099. There will be a fee of \$200 for registration for SPCL 4099. Registration for SPCL 4099 will be considered as less than one-fourth time for purposes of registration certification.

A degree candidate must be present for commencement exercises unless he/she submits a written request for permission to graduate in absentia to the Registrar at least two weeks prior to commencement.

BULLETIN REQUIREMENTS

A candidate for an undergraduate degree must meet the requirements as outlined in the Courses of Study Bulletin for the year of his/her first enrollment at Trinity University or any subsequent bulletin under which work is taken. In all cases, however, a candidate must complete work for his/her degree within a period of seven years from the date of the bulletin selected. The degree requirements with which a candidate complies must come from a single bulletin.

MUSIC ENSEMBLES

Ensembles may be repeated for credit but no more than 8 semester hours credit (all ensembles combined) may be applied to a degree.

INTERPRETATION OF DEGREE REQUIREMENTS

The interpretation of all degree requirements is the responsibility of the Office of Academic Affairs and the Registrar. Problems related to degree requirements should be referred to the Registrar, the faculty adviser, or the department chair. For exceptions to policy in academic matters, students should consult with the Office of Academic Affairs; new students and other students without a declared major may consult the Office of Academic Affairs.

Academic Regulations

Semester Hours

One credit hour represents a minimum of three hours of student academic work per week for approximately fifteen weeks for one semester, or an equivalent amount of student academic work distributed over a different time period. Student academic work may include lectures, seminars, tutorials, applied and studio instruction, laboratories, supervised fieldwork, as well as reading, writing, homework, research, community-engaged experiences, practica, rehearsals, and performances.

The nature of the three hours of expected academic work and the way in which that work will be evaluated by faculty will be documented in proposals to the University Curriculum Council for new or revised courses, and will be included in all course syllabi.

A minimum of 124 semester hours is required for a baccalaureate degree in most majors, except in Engineering Science (129 semester hours), in Choral or Instrumental Music (132 semester hours), and in Music Performance or Composition (141 semester hours).

Academic Workload

Payment of full tuition permits an enrollment of 12–18 hours per semester. An undergraduate student is regarded as being enrolled full time if the student is registered for 12 semester hours of course work in the fall and spring semesters, or for six hours of course work in the summer. Students who wish to take more than 18 hours during one semester, or 36 semester hours in one nine-month academic year, must receive a waiver of the university policy from the Office of Academic Affairs (prior approval needed from faculty adviser).

An undergraduate student in the final semester prior to his or her graduation is regarded as being enrolled full time if the student is registered for one or more semester hours of coursework representing the remaining degree requirement.

To be considered full time for financial aid purposes, an undergraduate must be enrolled in at least 12 hours at the end of the add/drop period of each enrollment term (summer, fall, or spring), including the final semester prior to his or her graduation. Financial aid may be available for undergraduate students who enroll for fewer than 12 hours per term.

Undergraduate Enrollment in Graduate Courses

Students who have nearly completed the requirements for a bachelor's degree at Trinity are occasionally permitted to enroll for a limited number of graduate courses.

Undergraduate students at Trinity will be permitted to enroll in 5000-level courses and receive credit toward their baccalaureate degree under the following conditions: In order to qualify, a student must be within 30 hours of graduation, have an overall grade point average of 3.50, and an average of 3.75 in his/her major field. The student is required to have approval from the chair of his/her major department and also approval from the Vice President for Faculty and Student Affairs. If a student wishes to enroll in a course in a department other than his/her major field, additional approval from the chair of the department offering the course is needed. Students are limited to one 5000-level course each semester and are required to have separate approval for each semester in which they wish to take a graduate course. They are not required to apply for graduate admission. The graduate credit hours may not be applied to both the graduate and undergraduate degrees.

Classification of Students

Students are classified on the following basis:

Graduate	Completion or near completion of the requirements for a baccalaureate degree and admission to one or more graduate classes for graduate credit.
Senior	A minimum of 88 semester hours on record.
Junior	A minimum of 58 hours on record. Sophomore
First year	A minimum of 26 semester hours on record.
Postgraduate	Fulfillment of entrance requirements and less than 26 semester hours on record.
Special	Baccalaureate degree and enrollment in undergraduate courses for undergraduate credit.
Noncredit	A student taking courses at Trinity with temporary permission and not a candidate for a degree from Trinity.
	Recipient of full instructional attention and participation in class without academic credit. No course taken as noncredit may subsequently count for credit unless the course is repeated.

Grades

GRADING SYSTEM

The grading system at Trinity involves letter grades which are assigned a quality point value per semester hour of credit as follows:

A	superior	4.000
A-		3.667
B+		3.333
B	good	3.000
B-		2.667
C+		2.333
C	average	2.000
C-		1.667
D+	poor	1.333
D		1.000
F	failure	0.000
I		incomplete
W		withdrew from course
PP		passing in a pass/fail course
FF		failing in a pass/fail course
PR		in progress (thesis course only)

All A, B, C, and D grades are passing grades. A grade of W is not included in computing grade averages. Grades of I and PR are not included in the grade average. If the student is unable to finish the thesis during the second semester, the thesis adviser upon evaluation of the work the student has completed to date can change the first semester "PR" grade to "PP" or "FF". Courses in which F and FF grades are received must be repeated at Trinity to receive credit.

I, PR, W, FF and PP grades carry no grade point average. Hours earned with PP grade will count toward the student's total hours for graduation.

Grade Point Average

The student's overall evaluation is stated in terms of a grade point average. This average is obtained by dividing the number of grade points earned by the number of hours of work attempted in courses which carry grade points. The student's cumulative grade average is obtained by dividing all grade points earned throughout enrollment at Trinity University by the number of semester hours attempted in courses that carry grade points. Only grades in courses taken in residence at Trinity University will factor into the grade point average.

If a student repeats a course at Trinity, all grades for the course will be used in computing the grade average. Only courses that are specifically designated may be repeated for credit. All other repeated courses will be shown on the permanent record as repeated with grades listed and duplicate credit, if any, deleted.

Grades in Major or Minor

As part of a student's degree requirements, a cumulative grade point average of at least 2.0 is required on all courses taken in each of the student's major or minor disciplines.

A course taken for a student's major (minor) in which the student earns a grade of D (for example) satisfies the requirements for the major (minor), but the student must have an overall average on all courses for the major (minor) of 2.0. Should the student choose to repeat a course in which a grade of D (for example) was earned, both grades are included in determining the grade point average in the major (minor). If a student is a double major, each major is considered separately and without regard to the other major in determining whether graduation requirements are satisfied. If a course, such as a cross-listed course, is required for both majors, it is included in the grade point calculation for each major.

Grades for Prerequisite Courses

A student may satisfy the prerequisites for any course at Trinity only by receiving a grade of C- or higher in each of the prerequisite courses.

Grade Reports

Reports of grades for all students are available online from the Trinity University website at the close of each semester. Hard copies of grade reports are available from the Office of the Registrar upon request by the student. The semester grades become a part of the student's permanent record. Mid-semester grades of C- and lower are not permanently recorded but are posted online for information and guidance.

Pass/Fail Option

A student may register for an elective course on a Pass/Fail basis and not be in competition with majors in that field for a course grade. This option is intended to encourage the student to explore new academic areas without endangering the student's grade average.

Limitations on Pass/Fail registration are:

- a. Only one course per semester may be taken Pass/Fail.

- b. No course counted for the major or minor and no course being used to meet a Common Curriculum requirement may be taken Pass/Fail unless the course is offered exclusively on a Pass/Fail basis.
- c. Pass/Fail courses must be listed at the time of registration and may not be changed after the date specified in the academic calendar (15 days from start of classes) to a letter grade basis; conversely, courses taken for a letter grade may not be changed subsequently to Pass/Fail after the 15th class day.

Not all departments permit Pass/Fail registration. Courses which may not be taken Pass/Fail are usually marked on the published class schedule.

Incomplete Grades

An I, meaning “incomplete,” indicates that a student has done work of a passing grade in a course but has failed to do some portion of the required work because of an emergency. An I grade may not be given solely to allow additional time to complete a course. It is the student’s responsibility to have this deficiency removed before the end of the first semester following the time of receiving the grade of I or the grade will be changed to F.

If no change has been made by the instructor after one semester has elapsed, the Registrar is authorized to change all grades of I to F.

If the instructor involved is no longer connected with Trinity University and the Registrar is unable to communicate with the instructor, the Registrar will record an automatic F.

For the purposes of determining scholastic probation, incomplete grades will not be counted as hours attempted.

Repeating of Courses

Any student who fails a course at Trinity University and then elects to repeat that course must do so at Trinity University. All of the grades for repeated courses will be included in the cumulative grade point average. Credit will only be awarded once for repeated courses unless the course has been designed as “may be repeated for credit.”

Grade Appeals

Trinity University recognizes that students are responsible for maintaining standards of academic performance established for each course in which they are enrolled. However, the University also recognizes that students should have protection through orderly procedures against prejudicial or capricious academic evaluation. In all cases, the burden of proof rests on the student initiating the appeal.

The procedures for student appeal of semester grades contain the presumption that student grades are the responsibility of the course instructor. As a matter of academic principle, the process of appeal remains in the hands of the teaching faculty. Except for the actions specified in Section 2 and Section 5 below, members of the Administration are not involved in the grade appeal process. Following the decision involved in each step of this appeal process, if the student wishes to appeal to the next level he or she must notify the appropriate party in writing of his or her intent to do so within the first two weeks of the following semester (i.e., fall, spring, summer). (If, in the following semester, the student will be studying away from Trinity or the faculty member will be on leave, then the request for appeal still must be filed within two weeks, but the appeals process will be deferred until the student and faculty member return to Trinity.)

1. To initiate the appeal of a semester grade, the student will speak to or notify the instructor of his or her appeal. Upon initiation of the appeals process (and upon return of both student and faculty member to Trinity, if the appeals process was deferred), the instructor has one week to notify the student of the outcome of his or her review of the grade. If the student remains convinced that the contested grade results from inappropriate or mistaken evaluation of a course grade, then the student may proceed to step two below.
2. To initiate step two, the student will notify the instructor's departmental Chair (or acting department Chair) and explain in writing the grounds on which an appeal is being sought; the instructor will receive a copy of this statement. The student must request the appeal and present the grounds for it no later than the tenth class day of the succeeding Fall or Spring semester.

The chair will attempt to mediate a discussion between the student and the instructor to clarify the matter and suggest possible resolutions. If the Chair happens also to be the instructor involved, then the student may request that the Associate Vice President for Academic Affairs: Curriculum and Student Issues ask another faculty member of the department to receive the student's appeal.

3. If this mediation is unsuccessful, the Chair (or the Chair's substitute) will appoint two tenured members of the department to serve as a review committee, and will notify the student and the instructor of this action. In the case of a General Education or cross-listed course, the instructor's Department will serve as the site for the appeals process. If the student is a major or minor in the Department, the student may ask his or her adviser to be an additional member of the committee. If a small department cannot provide two eligible faculty members to serve on the committee, then the Chair (or the Chair's substitute) will ask a faculty member from a department similar in curriculum and academic evaluation to serve on this committee. Departmental review committees may be convened only during an academic semester.

The departmental review committee will receive written statements from both the student and the instructor, as well as copies of any graded work involved. In addition, both the student and the instructor (and the student's academic adviser, if requested) may be present for the duration of the hearing (prior to voting), during which both parties may offer clarifying statements. The department Chair will also be present at the meeting, but will not be involved in the determination of the appeal. If, after considering these statements, the committee decides that there has been no breach of proper or stated procedure in the determination of the grade, the Chair (or the Chair's substitute) will give written notification of this decision to the student and the instructor.

However, if the departmental committee determines that there has been an improper evaluation, the Chair (or the Chair's substitute) shall advise the instructor to reconsider the student's semester grade in a manner consistent with proper and stated procedures. If the instructor rejects this advice or fails to comply in a manner satisfactory to the committee, then the committee may undertake an evaluation of the student work in question and assign the grade it deems appropriate.

4. If either the student or the instructor contests the decision of the departmental committee, the student or the instructor may pursue a further appeal. The student or the instructor will submit a written statement to the Chair of the Faculty Senate who, with the advice and consent of the Chair of the University Curriculum Council, will appoint three members of the faculty from outside the department in question. All three members of this Faculty Grade Appeals Committee should come from one or more departments similar to the instructor's department in terms of curriculum and student evaluation. The findings of this committee will determine the final semester grade.
5. If either the student or the instructor contests the decision of the Faculty Grade Appeals Committee, the appellant may petition the Vice President for Faculty and Student Affairs for

further consideration, who may then rule in one of three ways, the outcome of which will conclude the University process of grade appeal:

- a. That the decision of the Faculty Grade Appeals Committee will stand as rendered;
- b. That the Faculty Grade Appeals Committee reconsider its findings and render a decision based on the reconsideration; or
- c. That the Chair of the Faculty Senate, with the advice and consent of the Chair of the University Curriculum Council, appoint a new Faculty Grade Appeals Committee, composed of three tenured faculty members who have not previously participated in the appeal. This committee will hear the appeal and render a final judgment.

Dean's List

In order to merit the honor of being placed on the Dean's List, a student must have completed 15 or more grade point carrying hours of credit in one semester and have earned a grade point average of 3.65 or above. Names of students achieving this distinction are published at the close of each semester.

Access to Records

The University complies with the provisions of Public Law 93-380, the Family Educational Rights and Privacy Act. Prescribed educational records of students are open to their inspection upon formal request, in accordance with federal regulations. Every effort is made, within the letter and the spirit of the law, to prevent release of data and records to third parties, except upon specific request of the student.

Requests to inspect records should be addressed to the appropriate University official as follows:

Academic records	Registrar
Personal records of students	Vice President for Student Affairs
Teacher education records	Chair, Department of Education
Financial aid records	Director of Financial Aid
Financial records	Associate Vice President for Fiscal Affairs
Graduate personal records	Chair of the department of graduate major

Letters of recommendation and student rating sheets supplied in the admission process are used as working papers only and do not become a part of the permanent educational record of the student.

Transcripts of Credit

Transcripts of credit will be issued by the Registrar to all students and former students requesting them, subject to certain conditions. One of these is that all amounts owed to the University must be paid. Official transcripts of credits will be forwarded directly to the student or to a recipient designated by the student.

Because of limitations posed by privacy laws, transcript requests should be made in writing.

As a courtesy to current and former students, official transcripts will normally be prepared at no charge. Transcripts usually require three full working days to be prepared and mailed. Rush delivery requests are accepted but will incur a service fee of \$10 plus any additional postage. At the end of a term, ten working days after the date grades are due may be required to issue transcripts including current grades and graduation information.

Academic Standing

GOOD STANDING

Good standing refers to the academic progress of students who are not on probation or on academic dismissal. The minimum requirements for academic good standing are as follows:

- A. 1.80 cumulative GPA for first semester students who have attempted at least 12 semester hours.
- B. 2.00 cumulative GPA for students beyond the first semester who have attempted more than 12 semester hours.

SATISFACTORY ACADEMIC PROGRESS

- I. Students who carry a full load of courses are expected to make satisfactory progress toward completion of a degree within a reasonable time. The standards for Satisfactory Academic Progress (SAP) are as follows:
 - A. Students must average at least 12 hours per semester.
 - B. Students must complete at least 24 hours per academic year unless on an officially approved leave.
 - C. Students who enroll mid-year must complete at least 12 hours prior to the start of the fall semester.
 - D. Summer hours earned after matriculation may be included in the calculation of SAP.
 - E. Credit by examination and transfer hours earned prior to matriculation may not be included in the calculation of SAP.

II. Student-Athletes

For students who officially represent the University in intercollegiate athletics sanctioned by the National Collegiate Athletics Association, Satisfactory Academic Progress will be evaluated by the Registrar once a year at the end of the Spring semester. To be eligible to participate in NCAA-sanctioned athletics during a given academic year, student-athletes must satisfy the standards for SAP prior to the beginning of the Fall semester and must also be enrolled for at least 12 hours during the semester in which competition takes place.

III. Transfer Students

- A. A transfer student will be expected to fulfill the standards for Satisfactory Academic Progress (SAP) as stated above in Section I.
- B. A transfer student's academic good standing will be measured only on grades earned at Trinity University.

SATISFACTORY PROGRESS REQUIREMENTS FOR UNDERGRADUATE FINANCIAL AID RECIPIENTS

In order to receive financial assistance, a student must be making satisfactory academic progress toward a degree in accordance with policies established by Trinity University as required by the Department of Education. For a full definition of satisfactory academic progress for financial aid, please refer to the financial aid section of this *Bulletin*.

Probation and Dismissal

Only students whose scholastic averages are maintained at or above good standing will be permitted to continue in the University.

Student records are reviewed by the Committee on Academic Standing at the end of each semester and the summer session. Students are placed on probation when grade averages drop below the following standards:

1.80 cumulative -- or the first semester students who have attempted at least 12 semester hours.

2.1 cumulative -- or students beyond the first semester who have attempted more than 12 semester hours.

Students will be placed on probation after two consecutive semesters in which less than a 2.0 semester average is achieved.

All courses, regardless of content, are used to determine classification although only those courses carrying grade points are used in determining averages.

To remove the probation, the student must earn a 2.0 semester average the following semester and continue to maintain the required cumulative average. Students who earn a satisfactory semester average (at least 2.0) and make substantial progress toward achieving the required cumulative average (usually 2.0) in the next semester will be continued on probation. Students who fail to remove probationary status and do not satisfy the requirements to be continued on probation within one semester will be placed on temporary dismissal from the University for one semester. Exceptions to this policy may be granted in extenuating circumstances on appeal from the student to the Academic Standing Committee.

Students placed on temporary dismissal must apply to the Office of the Registrar for readmission at least one month before the start of the semester for which they want to re-enroll. If readmitted, the probationary student has one more semester of enrollment to achieve good standing or to make substantial progress toward achieving good standing allowing an additional semester of enrollment.

A student dropped from enrollment a second time for scholastic deficiency is permanently barred from the University.

Students on probation may enroll for no more than 13 semester hours of courses carrying grade points.

Probation may not be removed by study done at another college. Students barred from Trinity University for scholastic reasons may not transfer credit earned at another college or university during the time they are barred from Trinity, unless they receive special written permission from the Vice President for Faculty and Student Affairs to take the work they propose to transfer.

A student dropped from the University for any duration by the Committee on Academic Standing may appeal the decision, but the appeal must be made in writing by the student within ten days of the decision, stating reasons for the appeal and explaining any extenuating circumstances. The appeal should be addressed to the Office of the Vice President for Faculty and Student Affairs. Students should request their faculty advisers to submit a recommendation regarding their appeal.

If readmitted, the student will be notified in writing and the conditions of reinstatement will be stated in the notification.

Dismissal From a Class and Student Attendance

The University expects regular class attendance by all students. The instructor in each course is expected to state an attendance policy in the course syllabus. Each student is expected to familiarize himself or herself with this policy at the beginning of each course.

Instructors then have the prerogative of informing the Registrar to drop or withdraw a student from a course for nonattendance within the published deadlines for such actions. After the last date to withdraw, a student dismissed from the class roll for excessive absences will receive an F in the

course.

Absence from class does not constitute official withdrawal from the class or from the University. A student must initiate withdrawal from the class or from the University in the manner prescribed for "Withdrawal from a Course" or "Withdrawal from the University" in this bulletin.

Policy Regarding Disruption of Class

Students will not be permitted to behave in such a manner as to disrupt the orderly conduct of classroom activities. When such behavior occurs, it is the responsibility of the instructor to discuss the matter with the student involved, warning the student that continuation of such behavior may result in dismissal from the class. If the behavior continues, the faculty member may drop the student from the class. Notification of such action shall be communicated in writing to the student, the student's faculty adviser, the department chair, and the Vice President for Faculty and Student Affairs. This notification must include a statement of the reasons for the decision and a summary of the appeal procedures. The student has a period of two school days in which to file a written appeal with the Vice President for Faculty and Student Affairs. A copy of the dismissal notification will remain in a file created for this purpose in the Office of Academic Affairs; the copy will be destroyed when the student is graduated. If the dismissal from class occurs before the published deadline for withdrawal from a class, the student will receive a grade of "W" in the class; if it occurs after the deadline, the grade will be "F."

Representation of the University by a Student

Any student who represents the University in any public manner as a member of a music or dramatic organization, delegate to any association meeting or convention, or as an officer of any of these organizations must be enrolled as a full-time student, must have a passing grade in at least 9 of these semester hours, and must have earned 9 semester hours of credit during the last semester attended.

Candidates for the athletic squads must be accepted and registered students before they may compete in intercollegiate sports. Eligibility is carefully checked at the time of acceptance and reviewed at the end of each semester in the same manner as all other students, in accordance with NCAA regulations.

Internships

Internships

Trinity University allows students to earn credit for internships that complement their academic program. Faculty involvement is essential to ensure the internship effectively combines work experience with academic learning. Therefore, only work experiences that are pre-approved by an academic department will qualify for academic credit or recognition on the academic transcript. The decision to award academic credit will be based on the educational merits of the internship experience as determined by University faculty.

Description

The internship is to be a structured and supervised professional work experience with an accepted employer in the private, public, or non-profit sector. To be recognized, the experience must be pre-approved by an academic department and must include specific learning objectives. An internship is typically done by a student who has attained sufficient preparation in an academic field. The experience may be paid or unpaid.

Academic Guidelines

1. Academic departments have the option to formally recognize professional work experiences undertaken by students, but there is no institutional requirement to do so.
2. Departments that recognize internships will designate one or more faculty member(s) to act as the internship instructor(s) prior to the student beginning the experience.
3. Departments that recognize internships will establish criteria and eligibility for student participation in the internship program.
4. Academic credit is regulated as follows:
 - a. The recommended standard for awarding credit is at least 40 hours of work per one hour of academic credit.
 - b. A maximum of 6 credit hours per experience is allowed.
 - c. If no credit is awarded, a department may create, with University Curriculum Council approval, a zero credit internship course to be graded on a pass/fail basis as a mechanism by which to recognize the experience on the academic transcript.
5. Prior to each internship for credit, the student will complete and submit a Learning Agreement to the department chair and/or the supervising instructor. The Learning Agreement will include:
 - The student's personal learning goals for the internship
 - The student's academic responsibilities
 - Phone(s), address, and contact information for both the employer and supervisor
 - The Job Description, including number of work hours to be completed (provided by employer)
 - Student affirmation of good academic standing
 - Acknowledgment of receipt of the departmental internship guidelines
 - Number of credit hours
 - The document will be signed and dated by the student and approved by the internship instructor, the student's advisor and/or department chair (as specified in the departmental internship guidelines).
6. Only courses that are clearly specified as internships in the Courses of Study Bulletin can be used for internship credit (i.e., courses such as Independent Study, Directed Studies, etc., cannot be used).
7. The academic department will provide the student with guidelines that clearly specify the grading criteria for the course. These guidelines will be a component of the Learning Agreement referred to above.
8. Internships will generally be graded on a pass/fail basis. Exceptions require departmental or program chair approval.
9. Credit will generally not be given for internships that are served where either the owner or manager of the host organization or the host supervisor/manager is an immediate relative of the student intern.

Student Guidelines

1. The responsibility for obtaining an internship lies solely with the student; students are encouraged to utilize faculty, Career Services, and other personal and alumni networking resources.
2. Students must be in good academic standing in order to participate in an internship.

3. No internship for academic credit shall be permitted without a pre-approved Learning Agreement.
4. Students are responsible for officially registering for an internship course through the Office of the Registrar. Credit will not be awarded retroactively.
5. The student will normally register in the internship course for the semester or summer term that encompasses the start date of the work experience. However, if the internship or academic work following the internship carries over into the next semester (or summer term), the course can be registered in that following semester or summer term.
6. The university recognizes that internships will not necessarily conform to university semester and summer schedules; there will be times that students must receive an Incomplete grade ("I") until the experience is completed.
7. Students will comply with all applicable state and federal employment laws; students will also comply with the human resources policies of their work location.

Internship Instructor Guidelines

1. Approve and sign the Internship Learning Agreement form prior to the start of the internship.
2. Ensure the student is properly enrolled for the internship course.
3. Establish and communicate to the student specific learning goals, academic assignments and expectations prior to the beginning of the internship (i.e., a substantial paper, project, presentation, work journal, etc.).
4. Obtain and review employer feedback on student performance prior to issuing final grade.

Employment Site Guidelines

1. The employer must provide the name and contact information of a site supervisor/manager who is in charge of the internship program or the student's supervisor for the duration of the internship. This information is to be submitted on the Learning Agreement form.
2. The employer must submit a job description to the student, which will be a component of the Learning Agreement.
3. The employer will inform the student, prior to the start of work, whether the position is paid or unpaid. If paid, the student will be informed of the rate of pay.
4. When deemed appropriate by the academic department, the employer should, in conjunction with the student and internship instructor, review specific learning goals and assignments to be completed by the student as specified in the Learning Agreement.
5. The employer is encouraged to submit an interim progress report and a final evaluation at the end of the experience to the student's internship instructor. Any significant deficiencies in the student's performance should be reported to the internship instructor.

Career Services

The Career Services Office has numerous resources to support the establishment of internships and to improve efficiency in the management of interns. These services are available to any academic department at its request.

At the department's request, Career Services will:

1. Assist with job development and employer/recruiter relations.
2. Assist with the development of internship guidelines, appropriate learning objectives, and employer requirements.
3. Provide resources to students for obtaining internships including the use of TigerJobs for intern posting and resume referral.

4. Provide assistance to employers wanting to develop, improve, or meet University criteria for an internship program.
5. Assist employers with the intern recruitment process.

Graduate Studies

Graduate Studies

Trinity University offers four graduate degrees: the Master of Arts (Education: School Psychology); the Master of Arts in Teaching; the Master of Education (Education: School Leadership); and the Master of Science (Accounting and Health Care Administration).

Graduate work was instituted at Trinity University in 1950. The objective of the Graduate Program is to provide students with opportunities to engage in study at an advanced level and to develop professional competence in the area of their specialization, with emphasis upon the development of analytical thinking, independent and original research, and effective communication.

Commission on Graduate Studies

The Commission on Graduate Studies serves as the academic policy committee for graduate students on all matters related to graduate degrees and programs. The Commission consists of representatives from each graduate program, two students appointed by the Graduate Student Association, the Registrar, and the Vice President for Faculty and Student Affairs or his or her representative.

Graduate Faculty

As a liberal arts university with selected professional degree programs, Trinity does not maintain a separate graduate faculty. Faculty members selected to teach graduate-level courses will have an earned doctorate (or other terminal degree) in their teaching field and demonstrated research capability, or will be practitioners with at least a master's degree and appropriate training and experience in the professional field they are teaching. The Department Chair is responsible for determining whether a faculty member's qualifications meet the requirements for graduate-level teaching. Eligibility to teach at the graduate level is periodically reviewed in order to maintain viable programs and specialized and regional accreditation.

Admission

Required Documentation

Persons interested in doing graduate work at Trinity University should submit the following items:

1. Application form and fee.
2. An official transcript or transcripts of all previous college and university work. These transcripts must be not more than one year old. All transcripts become a part of the University's files and will not be returned.
3. Test scores not over five years old on the Graduate Record Examination, Graduate Management Admission Test, or other examinations required by the graduate program.
4. One or more letters of recommendation if specified by the graduate program.

The application deadline is one month prior to the beginning of the semester or as established by the program. Persons outside the United States should submit their applications at least three months prior to the semester they plan to enter the University. Registration is not permitted until application for admission has been approved.

Citizens of countries other than the United States, whose first language is not English, are encouraged to submit results from the TOEFL (with a recommended score of 250 CBT, 600 Paper, or 100 iBT). In addition, international applicants who are not permanent residents of the United States must submit the Statement of Financial Support, or signed, certified bank documents demonstrating one's ability to fund a Trinity education. (Contact the International Programs Office for current financial certification requirements.) Applicants should submit certified English translations of documents. (See Foreign Studies Evaluation, below.) Trinity University will issue Form I-20, Certificate for Eligibility for Nonimmigrant (F-1) Student Status, only upon receipt of a nonrefundable deposit indicating acceptance of an offer of admission.

Bachelor's Degree Requirement

Graduates holding the bachelor's degree from an institution accredited by the appropriate regional accrediting organization and fulfilling all other requirements listed in this bulletin may be considered for regular admission to graduate study. Graduates of colleges that are not accredited by the appropriate regional accrediting organization may be considered for provision admission. (For students who hold degrees from institutions outside the United States, see Foreign Studies Evaluation, below.)

Prerequisite Course Requirements

The requirement for background work varies with each graduate program at Trinity. The department chair or program director may recommend that prerequisites be waived for superior students or, in certain cases, that prerequisites be taken on the graduate level. Consult individual department listings for specific requirements.

Requirements for Regular Admission

To be considered for regular admission, an applicant must submit all required documentation and present evidence of the following:

1. A grade point average of 3.00 or better on the last 60 hours of undergraduate level work or a grade point average of 3.00 or better on all courses taken in the undergraduate major or any relevant concentration. (Students who have earned at least 18 hours of graduate level credit must have a GPA of 3.00 or better on all graduate course work attempted. Graduate course work may be considered in lieu of undergraduate course work.)
2. Acceptable scores on the Graduate Record Examination or Graduate Management Admission Test, as articulated by the individual program or department.

In evaluating an application for graduate study, the department chair or program director will consider the applicant's commitment to and suitability for the relevant profession. Applicants who meet the requirements for regular admission may nonetheless be denied admission if significant academic, ethical, or dispositional concerns are identified as part of the admission process.

Requirements for Provisional Admission

Applicants who fail to meet the requirements for regular admission may be considered for provisional admission. Students admitted provisionally are considered to be fully admitted to their respective graduate programs.

The final decision on provisional admission is made by the Office of Academic Affairs after receiving the recommendation of the department chair or program director.

Students admitted provisionally shall be reviewed after completion of their first 6 hours of graduate study. Those with a grade point average below 3.00 shall be dismissed from the graduate program.

Non-Degree Admission

Upon the approval of the appropriate academic department, students not pursuing a degree may be admitted on a non-degree basis to enroll in graduate courses.

Students who have been admitted to a program on a non-degree basis and who later decide that

they would like to become degree candidates must apply for admission to degree status and provide all required information including test results. There is no guarantee that courses taken on a non-degree basis will later apply for credit toward a graduate degree.

Foreign Studies Evaluation

All foreign academic credentials submitted for transfer credit or for admission to the graduate program must be accompanied by a professional evaluation performed by an approved evaluation service, including an English translation if not in English. Course descriptions or syllabi may also be required. It is the student's responsibility to procure the evaluation and to assume financial responsibility for it. Because of the importance of this information, Trinity only accepts evaluations certified as official and received directly from the American Association of Collegiate Registrars and Admissions Officers (AACRAO) or from other approved service providers. Contact the Office of the Registrar or visit the web site for a list of approved foreign credentials evaluation services.

Evaluations should include an explanation that the institution is recognized by the ministry of education in the home country and is generally considered to offer at least the equivalent of U.S. higher education credit. In addition, the evaluation must include an explanation of the credits, the grading system and course levels, and a course-by-course evaluation. Trinity is under no obligation to award credit on the basis of an outside agency's evaluation. The professional evaluation will be used as a tool in the overall credit evaluation process.

Advising and Registration

After admission has been approved, degree students should confer with the graduate program director of the major department or with an adviser appointed by the program director to arrange a complete program of graduate studies. Students admitted to graduate study will follow the regular university procedures for registration.

Readmission

A former graduate student who chooses to seek readmission after being dismissed from the University for any reason, or who chooses to seek readmission after withdrawing from the University for any length of time, must submit an application for readmission no later than one month prior to the beginning of the term. Official transcripts from any colleges or universities attended during the time since the student last attended Trinity University must be submitted as part of the application for readmission. No new application fee is required.

The decision to readmit or not to readmit a student shall be made by the academic department or program at its discretion. In making this decision, the department may consider, among other things, the student's performance within the program and his or her commitment to and suitability for the relevant profession. The department may require the student to submit updated application materials, including updated test scores and letters of recommendation.

If a department denies an application for readmission, the student may appeal to the Commission on Graduate Studies. The Commission may choose to gather evidence and to interview any parties whom the Commission deems relevant. The Commission may decide to uphold or to overturn the department's decision, and the Commission's decision shall be final.

Minimum Hour and GPA Requirement

A minimum of thirty semester hours is required for the master's degree.

A minimum grade point average of 3.00 is required for the master's degree. No more than 6 hours

of courses graded C can apply toward a master's degree.

Applicable Bulletin

Students have the option of completing degree requirements as specified in the Trinity University *Courses of Study Bulletin* in effect at the time of matriculation provided all requirements are completed within six years (see Time Limit) or following requirements of any later bulletin that satisfies the six-year time limit.

Additional Requirements

Some graduate programs may require one or more of the following:

- Thesis;
- Applied research project;
- Portfolio;
- Internship or residency;
- Licensing examination.

Graduation Requirements

Each student must secure from the Office of the Registrar an application for graduation. The student is responsible for returning the graduation application on or before the date listed in the calendar.

A degree candidate must be present for commencement exercises unless he or she has notified the Registrar of his or her intention to graduate in absentia.

A degree candidate must be registered in the semester or summer term in which the degree will be awarded. If the student is not registered for credit or thesis extension, the student will register for SPCL 6099. There will be a fee of \$200 for registration for SPCL 6099.

Academic Load

A graduate student taking at least 9 semester hours of graduate work per semester is considered a full-time student. The maximum load during the summer session is 9 semester hours. A graduate student registered for thesis credit, required internship, or residency is also considered a full-time student without regard to the number of credit hours. The first semester of thesis extension will be considered full-time enrollment, but subsequent semesters of thesis extension will be considered as less than one-quarter time.

Transfer of Graduate Credit

Ordinarily, all work for the master's degree must be done at Trinity University. Under some circumstances acceptance of graduate credit for work done in other regionally accredited institutions may be approved by the chair of the department concerned. No course completed with a grade lower than a B will be approved. Up to 10 semester hours but no more than twenty percent of the total degree requirement can be transferred to apply toward a graduate degree. No hours earned toward a completed or previously awarded graduate/professional degree may be transferred. However, students with a previously awarded graduate/professional degree may have up to 10 semester hours but no

more than twenty percent of the total degree requirement waived by the chair of the department. Students granted such a waiver may not transfer any credit to apply toward a graduate degree, except on petition to the Commission on Graduate Studies. Furthermore, the GPA of transferred credit will not be applied to meet the GPA requirement for a graduate degree at Trinity. No transfer credit will be accepted or waiver approved until the student has earned 12 semester hours of graduate credit at Trinity University. The six-year limit applies to transfer work as well as to courses taken in residence.

Courses offered by accredited universities at extension centers or other off-campus locations, or in online formats, will be evaluated individually by the Department Chair. Such courses will be accepted only when course requirements and quality standards comparable to regular on-campus offerings can be demonstrated. Credit for work done by correspondence will not be accepted for the graduate degree.

In some graduate programs, students may obtain academic credit for from 3 to 12 hours of graduate work on the basis of previous academic preparation and/or successful experiences. In order to obtain this credit, the student must demonstrate the attainment of objectives identified for the particular course or courses in the program. Candidates may demonstrate the attainment of these objectives by satisfactorily completing a written and/or oral examination administered by the department. The academic credit will be placed on the student's permanent record.

Independent Study

No more than 6 semester hours of credit in independent study/problems courses may be applied to the student's degree program.

Grades and Minimum Performance Requirements

The grading system for all graduate courses is as follows:

A	Excellent -- Superior Performance
B	Good -- Solid Performance
C	Fair -- Marginal Performance
F	Failure -- Not meeting course requirements
I	Incomplete
PR	In Progress—for thesis or special study/research courses
PP	Pass in a Pass/Fail Course
FF	Failure in a Pass/Fail Course
NC	Non-credit
Pass/Fail	Departments desiring to offer selected courses only on a Pass/Fail basis may do so with prior approval of the Office of Academic Affairs.
W	Withdrawn -- Graduate students may withdraw from a graduate course with a grade of W any time up to the time that mid-semester grades are due for that semester or during the first two weeks of summer session. Such withdrawal must be filed at the Office of the Registrar. Nonattendance does not constitute withdrawal from a class. Students may withdraw with a grade of W up to final examination week. However, such withdrawal must be approved by the Department Chair or Graduate Program Director in consultation with the instructor.

Unless the instructor specifies an earlier completion date, grades of "Incomplete" will be changed automatically to "F" in the Registrar's Office after one year. Under unusual circumstances, an extension

of time may be granted by the Office of Academic Affairs upon request of the instructor.

No credit course may be changed to “non-credit” after the last day of registration.

Probation and Dismissal:

Probation:

A graduate student will be placed on academic probation following any term in which the student fails to achieve a grade point average of at least 3.00 or receives a grade of “F” in any course, regardless of the level of courses taken and the cumulative grade point average. A student on probation may not hold a graduate assistantship. Academic probation is removed when the student completes a subsequent term and achieves a term grade point average of at least 3.00 with no grade of “F” in any course and a cumulative grade point average of 3.00 in all graduate level courses completed at Trinity University.

Dismissal:

1. A graduate student will be dismissed from the graduate program following any term in which the student earns a grade point average of less than 2.00, regardless of the level of courses taken and the cumulative grade point average.
2. A graduate student placed on academic probation will be dismissed from the graduate program if the student fails to meet the requirements to be removed from probation after attempting nine semester hours.
3. Students dismissed from the graduate program have the option to appeal to the faculty members of the Commission on Graduate Studies. The appeal must be made in writing by the student within 10 days of notification of the decision. When making a decision on an appeal, the Commission will consider the recommendation of the student’s academic department.

Grade Appeals

Trinity University recognizes that students are responsible for maintaining standards of academic performance established for each course in which they are enrolled. However, the University also recognizes that students should have protection through orderly procedures against prejudicial or capricious academic evaluation. In all cases, the burden of proof rests on the student initiating the appeal.

The procedures for student appeal of semester grades contain the presumption that student grades are the responsibility of the course instructor. As a matter of academic principle, the process of appeal remains in the hands of the teaching faculty. Except for the actions specified in Section 5 below, members of the Administration shall not influence the outcome of the grade appeal process.

All parties in a grade appeal shall make every reasonable effort to complete the appeals process in a timely manner. If any party is absent from campus (for example, if a faculty member is on academic leave or if a student is studying abroad), the appeals process may be deferred until all relevant parties have returned to Trinity. In this case, however, the appellant must still meet the stated deadline by submitting written notification of his or her intention to appeal.

An instructor who has pieces of student work in his or her possession shall retain those pieces of student work until they can no longer be relevant to a grade appeal.

1. To initiate the appeal of a semester grade, a student must submit a written appeal to the instructor no later than ten (10) business days after the beginning of the following semester. The instructor shall notify the student of the outcome of his or her review of the grade no later than five (5) business days following receipt of the written appeal.
2. If the student wishes to contest the instructor’s decision in step one, he or she may request a

mediated discussion involving the student, the instructor, and the Department Chair. To initiate this step in the appeals process, the student must submit a written appeal to the instructor's Department Chair no later than ten (10) business days following receipt of the instructor's decision. The instructor shall receive a copy of this statement.

The Chair will attempt to mediate a discussion between the student and the instructor to clarify the matter and suggest possible resolutions. If the Chair happens also to be the instructor involved, then the student may request that the Associate Vice President for Academic Affairs: Curriculum and Student Issues ask another faculty member of the department to receive the student's appeal.

3. If the student wishes to contest the outcome of the mediated discussion in step two, he or she may request a departmental review. To initiate this step in the appeals process, the student must submit a written appeal to the instructor's Department Chair no later than ten (10) business days after receiving the outcome of the mediated discussion.

The Chair (or the Chair's substitute) will appoint two tenured members of the department to serve as a review committee, and will notify the student and the instructor of this action. In the case of a General Education course or cross-listed course, the instructor's department will serve as the site for the appeals process. If the student is a major or minor in the department, the student may ask his or her adviser to be an additional member of the committee. If a small department cannot provide two eligible faculty members to serve on the committee, then the Chair (or the Chair's substitute) will ask a faculty member from a department similar in curriculum and academic evaluation to serve on this committee. Departmental review committees may be convened only during an academic semester.

The departmental review committee will receive written statements from both the student and the instructor, as well as copies of any graded work involved. In addition, both the student and the instructor (and the student's academic adviser, if requested) may be present for the duration of the hearing (prior to voting), during which both parties may offer clarifying statements. The Department Chair will also be present at the meeting, but will not be involved in the determination of the appeal. If, after considering these statements, the committee decides that the grade was not based on prejudicial or capricious evaluation, the Chair (or the Chair's substitute) will give written notification of this decision to the student and the instructor.

However, if the departmental committee determines that the grade was indeed based on prejudicial or capricious evaluation, the Chair (or the Chair's substitute) shall advise the instructor to reconsider the student's semester grade in a manner consistent with proper and stated procedures. If the instructor rejects this advice or fails to comply in a manner satisfactory to the committee, then the committee may undertake an evaluation of the student work in question and assign the grade it deems appropriate.

4. If the student or the instructor wishes to contest the outcome of the departmental review in step three, he or she may request a further review by the Commission on Graduate Studies. To initiate this step in the appeals process, the student or the instructor must submit a written appeal to the Chair of the Commission no later than ten (10) business days after receiving the outcome of the departmental review.

The Commission may collect any evidence it deems necessary, including any written statements that have been generated in the previous stages of the appeals process. The Commission may choose to interview the concerned parties, and it may also choose to conduct a formal hearing.

For the purposes of this process, the voting members of the Commission shall include the faculty representatives on the Commission as well as the Registrar or his or her designee. No faculty member who belongs to the department in question may participate in the Commission's deliberation or decision making.

If the Commission decides that the grade was not based on prejudicial or capricious evaluation, the Chair of the Commission shall give written notification of this decision to the student and the instructor. If the Commission determines that the grade was indeed based on prejudicial or capricious evaluation, the Chair of the Commission shall advise the instructor to reconsider the student's semester grade in a manner consistent with proper and stated procedures. If the instructor rejects this advice or fails to comply in a manner satisfactory to the Commission, then the Commission may undertake an evaluation of the student work in question and assign the grade it deems appropriate.

5. If either the student or the instructor wishes to contest the outcome of the Commission's review in step four, the appellant may petition the Vice President for Faculty and Student Affairs for further consideration. To initiate this step in the appeals process, the student or the instructor must submit a written appeal to the Vice President no later than ten (10) business days after receiving the outcome of the Commission's review. The Vice President may then rule in one of two ways:
 - a. That the decision of the Commission on Graduate Studies will stand as rendered;
 - b. That the Commission on Graduate Studies reconsider its findings and render a decision based on the reconsideration.

This review is the final step in the grade appeals process.

Completion of Credit Courses

Credit will not be allowed for a graduate course unless the work of that course shall have been completed and so reported to the Office of the Registrar within one year after official ending of the course.

Time Limit

A student is allowed six years in which to complete the master's degree. Under certain circumstances, the student may revalidate by examination courses that are outdated by the time limit. This can be done only with permission of the Department Chair, the graduate program director of the department, and the Commission on Graduate Studies. It is not possible to revalidate courses that have been transferred from another institution and that are out of date.

Withdrawal

After a student has been duly enrolled in a class, he or she is considered a member until he or she has been dropped from the class or has withdrawn from the school. Merely discontinuing class attendance does not constitute a drop or withdrawal. Withdrawal from the University or from a course must be submitted to the Office of the Registrar before final examinations begin.

After mid-semester or the first two weeks of a summer session, a student may withdraw with grades of W only with the approval of the Graduate Program Director. Withdrawal without approval will result in grades of F and dismissal from the graduate program.

Course Numbering

Course numbers at Trinity University consist of four digits. The first digit indicates the level of the course: 1 or 2 designates lower division, 3 or 4 designates upper division, 5 or 6 designates graduate level. The second digit indicates the value of the course in semester hours (credit hours). The third and fourth digits identify specific courses within the subject area.

Thus, a course numbered 1320 would be defined as follows:

1	3	20
(lower division)	(3 credit hours)	(specific course)

Faculty advisers or personnel in the Registrar's Office can assist with explanation of course number meanings.

Course Abbreviations

AFAM	African American Studies		
	Art and Art History:		
ART	Art		
ARTH	Art History		
ALE	Arts, Letters, and Enterprise		
BIOL	Biology		
BIMA	Biomathematics		
	School of Business:		
ACCT	Accounting		
BUSN	Business		
FNCE	Finance		
MGMT	Management		
MIS	Management Information Systems		
MKTG	Marketing		
CHEM	Chemistry		
	Classical Studies:		
CLAS	Classics		
GREK	Greek		
LATN	Latin		
COMM	Communication		
CMLT	Comparative Literature		
CSCI	Computer Science		
ECON	Economics		
EDUC	Education		
ENGL	English		
ENGR	Engineering Science		
ENTR	Entrepreneurship		
FILM	Film Studies		
GNED	General Education		
GEOS	Geosciences		
	Health Care Administration:		
HCAD	Health Care Administration		
HCAI	Executive Program		
HIST	History		
			Human Communication and Theatre:
		HCOM	Human Communication
		THTR	Theatre
		HUMA	Humanities
		INTL	International Studies
		LAC	Languages across the Curriculum
		LING	Linguistics
		MATH	Mathematics
		MFIN	Mathematical Finance
		MDRS	Medieval and Renaissance Studies
			Modern Languages and Literatures:
		ARAB	Arabic
		CHIN	Chinese
		FREN	French
		GERM	German
		ITAL	Italian
		ML&L	Modern Languages and Literatures
		RUSS	Russian
		SPAN	Spanish
			Music:
		MUSC	Music
		MUSE	Music Ensemble
		MUSI	Music Instruction
		NEUR	Neuroscience
		PHIL	Philosophy
		PHED	Physical Education
		PHYS	Physics
		PLSI	Political Science
		PSYC	Psychology
		RELI	Religion
		SCOM	Scientific Computing
			Sociology and Anthropology:
		ANTH	Anthropology
		SOCI	Sociology
		SPCL	Special Studies – U.S. and Abroad
		SPMT	Sport Management
		URBS	Urban Studies
		WAGS	Women's and Gender Studies

African American Studies

FACULTY ADVISORY COMMITTEE

WILLIAM T. BURKE III, J.D., Associate Professor, Business Administration
ANENE EJKEME, Ph.D., Associate Professor, History
CAREY H. LATIMORE IV, Ph.D., Associate Professor, History; Co-Chair
KIMBERLYN MONTFORD, Ph.D., Associate Professor, Music; Co-Chair
DAVID RANDO, Ph.D., Associate Professor, English
MICHAEL SOTO, Ph.D., Associate Professor, English
CLAUDIA STOKES, Ph.D., Associate Professor, English
WILSON TERRELL, JR., Ph.D., Associate Professor, Engineering Science

OVERVIEW

The minor in African American Studies is an interdisciplinary program that explores the history and culture of persons of the African Diaspora, and in so doing, examines issues of critical importance to the making of the modern world. While focused primarily on the American experience, the program looks beyond U.S. borders to consider the connections between black persons in Africa, Europe, and the Americas as a whole. In addition, the program hopes to foster closer ties between the University and the African American community in San Antonio.

Completion of the program will be indicated on the student's transcript with the notation "Minor in African American Studies."

Students interested in the minor should submit an application to the chair of the Faculty Advisory Committee, who will assign a faculty adviser to the student.

REQUIREMENTS

The requirements of the African American Studies minor are as follows:

I. Completion of 18 semester hours in the following distribution:

A. Completion of at least 9 hours from the core curriculum:

AFAM 1310	Introduction to African American Studies
ANTH 3327	Race in America (also listed SOCI 3327)
ENGL 2373	African American Literature
HIST 1300	The African Experience
HIST 1370	The African American Experience Through Reconstruction
HIST 1371	The African American Experience Since Reconstruction
HIST 3304	Religion in African History
HIST 3372	Black Images in Film
MUSC 1349	African-American Music
RELI 3382	African Religions in the Americas
SOCI 3327	Race in America (also listed as ANTH 3327)

B. Completion of remaining hours from the supporting courses:

AFAM 3310	African American Studies Internship
COMM 3325	Special Topics in Communication Media: Race and Class in Media
ECON 3343	Slavery and the Atlantic Economy (also listed as HIST 3384)
ENGL 2303	American Literature: Colonization to 1900

ENGL 2304	American Literature: New Realism through the Moderns
ENGL 3371	American Literature of the Nineteenth Century: The Turn of the Century
ENGL 4323	Studies in American Literature: The Circum-Atlantic World
ENGL 4323	Studies in American Literature: Harlem Renaissance
ENGL 4325	Seminar in Literary Periods: Turn-of-the-Century African American Literature
ENGL 4326	Seminars on Individual Authors: Thomas Pynchon and Toni Morrison
HIST 1340	Latin American Cultural Traditions
HIST 1360	The History of the United States Through Reconstruction
HIST 1361	The History of the United States Since Reconstruction
HIST 3300	Gender Matters in African History
HIST 3374	The Old South
HIST 3384	Slavery and the Atlantic Economy (also listed as ECON 3343)
MUSC 1346	Jazz History and Styles
PLSI 3352	Civil Rights and Liberties
SPMT 1312	Sport in Society

II. Additional guidelines for the selection of coursework:

- A. At least 9 hours of the total shall be upper division courses.
- B. No more than 12 hours of the coursework (including cross-listed courses) can be taken from one department to fulfill the requirements of the minor.
- C. When departments offer a relevant “special topics” or “variable content” course, the Faculty Advisory Committee may designate such a course as meeting a relevant requirement for the minor.

III. All students are strongly encouraged to enroll in AFAM 1310—Introduction to African American Studies and HIST 1300—The African Experience.

*In special circumstances, students may petition the program’s Faculty Advisory Committee for an exemption to a component of the requirements for the minor.

COURSES

AFAM-1310 Introduction to African American Studies

An exploration of key issues in African American studies from multiple disciplinary perspectives. Topics may include black literature, Afrocentrism, race and social justice, rap and “world” music, blacks in prison, African American film and visual art, black families, the black middle class, black internationalism, and gender, among others.

AFAM-3310 African American Studies Internship

Supervised on and off campus work in an institution serving the African American community in the greater San Antonio area. The particular institution and internship experience must be arranged and approved by the student, the professor, and the institution selected. Supervision and contact with the professor must be maintained throughout the semester. May be repeated for a maximum of six hours credit. Pass/Fail only.

American Intercultural Studies

FACULTY ADVISORY COMMITTEE

WILLIAM T. BURKE III, J.D., Associate Professor, Business Administration; Chair
ARTURO MADRID, Ph.D., Norine R. and T. Frank Murchison Distinguished Professor of the Humanities, Modern Languages and Literatures
PETER O'BRIEN, Ph.D., Professor, Political Science
RICHARD K. REED, Ph.D., Professor, Sociology and Anthropology

OVERVIEW

The minor in American Intercultural Studies is designed to develop in students the qualities and skills necessary for intercultural understanding and cooperation in today's diverse society. The minor recognizes that certain historical events and experiences involving race and/or ethnicity in America continue to have a major impact upon the nature and development of intercultural relationships. While underscoring the inextricable connection that exists between the past and the present intercultural dynamic, the minor seeks to enhance positive associations with and among the people of various multicultural communities.

Perspectives coursework focuses on events, conditions, circumstances, major figures and/or movements that are significant to understanding a particular minority group's experience and viewpoint in America.

Dynamics coursework reveals and analyzes the particular contexts that influence or impact intercultural understanding and intercultural relationships.

Completion of the program will be indicated on the student's transcript with the notation "Minor in American Intercultural Studies."

Students interested in the American Intercultural Studies minor should submit an application to the chair of the Faculty Advisory Committee, who will assign a faculty adviser to the student.

REQUIREMENTS

The requirements of the American Intercultural Studies minor are as follows:

- I. Completion of 18 credit hours in the following distribution:
 - A. Completion of the nine-hour Required Curriculum.
 1. Three hours in either:
ANTH 1301—Introduction to Anthropology OR SOCI 1301—Introduction to Sociology
 2. SOCI/ANTH 3327—Contemporary Minorities
 3. HCOM 3372/ANTH 3332—Intercultural Communication
 - B. Nine additional hours from the Core Curriculum (see below), including at least three hours in Perspectives coursework and at least three hours in Dynamics coursework.
- II. Guidelines for selection of coursework:
 - A. At least nine hours of coursework in the American Intercultural Studies minor must be upper division.
 - B. No more than 12 hours of the coursework (including cross-listed courses) can be taken from one department to fulfill the requirements of the minor.

AMERICAN INTERCULTURAL STUDIES CORE***Perspectives Coursework**

ENGL 2373	African American Literature
ENGL 4323	Studies in American Literature: The Harlem Renaissance
ENGL 4323	Studies in American Literature: The American Bildungsroman
GNEC 3325	The U.S. Latino Experience
GNEC 3326	U.S. Latino Cultural and Artistic Expression
HIST 1340	Latin American Cultural Traditions
HIST 1370	The African American Experience Through Reconstruction
HIST 1371	The African American Experience Since Reconstruction
HIST 3340	Latin American Perspectives
MUSC 1346	Jazz History and Styles

Dynamics Coursework

ANTH 3343	Relaciones fronteras México-Estados Unidos (bilingüe) (also listed as SOCI/INTL 3343)
HIST 1360	The History of the United States Through Reconstruction
HIST 1361	The History of the United States Since Reconstruction
HIST 3363	Early American Social History
HIST 3368	Modern American Culture
INTL 3343	Relaciones fronteras México-Estados Unidos (bilingüe) (also listed as SOCI/ANTH 3343)
PLSI 3352	Civil Rights and Liberties
PSYC 2341	Social Psychology
RELI 1360	Religion in the United States
SOCI 2328	Social Inequality (also listed as URBS 2328)
SOCI 3343	Relaciones fronteras México-Estados Unidos (bilingüe) (also listed as ANTH/INTL 3343)
URBS 2328	Social Inequality (also listed as SOCI 2328)

*When departments offer a relevant course coded under a “special topics” or “variable content” designation, the Faculty Advisory Committee may approve such course for inclusion within the core curriculum of the minor.

Art and Art History

FACULTY

LAURA AGOSTON, Ph.D., Associate Professor, Art History
DOUGLAS BRINE, Ph.D., Assistant Professor, Art History
MARK B. GARRISON, Ph.D., Alice P. Brown Professor of Art and Art History
HOLLY GOECKLER, M.F.A., Visual Resources Curator
JESSICA HALONEN, M.F.A., Associate Professor, Art
JONGWON LEE, M.F.A., Associate Professor, Art
JENNIFER P. MATHEWS, Ph.D., Professor, Anthropology
KATHRYN E. O'ROURKE, Ph.D., Assistant Professor, Art and Art History
KATE RITSON, M.F.A., Professor, Art
MICHAEL SCHREYACH, Ph.D., Associate Professor, Art History
PATRICIA SIMONITE, M.F.A., Professor, Art
RANDALL WALLACE, M.F.A., Studio Manager, Art
ELIZABETH D. WARD, M.F.A., Professor, Art; Chair

REQUIREMENTS

THE MAJOR

Requirements for the Bachelor of Arts with a major in Art or Art History are as follows:

- I. The common curriculum
- II. Departmental requirements:

Art

- A. 36 semester hours of Studio Art, including ART 1310, 2330, 3314, 4394, and 4397. At least 15 hours are to be completed in upper-division courses.*
- B. 9 semester hours in Art History are required, including ARTH 1307 and 1308.
- C. A minimum of 3 hours required from at least two of the following areas: Painting/Drawing, Sculpture, Photography/Digital, and Printmaking.
- D. Completion of ART 4394 and ART 4397 in the senior year. During the senior year, Studio Art majors are required to have a public exhibition of art works, selected in consultation with the Studio faculty of the Department of Art and Art History. Student participation is contingent upon faculty portfolio review. In preparation for this exhibition, students will enroll in ART 4394 in the fall and ART 4397 in the spring.

*NOTE: ART 3314 may be replaced by one of the following courses: ARTH 3357, 3360, 3361, 3363, 3364, 3365. The substitution may count toward the requirement of 9 semester hours in Art History, but will not count toward semester hours in Studio Art.

Art History

- A. 30 semester hours of Art History, including ARTH 1307, 1308, 4394, plus 21 semester hours, as follows:
 - i. 4 courses (12 hours) concentrating on art produced before 1800.
 - ii. 3 courses (9 hours) concentrating on art produced after 1800.
 - iii. One of these courses must address non-Western art (ARTH 1309, 1310, 1311, 1313, 3328, 3345, and applicable special topics courses).

- iv. One of these courses must focus on architectural history (ARTH 1312, 1313, 1314, 3322, 3325, 3332, 3352, 3354, 3364, 3365, and applicable special topics courses).
 - v. At least 6 of these courses (18 hours) must be upper-division courses.
- B. 6 semester hours (2 courses) of Studio Art in two different areas, ideally one course in a two-dimensional medium (drawing, design, printmaking, painting, photography) and one course in a three-dimensional medium (sculpture, ceramics).
 - C. Completion of ARTH 4394 in the senior year. The course is generally offered every spring semester.
 - D. Students contemplating graduate study are encouraged to develop reading expertise in at least one foreign language (French, German, Spanish, Italian and, depending on specialization, Latin, Greek, Russian, Chinese, Japanese) and to include a period of study abroad in their program. Two semesters of chemistry are strongly recommended for students considering careers in art conservation.
- III. Electives sufficient to total 124 semester hours.

ADMISSION TO MAJOR STATUS

Art

Prior to the declaration of an Art Major, the student must complete the following 9 hours with a grade of C or better:

- I. ART 1310 and 2330.
- II. One other ART course at the 1000 or 2000 level.

Art History

Prior to the declaration of an Art History Major, the student must complete at least three 3-semester-hour courses in Art History or Studio Art with a grade of C or better. At least two of these must be courses in Art History.

THE MINOR IN STUDIO ART

- I. 24 semester hours in Studio Art, including ART 1310, 2330, and 3314. At least 12 hours are to be completed in upper-division studio courses.*
- II. 3 semester hours in Art History.

*NOTE: ART 3314 may be replaced by one of the following courses: ARTH 3357, 3360, 3361, 3363, 3364, 3365. The substitution may count toward the requirement of 3 semester hours in Art History, but will not count toward semester hours in Studio Art.

THE MINOR IN ART HISTORY

21 semester hours in Art History including ARTH 1307, 1308, 2 upper-division courses before 1800, 2 upper-division courses after 1800, and one additional course of the student's choice in Art History.

THE MINOR IN ART AND ART HISTORY

This interdisciplinary program shared between the Art and Art History programs is designed to help students relate an understanding of artistic creativity to their major field of study.

Requirements:

24 semester hours in Studio Art and Art History, 9 hours of which must be in Art History and 9 hours of which must be in Studio Art; at least 9 hours must be upper division.

THE HONORS PROGRAM

- I. University requirements
- II. Departmental requirements:

Art

The requirements for Honors in Art are the same as the university requirements, except that the 6 semester hours taken during the senior year are to be devoted to artistic work accompanied by prose explication. A full description of the program is available in the departmental office.

Art History

The requirements for Honors in Art History are the same as the university requirements, except that the required 9 semester hours consist of ARTH 4394--Theories and Practice of Art History, taken during the senior year, plus 6 semester hours for the Honors Thesis (ARTH 4398, 4399), taken during the senior year. A full description of the honors program in Art History is available in the departmental office.

COURSES

ART COURSES

GENERAL STUDIES

ART-1310 Design

Studio practice in dealing with 2-D and 3-D compositional problems, integrating the visual elements with aesthetic principles and an emphasis on creative solutions. Students may not register for both ART 1310 and DRAM 2310.

ART-2305 Studio Art for Chemists

This studio based course is offered in conjunction with its companion course, Chemistry 2305: Chemistry for the Visual Artist. The application of scientific study with creative studio practice provides a dynamic platform for the making of art work. The frame work for connecting the two fields of study is supported by slide presentations, demonstrations, and studio practice. Guided studio assignments provide the students with an understanding of how the physical and chemical nature of materials can influence and inform creative thinking and artistic expression.

Corequisite: Chemistry 2305: Chemistry for the Visual Artist.

ART-2314 Creative Thinking and the Artistic Process

This course encourages students to synthesize a theoretical and experimental approach to the creative process as studied through the visual arts, music, creative writing, and theatre. Students enter into the creative process as means to develop creative self-expression, aesthetic sensibility, and an understanding of the arts. The nature and drive of artistic endeavor is explored through studies of the lives of significant thinkers and artists, examinations of art works, guest lectures, and projects. Students will engage in activities and projects that will enable them to access and develop their own creative thinking skills in concert with traditional, analytic modes. (Also listed as ART 2314, THTR 2340, ENGL 2340 and MUSC 2340.)

ART-2395 Outdoor Studio

Outdoor Studio meets for a 6- to 8-hour period one day per week for working excursions to outdoor sites

in and around San Antonio. Students create works of art on site and gather information to create or complete work in the studio. Traditional landscape media, contemporary installation strategies, and new technologies are explored. Course includes readings and lectures addressing pertinent environmental and archaeological information to enhance understanding of the Texas landscape.

ART-3113 Guest Artist Workshop

A four-week studio course taught by visiting artists encompassing the sharing of skills and philosophical approaches to artistic problems.

ART-3314 Issues in Contemporary Art

A seminar in contemporary visual art exploring art theory, practice, and history. The thematic structure will blend historical and contemporary art criticism, exhibitions, and studio practice. The fundamental theories of art making throughout the twentieth century will be explored through the study of drawing, painting, architecture, photography, film, ceramics and sculpture.

Prerequisite: ARTH 1307 or 1308.

ART-3383 Introduction to Game Art

This interdisciplinary course will address the role of the studio arts in contemporary computer game design. Students will work in groups that mirror professional development groups at game development companies where coders, game designers, and artists work together to produce a final product. The course is interdisciplinary, involving students and faculty from the studio arts, computer science, and other fields.

ART-4383 Advanced Game Art

This course builds on the concepts introduced in ART 3315. Students will be introduced to more advanced tools for digital media creation and may work with 3-D games. Students will work in groups that mirror professional development groups at game development companies where coders, game designers, and artists work together to produce a final product. The course is interdisciplinary, involving students and faculty from the studio arts, computer science, and other fields.

DRAWING

ART-2330 Beginning Drawing

The presentation and investigation of the technical, conceptual, and aesthetic elements of drawing as they relate to the development of ideas. The study of human figure may be included.

ART-3330 Intermediate Drawing

A continuation of ART 2330. Prerequisite:

ART 2330.

ART-4-30 Advanced Drawing

A continuation of ART 3330. Credit may vary from 1-3 semester hours. Course may be repeated for a maximum of 9 credit hours.

Prerequisite: ART 3330.

PAINTING**ART-2340 Beginning Painting**

A basic course in beginning painting techniques and issues in contemporary painting.

Prerequisite: ART 1312 or 2330 or DRAM 2310.

ART-3340 Intermediate Painting

A continuation of ART 2340. Prerequisite:

ART 2340.

ART-4-40 Advanced Painting

A continuation of ART 3340. Credit may vary from 1-3 semester hours. Course may be repeated for a maximum of 9 credit hours.

Prerequisite: ART 3340.

PHOTOGRAPHY**ART-2350 Beginning Photography**

A basic course in beginning black and white photographic techniques and issues in contemporary photography. Preference will be given to Art and Art History majors and minors and students enrolled in the New Media Minor.

ART-3350 Intermediate Photography

A continuation of ART 2350.

Prerequisite: ART 2350 or consent of instructor.

ART-4-50 Advanced Photography

A continuation of ART 3350. Credit may vary from 1-3 semester hours. Course may be repeated for a maximum of 9 credit hours.

Prerequisite: ART 3350.

DIGITAL PHOTOGRAPHY**ART-2352 Beginning Digital Photography**

Basic principles of digital photography as utilized in creative expression and photojournalism. Use of camera, lighting, composition, and editing, as well as instruction in the use of digital darkroom and Adobe PhotoShop for photographic image manipulation and production techniques. Preference will be given to Art and Art History majors and minors and students enrolled in the New Media minor.

ART-3352 Intermediate Digital Photography

A continuation of ART 2352.

Prerequisite: ART 2352 or consent of instructor.

ART-4-52 Advanced Digital Photography

A continuation of ART 3352. Credit may vary from 1-3 semester hours. Course may be repeated for a

maximum of 9 credit hours.

Prerequisite: ART 2352.

PRINTMAKING

ART-2360 Lithography and Monotype

An introduction to the process and chemistry of lithography and monotype technique through studio experience. 4 studio hours and 4 hours outside preparation per week required. May be repeated up to 3 times.

ART-2362 Intaglio and Relief

An introduction to the technical and aesthetic characteristics of Intaglio and Relief through studio experience. We will address larger issues of printmaking and develop a personal vocabulary while exploring these versatile print media. 4 studio hours and 4 hours outside preparation per week required. May be repeated up to 3 times.

ART-2364 Screen Printing

Studio experience in Screen Printing techniques, including hand-drawn and photomechanically applied stencils, and issues in contemporary printmaking. 4 studio hours and 4 hours outside preparation per week required. May be repeated up to 3 times.

ART-2366 Papermaking

A studio course in the history and techniques of Asian and European hand papermaking. The impact of the discovery of paper on the world and the contemporary uses of hand-papermaking are contextualized through the technical exploration of hand-made paper. 4 studio hours and 4 hours outside preparation per week required. May be repeated up to 3 times.

ART-2368 Bookbinding

Presenting the book-as-object, this course is an exploration of bookbinding through studio experience, within the context of the history of the book. With an emphasis on technical skills, we will work with a variety of binding styles and materials to understand how structure and content play off each other, discovering the boundaries of the definition of a book. 4 studio hours and 4 hours outside preparation per week required. May be repeated up to 3 times.

ART-3362 Digital and Photo Printmaking

An in-depth studio course using digital and photo media techniques to create a matrix in hand printmaking. Using the computer as an image-making tool, this class, combining old and new media, provides an exploration of contemporary printmaking. 4 studio hours and 4 hours outside preparation per week required. May be repeated up to 3 times.

Prerequisite: ART 2360 or 2362, or consent of instructor.

ART-3-60 Topics in Intermediate Printmaking

This course is designed for students who have already taken a course in printmaking and wish to experience a particular printmaking technique in greater depth. The course may be taken more than once, as long as course content changes. Credit may vary from 1 to 3 semester hours. Course may be repeated for a maximum of 9 credit hours.

Prerequisite: ART 2360, 2362, 2364, or consent of instructor.

ART-4-60 Topics in Advanced Printmaking

This course is designed for students who have already taken ART 3-60 and desire to hone their technical skills and conceptual expression at the advanced level. The course may be taken more than once, as long as course content changes. Credit may vary from 1 to 3 semester hours. Course may be repeated for a maximum of 9 credit hours.

Prerequisite: ART 3-60 or consent of instructor.

SCULPTURE

ART-2370 Sculpture: Clay

A beginning level course in sculpture focusing on clay handbuilding techniques, kiln firing, and glaze processes. Issues in contemporary sculpture will be explored.

ART-2372 Sculpture: Small Metals

A beginning level course in sculpture focusing on metal construction techniques. Issues in contemporary sculpture will be explored.

ART-2374 Sculpture: Wood

A beginning level course in sculpture focusing on construction techniques in wood. Issues in contemporary sculpture will be explored.

ART-2376 Sculpture: Carving

A beginning-level course in sculpture focusing on carving techniques in stone, wood, and plaster. Issues in contemporary sculpture will be explored.

ART-2378 Sculpture: Relief

A beginning-level course in sculpture focusing on relief sculpture in clay, wood, plaster, and mixed media. Issues in contemporary sculpture will be explored.

ART-3372 Topics in Sculpture

From time to time special topics courses in sculpture will be offered. The course may be taken more than one, as long as the course content changes.

Prerequisite: consent of instructor.

DIGITAL IMAGING

ART-2380 Digital Art

An intensive fine arts studio investigation emphasizing visual problem solving and production. Designed to build visual art making skills and computer proficiency through the introduction of structured studio problems. Emphasis on the expressive and communicative nature of images focusing on the computer as the primary creative medium.

Prerequisite: ART 1311 or consent of instructor. Priority will be given to Art and Art History majors and minors and students enrolled in the New Media minor.

ART-3380 Advanced Digital Art

A continuation of ART 2380. Research and critique in Digital Art. This course may be repeated up to 3 times.

Prerequisite: ART 2380 or consent of instructor.

INDEPENDENT STUDY**ART-3-90 Special Work in Studio Art**

Not to exceed 6 semester hours.

Prerequisite: consent of instructor.

ART-4-91 Advanced Study in Studio Art

Research and critique in studio work. Not to exceed 12 hours.

Prerequisite: Upper-division major in the department or consent of instructor.

SPECIAL TOPICS**ART-3-91 Topics in Studio Art**

From time to time special topic courses not described in the Courses of Study Bulletin will be offered. The course may be taken more than once, as long as course content changes.

Prerequisite: consent of instructor

ART-3-97 Internship

Internships are offered in a variety of professional visual art venues such as museums, galleries and other art institutions. Such work will not exceed 10 hours per week. 1-3 hours per semester, maximum of 6 semester hours. Pass/Fail only.

Prerequisites: junior or senior standing art major or minor and consent of the Chair.

ART-3398 Honors Readings

Independent study in selected areas in preparation for Honors Thesis.

Prerequisite: admission to Honors Program.

ART-4394 Senior Seminar

A combination of seminars, readings, and museum/gallery visits in preparation for portfolio development, senior exhibition, graduate study, and preparation for other art related professions. Fall semester only. ART 4394 and ART 4397 are required in the Senior Year.

Prerequisite: senior standing with major in Studio Art.

ART-4396 Gallery Practicum

Gallery Practicum is a hands-on course offering instruction and experience in all aspects of the organization and installation of art exhibitions. Students will learn professional gallery management practices by researching exhibition content, arranging loans of artwork, and creating checklists, didactic labels and brochures. Through organizing and installing exhibitions in the university gallery, they will gain valuable experience in the selection, proper handling, placement, hanging and lighting of works of art in exhibitions.

Prerequisite: at least one course in Studio Art or Art History.

ART-4397 Senior Studio

Concentrated advanced study in studio art in preparation for the senior exhibition. ART 4394 and ART 4397 are required in the senior year.

Prerequisites: ART 4394; senior standing with major in Studio Art or consent of department chair.

ART-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by Senior Honors students in both semesters of their senior year.

ART HISTORY COURSES**LOWER DIVISION****ARTH-1301 Introduction to Film Studies**

This course is an introduction to the artistic, cultural, and scholarly importance of film. The course focuses on the development of film as a complex art form, the evolution of narrative as part of a formal system, the development of the industry and film genres, critical and cultural approaches to film analysis, and the construction of the audience. Students will read excerpts from primary texts as well as more general texts dealing with film interpretation and criticism. (Also listed as FILM 1301, COMM 1302, ENGL 1301, and ML&L 1301.)

ARTH-1307 Art History I: Prehistoric Through Medieval Art

This course aims to present works of art in their historical context with emphasis on the cultural values revealed in selected examples of painting, sculpture and architecture, and to acquaint students with the fundamental principles of artistic design to further enjoyment of works of art. The humanist tradition of Greek and Roman art, and its relationship to the Judeo-Christian tradition of Early Christian and Medieval art, will be studied.

ARTH-1308 Art History II: Renaissance to Modern Art

This course is a continuation of ARTH 1307, though it may be taken independently. The course focuses particular attention on the humanist traditions of the Renaissance; the influence of religion, philosophy, science and political patronage in the seventeenth and eighteenth centuries; and the impact of industry and modernity in the nineteenth and early twentieth centuries.

ARTH-1309 Introduction to Asian Art: India

The origins and development of art and architecture in India set within the religious, political and social context.

ARTH-1310 Introduction to Asian Art: China

The origins and development of art and architecture in China set within the religious, political and social context.

ARTH-1311 Introduction to Asian Art: Japan

The origins and development of art and architecture in Japan set within the religious, political and social context.

ARTH-1312 Art and Architecture of Latin Americas since the Sixteenth Century

This course examines the rich and diverse art of the Americas since the arrival of Europeans in the sixteenth century. It considers the architecture, painting, sculpture, photography, and planning of this region with the aim of understanding the distinctive elements of Latin American art as well as its commonalities with the art of Europe and the United States. The course will consider works in relations to the dramatic social and political changes of the last five centuries and the ways in which the study of the art of Latin America complicates established art historical narratives.

ARTH-1313 Art and Archaeology of Ancient Egypt

A survey of the major monuments and sites of ancient Egypt. The course will trace the development of the Egyptian state from its formation down into the early first millennium BCE.

ARTH-1314 Art and Architecture of Medieval Europe

The art of the Middle Ages from the sixth through the fourteenth centuries in Europe and the Mediterranean region. Byzantine, Barbarian, Romansque, and Gothic works will be studied in the contexts of contemporary history, thought, and literature. (Also listed as GRST 1314.)

ARTH-2301 International Cinema

This course focuses on the cultural and critical analysis of international films as an expression of particular artistic genres and/or styles within specific historical, ideological, and cultural contexts. Films selected have achieved wide, critical acclaim; others reveal unique and important visions of human experience; while still others are selected for their political, ideological, or sociological significance. Students should develop an awareness that the medium of film has a history and that its history is not confined to national boundaries. (Also listed as FILM 2301, COMM 2301, ENGL 2300, and ML&L 2301.)

UPPER DIVISION

Completion of three semester hours of Art History, or sophomore standing, or consent of instructor, is prerequisite to taking upper-division courses.

ARTH-3320 The Minoan-Mycenaean Civilization

This course deals with the rediscovery of the Aegean Bronze Age civilizations of the Crete and Mycenae, using an interdisciplinary approach based on material from archaeology, anthropology, and the Homeric epics.

ARTH-3321 Greek Vase Painting

The development of the shape and decoration of Greek pottery from the Geometric period through the end of the Classical era. The characteristics of individual artists and the treatment of Greek myths in different periods are studied.

ARTH-3322 Greek Architecture

The development of Greek architecture from the Geometric period through the Hellenistic period. The development of the temple is emphasized, but private and public buildings, city planning, and religious sanctuaries are also considered.

ARTH-3325 Roman Art and Architecture

This course examines the major monuments and art styles in the city of Rome and the Roman provinces from the Republic to the Imperial period, ending with the reign of Constantine the Great.

ARTH-3328 Art and Archaeology of Mesopotamia and Persia

An examination of the archaeology of Mesopotamia (modern Iraq) and Persia (modern Iran), focusing on the visual expression of royal power in art and architecture.

ARTH-3330 Art and Architecture in the Late Classical World

This course will consider the art and architecture of Roman, Jewish, Christian, and early Islamic communities from the later Roman Empire to the seventh century CE.

ARTH-3335 Pre-Columbian Art of Mesoamerica

This course is a survey of the art of Mesoamerica and will examine the art of the Olmec, Western Mexico, Gulf Coast, Teotihuacan, Maya, Toltecs, Zapotecs, Mixtecs, and the Aztecs. Art mediums will include architecture, sculpture, ceramics and other portable art, murals, ancient manuscripts such as codices, jewelry, and even graffiti. Students will have an opportunity to work with materials on and off-exhibit in the Pre-Columbian collection at the San Antonio Museum of Art for their research papers.

ARTH-3339 Art at the Courts of Europe, c. 1330-1416

This course examines the extensive artistic enterprises undertaken at the papal, imperial, royal, and ducal courts of northern and central Europe in the fourteenth century. Often labeled "International Gothic," the course assesses the validity of this term for a broad selection of artworks and addresses such issues as taste, display, and luxury; the changing role of female patrons; technical innovation and expertise; and the hierarchies and interrelations of different media. One key theme is the emergence of individual artists' identities, and so particular consideration is given to patrons' changing relationships with their court artists, including Simone Martini, Master Theodoric, Claus Sluter, and the De Limbourg brothers. (Offered once every three semesters.)

ARTH-3340 Northern Renaissance Art in the Fifteenth Century

Whether called late medieval or Renaissance, this period in northern Europe was a new era of discovery for painting and with painting. How pictures were made to serve the requirements of both nature and the supernatural is the leading theme of this course, which traces developments in painting from Van Eyck to Durer. (Also listed as GRST 3321.)

ARTH-3341 Early Renaissance Art in Italy

This course will deal with the art and architecture of fifteenth century Italy, with emphasis on Florence. The cultural context of Humanism will be explored, as well as the social and political currents that influenced the art of the period.

ARTH-3342 High Renaissance Art and Mannerist Art in Italy

This course deals with the art of sixteenth-century Italy. The first half of the course focuses on papal Rome, and the work of Leonardo da Vinci, Michelangelo, Bramante, and their followers, in relationship to the social and cultural currents of the time. The second half of the course broadens the focus to include other Italian centers and the impact of Mannerism on both monumental and decorative arts.

ARTH-3343 Italian Baroque Art

This course will examine the art and architecture of Italy in the late sixteenth and seventeenth centuries, with emphasis on the major figures and cultural factors associated with Baroque movements. In addition, this course may follow the impact of Italian Baroque art and architecture elsewhere in southern and northern Europe.

ARTH-3344 Northern Renaissance Art in the Sixteenth Century

This course examines the making and meaning of the visual arts in France, Germany, England, and the Netherlands, from c.1500 to c.1600. Artworks in various media are considered in relation to their original contexts, from the workshops of Nuremberg and the markets of Antwerp to the French court at Fontainebleau and the Tudor court in England. Key themes, including the impact of printmaking, the challenge of the Reformation, and the influence of Italian art, are explored through the work of Durer, Grunewald, Holbein, Bruegel, and their contemporaries.

ARTH-3345 Spanish Colonial Art and Architecture in Mexico

A study of the arts of Mexico from Conquest to Independence (1521-1821), with special attention to architecture and to architectural painting and sculpture. The study also includes the Spanish sources of this art (the Late Gothic, Plateresque, Renaissance, Baroque, and Neo-Classical stylistic periods) and the persistence of indigenous forms, images, and sensibilities. The course includes original material at hand: the San Antonio Missions and works in the San Antonio Museum of Art.

ARTH-3346 Jan Van Eyck and His Legacy

The course investigates the life, work and reputation of Jan van Eyck and his place within the history of Western art. Incorporating the latest research on the artist and a range of methodological approaches, the course explores the intended audience, function and meaning of van Eyck's paintings, together with those of his workshop, his followers and his imitators in the Burgundian Netherlands. Particular attention will be paid to the historical, social and religious contexts of his artworks, and the later history of their reception.

ARTH-3351 Nineteenth-Century Art: Romanticism and Impressionism (c. 1800-1900)

This course investigates European art from the French Revolution to Impressionism. During this time, rapid modernization of industry and technology, combined with social and political transformations, caused equally radical changes to occur in many aspects of visual arts, from its formal appearance to its significance for society. Emphasis is given to understanding the interrelationships between various historical contexts and visual form.

ARTH-3352 Nineteenth-Century Architecture and Urbanism

This course covers architecture and urban development in Western Europe and America from the late eighteenth century to the 1890s, with special attention given to the theoretical and social contexts for major architectural movements.

ARTH-3353 Nineteenth-Century American Art

American fine arts and architecture from early nationhood to the World's Columbian Exposition of 1893. Emphasis on the cultural forces shaping the arts and artists, along with major figures and movements.

ARTH-3354 Mexico City

This course examines the architectural and urban history of Mexico City, analyzing its founding by the Aztecs in the fourteenth century, its transformation into a center of Spanish colonial splendor, and its re-invention as a booming twenty-first century mega-city. The course will also consider how travelers, artists, and critics have represented this dynamic metropolis throughout its 700-year history.

ARTH-3357 History of Photography

This course examines the artistic practices and the critical accounts which constitute the history of photography, from the 1830s to the present. Emphasis is given to the historical contextualization and visual analysis of key technologies, techniques, movements, styles, artists, and artworks, combined with

close readings of primary and secondary texts.

ARTH-3359 Modernism in the Visual Arts

This course examines the artistic practices and the critical accounts which constitute “Modernism” in the visual arts, from the mid-nineteenth century. Emphasis is given to the historical contextualization and visual analysis of key modernist artworks, combined with close readings of primary and secondary texts.

ARTH-3360 Twentieth-Century Art: Cubism to Conceptualism (c.1900-1970)

This course introduces students to the major twentieth century artists, works, movements, and art theories in Europe and the United States, circa 1900 to 1970. While concretely investigating a diversity of art practices, the course also considers the central relationship during this period between art and critical theories of modernism and postmodernism.

ARTH-3361 Public Art Across the Border

This course considers the public art of Mexico and the United States, and the rich cross-border exchanges between and among Mexican and U.S. artists in the twentieth and early twenty-first centuries. The course will examine the work of several artists in depth, explore the intimate relationship between public art and social and political reform, and analyze the changing place of public art in popular and art historical discourses. Special attention will be given to Mexican Muralism and its influences.

ARTH-3362 Theories and Art of the Russian Avant-Garde

The main artistic movements and artists in Russia from 1880-1930: Symbolism, Primitivism, Futurism, Suprematism, Constructivism. Special attention will be given to the works of Vrubel, Malevich, Kandinsky, Tatlin, and El Lissitsky.

ARTH-3363 Contemporary Art and Culture since 1945

This course examines the artistic practices and critical accounts which constitute contemporary art, from the 1940s to the 1990s. Relationships between avant-garde artistic activities and social, cultural, and political critique are a central focus. Since this is not a survey class in the traditional sense, extensive reading in both historical and critical materials will be required.

ARTH-3364 Twentieth-Century Architecture and Urbanism

This course covers architecture and urban development from the 1890s to the 1960s. Emphasis on ideological, theoretical, national, and popular architectural movements, primarily in Western Europe and the United States.

ARTH-3365 Contemporary Architecture

This course covers architecture and urban development from the 1960s through the present. Emphasis on the artistic, ideological, theoretical, and political factors that shape contemporary built environments, with primary focus on the United States, Western Europe, and Japan.

ARTH-3-90 Independent Study in Art History

Independent study in selected areas. 1 to 3 semester hours; may be repeated for a total of no more than 6 hours.

Prerequisites: 6 advanced hours in Art History and consent of instructor.

ARTH-3391 Topics in Art History

From time to time special topic courses not described in the bulletin will be offered. Topics will generally

cut across the chronological divisions of period courses, dealing instead with broader issues in Art History. May be repeated on different topics.

ARTH-3392 Women's Studies in Art History

Course content will vary depending on the instructor but may include some of the following: women as artists and architects, images of women in art and society, feminist methodology, or women as patrons of art. Course may be repeated with different topics for a maximum of six semester hours.

ARTH-3393 Museum Studies

This course will focus on specific topics in the history, nature, and operation of the art museum. Specific issues may include: connoisseurship, documentation, the impact of the museum on the development of art, the nature of arts patronage, the function and purpose of the museum, and debates over the issues of censorship and/or community responsibility.

ARTH-3395 Colloquium in Museum Studies

This course will provide an experiential overview of the artistic, educational, and commercial functions of the modern art museum in a colloquium setting. Students will have the opportunity to work in the classroom and on-site with museum professionals in San Antonio and the region.

ARTH-3-97 Internship

Internships are offered in conjunction with museums, art agencies, and art professionals in the San Antonio community and beyond, or may involve an introduction to visual resources management in the Department's Visual Resources Collection. Each internship must be directed by a faculty member who will draw up an agreement between the sponsoring institution or office, the student, and the department outlining the scope and requirements of the course. 1-3 hours per semester, maximum 6 semester hours. Elective credit only. Pass/Fail only.

Prerequisite: Approval by Department Chair.

ARTH-4394 Theories and Practice of Art History

This seminar, required of majors in their senior year (and recommended for minors), will give historical and methodological perspectives on the discipline of Art History. The leading approaches used in the field will be studied, using art historical writings from the Renaissance to the present. The course is generally offered each Spring semester.

ARTH-4395 Seminar in Art History

From time to time courses will be offered that will provide an in-depth study of selected artists or problems. May be repeated for a maximum of six credits.

Prerequisite: Consent of instructor.

ARTH-4396 Gallery Practicum

Gallery Practicum is a hands-on course offering instruction and experience in all aspects of the organization and installation of art exhibitions. Students will learn professional gallery management practices by researching exhibition content, arranging loans of artwork, and creating checklists, didactic labels and brochures. Through organizing and installing exhibitions in the university gallery, they will gain valuable experience in the selection, proper handling, placement, hanging, and lighting of works of art in exhibitions.

Prerequisite: At least one Studio Art or Art History course.

ARTH-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by Senior Honors students in both semesters.

Arts, Letters, and Enterprise

FACULTY ADVISORY COMMITTEE

STACEY CONNELLY, Ph.D., Associate Professor, Human Communication and Theatre
AARON DELWICHE, Ph.D., Associate Professor, Communication
CARL LEAFSTEDT, Ph.D., Associate Professor, Music; Co-Chair
JACK LEIFER, Ph.D., Associate Professor, Engineering Science
LUIS MARTINEZ, Ph.D., Director, Center for Innovation and Entrepreneurship
KATE RITSON, M.F.A., Professor, Art
JAMES SHINKLE, Ph.D., Professor, Biology
PATRICIA SIMONITE, M.F.A., Professor, Art
EUGENIO D. SUAREZ, Ph.D., Associate Professor, Finance and Decision Sciences
JACOB K. TINGLE, Ed.D., Assistant Professor of the Practice of Business Administration; Co-Chair
BETSY TONTIPLAPHOL, Ph.D., Associate Professor, English

OVERVIEW

The Arts, Letters, and Enterprise program is designed as an efficient guided way to couple business literacy with any major at Trinity. Two paths exist for students to pursue interest in this area: a Minor and Certification. The requirements for each path are listed below.

REQUIREMENTS

THE MINOR

The minor in Arts, Letters, and Enterprise is an interdisciplinary program in which students explore various aspects of administering complex organizations in the modern world. The program is designed to afford students the opportunity to further develop the critical thinking, writing, public speaking, leadership, and business literacy skills used in traditional business environments and by those in the arts, theatre, non-profit, technology, and governmental sectors.

Students studying Arts, Letters, and Enterprise are strongly encouraged to study a foreign language beyond the minimum required by the university. Students beginning this minor are also encouraged to take ACCT 1300 prior to MGMT 2301.

Specifically, the Arts, Letters, and Enterprise minor requires:

1. Completion of 21 credit hours as follows (9 of which must be upper division):

A. *Required Courses:*

ACCT 1300	Understanding the Language of Business
ART 2314/ENGL 2340/ GNED 2340/MUSC 2340/ THTR 2340	Creative Thinking and the Artistic Process
MGMT 2301	Management of Organizations

- B. *Elective Courses (Twelve credit hours. At least three credits must be taken from each of the following three categories.):*

Please note that the courses listed here are a representative selection of possible courses. Many other courses taught at Trinity may also satisfy certain components in the minor. Students may propose a course not listed below for inclusion in the minor. To do so, they must

submit a completed proposal form to the ALE program chair (forms can be obtained from chair). The proposal should detail how the course fits with the ALE minor and requires consent from a faculty member who teaches the course.

- Writing and Analysis in the Humanities and Social Sciences

Courses in the Writing and Analysis section must have a substantial writing component and analytical component. Typically, courses will include a minimum of 15-20 pages of written work. Depending on the faculty member's preference, this total may include multiple shorter papers, one longer paper, or work involving revision in response to faculty or peer critique.

ANTH 3464	Morality and the Marketplace
ART 3314	Issues in Contemporary Art*
ENGL 3314	Advanced Exposition and Argument*
ENGL 3335	Rhetorical Analysis*
FREN 3305	Introduction to French Literature I*
FREN 3306	Introduction to French Literature II*
FREN 4304	Topics in French Literature of the Eighteenth Century*
FREN 4305	Topics in French Literature of the Nineteenth Century*
MUSC 3341	Music History 1: Ancient Greece to Mozart*
MUSC 3342	Music History 2: Beethoven to the Present*
PHIL	All upper division courses**
PLSI 3352	Civil Rights and Liberties
PLSI 3361	Classical Political Thought
PSYC 2401	Statistics and Research Methods
PSYC 3331	Memory and Cognition*
PSYC 3351	Clinical Psychology*
RELI 1320	Ethical Issues in Religious Perspective
RELI	All upper division courses*
SOCI 2306	Intro to Social Psychology
SPAN 3321	Spanish Cinema*

- Principles of Organizations and Communities

BUSN/HCOM 3362	Organizational Communication
HCOM 1300	Theories of Communication
HCOM 1333	Public Speaking
HCOM 2304	Interpersonal Communication
HCOM 3360	Small Group Communication
HCOM 3364	Communication and Effective Leadership PHIL
2359/BUSN 2359	Professional Ethics
PLSI 3303	Elections and Campaigns*
THTR 1343	Improvisation

- Applications

ALE 3301	Grant Writing and Fundraising*
ALE 4-90	Internship
ART 1310	Design
ART 3314	Issues in Contemporary Art*
BUSN 2301/ECON 2320	Statistics for Business and Economics
BUSN 3335	Entrepreneurship and Venture Planning*
ENTR 2190	Exploring Entrepreneurship Opportunities*
ENTR 3340	Innovation, Design and Entrepreneurship*
ENTR 3341	Entrepreneurial Planning and Strategies*

MKTG 2301	Principles of Marketing
MKTG 3382	Promotion Management*
MUSC 4321	Applied Music Pedagogy
SPMT 3316	Leadership for Sport Professionals
THTR 3227	Stage Management
THTR 3343	Arts Management

*This course has at least one prerequisite.

**Excluding PHIL 3-90, PHIL 3-91, and PHIL 4-90.

Distribution Requirement:

No more than six (6) of the elective credit hours used to satisfy the minor requirements may come from any one department. Additionally, ALE minors who are also Business Administration majors may not use any Business Administration course other than MGMT 2301 to fulfill this minor.

CERTIFICATION

The Arts, Letters, and Enterprise Certification gives students an opportunity to build knowledge while also gaining practical experience in an internship off campus. This path requires fewer hours than the Minor. ALE Certification is especially suited for students pursuing a degree in clinical sciences, engineering sciences, social sciences, or those interested in non-profit management. It requires completion of at least 12 credit hours, as listed below, plus a supervised internship of one-semester duration or the equivalent.

Students may not receive both an ALE minor and certification.

The program offers a certification as a supplement to traditional majors and minors. Students earn the certification by:

1. Successfully completing a minimum of four of the "Arts, Letters, and Enterprise" courses as detailed below:

A. *Required courses (must complete three of the four listed courses):*

ART 2314/ENGL 2340/ GNED 2340/ MUSC 2340/ THTR 2340	Creative Thinking and the Artistic Process
ACCT 1300	Understanding the Language of Business
ALE 3301	Grant Writing and Fundraising
MGMT 2301	Management of Organizations

B. *Elective courses (Three credit hours; one course from the following list):*

- Writing and Analysis in the Humanities and Social Sciences

Courses in the Writing and Analysis section must have a substantial writing component and analytical component. Typically, courses will include a minimum of 15-20 pages of written work. Depending on the faculty member's preference, this total may include multiple shorter papers, one longer paper, or work involving revision in response to faculty or peer critique.

ANTH 3464	Morality and the Marketplace
ART 3314	Issues in Contemporary Art*
ENGL 3314	Advanced Exposition and Argument*
ENGL 3335	Rhetorical Analysis*
FREN 3305	Introduction to French Literature I*
FREN 3306	Introduction to French Literature II*
FREN 4304	Topics in French Literature of the Eighteenth Century*
FREN 4305	Topics in French Literature of the Nineteenth Century*
MUSC 3341	Music History 1: Ancient Greece to Mozart*

MUSC 3342	Music History 2: Beethoven to the Present*
PHIL	All upper division courses**
PLSI 3352	Civil Rights and Liberties
PLSI 3361	Classical Political Thought
PSYC 2401	Statistics and Research Methods
PSYC 3331	Memory and Cognition*
PSYC 3351	Clinical Psychology*
RELI 1320	Ethical Issues in Religious Perspective
RELI	All upper division courses
SOCI 2306	Intro to Social Psychology
SPAN 3321	Spanish Cinema*

*This course has at least one prerequisite.

**Excluding PHIL 3-90, PHIL 3-91, and PHIL 4-90.

2. Completion of ALE 4-90 or another preapproved internship experience, which consolidates and integrates the learning from ALE with coursework from the student's primary academic discipline. Students taking this class will work for various scientific, governmental, social agency, arts, or non-profit offices as interns. Their responsibilities will be determined by those offices and by supervising faculty. They will then complete a writing assignment in which they relate their experiences in the internship to the goals of the ALE Certificate program.

COURSES

ALE-3101 Grant-Writing and Fundraising

Application in principles and processes involved in fundraising and grant-seeking. Emphasis is on the not-for-profit sector, but the course is also appropriate for students interested in the arts, teaching, and research who anticipate a need for grant and fundraising expertise in their planned careers.

Prerequisite: Junior standing.

ALE-4-90 Internship

The internship is to be a structured and supervised professional work experience with an accepted employer in the private, public, or non-profit sector. To be recognized, the experience must be pre-approved, must include specific learning objectives, and must include an academic component. An internship is typically done by a student who has attained sufficient preparation in an academic field. The experience may be paid or unpaid. Variations in credit according to the work performed, from 0 to 6 hours. A maximum of 6 hours of internship credit may be applied to a Trinity degree.

Prerequisite: Consent of the program director.

Biology

FACULTY

ROBERT V. BLYSTONE, Ph.D., Professor
MARK BRODL, Ph.D., George W. Brackenridge Distinguished Professor of Biology; Associate Vice President for Academic Affairs
FRANKLYN G. HEALY, Ph.D., Associate Professor
MICHELE A. JOHNSON, Ph.D., Assistant Professor
JONATHAN KING, Ph.D., Associate Professor
KEVIN D. LIVINGSTONE, Ph.D., Associate Professor
KELLY G. LYONS, Ph.D., Associate Professor
TROY G. MURPHY, Ph.D., Assistant Professor
GABRIELA RENNEBECK, Ph.D., Instructor
DAVID O. RIBBLE, Ph.D., Murchison Term Professor of Biology; Chair
JAMES L. ROBERTS, Ph.D., Ruth C. and Andrew G. Cowles Endowed Professor of Life Sciences
JAMES R. SHINKLE, Ph.D., Professor
TYISHA WILLIAMS, Ph.D., Assistant Professor

OVERVIEW

The Bachelor of Science program is designed to provide both a broadly based introduction to the biological sciences and an opportunity for study and research at an advanced level. The program serves students with interests in pursuing careers in the health professions, secondary education, and professions requiring a fundamental knowledge and understanding of the biological world. Students interested in graduate study in biology are strongly encouraged to elect research courses in addition to the required program of study.

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Science with a major in Biology are as follows:

- I. The common curriculum.
- II. Departmental requirements:
 - A. 33-41 semester hours of biology are required and distributed as follows:

The Area A introductory core (9 hours), BIOL 4201 or BIOL 4399 and five additional courses from Area B (20 hours) with at least one course from each of the following two categories: group 1–3420, 3426, 3427, 3434, 3435; group 2–3430, 3431, 3441, 3448, 3452, 3456, 3457, 3459, 3462, 3464; and three additional hours in biology at the 2000 level or higher.
 - B. CHEM 1318/1118, 2319/2119, MATH 1307 or 1311, and MATH 1320 or PSYC 2401.
 - C. Two courses chosen from one of the following options:
 1. CHEM 2320/2220 and one of the following: CHEM 3330, 3334, or ENGR 2311.
 2. PHYS 1309/1111 and 1310/1112.
 3. CSCI 1320; MATH 1308 or 1312 or an upper division mathematics or computer science course approved by the student's adviser.

4. One course from GEOS 1304 or 1405 and one course from GEOS 2304, 2401, 3300, 3408, or 3402.

D. Completion of BIOL 4001 and 4002 with a grade of C or better.

III. Electives sufficient to total 124 semester hours.

It is recommended that students planning to undertake graduate study in the biological sciences complete more than one of the options in part C.

GUIDELINES FOR ACCEPTANCE OF MAJORS

Full acceptance in the major is granted if the following requirements are met at the time of application:

1. Completion of BIOL 1311, 1111, 1312, 1212 with grades of C or better in each class;
2. Completion of CHEM 1318, 1118, 2319, 2119; and
3. An overall grade point average of at least 2.0.

Students who do not meet the above criteria may be granted provisional acceptance if it is judged that there is a reasonable expectation they can complete the degree program.

HONORS IN BIOLOGY

Biology majors are eligible to enroll in the Honors Program if they satisfy the University requirements that are described elsewhere in this bulletin. Prior to registration for their junior year, Honors candidates should meet with the Department Chair and should arrange for a Faculty Mentor for their Thesis Project. Completion of the Honors Program includes nine hours of research courses (BIOL 3-98, 4398, and 4399). Upon completion of BIOL 3398 and 4398, the Honors candidate must submit to the Department Chair a written request to graduate with Honors in Biology. This request must be received no later than the first full week of the student's final semester before graduation. The decision to confer or not to confer Honors will be made by the Departmental Faculty and will be based on the quality of the written thesis and the oral presentation of that thesis.

MINOR IN BIOLOGY

A student may minor in Biology by satisfying the following requirements:

- I. Completion of BIOL 1311, 1111, 1312, 1212; and
- II. Completion of three courses from Area B.

BACHELOR OF SCIENCE DEGREE IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

The requirements for the degree Bachelor of Science with a major in Biochemistry and Molecular Biology are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. 48-49 credits in chemistry and biology, distributed as follows:
 1. Core Courses. BIOL 1311, 1111, 1312, 1212, 3430, 3464, CHEM 1318, 1118, 2319, 2119, 2320, 2220, 3330, 2130, 3131, 3334, and 4340; BIOL 3000 or CHEM 3000 (1 semester).
 2. Advanced Electives. Two courses chosen from the following list (one from each department): BIOL 3441, 3448, 3456, 3459, 3462, CHEM 3432, 4346, 4347, or the combination of 3321 and 3121.
 - B. MATH 1307 or 1311 and 1308 or 1312.
 - C. PHYS 1111, 1112, 1309, 1310.

III. Electives sufficient to total 124 semester hours.

GUIDELINES FOR ACCEPTANCE OF MAJORS

Full acceptance is granted if the following requirements are met at the time of application:

- I. Completion of CHEM 1318, 1118, 2319, 2119, 2320, 2220 and BIOL 1311, 1111, 1312, 1212 with grades of C or better.
- II. Completion of MATH 1307 or 1311 with a grade of C or better.
- III. A grade point average of at least 2.0 on all other university work.

Provisional acceptance may be granted if it is apparent that an applicant can meet the requirements for full acceptance by the end of the semester in which application is made.

Transfer students will be accepted provisionally pending completion at Trinity of at least one upper division chemistry and biology course, which includes laboratories, with a grade of C or better.

HONORS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

Students may undertake honors under the direction of faculty in either the Biology or Chemistry Departments. The procedures and requirements will be determined by the department affiliation of the research mentor. These are described in the Biology and Chemistry sections of this bulletin.

TEACHER CERTIFICATION IN BIOLOGY

Students majoring in biology can receive certification to teach biology in grades 4-8 and grades 8-12. In order to receive certification, students major in biology, complete 11-14 undergraduate hours of education coursework, and complete the Master of Arts in Teaching graduate program at Trinity. After this course of study, students would have a B.S. in Biology, a master's in teaching, and teacher certification in Texas. For more information and specific requirements, see the Education Department's program description in the course catalogue.

COURSES

BIOL-1305 Genetics and Human Affairs

The course is designed to equip students with sufficient factual knowledge to help them intelligently and critically evaluate the problems arising from the recent discoveries in genetics and related life sciences. The principles of heredity and the newer findings in molecular genetics are emphasized as they relate to such current social problems as population pressure, technology, the sexual revolution, birth defects, prenatal diagnosis, effects of drugs and pollutants on heredity, behavior, transplantation, gene cloning and transfer, biotechnology and the future of humans. BIOL 1305 and 3421 cannot both be taken for credit.

BIOL-1307 Biological Impact and Issues

The content of this course will deal with the impact of biological knowledge on the issues of society and culture. Examples of the topics to be discussed are as follows: the influence of the concepts of evolution on human thought and society; medical science and its manipulation of the human body; gene pool alteration and the resultant restructuring of life; agricultural science and its effect on nutrition and human population; impact of the alteration of the environment on the biological world. 3 class hours a week for one semester.

BIOL-1309 The Nature of Cancer

This course is a survey of cancer biology examining the development, progression and treatment of

the disease(s). A major emphasis will be on using a scientific framework to understand the disease along with the many myths and misperceptions. The course is designed as a studio course that includes both lectures and laboratory experiments during the class period. Additionally, there will be four required field trips during the semester that will require a total of sixteen hours on weekends. A minimum of one half of the course meeting times will be laboratory activities. No student who has already fulfilled or is currently fulfilling the Using Scientific Methods section of the Understanding Natural Science and Technology portion of the Common Curriculum may register for this course.

BIOL-2301 Advanced Placement Biology

Students earning a 4 or 5 on the Advanced Placement Biology exam or a 5, 6, or 7 on the Higher-Level International Baccalaureate Exam will receive credit for this course.

BIOL-2305 The Science of Novel Environments

This course explores the scientific background supporting the literature studied in CMLT 2301, World Literature and the Environment. Two themes are emphasized: 1) ecological and physical approaches to studying the environment; and 2) the organismal biology, genetics, and molecular biology of crop plants as related to global agriculture and genetically modified organisms. This course is organized around a mixture of lectures and discussion. Diverse hands-on/laboratory experiences will be included. Mandatory half-day field trips will be scheduled for three Saturdays during the term. This course is intended for students who major in a non-science discipline. No student who has fulfilled or is currently enrolled in a course fulfilling the Using Scientific Methods requirement of the Common Curriculum may register for BIOL 2305.

Corequisite: CMLT 2301.

AREA A: THE INTRODUCTORY CORE

BIOL-1311 Integrative Biology I

This course is designed to introduce students to the wide range of knowledge in the biological sciences and with the methods that have built this knowledge base. The course is organized around a series of topic-based modules, each of which will integrate modern biological approaches at the cellular, organismal, and popular levels. Modules for this first semester course will include global biology change, sexual reproduction, the evolution of hemoglobin, or other contemporary topics. Grades for this course will be determined by exams on each module, a comprehensive final exam, and take home exercises and assignments. This course is appropriate for non-science majors and will meet 3 class hours a week for one semester in the fall only.

BIOL-1312 Integrative Biology II

This course is a continuation of Biology 1311 and builds on that material with a different set of topic based modules. Modules for this second semester course will include genetically modified organisms, metabolism, the evolution of birdsong, or other contemporary topics. Grades for this course will be determined by exams on each module, a comprehensive final exam, and take home exercises and assignments. 3 class hours a week for one semester in the spring only. Biology 1212 must be taken concurrently.

Prerequisites: BIOL 1311, 1311. CHEM 1318 is strongly recommended.

BIOL-1111 Introductory Biology Laboratory

This is an introductory course that provides an understanding of the scientific methods used to investigate biological questions and how the results of these studies are communicated. The semester is divided into three investigative modules in which student groups learn a technique, conduct an experiment or study, and write their results in the form of a scientific paper. Each group will also make a presentation on the biodiversity of particular groups of organisms. This laboratory course is appropriate for both non-science majors and science majors. Grades are determined from the reports and presentations. 3 laboratory hours a week for one semester in the fall only. BIOL 1311 must be taken concurrently.

BIOL-1212 Methods for Biological Problem Solving

This methods course for science majors develops analytical, laboratory, and field skills through small-scale exercises and investigative experiments. Biochemistry and molecular biology, organismal physiology, and ecology will be used to address the processes of experimental design and data analysis, with emphasis on calculation skills and proper application of statistics. The use of supporting organismal and literature databases in scientific investigation will be incorporated. Grades for the course will be determined by a combination of tests, problem sets and writing assignments. Three scheduled laboratory hours, plus 1-2 hours of follow up laboratory work and outside reading/writing each week. BIOL 1312 must be taken concurrently.

AREA B COURSES

All of the following upper division courses have BIOL 1311, 1111, 1312, and 1212 as prerequisites.

BIOL-3420 Animal Behavior

This course will investigate both evolutionary and proximate aspects of animal behavior. Using the logical framework of the four levels of analysis, we will cover: 1) the adaptive value of specific behaviors and the role of natural selection in maintaining behaviors; 2) how behaviors have evolved over time; 3) how behaviors develop within an individual; and 4) the neural, hormonal, and physiological mechanisms underlying behaviors. Lectures will cover a variety of topics, including: natural selection and evolution; genes and the environment; animal learning and cognition; hormones and their role in mediating behavior; neural mechanisms; foraging behavior; predator-prey interactions; sexual selection; animal communication; courtship and mate choice; and social behavior. In addition to lectures, we will develop skills to understand and interpret primary literature, which will be facilitated through group-discussions of journal articles. The laboratory will focus on developing skills of hypothesis-driven inquiry, and on the design, implementation, and analysis of experiments that will be carried out in the laboratory and field. As part of the laboratory, students will develop a sophisticated and in-depth review of the literature focusing on a specific topic of animal behavior, culminating in a final paper and a presentation to the class. 3 class hours and 3 laboratory hours a week for one semester.

BIOL-3426 Vertebrate Evolution

This course is an evolutionary survey of vertebrates that will focus on major evolutionary innovations and systematic relationships, and major features of the anatomy, physiology, life history, and behavior of vertebrate taxa. The laboratory includes studies of evolutionary adaptations, surveys of taxa, field trips to the San Antonio Zoo and other locales, and identification of local vertebrates. Grades for the course will be determined from lecture exams, laboratory practicals, one comprehensive final exam, and the students' choice of a library report or field-based project. 3 class hours, 3 laboratory field

hours a week for one semester.

BIOL-3427 Plant Biology

This course is a comprehensive study of plants from a variety of perspectives including plant morphology, anatomy, physiology, evolution, and ecology. The course will also cover plant ethnobotany, biogeography, and the taxonomy of several notable plant families. The laboratory is designed to give students experience with live and preserved specimens and laboratory and field techniques frequently associated with the study of plants. Students will apply skills learned in the core courses to the processes of experimental design and hypothesis testing by conducting experiments that are pertinent to the current literature. Some experiments will require time outside of scheduled lab for care of experimental subjects. The course includes two week-day and one weekend field trip. 3 class hours, 3 laboratory/field hours a week for one semester.

The following upper-division courses have BIOL 1311, 1111, 1312, and 1212 as prerequisites and CHEM 1318, 1118 as pre- or corequisites.

BIOL-3430 Genetics

An understanding of genetics is fundamental to most studies in biology because of the central role of heredity in life and evolution. This course will use a text and primary literature to study the following subjects and principles: Mendelian inheritance of qualitative and quantitative characters and probabilistic analysis of heredity; the molecular nature of genes, including the basic classes and functions of genes and regulation of transcription in both prokaryotic and eukaryotic systems; and the behavior of genes in populations, including mathematical treatments of Hardy-Weinberg equilibrium and the five evolutionary forces (mutation, migration, selection, drift, and non-random mating). The laboratory will use model plant and animal systems to investigate these basic principles. Grades will be based on exams and participation in lecture and lab. Three class hours and three laboratory hours per week for one semester. Some experiments will require time outside of scheduled lab for care of experimental subjects. BIOL 1305 and 3430 cannot both be taken for credit.

BIOL-3431 Microanatomy

Structure-function relationships are explored through an analysis of animal histological features. The microscopy-based laboratory examines tissues by means of comparisons of normal and pathological features. Student performance is measured by in-class exams, written reports, oral presentations, and a course project. Computer imaging and analysis are integrated into the fabric of the course along with several case studies. 3 class hours and 3 laboratory hours a week for one semester.

BIOL-3434 Ecology

This course examines the interactions that determine the distribution and abundance of animals and plants. As a primary discipline in biology, ecology overlaps broadly with many other disciplines including genetics, evolution, systematics, behavior, and physiology to name a few. Any study of ecology also requires basic mathematical and statistical knowledge. This course will examine the broad field of ecology from three different levels: individuals, populations, and communities. These levels will be covered through lectures, computer simulations, student-led critiques and student-led discussions of classic studies, and laboratory- field exercises. Most of the laboratory time will be spent on field trips. The course will also include a weekend field trip. Grades for the course will be determined from lecture and laboratory exams, discussions of classic papers, one comprehensive final exam, and numerous laboratory- field write-ups. 3 class hours, 3 laboratory-field

hours a week for one semester.

Strongly recommended: MATH 1307 or 1311 and PSYC 2401 or MATH 1320.

BIOL-3435 Evolution

This course will survey the history of evolutionary thought, the mechanisms and patterns of evolutionary change, and the methods scientists use to study evolution. Topics to be explored include evolution by natural and sexual selection, neutral drift, fitness and adaptation, modes of speciation, phylogenetics, extinction, and applications of evolution in modern medicine. The laboratory portion of the course will include methods to describe and measure diversity, to experimentally create diversity, and to use evolutionary statistics to address broad biological questions. Some experiments will require time outside of scheduled lab. 3 hours of lecture/discussion and 3 laboratory hours per week.

Strongly recommended: MATH 1320 or PSYC 2401.

The following upper division courses have BIOI 1311, 1111, 1312, and 1212, and CHEM 1318 and 1118 as prerequisites. CHEM 2319 and 2119 are pre- or corequisites.

BIOL-3441 Plant Physiology

As organisms, plants are intertwined with and extensively influenced by their physical environments. Individual cells and organs adapt independently to environmental fluctuations on a moment-by-moment basis. This course examines how plants maintain this flexibility and function as multicellular organisms. The principal focus is the regulation of biochemical and biophysical processes and how they are integrated from the cellular level to the organ level and finally into a functional whole plant. Three themes will be considered in depth: 1) the biophysics and biochemistry of water and inorganic nutrient fluxes; 2) bioenergetics and biochemistry of photosynthesis; and 3) cellular and molecular processes of signaling in development and pathogen responses. Equal emphasis is placed on processes regulated at the level of gene expression and processes where regulation occurs by modulation within pre-existing biochemical pathways. Discussion of readings from the primary scientific literature will be a regular component of course work. Laboratories will combine exercises in which quantitative data are used to demonstrate consequences of specific principles, with project-oriented experiments extending over several weeks and outside the scheduled lab period.

BIOL-3448 Microbiology

The study of microbial organisms is of tremendous importance in our world today. This course emphasizes the basic biology of bacteria, including their varied morphology, growth and nutritional requirements, cell motility, gene regulation, mechanisms of antibiotic resistance, and bacterial interactions as populations and with other organisms. Other topics covered include viruses and the Archaea. The impact of microbes on medicine, public health, agriculture and biotechnology are discussed. In addition to exams, a research paper on a recent topic from the primary research literature in microbiology is required. The laboratory covers diverse techniques on manipulation and growth of bacterial cultures, microscopy, testing of environmental samples, bacterial genetics and molecular biology, and identification of unknown organisms. Multiple experiments are run concurrently. Students are expected to visit the lab on days other than the assigned period to monitor experiments. 3 class hours, 3 laboratory hours a week for one semester.

Additional prerequisite: BIOL 3430.

The following upper-division courses have BIOL 1311, 1111, 1312, and 1212, CHEM 1318, 1118, 2319,

and 2119, and an additional course as specified as prerequisites.

BIOL-3452 Vertebrate Physiology

This course is a study of the principles of homeostasis with emphasis on major vertebrate organ systems. This course begins with a detailed molecular investigation of excitable membrane physiology (nerve and muscle) followed by a systematic investigation of endocrine, cardiovascular, respiratory, renal and gastrointestinal physiology. Integrative problem sets are assigned to address the complex interactions between organ systems. Laboratory experience involves experimentation with sophisticated physiological equipment and computerized data acquisition systems to reinforce concepts presented in lecture. Lecture examinations, laboratory reports, homework problem sets, and a research paper with presentation will be used to assess student understanding in this course. 3 class hours, 3 laboratory hours per week for one semester.

Additional prerequisite: one 2000-level Biology course or higher.

BIOL-3453 Developmental Biology

Through integration of information from various biology subdisciplines, course topics include the following: vertebrate body plan patterning, genetic control of the *Drosophila* body plan, early morphogenesis, cell differentiation, organogenesis, gamete formation, and fertilization. The laboratory follows development using microscopy and through special projects involving several animal systems, including avian. Course assessment includes in-class examinations, oral presentations, and group projects. 3 class hours and 3 laboratory hours a week for one semester. Additional laboratory hours are required to monitor experiments.

Additional prerequisite: one course from BIOL 3426, 3456, or 3457.

BIOL-3456 Cell Biology

Cells form the basic working units of organs and the systems that organs comprise. This course is designed to build an understanding of the fundamental processes that govern the operations of cells. Cells face challenges of maintaining boundaries, communicating with neighboring cells, transporting essential components across barrier membranes, generating chemical energy, regulating cell phenotype, and maintaining cell structure. In order to function as part of a specialized tissue or organ, cells elaborate specific subsets of organelles to dedicate themselves to performing specific functions. The course will provide the background to understand the cellular mechanisms of specialized cells, and allow one to predict the underlying cellular physiology of most tissue systems. The laboratory takes an investigative approach, introducing microscopic, molecular, and biochemical tools for studying cells. Grades for the course are to be determined by in-class examinations and laboratory reports. 3 lecture hours, 3 laboratory hours a week for one semester.

Additional prerequisite: at least one Area B course or CHEM 3330.

BIOL-3457 Neurobiology

Neurobiology focuses on the organization and function of nervous tissues and systems. The course begins with an anatomical overview, followed by an examination of neural system function at the level of signaling and synaptic transmission, sensory systems, and central system integration and control. With this foundation, the course explores brain development and plasticity. 3 class hours and 3 laboratory hours a week for one semester. Additional hours are required to monitor experiments. (Also listed as NEUR 3447.)

Additional prerequisite: NEUR 2310.

BIOL-3459 Endocrinology

A study of the function of the endocrine system and how it regulates the metabolic processes of living organisms. The course begins with a historical background of the science of endocrinology and then progresses from pituitary gland secretions through the endocrinology of the reproductive organs. Attention will also be given to neuro-endocrine mechanisms in lower vertebrates and invertebrates. 3 class hours, 2 discussion- demonstration hours a week for one semester.

Additional prerequisite: at least one Area B biology course, preferably BIOL 3452 or CHEM 3330.

The following upper-division courses have BIOL 1311, 1111, 1312, 1212, CHEM 1318, 1118, 2319, 2119, and two additional courses as specified as prerequisites.

BIOL-3462 Immunobiology

This course investigates the immunological mechanisms that enable animals to respond to foreign substances, and examines the experimental observations upon which current concepts are based. The underlying course theme is that while invariant properties of pathogens are recognized by elements of innate immunity, and in some instances leads to their elimination, the ability of pathogens to continually adapt and develop evasive strategies has by necessity been countered by the evolution of adaptive immune responses. Consequently, the course begins with consideration of innate immune mechanisms, which is followed by a thorough treatment of the molecular and cellular events that lead to generation of the effectors of adaptive immunity and their modes of action. The course concludes with discussion of the physiological consequences of an immune response, certain clinical manifestations of immune reactivity, and how our understanding of immune mechanisms has been applied to clinical and public health problems. 3 class hours and 3 laboratory hours a week for one semester. In addition to quizzes and examinations, a research paper is required that deals critically with a topic of current interest and is based upon the recent scientific literature.

Prerequisites: BIOL 3430 and at least one additional area B biology course or CHEM 3330.

BIOL-3464 Molecular Biology

The focus of this course is the gene. The lecture portion of the course considers the major topics of gene structure, expression, duplication, and recombination. The laboratory takes an investigative approach and offers experimentation in protein electrophoresis, northern blotting, reporter gene expression, PCR-based gene cloning and sequencing, and microarray screens. Lecture and laboratory principles are reinforced through computer-based problem-solving projects using genome databanks. Grades for the course are to be determined by in-class examinations, the projects, and laboratory reports. 3 lecture hours, 3 laboratory hours a week for one semester.

Prerequisites: BIOL 3430 and one of the following: BIOL 3448, 3453, 3456, or CHEM 3330.

AREA C: TECHNIQUE AND RESEARCH CONCENTRATION**BIOL—91 Selected Topics**

Study of a topic or field not covered by other courses. Lower division offerings will provide an introductory approach to a topic. Upper division courses will involve in-depth analysis of a specific area, and will usually require prerequisite courses, at the discretion of the instructor. May be repeated for credit

on different topics.

BIOL-3000 BCMB Seminar

Students must attend a minimum of 10 scientific seminars. Appropriate seminars are those offered by the Department of Biology, the Department of Chemistry, the Department of Physics and Astronomy, the Neuroscience Program, and/or seminars presented as part of the Distinguished Scientist Lecture Series. Pass/Fail.

BIOL-3-90 Independent Study

Individual work arranged with a faculty member on problems in biology as indicated by the student's preparation and interest. Attendance at the weekly Biology Seminar is required. Credit may be from 1 to 3 hours per semester with no more than 6 cumulative credit hours possible.

Prerequisites: consent of instructor and approval of a study/research plan submitted to the department chair prior to the semester of enrollment in the course.

BIOL-3-92 Research Internship

Off-campus study in a research laboratory arranged by the student. Prior written approval of a faculty member and departmental permission are required. Guidelines are available in the departmental office. May be repeated for a maximum of 3 credit hours. Graded on a pass/fail basis.

BIOL-3-98 Thesis Readings

Independent study in selected areas in preparation for the Senior Thesis. Credit may be from 1 to 3 hours per semester. It is highly recommended that students complete three course hours of this experience by the end of their junior year to establish a foundation for their Thesis Research.

Prerequisite: junior standing.

BIOL-4001 Senior Comprehensive Exam

Each September or early October, those Biology majors who have earned 90 total credits or 23 hours in Biology by the end of the preceding semester, will take the Biology Major Field Test (MFT). Students will be required to attend a one hour meeting held early in the fall semester; the examination will be administered on a Saturday soon thereafter. Alternative arrangements will be made for students unable to take the exam at the scheduled time because of University commitments. Students will receive a grade of Pass for completion of the test, but performance on the exam will factor into the grade for BIOL 4002.

BIOL-4002 Senior Retrospective

Students will meet with their advisors during the first day of class and schedule a series of meetings that will guide them in the preparation of a written summary addressing the following: 1) A review of each student's performance on the MFT describing the strengths and weaknesses of the student's preparation; 2) A comparison of the MFT results to the courses taken and grades received and; 3) An assessment of how the student's performance might have been affected by course selection, course content or learning environment, or the student's own learning strategies. In some instances a student might be advised to change their course selection for their final semester based upon their

test score. Grades assigned for this course will be based on a combination of the MFT score and the quality of the student's written summary.

BIOL-4201 Biology Senior Seminar

Built around the Biology Department's seminar series, students will interact with seminar speakers visiting campus to discuss readings provided by the speaker the week before. Students will maintain a journal that briefly summarizes the readings and logs thoughts about the significance of the work, how it extends what has been learned in biology classes at Trinity, and what major questions the work raises. After the discussion, students will attend the seminar to learn about the broader context of the work.

Prerequisite: senior standing and Biology major.

BIOL-4351 Conservation Biology

This course will explore the cross-disciplinary nature of conservation biology, which is the applied science of maintaining the earth's biological diversity. Students will lead weekly discussions on the various sub-disciplines of conservation biology and their applications, including evolution, ecology, genetics, and economics. A detailed case history analysis of a local conservation issue will be required.

Prerequisite: an upper-division course in Biology or consent of instructor.

BIOL-4398 Senior Seminar and Thesis Research I

The purpose of this course is to provide opportunity and guidance in research under the direction of a faculty member. Students must submit a progress report to the department chair if they plan to enroll in BIOL 4399. Attendance at the weekly Biology Seminar, which consists of presentations of original research from diverse fields of Biology, is required.

Prerequisites: senior standing, completion of BIOL 3398, and submission of a formal research proposal to the department chair prior to the semester of enrollment in the course.

BIOL-4399 Senior Seminar and Thesis Research II

This course is a continuation of student projects begun in BIOL 4398. Students are required to write a thesis and make an oral presentation of their research project at an appropriate venue. Attendance at the weekly Biology Seminar is also required.

Prerequisite: BIOL 4398.

Biomathematics

FACULTY ADVISORY COMMITTEE

FARZAN AMINIAN, Ph.D., Professor, Engineering Science
EDUARDO CABRAL BALREIRA, Ph.D., Associate Professor, Mathematics
KEVIN D. LIVINGSTONE, Ph.D., Associate Professor, Biology; Chair
PETER OLOFSSON, Ph.D., Professor, Mathematics
DAVID O. RIBBLE, Ph.D., Professor, Biology

OVERVIEW

The Biomathematics minor is an interdisciplinary program designed for students interested in the expanding field of mathematical modeling of biological phenomena. The program of study includes the introductory core courses from Biology and Mathematics to provide students with fluency in each of these disciplines. Students then choose either an ecology track or a genetics track. In either track, students are required to take a biology course and then a mathematics course. These mathematics courses will build on specific quantitative aspects of the biological subdiscipline to motivate model development and testing. Students will also take a seminar course to become familiar with contemporary problems addressed by researchers in biomathematics and present the results of their own research projects.

REQUIREMENTS

THE MINOR

The requirements for a Biomathematics minor are as follows:

I. **The Core** (18 hours)

BIOL 1311	Integrative Biology I
BIOL 1111	Introductory Biology Laboratory
BIOL 1312	Integrative Biology II
BIOL 1212	Methods for Biological Problem Solving
MATH 1307	Calculus A
MATH 1308	Calculus B
MATH 1320	Statistical Methods

II. **Advanced Interdisciplinary Study** (7 hours)

Complete one of the following pairs of courses. The BIOL course should be taken first for either option, as the MATH course will build on the knowledge from the BIOL course.

- **Ecology option:**

BIOL 3434	Ecology
MATH 3328	Mathematical Models in Life Sciences

or

- **Genetics option:**

BIOL 3430	Genetics
MATH 3327	Probabilistic Models in Life Sciences

III. **Contemporary Topics and Research in Biomathematics** (3 hours)

BIMA 2094	Seminar in Biomathematics I
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BIMA 3194	Seminar in Biomathematics II
BIMA 4294	Research Project in Biomathematics

COURSES

BIMA-2094 Seminar in Biomathematics I

This course will be offered spring semesters and consist of seminar presentations given by Trinity students and researchers in biomathematics, as well as other researchers from outside the institution. Students will be expected to prepare for each seminar by reading assigned materials and then participating in discussions with the speakers prior to the seminar.

Prerequisite: consent of instructor.

BIMA-3-90 Independent Research in Biomathematics

Individual research in biomathematics conducted with faculty. Course credit will depend on the nature and scope of the proposed research project.

Prerequisites: consent of instructor and approval from the minor director

BIMA-3391 Special Topics in Biomathematics

Advanced study of a topic or field not covered by other courses. May be repeated for credit for different topics.

Prerequisites: BIOL 1311, 1312, MATH 1307, MATH 1308, and consent of instructor.

BIMA-3194 Seminar in Biomathematics II

This course will be offered spring semesters and consist of seminar presentations given by Trinity students and researchers in biomathematics, as well as other researchers from outside the institution. Students will be expected to complete the requirements outlined for BIMA 2094, as well as present either the results of their own research project or a relevant paper from the literature, including leading the pre-seminar discussion.

Prerequisites: BIMA 2094 and consent of instructor.

BIMA-4294 Research Project in Biomathematics

This course will be offered spring semesters and consist of seminar presentations given by Trinity students and researchers in biomathematics, as well as other researchers from outside the institution. Students will be expected to complete the requirements outlined for BIMA 2094, as well as present the results of their own research project, including leading the pre-seminar discussion.

Prerequisites: BIMA 2094 and consent of instructor.

School of Business

FACULTY

DEPARTMENT OF ACCOUNTING

AMY HOLMES, Ph.D.*, Assistant Professor
JULIE PERSELLIN, Ph.D., Assistant Professor
JOHN D. RICE, J.D., C.P.A., Associate Professor
LINDA B. SPECHT, J.D., C.P.A., Associate Professor; Interim Chair
MICHAEL WILKINS, Ph.D., Jesse H. Jones Professor of Business Administration

DEPARTMENT OF BUSINESS ADMINISTRATION

WILLIAM T. BURKE III, J.D., Associate Professor
CHARLENE DAVIS, Ph.D., Associate Professor; Chair
MARIO GONZALEZ-FUENTES, Ph.D., Assistant Professor
RITA D. KOSNIK, Ph.D., Professor
KIM R. ROBERTSON, Ph.D., Associate Professor
JACOB TINGLE, Ed.D., Assistant Professor of the Practice of Business Administration
DONALD F. VAN EYNDE, Ph.D., Professor
DARRYL G. WALDRON, Ph.D., Professor
DELI YANG, Ph.D., Richard M. Burr and Donald N. Clark Professor of International Business

DEPARTMENT OF FINANCE AND DECISION SCIENCES

RICHARD M. BURR, Ph.D., Professor
JORGE COLAZO, Ph.D., Assistant Professor
LISA PAIGE FIELDS, Ph.D., Dick and Peggy Prassel Professor of Business Administration; Chair
RUBEN MANCHA, Ph.D., Assistant Professor
EUGENIO D. SUAREZ, Ph.D., Associate Professor
DANIEL T. WALZ, Ph.D., Professor
SHAGE ZHANG, Ph.D., Assistant Professor

OVERVIEW

The School of Business offers two undergraduate degree programs. The Bachelor of Science in Business Administration degree is designed to accommodate those students who want to pursue specialized study in the following areas of concentration: accounting, finance, management, marketing, or international business. The Bachelor of Arts degree is designed to accommodate those students who do not wish to pursue an in-depth study of one of the areas in Business Administration and who also desire to undertake a double major, where one of those majors is Business Administration. Both of these degree programs are accredited by AACSB International – The Association to Advance Collegiate Schools of Business International.

Students pursuing the Bachelor of Science degree complete a core of 27 semester hours, a course in Quantitative Managerial Decision Making, at least twelve semester hours in an area of concentration, and sufficient elective hours to bring the total in Business Administration courses to at least 45 semester hours. Students pursuing the Bachelor of Arts degree complete a core of 27 semester hours and six hours of electives beyond that core.

The two degree programs are designed to fulfill the needs of students who, upon graduation, intend immediately to pursue a career in business, government, or the non-profit sector, as well as those students who plan to undertake graduate study in either Business Administration or law. This is accomplished through a core that includes those courses prospective employers are most apt to require

and that are generally required as prerequisites for the Master of Business Administration degree, as well as being desired courses for graduate study in law.

Students should apply for admission to major in Business Administration early in the Sophomore year so that they may be assigned a major adviser. The advising process is an integral part of the Business Administration major as it provides a basis for the development of a comprehensive program that best meets both the academic and career objectives of the student. The general requirements for the Bachelor of Science and Bachelor of Arts degrees are listed below. For full admission to the major in Business Administration, a student must first complete ACCT 1301, BUSN 2301/ECON 2320, and ECON 1311 with grades of C or better.

REQUIREMENTS

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION DEGREE

The requirements for the Bachelor of Science in Business Administration degree are as follows:

- I. The common curriculum
- II. A core curriculum in Business Administration (27 hours): ACCT 1301, 1302; BUSN 2301, 3302, 4301*; FNCE 3301**; MGMT 2301; MIS 2301; and MKTG 2301.
- III. Completion of BUSN 3303.
- IV. Completion of a concentration in Business Administration, choosing from one of the following: Accounting, Finance, Management, Marketing, and International Business. No course taken by a student may count toward more than one concentration requirement.
 - A. Accounting Concentration: Students choosing this concentration must complete ACCT 3341, 3342, 3343, 4344, and BUSN 3341. Although not a requirement for the concentration, the norm is that students also complete a paid internship (ACCT 4697) during their senior year. Because the sequencing of courses is critical for students to be able to do so and to otherwise complete the academic requirements for the B.S. degree in four years, the following guidance is provided.
 1. Year 1 & 2: Students should enroll in ACCT 1301, ACCT 1302. Students who intend to study abroad as a part of their major requirements (described below) should plan on completing study abroad prior to their junior year or during a summer.
 2. Junior: Fall semester -- ACCT 3341; Spring semester -- ACCT 3342, ACCT 3343.
 3. Senior: Fall semester -- ACCT 4344; Spring semester -- ACCT 4697, BUSN 3341, and BUSN 4301.

Note that a student intern will be enrolled for only 12 hours during the spring semester of the senior year; therefore, it is imperative that a minimum of 112 hours have been completed by the end of the fall semester senior year and that BUSN 3341 and BUSN 4301 be deferred until the spring semester senior year.

Prospective students should also note that the State of Texas requires that a CPA candidate complete a minimum of 150 credit hours in order to take the Uniform Certified Public Accountant Examination. This concentration only partially satisfies those educational requirements, so a student intending to sit for the CPA exam will also need to complete graduate study in accounting. The School of Business offers a two-semester Master of Science in Accounting degree program which, in combination with the B.S. concentration in accounting, completes the hour credit and course requirements for CPA candidacy. Students interested in learning more about the accounting program should contact the Chair of the Department of Accounting for additional information.

- B. Finance Concentration: Students choosing this concentration should complete FNCE 3352

and 3362. Additionally, students should complete 6 hours from the courses that follow: ACCT 3341, 3342, FNCE 3351 (ECON 3356), FNCE 3361 (ECON 3361), or FNCE 3363.

- C. Management Concentration: Students choosing this option should complete MGMT 3371 and 9 hours from the courses that follow: MGMT 3361, MGMT 3372, MGMT 3383, and MGMT 4371.
- D. Marketing Concentration: Students choosing this option should complete MKTG 4381, and an additional 9 hours from the courses that follow: MKTG 3361, 3381, 3382, 3383, BUSN 3363, 4362.
- E. International Business Concentration is concerned with the theories, experience, and methods of doing business across borders to ensure success, including international trade, franchising, licensing, and foreign direct investment. With the global shift toward an integrated and interdependent market, more and more executives are needed to gain a deep understanding of the global business contexts. The International Business (IB) Concentration (IBC) at Trinity is a program to meet such demand and equip students with related international knowledge, social cultural skills and understanding, and transnational experience. By the end of the study, students should be able to gain a critical understanding of the core theories, empirical evidence and methods in IB, and apply them to cross-border business activities. The IBC, as a result, provides students with an avenue to become professional global citizens.

Students in this concentration are given the opportunity to study IB in great depth, going beyond the level of coverage offered by other concentrations. IB concentrators must complete the pre-core and core-business courses required of all business majors at Trinity University. They must also complete the following requirements:

1. Capstone Course: Completion of BUSN 4361 (International Business Strategy).
2. Completion of 6 hours from the following international business concentration area courses:
 - BUSN 3361 International Business Law
 - BUSN 3365 International Innovation
 - BUSN 4362 International Branding
 - FNCE 3361 International Finance
 - MGMT 3361 International Management OR
 - MKTG 3361 International Marketing

3. Study Abroad and International Business Requirements:

University policy requires that all students intending to study abroad have a GPA of 2.75 or above. In addition, all IB concentrators are required to complete:

- an approved study abroad experience
- an approved international internship overseas (a minimum of 120-hour work experience with the sponsoring company or organization)

All students are strongly encouraged to complete their international internship while they study abroad.

4. One 3-hour interdisciplinary international course selected from the following (or another 3-hour course approved by the International Business faculty):
 - ANTH 3332 Intercultural Communication (also listed as HCOM 3372)

BUSN 3330	Global Business Culture (also listed as CHIN 3330)
BUSN 3346	The Spanish Economy and the European Union (also listed as ECON 3346, INTL 3346, and SPAN 3346)
BUSN 3363	International Business Research (also listed as CHIN 3363)
CHIN 3330	Global Business Culture (also listed as BUSN 3330)
CHIN 3363	International Business Research (also listed as BUSN 3363)
COMM 3322	International Communication (also listed as HCOM 3374)
ECON 3318	The Global Economy
ECON 3341	Economic Development of Mexico
ECON 3342	Latin American Economic History (also listed as HIST 3348)
ECON 3346	The Spanish Economy and the European Union (also listed as BUSN 3346, LAC 3346, and SPAN 3346)
ECON 3347	International Trade
HCOM 3372	Intercultural Communication (also listed as ANTH 3332)
HCOM 3374	International Communication (also listed as COMM 3322)
INTL 3346	The Spanish Economy and the European Union (also listed as BUSN 3346, ECON 3346, and SPAN 3346)
PLSI 3331	Political Economy of the U.S., Europe, and Japan
PLSI 3342	International Law
SPAN 3346	The Spanish Economy and the European Union (also listed as BUSN 3346, ECON 3346, and INTL 3346)

5. Language Requirement – Foreign Language Numbered 2302

All IB concentrators must be bilingual. This requirement can be met by completing a modern foreign language course numbered 2301 or its equivalent. Students are expected to devote the time and effort necessary to achieve proficiency in their second language.

- V. Completion of an approved study abroad experience or the successful completion of a modern foreign language course numbered 2302, or its equivalent.
- VI. Completion of electives to bring the total in Business Administration courses to at least 45 semester hours.
- VII. Completion of general electives outside of Business Administration sufficient to bring the total semester hours earned for a degree to 124.

A student who pursues either a major or a minor in Business Administration must take at least 50% of the Business Administration credit hours that apply toward his/her degree at Trinity University.

At least 50% of the credit hours required for a concentration in the Bachelor of Science degree in Business Administration must be taken at Trinity University.

* Students should note that ECON 1312 is prerequisite for BUSN 4301. In order to satisfy this prerequisite requirement, ECON 1312 may not be taken on a pass/fail basis.

** Students should note that ECON 1311 is prerequisite for FNCE 3301. In order to satisfy this prerequisite requirement, ECON 1311 may not be taken on a pass/fail basis.

BACHELOR OF ARTS IN BUSINESS ADMINISTRATION DEGREE

The requirements for the Bachelor of Arts Degree with a major in Business Administration are as follows:

- I. The common curriculum
- II. A core curriculum in Business Administration (27 hours): ACCT 1301, 1302; BUSN 2301, 3302, 4301*; FNCE 3301**, MGMT 2301; MIS 2301; and MKTG 2301.
- III. Completion of a second major at Trinity University.

IV. Completion of six hours of electives in Business Administration.

V. Completion of general electives outside of Business Administration sufficient to bring the total semester hours earned for a degree to 124.

A student who pursues either a major or a minor in Business Administration must take at least 50% of the Business Administration credit hours that apply toward his/her degree at Trinity University.

* Students should note that ECON 1312 is prerequisite for BUSN 4301. In order to satisfy this prerequisite requirement, ECON 1312 may not be taken on a pass/fail basis.

** Students should note that ECON 1311 is prerequisite for FNCE 3301. In order to satisfy this prerequisite requirement, ECON 1311 may not be taken on a pass/fail basis.

MINOR IN BUSINESS ADMINISTRATION

In addition to the two degree programs offered to business majors, the Department offers a minor in Business Administration to students who would like to explore the subject of business in depth but whose primary interests lie elsewhere. Requirements for the minor are the completion of at least 24 semester hours of business courses. The following seven courses are required for completion of the minor:

ACCT 1301	Fundamentals of Financial Accounting
BUSN 2301	Statistics for Management and Economics
BUSN 3302	Legal Concepts of Business I
MIS 2301	Fundamentals of Information Systems
MGMT 2301	Management of Organizations
MKTG 2301	Principles of Marketing
FNCE 3301*	Financial Administration of Business Firms

In addition, one three-hour upper-division elective course must be taken. None of the courses used to satisfy these requirements may be taken Pass/Fail.

A student who pursues either a major or a minor in Business Administration must take at least 50% of the Business Administration credit hours that apply toward his/her degree at Trinity University.

* Students should note that ECON 1311 is prerequisite for FNCE 3301. In order to satisfy this prerequisite requirement, ECON 1311 may not be taken on a Pass/Fail basis.

MINOR IN BUSINESS ADMINISTRATION LEGAL STUDIES

The Business Administration Legal Studies Minor is designed for students who would like to develop a practical understanding of legal theory and the rules of law applicable to public and private institutions, with emphasis on business enterprises. Students contemplating graduate studies in business, law, medicine, or other professional areas and those who intend to serve in an organizational leadership capacity would find that the Legal Studies Minor complements their major field of study.

Completion of 18 credit hours in the following distribution:

I. Completion of the following nine hours of core coursework:

ACCT 1301	Fundamentals of Accounting
BUSN 3302	Legal Concepts of Business I
BUSN 3341	Legal Concepts of Business II

II. At least one three-hour course in law focusing on business regulation: BUSN/ECON 3338, BUSN 3361, ECON 3336, ECON 3339, or appropriate BUSN 3-90 or other course approved by the minor adviser.

III. At least one three-hour course in law applicable to business from a perspective other than business or economics: COMM 3362, PHIL 3353, PLSI 3351, SOCI 3350 or other law course outside of business and economics approved by the minor adviser.

IV. One additional three-hour course in law from either B or C above.

Note: If a student wishes to pursue a minor in Business Administration and a minor in Business Administration Legal Studies, the courses required by one minor cannot simultaneously be counted to fulfill the requirements of the other. Moreover, a student may not major in Business Administration and receive a minor in Business Administration or a minor in Business Administration Legal Studies.

MASTER OF SCIENCE IN ACCOUNTING DEGREE PROGRAM

The two-semester Master of Science in Accounting degree program is structured to develop and perfect technical, theoretical, and interpersonal skills required of accounting professionals. This degree program is accredited by AACSB International—The Association to Advance Collegiate Schools of Business. Upon completion of the program of study, the student is awarded the degree of Master of Science in Accounting and has satisfied the educational requirements for the Uniform Certified Public Accountant Examination in the State of Texas.

The requirements for full admission to the program include:

- I. Senior standing as an undergraduate student, or a baccalaureate degree.
- II. Completion of six undergraduate Accounting courses (ACCT 1301, 1302, 3341, 3342, 3343, 4344) or their equivalent with acceptable grades. Students who do not have an undergraduate business degree will need three additional business courses to meet CPA exam requirements in Texas.
- III. A grade point average of 3.00 or better on the last 60 hours of undergraduate level work and an average of 3.00 or better in the undergraduate major.
- IV. Acceptable scores not more than five years old on the Graduate Management Admissions Test (GMAT).
- V. Two letters of recommendation from professors or employers regarding the applicant's character, motivation, and intellectual ability.

Students who do not meet the requirements for unconditional acceptance may be considered for acceptance on a provisional basis.

COURSE OF STUDY

The Graduate Program in Accounting consists of ten graduate level courses, six of which are grounded in traditional areas of accounting study:

ACCT 5341	Accounting Theory
ACCT 5342	Accounting Information Systems
ACCT 5343	Seminar in Advanced Federal Taxes
ACCT 5344	Advanced Auditing: Professional Standards and Practice
ACCT 5345	Advanced Managerial Accounting
ACCT 5346	Advanced Financial and Nonprofit Accounting
ACCT 5347	International Accounting

In addition, BUSN 5349, Seminar in Law, Ethics, and Professional Responsibilities, FNCE 5390 Seminar in Finance, and MGMT 5372, Conflict Management, are to be completed.

COURSES

ACCOUNTING

ACCT-1300 Understanding the Language of Business

An introduction to financial and managerial accounting for students who are not majoring in business, but whose future leadership roles in traditional business environments, nonprofit organizations, and other

sectors may require an understanding of accounting information. Students will study the development of accounting information and its use to communicate information for personal and organizational decision making. This course does not satisfy curricular requirements for students majoring in business, nor may a student majoring in business earn elective credit for this course subsequent to completion of ACCT 1301.

ACCT-1301 Fundamentals of Financial Accounting

An introduction to business and the basic concepts of financial accounting. The course incorporates identifying, analyzing, measuring, recording, and communicating financial information for businesses that are organized and operated for profit. Emphasis is placed on applications of these concepts to real world situations.

ACCT-1302 Fundamentals of Managerial Accounting

An introduction to cost and managerial accounting with special focus on the application of cost accounting techniques such as managerial planning, control, and decision making tools. A special effort is made to integrate standards of ethical conduct for management accountants throughout the course.

Prerequisite: ACCT 1301.

ACCT-3341 Intermediate Financial Accounting I

A comprehensive study of the conceptual bases and standards of financial accounting. The course focuses on analyzing transactions and internal events in terms of current accounting theory and applying this theory in financial reporting.

Prerequisites: ACCT 1301 and junior standing, or consent of instructor.

ACCT-3342 Intermediate Financial Accounting II

A continuation of ACCT 3341 with emphasis on accounting for shareholders' equity, debt securities, investments, pensions, leases, and other contemporary accounting topics.

Prerequisite: ACCT 3341.

ACCT-3343 Introduction to Federal Income Tax

An introduction to federal income tax law, primarily as it applies to individuals. Emphasis is placed on the various facets of calculating tax liability, the conceptual and theoretical bases of tax law, and practical problems encountered in its application.

Prerequisites: ACCT 1301 and junior standing.

ACCT-3-90 Studies in Accounting

Designed for students wishing to continue the study of accounting beyond regularly offered courses. Credit from one to six hours. No more than a total of six hours credit may be earned in 3-90 courses in business administration.

Prerequisites: consent of instructor and junior standing.

ACCT-4097 Accounting Internship

The accounting internship is a structured full-time eight-week internship under the supervision of accounting professionals in either private or public practice. This not-for-credit internship requires employer documentation of the internship objectives and nature of work assignments, submission of employer intern evaluations, and a summary memorandum from the intern at the conclusion of the internship period. Course must be taken on a Pass/Fail basis.

Prerequisites: Senior standing, concentration in accounting, and approval of the instructor.

ACCT-4344 Auditing

A study of accounting attestation standards and procedures. Topics include audit objectives, ethics, auditor's legal liability, generally accepted auditing standards, audit planning, and internal audit functions.

Prerequisite: ACCT 3342.

ACCT-4397 Accounting Internship

The accounting internship is a structured full-time eight-week internship under the supervision of accounting professionals in either private or public practice. This three-credit hour internship requires employer documentation of the internship objectives and nature of work assignments, submission of employer intern evaluations, bi-weekly intern journals, and a summary memorandum from the intern at the conclusion of the internship period. Course must be taken on a Pass/Fail basis.

Prerequisites: Senior standing, concentration in accounting, and approval of the instructor.

ACCT-4697 Internship in Accounting

A supervised internship where the student works with an accounting or business firm learning accounting procedures and practices. The internship will normally be completed by working for an organization on a full-time basis over a period of eight weeks during the spring semester of the senior year. Must be taken on a Pass/Fail basis.

Prerequisite: senior standing.

BUSINESS**BUSN-2101 Corporate Social Responsibility and Human Values**

This course offers a perspective on corporate social responsibility, with a focus on human values and business ethics. The course will include an opportunity to meet with CEOs and representatives of several businesses and will examine the motivations for responsible corporate governance.

BUSN-2301 Statistics for Management and Economics

Applications of statistical techniques to business and economics. Decision making based on sampling theory, parametric tests of significance, simple and multiple regression and correlation, and time series analysis. (Also listed as ECON 2320.)

BUSN-2359 Professional Ethics

A critical examination of ethics and ethical issues involved in professional life. Typical topics will include the following: ethical theory, theory of justice, professional codes of conduct, corporate responsibility, harassment policy, affirmative action, the moral status of animals, experimentation using animal and human subjects, the physician-patient relationship, reproductive ethics, and health care policy. (Also listed as PHIL 2359.) PHIL 1354 and BUSN 2359 may not both be taken for credit.

BUSN-3302 Legal Concepts of Business I

Studies the American legal system, principles of the law of contracts, negotiable instruments, sales, and business ethics.

Prerequisite: Sophomore standing.

BUSN-3303 Operations Management

Provides a broad view into the scope of work, tools, and techniques, both qualitative and quantitative, that the modern Operations Manager should master, with application to both goods and services. Topics include Operations Strategy, Forecasting, Facility Location and Layout, Project Management, Capacity Planning, Inventory Management, Quality Management, Work Design, and current trends in Operations such as Six Sigma and Lean Manufacturing. (Offered every semester.)

Prerequisites: BUSN 2301, MATH 1320, PSYC 2401, SOCI 3360, ANTH 3360, or URBS 3360.

BUSN-3311 Organizational Communication

Studies the theory and practice of communication within organizations. Includes the fit of communication into organizational theory; communication climate and cultures; leadership and management styles; information networking; and the diagnosis and evaluation of communication problems. (Also listed as HCOM 3362.)

BUSN-3313 The American Corporation

For description see ECON 3362.

BUSN-3330 Global Business Culture

This course provides students with a critical and comprehensive understanding of culture-related theories and how they are applied in practice from the perspective of international managers. Emphasis is on the business culture in China in comparison to that in other countries, particularly to that in the United States. Course taught in English. (Also listed as CHIN 3330.)

Prerequisites: junior standing and 6 hours of Business Administration or 6 hours of Chinese or consent of instructor.

BUSN-3338 Government Regulation of Business

Economic analysis of direct government regulatory activity. The course first explores how regulation arises from the political process. These insights, and the tools of microeconomic theory, are then applied to analyze public policy in such fields as electricity, telecommunications, broadcasting, transportation, and safety. (Also listed as ECON 3338.)

Prerequisite: three hours of upper division Economics, or consent of instructor.

BUSN-3340 Haciendo negocios en Latinoamérica (Doing Business in Latin America)

This course is both a language and an applied business course. On the language part, it is intended to increase the Spanish proficiency in reading, writing, and speaking. The other aspect of the course includes a thorough understanding of cultural, political, and economic aspects of the Latin American business environment. Moreover, the course will immerse the student in the intricacies of exporting to, importing from, establishing a new business in, or operating a foreign branch in a Latin American country. (Also listed as LAC 3340.)

Prerequisites: ECON 1311, Spanish proficiency, and consent of instructor.

BUSN-3341 Legal Concepts of Business II

Provides the principles of the law of business organizations and regulation; agency, partnerships, corporations, property, debtor-creditor rights, bankruptcy; additional topics include trusts, wills, business and professional responsibility.

Prerequisites: BUSN 3302 and junior standing, or consent of instructor.

BUSN-3344 Economic and Business History of the United States to 1865

A study of the development of American business and the economy through the U.S. Civil War. (Also listed as ECON 3344 and HIST 3360.)

Prerequisites: ECON 1311 and 3 hours of history or consent of instructor.

BUSN-3345 Economic and Business History of the United States since 1865

A study of the development of American business and the economy from the U.S. Civil War to the present. (Also listed as ECON 3345 and HIST 3361.)

Prerequisites: ECON 1311 and 3 hours of U.S. history or consent of instructor.

BUSN-3346 La economía española y la Unión Europea (The Spanish Economy and the European Union)

An examination of Spain's economic development and its position within the European Union. The business, economic, and political transformation of Spain from a struggling nation with an authoritarian regime to an economic power with an open and democratic society are studied. The course also examines the development of European Union, with a special focus on its influence on the Spanish business environment. The experiential component of the course includes visits to businesses, government agencies, and NGOs in Spain. (Also listed as ECON 3346, LAC 3346, and SPAN 3346.)

Prerequisites: ECON 1311, three additional hours in business or economics, SPAN 2302 or the equivalent, and consent of the instructor.

BUSN-3355 Entrepreneurship and Venture Planning

This course is designed to provide a practical, comprehensive, basic understanding of entrepreneurship. The process is explored from the inception of an idea through exit strategies. Emphasis is placed on the development of a business plan with focus on legal structure, accounting, business ethics, marketing, and finance.

Prerequisites: admission to the major in Business Administration, completion of at least 15 hours of the core curriculum in Business Administration, junior standing, and consent of instructor.

BUSN-3361 International Business Law

Surveys the law of international trade and business with a focus on international contracts, torts insurance and trade law.

Prerequisite: BUSN 3302 or consent of instructor.

BUSN-3363 International Business Research

A systematic examination of business research as a science and the diverse research methods available to conduct international business research, including coverage of both qualitative and quantitative techniques. Emphasis is upon data collection and interpretation within the context of China and the United States. Course taught in English. (Also listed as CHIN 3363.)

Prerequisites: junior standing and consent of instructor.

BUSN-3365 International Innovation

A critical examination of cross-border innovation and its significance for corporate competitiveness and sustainability. Theories relevant to inputs and outputs of international innovation from the perspective of international managers are covered and related to the managerial importance of innovation and corporate success in the international environment.

Prerequisites: junior standing, MKTG 2301, and MGMT 2301, or consent of instructor.

BUSN-3367 Comparative Views of Modern China

This course represents an overview of the most important economic relationship of the twenty-first century: the USA and China. The rise of China has brought about a reorganization of the global economy and the international balance of power, creating a new world order carries challenges and opportunities. China remains a communist country with a significant legacy of a command economy, but it is also a market economy. Understanding this mixture, as it is seen through American and Chinese points of view, is the major aim of this course. (Also listed as ECON 3367, CHIN 3367, and URBS 3367.)

BUSN-3372 Práctica profesional en España (Internship in Spain)

A supervised summer internship in Spain. Students enrolled in BUSN 3372 will serve as interns with various firms, trade groups, governmental agencies, or public interest groups where they will work and gain experience related to the Spanish economy and business world. The nature of the student's responsibilities will vary with the internship involved and be subject to the approval of the supervising faculty member. (Also listed as ECON 3372, LAC 3372, and SPAN 3372.)

Prerequisites: ECON 1311, three additional hours in business or economics, SPAN 2302 or the equivalent, and consent of instructor.

BUSN-3-90 Studies in Business

Designed for students wishing to continue the study of business beyond areas offered in regular classroom work. Credit from one to six hours. No more than a total of six hours credit may be earned in 3-90 courses in Business Administration.

Prerequisites: consent of instructor and junior standing.

BUSN-3396 Internship in International Business

A supervised internationally oriented internship. Students enrolled in BUSN 3396 will serve as interns with various firms, trade groups, governmental agencies, or public interest groups where they will work and gain experience related to a country other than their home country. The nature of the student's responsibilities will vary with the internship involved and be subject to the approval of the supervising faculty member. To earn credit for BUSN 3396, a student must serve as an intern throughout the semester or summer term that he/she is registered for BUSN 3396. Credit will not be given for internships served prior to or after the semester or summer term in which the student is registered for BUSN 3396. Credit for BUSN 3396 will not be given for internships that are served where either the owner or manager of the host organization or host supervisor is a relative of the student intern. Must be taken Pass/Fail. Students may earn credit for either BUSN 3396 or 3397, but not both.

Prerequisites: admission to the major in Business Administration and a declared concentration in International Business, completion of at least 15 hours in the core curriculum in Business Administration, junior standing, and consent of the instructor.

BUSN-3397 Internship in Business Administration

Students enrolled in BUSN 3397 will serve as interns with various firms, trade groups, governmental agencies, or public interest groups on the basis of individual preferences and the availability of assignments. The nature of the student's responsibilities will vary with the internship involved and be subject to the approval of the supervising faculty member. To earn credit for BUSN 3397, a student must serve as an intern throughout the semester or summer term that he/she is registered for BUSN 3397. Credit will not be given for internships served prior to or after the semester or summer term in which the student is registered for BUSN 3397. Credit for BUSN 3397 will not be given for internships that are served where either the owner or manager of the host organization or the host supervisor is a relative of the student intern. Must be taken Pass/Fail. Students may earn credit for either BUSN 3397 or 3396, but

not both.

Prerequisites: admission to the major in Business Administration, completion of at least 15 hours in the core curriculum in Business Administration, junior standing, and consent of instructor.

BUSN-4130 Quanzhou Shangwu Wenhua-Zhong-Mei Jiaodian (Global Business Culture)

A companion course to BUSN/CHIN 3330 which examines the diverse business culture in China in comparison to that in other countries, particularly in the United States. This course must be taken concurrently with BUSN/CHIN 3330 and will be taught entirely in Chinese. Students must have the ability to write and converse in Chinese. (Also listed as CHIN 4130 and LAC 4130.)

Prerequisites: senior standing, CHIN 3302 or the equivalent, and consent of instructor.

Corequisite: BUSN 3330 or CHIN 3330.

BUSN-4301 Business Policy and Strategy

A study in which decision making is emphasized through the analysis of company operations in policy formulation and administration. A course in which the student can apply knowledge acquired in other courses to business problems.

Prerequisites: Completion of all other Business Core courses, ECON 1312, and senior standing.

BUSN-4361 International Business Strategy

This course aims to provide students with the opportunity to examine how multinational enterprises strategize in the global marketplace. Major topics include strategy and the firm, international expansion strategies, cross-border strategic alliances and networks, mergers and acquisitions, and global competitive dynamics. (Offered every Fall.)

BUSN-4362 International Branding

Strategic and critical examination of how brands, including corporate and product brands, are managed in a global environment from a multinational organization's viewpoint. Emphasis is placed on international brands in China and Chinese brands in other countries. Course taught in English. (Also listed as CHIN 4362.)

Prerequisites: senior standing and consent of instructor.

BUSN-4364 Internationalizing Intellectual Property

Examines theories and strategic significance of intellectual property within a global environment. Intellectual property such as patents, marks, industrial designs, and trade secrets are examined with an emphasis placed upon strategic and managerial intellectual property issues between the United States and China. Course taught in English. (Also listed as CHIN 4364.)

Prerequisites: senior standing and consent of instructor.

FINANCE

FNCE-1300 Personal Finance

This course addresses the major personal financial management issues that individuals and households face, including budgeting, retirement planning, life and health insurance, income taxes, auto and real estate transactions, estate planning and personal investments. Topics also include establishing savings goals, using banking, credit, and other financial services, tax planning, making good investment decisions, and comparing insurance products.

FNCE-3301 Financial Administration of Business Firms

Financial decision making in organizations; planning and managing cash flows, raising, and allocating funds. Topics include cost of capital, capital budgeting, working capital management, and financial planning. Emphasis on non-financial corporations. (Offered every semester.)

Prerequisites: ACCT 1301; ECON 1311; and BUSN 2301, MATH 1320, PSYC 2401, or SOCI 3360, ANTH 3360, or URBS 3360.

FNCE-3348 International Monetary Systems

A study of the principles and practices of foreign exchange, international money markets, the balance of payments, payments adjustment mechanism and the national policies for achieving both domestic and international objectives. Coverage includes the description and history of the relevant national and international institutions. Practice is provided in reading and understanding recent international economic events and current policy issues. (Also listed as ECON 3348.)

Prerequisites: ECON 1311 and ECON 1312

FNCE-3351 Financial Institutions and Markets

Analytical investigation of the structure, efficiency, and regulation of financial markets and institutions. Topics include determination of the level and structure of interest rates, asset valuation and the flow of funds between markets, theory and practice of financial intermediation, and the social utility of the financial sector. (Also listed as ECON 3356.)

Prerequisites: ECON 1311, and ECON 1312, and junior standing.

FNCE-3352 Investment Principles and Analysis

Analysis of common stock, bonds, options, and futures. Topics include financial markets, valuation of securities, technical analysis, market efficiency, and portfolio theory.

Prerequisites: FNCE 3301 and junior standing.

FNCE-3361 International Finance

This course emphasizes the study of the global exchange rate and associated derivatives markets with particular emphasis on foreign risk hedging; the study of financial equilibrium relations and their effects on the international capital markets, and the potential arbitrage opportunities that result in the absence of equilibrium; and the use of case studies to illustrate the application of theoretical tools on the multinational corporate environment. (Also listed as ECON 3361.)

Prerequisite: FNCE 3301 or consent of instructor.

FNCE-3362 Financial Management and Policy

Advanced study of financial theories and practices. Emphasis on case studies to develop analytical thinking about problems faced by business firms. Topics include capital budgeting, risk analysis, leasing, bankruptcy, and mergers.

Prerequisites: FNCE 3301 and junior standing.

FNCE-3363 Student Managed Fund I

Combines study of the security analysis and portfolio management with practical demands of hands-on money management. Provides opportunity to invest university endowment funds. Economic, industry, and company analysis. Economic and financial forecasts. Valuation models. Portfolio theory. Investment philosophy. Ethics in investing. Capital market performance history. Managing endowment funds. Portfolio performance measurement.

Prerequisites: FNCE 3301, FNCE 3352, FNCE 3362 (or concurrent enrollment), and consent of instructor.

FNCE-3-90 Studies in Finance

Designed for students wishing to continue the study of Finance beyond areas offered in regular classroom work. Credit from one to six hours. No more than a total of six credit hours may be earned in 3-90 courses in Business Administration.

Prerequisites: FNCE 3301, consent of Instructor, and junior standing.

FNCE-4362 Derivatives

Derivatives are financial assets that are now essential tools for investors, corporations, and financial institutions to manage risk. This course represents advanced study in the way that these assets are developed and marketed, how they operate, and how they are used. Special emphasis is given to the understanding of how markets come to price these sometimes complicated financial assets. This course provides the tools necessary to manage risk, and to value and utilize derivatives in a variety of contexts. (Offered every Spring.)

Prerequisite: FNCE 3352.

FNCE-4363 Student Managed Fund II

A continuation of FNCE 3363. Mentoring and leadership of FNCE 3363 students. Continued and advanced study of security analysis and portfolio management with practical demands of hands-on money management. Provides opportunity to invest university endowment funds. Advanced investments and portfolio management related learning experience tailored to individual student interests.

Prerequisites: FNCE 3301, FNCE 3352, FNCE 3363, and consent of instructor.

FNCE-4366 Advanced Financial Management

A capstone corporate finance class focusing on advanced financial management decision-making in capital budgeting, dividend policy, capital structure, and corporate restructuring. The format of the course is seminar style in that the majority of the classes will be interactive and case-based. (Offered every Spring.)

Prerequisites: FNCE 3301 and 3362.

MANAGEMENT

MGMT-2301 Management of Organizations

This course studies the management activities and processes required to successfully attain organizational goals. It includes an introduction to the principles of decision making, leadership, motivation, conflict resolution, managerial ethics, and social responsibility. Emphasis is placed on both theory and practical application in order to prepare students for future managerial roles.

MGMT-3311 Labor Economics & Labor Relations

For description see ECON 3329.

MGMT-3361 International Management

The global marketplace, its structure and dynamics, significant economic, political and cultural influences, and global resource flows will be studied from the perspective of the management strategist. Within this context, strategy formulation and implementation, the creation of an optimal portfolio of strategic business units, and the analysis of global operating and financial flows will be studied, assuming the objective of

maximizing shareholder value.

Prerequisite: junior standing or consent of instructor.

MGMT-3371 Human Resources Management

Examines by discussion and experiential learning techniques the major activities associated with the area of Human Resource Management: equal employment opportunity, personnel planning and selection, training and management development, employee discipline, labor-management relations, and current topics such as AIDS and substance abuse in the workplace. Special emphasis is placed on practical application of this knowledge to general management in all types of organizations.

MGMT-3372 Organizational Behavior

Examines the nature of interpersonal and group relations in work organizations using behavioral science and modern management thought. A study of organizations as socio-technical systems with emphasis on communication, motivation, leadership, conflict resolution, and organizational development.

Prerequisites: MGMT 2301 and junior standing.

MGMT-3383 Management of Health Care Organizations

This course provides the unique knowledge and skills necessary to understand and effectively manage individuals and groups in challenging health care organizations such as hospitals, medical group practices, and nursing homes. The focus is on developing a theoretical and practical approach to managerial functions as related to dealing with health care professionals and workers, developing a conceptual understanding of the health care system in which the organization operates, and understanding the relationship between the organization, its regulatory environment and the reimbursement system. Case studies are used to provide real-world applications relevant to health care management. (Also listed as HCAD 3383.)

Prerequisite: junior standing.

MGMT-3-90 Studies in Management

Designed for students wishing to continue the study of management beyond areas offered in regular classroom work. Credit from one to six hours. No more than a total of six hours credit may be earned in 3-90 courses in Business Administration.

Prerequisites: junior standing and consent of instructor.

MGMT-4371 Strategic Management

A study of the formulation and implementation of corporate level strategies such as mergers and acquisitions, retrenchment, and entrepreneurship. The course also studies current trends in the business world and features presentations by local executives.

Prerequisite: senior standing or consent of instructor.

MANAGEMENT INFORMATION SYSTEMS

MIS-2301 Fundamentals of Information Systems

Systems theory, information quality, decision making, and the organizational role of information systems are introduced. Information technology including computing and telecommunications systems, are stressed. Concepts of organizations, information systems growth, and process improvements are introduced.

MARKETING

MKTG-2301 Principles of Marketing

Introduction to the marketing function within an organization. This course examines the relationship of the marketing process and the broader aspects of the economic, legal, technological, and competitive environments. Coverage includes those strategies associated with product planning, pricing, promotion, distribution, consumer behavior, and marketing research.

MKTG-3361 International Marketing

Examination of the international marketing environment from the perspective of a marketing manager. Includes the study of the nature of and problems and opportunities in the global marketplace. Strategic application of marketing principles to compete effectively in world markets.

Prerequisites: MKTG 2301 and junior standing, or consent of instructor.

MKTG-3381 Consumer Behavior

The study of consumer decision making and the influence upon those decisions. Examines the behavior of consumers throughout the range of prepurchase, purchase, and post purchase activities with reference to both internal psychological processes and external environmental influences on behavior.

Prerequisites: MKTG 2301 and junior standing.

MKTG-3382 Promotion Management

A study of the promotion activities of business firms; analysis of consumer buying behavior and motivation; personal selling; advertising and sales promotional techniques and the development of an integrated promotional plan.

Prerequisites: MKTG 2301 and junior standing.

MKTG-3383 Marketing and Business Research

The application of both behavioral and quantitative research to business problems. Topics include: research design, information sources, measurement techniques, questionnaire design, sampling, data analysis, and applications within the marketing mix. (Offered every Spring.)

Prerequisites: MKTG 2301; BUSN 2301, MATH 1320, PSYC 2401, SOCI 3360, ANTH 3360, or URBS 3360; and junior standing.

MKTG-3-90 Studies in Marketing

Designed for students wishing to continue the study of marketing beyond areas offered in regular classroom work. Credit from one to six hours. No more than a total of six hours credit may be earned in 3-90 courses in Business Administration.

Prerequisites: MKTG 2301, and junior standing, and consent of instructor.

MKTG-4381 Marketing Management

The role of marketing in business and society. The management of the marketing function and its interrelationship with other functional areas within the organization. Problems, decisions and the decision-making process of marketing managers. Strategy formation, execution, and control.

Prerequisites: MKTG 2301 and senior standing.

GRADUATE COURSES**ACCT-5341 Accounting Theory**

This course will contrast financial and social accounting issues worldwide. It will review the history of accounting and the trend toward increasingly complex capital markets and financial contracts. Positive theories as to why certain practices evolved and normative theories regarding idealized practices will be contrasted.

ACCT-5342 Accounting Information Systems

This course investigates the components of accounting information systems (AIS) and dynamics of change in those systems. Focus is placed upon changing computer and networking technologies in modern accounting information systems.

ACCT-5343 Seminar in Advanced Federal Tax

Beginning with a discussion of the sources of tax law and the basics of tax research methodology, the course will continue with coverage of corporation and shareholder taxation, taxation of partners, income taxation of trusts and estates, and the federal donative transfer taxes. Additional topics will include tax law administration, nonprofit entities, and penalty taxes.

ACCT-5344 Advanced Auditing: Professional Standards and Practices

This course utilizes authoritative pronouncements, internet resources, case studies, and relevant academic literature to provide an in-depth study of the various professional standards that shape the audit process including those related to audit procedures, reporting responsibilities, and fraud.

ACCT-5345 Advanced Managerial Accounting

This course develops modern management accounting information systems for decision making and control in complex organizations. The topics include cost-volume-profit analysis, linear programming, regression analysis, activity-based costing, target costing, quality costing, and strategic cost management.

ACCT-5346 Advanced Financial and Nonprofit Accounting

This course introduces students to the accounting standards for business combinations along with applicable accounting and reporting standards. Consolidated financial statements are the major focus of the course. Foreign currency concepts are studied including foreign currency transactions, forward exchange contracts and translation under the latest rules. Nonprofit accounting focuses on accounting for universities, hospitals, and government.

ACCT-5347 International Accounting

An analysis of the issues involved in accounting for multinational corporations, including environmental influences, foreign currency translation, management accounting, and international accounting standard setting.

ACCT-5390 Selected Topics in Accounting

Study of selected topics in accounting. May be repeated for up to 6 semester hours on different topics.

Prerequisite: graduate standing.

BUSN-5349 Seminar in Law, Ethics, and Professional Responsibility

An in-depth analysis of present and emerging ethical issues in professional life within the legal environment of business. Emphasis will be placed upon understanding professional and legal standards regarding practice, performance, and ethical behavior.

BUSN-5390 Seminar in Business

Study of selected topics in business. May be repeated for up to six semester hours on different topics.

FNCE-5351 Financial Analysis for Decision Making

Cash flows between the firm and financial markets; financial value and its determinants; managing working capital; analyzing and planning financial performance; cost of capital and capital budgeting.

Prerequisite: Three-hour accounting course.

FNCE-5390 Seminar in Finance

Study of selected topics in finance. May be repeated for up to six semester hours on different topics.

MGMT-5371 Human Resource Management

Critical analysis of the theoretical base and current developments related to personnel activities in organizations. Recruitment and selection, remuneration and incentives, performance appraisal, and employee relations are discussed in relation to current social trends and government regulations.

MGMT-5372 Conflict Management

A study of conceptual, analytical, and communication techniques instrumental to the management of chronic and acute conflicts in a wide variety of settings. Principles and strategies of negotiation and mediation are introduced through case studies.

MIS-5381 Database Management

This course is a broad overview of the business side of the database design and management processes. This course will familiarize students with the issues, processes, and skills necessary to align database development to a business need. This course will help the student understand the key elements of a database development project and the methods used by systems analysts, such as data, file and object structures, logical design, physical design, and implementation of a Database Management System.

Prerequisite: graduate standing or permission of instructor.

MIS-5391 Knowledge Management

This course is a survey of the principles and processes of knowledge management. This course will familiarize students with the issues that a business must address in facilitating the flow of knowledge from those in an organization who have knowledge to those who need it. This course will help the student understand key elements of the knowledge management life cycle such as knowledge creation, storage, transfer, and application; knowledge system tools; and ethical, legal, and managerial issues.

Prerequisite: graduate standing or permission of instructor.

MKTG-5390 Seminar in Marketing

Study of selected topics in marketing. May be repeated for up to six semester hours on different topics.

Chemistry

FACULTY

STEVEN M. BACHRACH, Ph.D., Dr. D. R. Semmes Distinguished Professor of Chemistry; Assistant Vice President for Special Projects
MICHELLE M. BUSHEY, Ph.D., Professor
BERT D. CHANDLER, Ph.D., Professor
LAURA M. HUNSINGER-WANG, Ph.D., Associate Professor
CORINA MAEDER, Ph.D., Assistant Professor
NANCY STEWART MILLS, Ph.D., Professor
CHRISTOPHER J. PURSELL, Ph.D., Professor; Chair
ADAM R. URBACH, Ph.D., Professor

OVERVIEW

Six degree programs are offered to students interested in a major in chemistry:

- Bachelor of Science degree in Chemistry
- Bachelor of Science degree in Biochemistry
- Bachelor of Science degree in Applied Chemistry
- Bachelor of Science degree in Biochemistry and Molecular Biology
- Bachelor of Arts degree in Chemistry
- Bachelor of Arts degree in Chemistry with High School Teaching Certification

The Bachelor of Science degrees in Chemistry and Biochemistry are four-year courses of study designed for those students who plan to be professional chemists and biochemists. Both of these programs meet the standards set by the American Chemical Society to train chemists for industry and graduate programs in chemistry and biochemistry.

The Bachelor of Science degree in Biochemistry and Molecular Biology is offered jointly with the Department of Biology, and meets the needs of students preparing for graduate studies at the interface of chemistry and biology. Course offerings in this program are balanced between Chemistry and Biology, whereas the B.S. in Biochemistry coursework is primarily in Chemistry.

The Bachelor of Arts program is suitable for students who desire a core degree in Chemistry and provides the flexibility to couple that desire with other interests and opportunities. Students earning the B.A. in Chemistry can go on to graduate study, and this degree is appropriate for students interested in art conservation, premedical training, secondary school teaching, and interdisciplinary studies such as biophysics, environmental sciences, oceanography, and toxicology. The B.A. in Chemistry with High School Teaching Certification provides the necessary coursework to enter into secondary school teaching or to enter professional training programs like Trinity's MAT program.

All students interested in a major are encouraged to begin research involvements during their first and sophomore years. The course offering "Research Techniques and Applications" (CHEM 1190) provides students with the opportunity to be engaged in the ongoing research programs of chemistry faculty, and a significant component of this experience will involve the use of sophisticated instrumentation for specific research applications. The junior-senior course "Independent Research in Chemistry and Biochemistry" (CHEM 3-90) then allows experienced students to undertake suitably challenging projects with faculty.

REQUIREMENTS

BACHELOR OF ARTS DEGREE

The requirements for the degree of Bachelor of Arts with a major in chemistry are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. 31-32 credits in chemistry: CHEM 1318, 1118, 2319, 2119, 2320, 2220, 3330, 2130, 3001, 3432, 3334, 3135, 3321, 3121, and one upper division course selected from CHEM 3335, 4242, 4340, 4346, or 4347.
 - B. MATH 1307 or 1311, 1308 or 1312.
 - C. PHYS 1111, 1112, 1309 or 1311, 1310 or 1312.
- III. Electives sufficient to total 124 semester hours.

BACHELOR OF ARTS DEGREE WITH HIGH SCHOOL TEACHING CERTIFICATION

The requirements for the degree of Bachelor of Arts with a major in chemistry with 8-12 teacher certification are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. 32 credits in chemistry including CHEM 1318, 1118, 2319, 2119, 2320, 2220, 3330, 2130, 3001, 3432, 3334, 3335, 3135, 3321, 3121.
 - B. MATH 1307 or 1311, 1308 or 1312.
 - C. PHYS 1111, 1112, 1309 or 1311, 1310 or 1312.
 - D. EDUC 2203, 3320, 3331.

The recommended full Education Course of Study to teach high school chemistry is: (a) EDUC 1105 and 1106 for first year students; (b) EDUC 2202, 2203 or 3303, 3320, 3331, 3342; (c) EDUC 4100.
- III. Electives sufficient to total 124 semester hours.

BACHELOR OF SCIENCE DEGREE IN CHEMISTRY

The requirements for the degree of Bachelor of Science with a major in chemistry are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. 39 credits in chemistry: CHEM 1318, 1118, 2319, 2119, 2320, 2220, 3330, 2130, 3001, 3101, 3190, 3432, 3334, 3135, 3321, 3121, 3335, 4242, 4250 and two courses selected from 4440, 4346 and 4347. Students may substitute an advanced course in molecular biology, engineering science, or physics for one of the two advanced electives in chemistry. This substitution must be approved by the department chair.
 - B. MATH 1311, 1312, plus one additional course from MATH 2321 or 3316.
 - C. PHYS 1111, 1112, 1309 or 1311, 1310 or 1312.
- III. Electives sufficient to total 124 semester hours.

BACHELOR OF SCIENCE DEGREE IN BIOCHEMISTRY

The requirements for the degree of Bachelor of Science with a major in biochemistry are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. 39 credits in chemistry: CHEM 1318, 1118, 2319, 2119, 2320, 2220, 3330, 2130, 3001, 3101, 3131, 3432, 3334, 3135, 3321, 3121, 4242, 4340, and one course chosen from 3335, 4346, and 4347.
 - B. BIOL 1311, 1111, 1312, 1212, 3430.
 - C. CHEM 3190 or BIOL 3190.
 - D. PHYS 1111, 1112, 1309 or 1311, 1310 or 1312.
 - E. MATH 1307 or 1311, 1308 or 1312.
- III. Electives sufficient to total 124 semester hours.

BACHELOR OF SCIENCE DEGREE IN APPLIED CHEMISTRY

The requirements for the degree of Bachelor of Science with a major in applied chemistry are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. 32-35 credits in chemistry, including CHEM 1318, 1118, 2319, 2119, 2320, 2220, 3330, 2130, 3190, 3000, 3001, 3432, 3334, 3135, 3321, 3121, 3335.
 - B. ENGR 2311, 4366, 4357 or 4358, one additional course selected from ENGR 2359, 3323, 4357, 4358, 4341.
 - C. One additional advanced elective course selected from CHEM 4340, 4242, 4250 or an upper division engineering science course.
 - D. MATH 1311, 1312, 2321, 3316
 - E. PHYS 1311, 1111, 1312, 1112.
 - F. ECON 1311.
- III. Electives sufficient to total 124 semester hours.

GUIDELINES FOR ACCEPTANCE OF MAJORS

Full acceptance is granted if the following requirements are met at the time of application:

- I. Completion of CHEM 1318, 1118, 2319, 2119, 2320, 2220 with grades of C or better.
- II. Completion of MATH 1311 with a grade of C or better.
- III. A grade point average of at least 2.0 on all other university work.

Provisional acceptance may be granted if it is apparent that the applicant can meet the requirements for full acceptance by the end of the semester in which application is made.

Transfer students will be accepted provisionally pending completion at Trinity of at least one upper division chemistry course, which includes lab, with a grade of C or better.

THE MINOR

A minor in chemistry may be obtained by successful completion of a minimum of 20 hours in chemistry, to include CHEM 1318, 1118, 2319, 2119, 2320, 2220, 2130, and at least 6 additional hours in upper division courses. CHEM 3001 and 3101 cannot be used towards satisfying the upper division course requirement.

HONORS IN CHEMISTRY

In addition to the minimum requirements for an honors thesis described earlier, the Department of Chemistry has the following requirements:

Application and Procedures

Students planning to write an Honors Thesis in Chemistry should discuss research opportunities with at least three faculty members. Normally the choice of research director will be made in the first semester of the Junior year, although students with extraordinary research experience, including research during a summer, may defer the choice of research director for one or two semesters.

Requirements

The Honors Program in Chemistry requires a minimum of nine credit hours of research normally arranged over three semesters. At least six of these hours must be taken in the senior year and devoted to the thesis research. If a student has worked full-time on research related to the thesis for a minimum of ten weeks during one summer, the department may waive the requirement for three of the nine credit hours. Submission of the final research report for the summer is required for this waiver.

BACHELOR OF SCIENCE DEGREE IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

The requirements for the degree Bachelor of Science with a major in Biochemistry and Molecular Biology are as follows:

- I. The common curriculum
 - A. 48-49 credits in chemistry and biology, distributed as follows:
 1. Core Courses. BIOL 1311, 1111, 1312, 1212, 3430, 3464, CHEM 1318, 1118, 2319, 2119, 2320, 2220, 3330, 2130, 3131, 3334, and 4340; BIOL 3000 or CHEM 3000 (1 semester).
 2. Advanced Electives. Two courses chosen from the following list (one from each department): BIOL 3441, 3448, 3456, 3459, 3462, CHEM 3432, 4346, 4347, or the combination of 3321 and 3121.
 - B. MATH 1307 or 1311; and 1308 or 1312.
 - C. PHYS 1309, 1111, 1310, 1112.
- III. Electives sufficient to total 124 semester hours.

GUIDELINES FOR ACCEPTANCE OF MAJORS

Full acceptance is granted if the following requirements are met at the time of application:

- I. Completion of CHEM 1318, 1118, 2319, 2119, 2320, 2220 and BIOL 1311, 1111, 1312, 1212 with grades of C or better.
- II. Completion of MATH 1307 or 1311 with a grade of C or better.
- III. A grade point average of at least 2.0 on all other university work.

Provisional acceptance may be granted if it is apparent that an applicant can meet the requirements for full acceptance by the end of the semester in which application is made.

Transfer students will be accepted provisionally pending completion at Trinity of at least one upper division chemistry and biology course, which includes laboratories, with a grade of C or better.

HONORS IN BIOCHEMISTRY AND MOLECULAR BIOLOGY

Students may undertake honors under the direction of faculty in either the Biology or Chemistry Departments. The procedures and requirements will be determined by the department affiliation of the research mentor. These are described in the Biology and Chemistry sections of this bulletin.

COURSES

CHEM-1118 General Chemistry Laboratory

Emphasis is placed on the development of laboratory skills that are fundamental to experimental chemistry. Laboratory operations include the use of modern potentiometric and spectrophotometric methods of analysis as well as traditional gravimetric and volumetric procedures.

Corequisite: CHEM 1318.

CHEM-1190 Research Techniques and Applications

Involvement in ongoing research programs with individual faculty. Information retrieval, chemical and instrumental methods, and experimental design for the solution of specific problems are emphasized. 6 laboratory hours a week for 1 semester.

Prerequisite: consent of instructor.

CHEM-1300 Introduction to Chemistry

Introduction to the fundamental concepts of chemistry including the mole, stoichiometry, balanced reactions, electronics structure, chemical bonding, and intermolecular interactions with modern examples. An emphasis will be placed on problem solving involving mathematics. CHEM 1300 provides a thorough preparation for CHEM 1318. Lecture, 3 hours per week.

CHEM-1301 The Chemistry of Crime

The study of forensic chemistry, with an emphasis on the scientific basis for the various techniques used in solving crimes. The course is designed as studio course which includes both lectures and laboratory experiments during the class period. The course will contain a minimum of 25 hours of laboratory activities. Two field trips on Friday afternoon/Saturday morning may be required. This course is intended for students who major in a non-science discipline. No student who has already fulfilled (or who is currently enrolled in a course fulfilling) the Using Scientific Methods section of the Understanding Natural Science and Technology portion of the Common Curriculum may register for CHEM 1301.

CHEM-1305 The Chemistry of Art

The study of the chemical foundation of the art world. Topics range from a study of the historical development of technical innovations and discoveries which impacted the evolution of art, to the chemical and physical properties of artists' materials, to an introduction to conservation and the analysis of works of art. The course is designed as a studio course which includes both lectures and laboratory experiments during the class period. A minimum of one half of the course meeting times will be laboratory activities. This course is intended for students who major in a non-science discipline. No student who has already fulfilled (or who is currently enrolled in a course fulfilling) the Using Scientific Methods section of the Understanding Natural Science and Technology portion of the Common Curriculum may register for CHEM 1305.

CHEM-1318 General Chemistry

Fundamental concepts in chemical science, taught from perspectives of chemistry in the modern world, with emphasis placed on quantitative problem solving. Course content will include stoichiometry and mass relationships, properties of solutions, atomic structure, molecular structure and bonding, intermolecular forces, chemical equilibrium, thermodynamics and kinetics. Lecture, 3 hours per week. Credit for the Common Curriculum will not be granted for both CHEM 1300 and CHEM 1318.

Prerequisite: passing the Chemistry Placement exam or CHEM 1300.

Corequisite: CHEM 1118.

CHEM-2119 Laboratory Methods in Organic Chemistry

The laboratory stresses modern techniques for the preparation and analysis of organic compounds. Infrared spectral analyses and chromatographic separations are introduced. Laboratory, 3 hours per week.

Prerequisite: CHEM 1118 or equivalent.

Corequisite: CHEM 2319.

CHEM-2130 Advanced Chemical Principles Laboratory

Emphasis is placed on the development of foundational laboratory techniques and skills, including attention to details and precision. Utilizing quantitative instrumental techniques, students build a deeper level of experimentation and problem solving skills while becoming increasingly independent. Laboratory, 3 hours per week.

Prerequisite: CHEM 2220.

CHEM-2180 Biomolecular Research Methods

Investigative skills for interdisciplinary research in the biological and chemical sciences. The use of modern fluorescence, spectroscopy, microcalorimetry, and mass spectrometry to solve biomolecular research problems. Research topics will vary from year to year and may include protein studies, biomolecular stability, and biomolecular recognition. (Also listed as BIOL 2180.)

Prerequisites: BIOL 1312, 1212, CHEM 2319, 2119, and consent of instructor.

CHEM-2220 Chemical Synthesis Laboratory

Continued development of student laboratory experience with emphasis on organic and inorganic syntheses. Nuclear magnetic resonance spectroscopy, use of Chemical Abstracts, and technical writing are emphasized. Laboratory, 5 hours per week, alternate weeks; discussion session 1 hour each week.

Pre- or corequisite: CHEM 2320.

Prerequisite: CHEM 2119.

CHEM-2305 Chemistry for the Visual Artist

The study of the chemical foundations of the visual arts. Topics range from a study of the historical development of technical innovations and discoveries that impacted the evolution of art, to the chemical and physical properties of artists' materials, to an introduction to conservation, and the analysis of works of art. The course is designed to include both lectures and laboratory experiments during the class period. A minimum of one half of the course meeting times will be laboratory activities. A field trip may be included. The laboratory activities will be expanded and built upon in the co requisite course, ART 2305. This course is intended for students who major in a non-science discipline. No student who has already fulfilled (or who is currently enrolled in a course fulfilling) the Using Scientific Methods section of the Understanding Natural Science and Technology portion of the Common Curriculum may register for CHEM 2305. Students may register for one of CHEM 1305 or CHEM 2305.

Corequisite: ART 2305.

CHEM-2319 Organic Chemistry I

Introduction to the basic principles of organic chemistry through studies of the structures, properties, and reactions of carbon-based compounds. Lecture, 3 hours per week.

Prerequisite: CHEM 1318 or equivalent.

Corequisite: CHEM 2119.

CHEM-2320 Organic Chemistry II

The continuation of Chemistry 2319 with emphasis on structure-activity relationships, mechanisms, and synthesis of complex organic compounds. Lecture, 3 hours per week.

Prerequisite: CHEM 2319.

CHEM-2340 Application of Chemical Principles

Application of chemical structure, thermodynamics, and kinetics to a broad range of problems, including acid-based reactions, redox reactions, and energy production. Lecture, 3 hours per week.

Prerequisite: CHEM 2319.

CHEM-3000 BCMB Seminar

Students must attend a minimum of 10 scientific seminars. Appropriate seminars are those offered by the Department of Biology, the Department of Chemistry, the Department of Physics and Astronomy, the Neuroscience Program, and/or seminars presented as part of the Distinguished Scientist Lecture Series. Pass/Fail.

CHEM-3001 Chemistry Seminar I

Exposure to the breadth of chemistry through attendance at the department seminar. Students will have the opportunity to interact with the speaker and discuss the work in greater detail. Short essays based on the lectures and reading from the chemical literature will be assigned for the student to assess the significance of the work and place it into the larger scientific context. Pass/Fail only.

CHEM-3101 Chemistry Seminar II

Exposure to the breadth of chemistry through attendance at the department seminar. Students will have the opportunity to interact with the speaker and discuss the work in greater detail. Short essays based on the lectures and readings from the chemical literature will be assigned for the student to assess the significance of the work and place it into the larger scientific context. Course may be repeated up to three times. Pass/Fail only.

Prerequisite: CHEM 3001.

CHEM-3121 Inorganic Chemistry Laboratory

Synthesis, spectroscopy characterization, and reactivity studies of inorganic compounds. Students will develop advanced synthesis and characterization techniques, and will become familiar with the Inorganic Chemistry literature. In the second half of the semester, students may be able to develop individual projects relating to the broader fields of interest. Laboratory 3 hours per week.

Prerequisite: CHEM 2220, 3334.

Pre- or corequisite: CHEM 3135, 3321, or consent of instructor.

CHEM-3131 Biochemistry Laboratory

An introduction to modern experimental biochemistry. The course emphasizes analytical and physical methods used in isolating and determining the properties of proteins, and nucleic acids. Laboratory, 3 hours per week.

Prerequisites: CHEM 3330, 2220.

CHEM-3135 Physical Chemistry Laboratory

Experimentation in physical and biophysical chemistry using modern laboratory techniques and instrumentation. The emphases of the course are to illustrate physical chemistry principles and to develop careful and critical experimental expertise. Topics covered include chemical kinetics, thermodynamics and equilibrium. Laboratory, 3 hours per week.

Prerequisites: CHEM 3334, 3432.

CHEM-3321 Inorganic Chemistry

Chemistry of the main group and transition metal elements, with emphasis on the application of fundamental chemical principles to trends in stability and reactivity. Topics include atomic theories, bonding, molecular structure, symmetry and group theory, acid-base theories, thermodynamic properties, kinetics and reactivity, redox properties, coordination compounds, organometallic chemistry, solid state chemistry, catalysis and bioinorganic chemistry. Lecture 3 hours per week.

Prerequisites: CHEM 2320, 3334.

Corequisite: CHEM 3121.

CHEM-3330 Biochemistry I

The structure and function of biological molecules. The course emphasizes protein and nucleic acid structure and metabolism, mechanisms of enzyme action, membrane structure and dynamics, and energy production, storage, and utilization. Lecture, 3 hours per week.

Prerequisite: CHEM 2320.

CHEM-3334 Physical Chemistry I

Emphasis is placed on the effect of temperature, pressure, volume and chemical composition on chemical equilibrium and reaction rates through the development of fundamental principles of chemical thermodynamics and reaction kinetics. Lecture, 3 hours per week.

Prerequisites: CHEM 1318, MATH 1312.

Pre- or corequisite: PHYS 1309.

CHEM-3335 Physical Chemistry II

A continuation of Chemistry 3334 with emphasis on quantum mechanical approaches to chemical structure and dynamics, statistical mechanics, and theoretical developments in chemistry. Lecture, 3 hours per week.

Prerequisite: CHEM 3334.

Pre- or corequisite: PHYS 1310.

CHEM-3-90 Independent Research Chemistry & Biochemistry

Analyses directed to the solution of a problem having mutual student and faculty interest. All available instrumental and technical resources appropriate to this research are employed. Oral and written communication of results are required. 6 laboratory hours a week per credit hour. An end of

semester written report is required. Attendance at departmental seminars is expected.

Prerequisite: junior standing.

CHEM-3398 Honors Readings

Independent study in selected areas in preparation for Honors Thesis. May be taken for up to three hours of credit.

Prerequisite: consent of instructor.

CHEM-3432 Analytical Chemistry

Principles of quantitative chemical analysis. Discussions will include topics such as sampling, statistical analysis, experimental design and optimization, chemical equilibrium, volumetric and gravimetric techniques, electrochemistry, and elementary instrumental analysis. Typical laboratory experience includes volumetric analysis and elementary instrumental analysis. 3 lecture hours and 3 lab hours per week.

Prerequisite: CHEM 2319.

CHEM-4194 Major's Seminar

A seminar course for junior and senior chemistry majors. Attendance at weekly departmental seminars is required. In addition, each student will prepare an abstract and give an oral presentation on a current topic in chemical science. May be repeated for up to four hours credit. Pass/Fail.

CHEM-4242 Advanced Analytical Methods

Principles of modern instrumental analysis, with emphasis on separation methods and mass spectrometry. Both theory and practical experience are addressed. Appropriate laboratory experience emphasizes use of sophisticated chemical instrumentation. Equivalent of 1 lecture hour and 3 laboratory hours per week.

Prerequisite: CHEM 3332. CHEM 3334 is recommended.

CHEM-4250 Senior Integrated Laboratory

Advanced experimentation in chemistry and biochemistry. A team-taught course designed to bring the perspectives of multiple disciplines to bear on advanced laboratory problems. The emphasis in the course will be on the use of emission and absorption spectroscopy, magnetic resonance, electrochemistry, and computational chemistry to study complex chemical and biochemical problems. Equivalent of 1 lecture hour and 6 laboratory hours per week.

Prerequisites: CHEM 3334, 3335, 3135, 4242.

CHEM-4340 Biochemistry II

The continuation of CHEM 3330 with emphasis on metabolism, biosynthesis, and gene expression. Lecture, 3 hours per week.

Prerequisites: CHEM 3330, 3334.

CHEM-4346 Advanced Interdisciplinary Topics—Fall

Advanced topics in chemistry, with an emphasis on modern approaches in interdisciplinary areas. Topics will vary from semester to semester and may include physical inorganic, physical organic, bioinorganic, bioorganic, organometallic chemistry or the chemistry of materials. Lecture, 3 hours per week.

Pre- or corequisite: CHEM 3334.

CHEM-4347 Advanced Interdisciplinary Topics—Spring

Advanced topics in chemistry, with an emphasis on modern approaches in interdisciplinary areas. Topics will vary from semester to semester and may include physical inorganic, physical organic, bioinorganic, bioorganic, bioanalytical, organometallic chemistry, or the chemistry of materials. Lecture, 3 hours per week, Spring.

Prerequisite: CHEM 3334.

CHEM-4395 Thesis Research in Chemistry and Biochemistry

Written communication of research performed at Trinity University in thesis form. Course enrollment requires a minimum of two semesters of research involvement in a research project and the permission of the department chair.

CHEM-4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by Senior Honors students in both terms of their Senior year. Includes participation in Senior Colloquium where students present reports on their Thesis work.

Classical Studies

FACULTY

ERWIN F. COOK, Ph.D., T. Frank Murchison Distinguished Professor of Classical Studies

MARK B. GARRISON, Ph.D., Alice P. Brown Professor of Art and Art History

NICOLLE E. HIRSCHFELD, Ph.D., Associate Professor

THOMAS E. JENKINS, Ph.D., Associate Professor; Chair

LAWRENCE Y. KIM, Ph.D., Associate Professor

TIMOTHY M. O'SULLIVAN, Ph.D., Associate Professor

CORINNE O. PACHE, Ph.D., Associate Professor

OVERVIEW

The Department of Classical Studies encompasses the study of all aspects of the Ancient Mediterranean world. The program is highly interdisciplinary in nature, bringing together the fields of history, literature, religion, philosophy, human communication and theatre, art history, archaeology, anthropology, political science, and so forth. The Department offers four majors: Ancient Mediterranean Studies, Greek, Latin, and Classical Languages. Ancient Mediterranean Studies is a major in ancient culture and does not require a language, although language courses do count toward this degree. Courses offered through the Departments of Art and Art History, History, Human Communication and Theatre, Philosophy, Political Science, Religion, and Sociology and Anthropology form part of the program of the Department of Classical Studies. The program offers an excellent focus for a liberal arts education and combines well with majors in other fields in both the humanities and sciences.

Students interested in graduate work in Classical Studies or related fields should be advised early on that a knowledge of both languages is essential for work in a good graduate school. The requirements for the major are only a minimum, and students preparing for graduate study should start language courses as soon as possible. Note that courses credited towards the major in one field (Ancient Mediterranean Studies, Greek, Latin, or Classical Languages) may also be credited toward a minor in another but may not be credited towards a second major in the Department.

REQUIREMENTS

ANCIENT MEDITERRANEAN STUDIES

Requirements for a Bachelor of Arts with a major in Ancient Mediterranean Studies are as follows:

- I. The common curriculum
- II. Departmental requirements: 30 hours of courses chosen from those listed below under Classics Courses in English, Greek, or Latin, including 18 upper division hours. At least 12 hours must be CLAS hours. This major does not require a language, although language courses do count for this degree. Greek and Latin courses credited towards the Ancient Mediterranean Studies major may also be credited towards the minor in Greek or Latin.
- III. Electives sufficient to total 124 hours.

GREEK

Requirements for a Bachelor of Arts with a major in Greek are as follows:

- I. The common curriculum

II. Departmental requirements:

- A. Completion of the elementary and intermediate sequence of courses (12 hours) or the equivalent in Greek.
- B. 27 additional hours of courses chosen from those listed below under Classics Courses in English, Greek, or Latin, including 12 upper division hours of Greek. (Courses in Latin credited towards the Greek major may also be credited towards the minor in Latin.)

III. Electives sufficient to total 124 hours.**LATIN**

Requirements for a Bachelor of Arts with a major in Latin are as follows:

I. The common curriculum**II. Departmental requirements:**

- A. Completion of the elementary and intermediate sequence of courses (13 hours) or the equivalent in Latin.
- B. 26 additional hours of courses chosen from those listed below under Classics Courses in English, Greek, or Latin, including 12 upper division hours of Latin. (Courses in Greek credited towards the Latin major may also be credited towards the minor in Greek.)

III. Electives sufficient to total 124 hours.**CLASSICAL LANGUAGES**

Requirements for a Bachelor of Arts with a major in Classical Languages are as follows:

I. The common curriculum**II. Departmental requirements:**

- A. Completion of the elementary and intermediate sequence of courses (25 hours) or the equivalent in both Greek and Latin.
- B. 22 hours of courses chosen from those listed below under Classics Courses in English, Greek, or Latin, including 15 upper division hours of either Greek or Latin, with at least 6 hours of each.

III. Electives sufficient to total 124 hours.**THE MINOR**

Classical Studies at Trinity is highly interdisciplinary in nature, bringing together the fields of history, literature, religion, philosophy, speech and drama, art history, archaeology, anthropology, political science, and so forth. The Department of Classical Studies offers three minors: Ancient Mediterranean Studies, Greek, and Latin. Ancient Mediterranean Studies is a minor in ancient culture and does not require a language, although language courses do count toward this degree. In addition to the University's regulations for minors, students should complete the following Departmental requirements.

ANCIENT MEDITERRANEAN STUDIES

Completion of at least 18 hours of courses chosen from those listed below under Classics Courses in English, Greek, or Latin, of which at least 9 hours must be in the upper division. At least 6 hours must be

CLAS hours. Ancient Mediterranean Studies is a minor in ancient culture and does not require a language, although language courses do count toward this degree. No more than 3 hours may overlap with the student's major. A minimum of 12 hours toward the minor must be completed at Trinity.

GREEK

Completion of at least 18 hours in Greek, of which at least 6 must be in the upper division. A minimum of 12 hours toward the minor must be completed at Trinity.

LATIN

Completion of at least 18 hours in Latin, of which at least 6 must be in the upper division. A minimum of 12 hours toward the minor must be completed at Trinity.

THE HONORS PROGRAM

I. University requirements

II. Departmental requirements:

The Department of Classical Studies offers an Honors Program in Classics. The requirements for Honors in Classical Studies are the same as the University requirements. For further information, please consult the chair of the department as early as possible in the first semester of the junior year.

LANGUAGE SKILLS

All courses under the heading Classics Courses in English are taught through the medium of English translation and no knowledge of Greek or Latin is required. Courses under the headings Greek and Latin are directed to the acquisition of those languages, respectively.

COURSES

CLASSICS COURSES IN ENGLISH

LOWER DIVISION

CLAS-1301 Topics in Classical Studies

Study of topics related to the ancient Mediterranean world and its legacy, such as Latin and Greek elements in the English language, classical civilization, etc. May be taken more than once, provided that topics vary.

CLAS-1302 Literary Classics of the Ancient Greek World

A study of certain major works of ancient Greek literature in their entirety, and a survey of the major Greek authors and of their contribution to European literature. All works will be read in English translation.

CLAS-1303 Literary Classics of the Roman World

A study of certain major works of Latin literature in their entirety, and a survey of the major Latin authors and of their contribution to European literature. All works will be read in English translation.

CLAS-1304 Introduction to Classical Archaeology

An introduction to the history of archaeological activity in the Mediterranean, and archaeological theory and field techniques. Course will also examine major sites and monuments of ancient Greece and Rome. (Also listed as ANTH 1304.)

CLAS-1305 Classical Mythology

An introductory survey of the major myths of the classical world, drawing on evidence from ancient literature and art. Course may also explore modern theoretical approaches (anthropological, historical, political, linguistic, feminist, psychological, etc.) to the study of myth in general, and how these modern theories have been applied to classical myth.

CLAS-1306 Ancient Science and Technology

An examination of the attitude to science and technology in the ancient world and how this differed from today. Study of the scientific and technological achievements of the ancient world, major works of engineering, and major writings on scientific or technological subjects.

CLAS-1307 Gender and Identity in the Ancient World

An examination of the roles of women and men in the society, religion, and culture of the ancient world. Readings will include historical, religious, medical, legal, philosophical, and literary texts. Representations of men and women in the visual arts will also be considered. (Also listed as HIST 1311.)

CLAS-1308 Daily Life in Ancient Rome

An introduction to the Roman world by way of the daily life of its inhabitants, with a focus on the urban experience. Evidence will include literary texts, inscriptions, epitaphs, graffiti, painting, sculpture, wills, letters, and the art and architecture of domestic space.

CLAS-1309 Pirates, Merchants, and Marines: Seafaring in the Ancient Mediterranean

This course explores how human relations with the sea affected the social, economic, military, political, and technological aspects of life in the ancient Mediterranean littoral. Evidence includes hulls and cargoes of shipwrecks, harborworks, inscriptions, graffiti, wall painting and mosaics, literary texts, and gravestones. A central focus will be an introduction to the methodology and technologies of archaeology, but the subject matter of this course and the nature of the discipline of maritime archaeology incorporate methodologies and substance also from the fields of Anthropology, Ethnography, Physical Sciences, Engineering, Art History, History, and Geography. (Also listed as ANTH 1309.)

CLAS-1310 Daily Life in Ancient Greece

An introduction to the ancient Greek world by way of the daily life of its inhabitants, with a focus on the urban experience. Evidence will include literary texts, inscriptions, epitaphs, painting, sculpture, and the art and architecture of domestic public space.

CLAS-1312 Greeks, Romans, and Barbarians

This course gives students an opportunity to examine the cultures and achievements of peoples labeled "barbarians" by the ancient Greeks and Romans. Students will use a broad selection of historical documents originating from the Near East, Egypt, Greece and Rome, as well as the results of archaeological research, for investigating the social structures and values of these cultures. Critical methods for interpreting ancient and modern evidence about these societies will also be discussed. (Also listed as HIST 1312.)

ANTH-1304 Introduction to Classical Archaeology

(For description, see under Sociology and Anthropology.)

ANTH-1309 Pirates, Merchants and Marines: Seafaring in the Ancient Mediterranean

(For description, see under Sociology and Anthropology.)

ANTH-2312 The Anthropology of Ancient Israel

(For description, see under Sociology and Anthropology.) (Also listed as RELI 1351.)

ARTH-1307 Art History I: Prehistoric Through Medieval Art

(For description, see under Art and Art History.)

ARTH-1313 Art and Archaeology of Ancient Egypt

(For description, see under Art and Art History.)

HIST-1310 Ancient Greece and Rome

(For description, see under History.)

HIST-1311 Gender and Identity in the Ancient World

(For description, see under History.)

HIST-1312 Greeks, Romans, and Barbarians

(For description, see under History.)

HCOM-2350 Classical Rhetorical Theory

(For description, see under Human Communication and Theatre.)

RELI-1351 The Anthropology of Ancient Israel

(For description, see under Religion.) (Also listed as ANTH 2312.)

UPPER DIVISION

CLAS-3301 Advanced Topics in Classical Studies

Advanced study of topics related to the ancient Mediterranean world and its legacy, such as Neronian culture, ancient scripts, Hellenistic and Greek Imperial literature, the Byzantine world. May be taken more than once, provided that topics vary.

Prerequisite: sophomore standing or consent of instructor.

CLAS-3302 Greek and Roman Epic

A study of such epics as Homer's Iliad and Odyssey and Virgil's Aeneid, read in English, with attention to changes in concepts of heroism and the self. Discussions will also focus on how the epics reflect cultural and political life.

Prerequisite: sophomore standing or consent of instructor.

CLAS-3303 Greek and Roman Drama

A study of Greek and Roman tragedies and comedies, read in English, with attention to how the plays reflect contemporary (and enduring) social, theatrical, and political concerns. (Also listed as ENGL 3322 and THTR 3335.)

Prerequisite: sophomore standing or consent of instructor.

CLAS-3304 The Ancient Novel

A study of ancient prose fiction, which focuses largely on love and adventure. Discussions emphasize social, religious, and aesthetic issues raised by individual works, and special attention is paid to the ancient romance's relation to the medieval romance and the modern novel.

Prerequisite: sophomore standing or consent of instructor.

CLAS-3305 Antiquity and Modernity

Antiquity and Modernity explores the ways in which the ancient world is constructed through the lenses of modern literature, art, and scholarship, focusing especially on the period between the two world wars. Topics to be covered include the influence of Greek texts on modern constructions of sexuality (Freud, Foucault, Plato, *The Greek Anthology*); the links between the avant-garde of both the ancient and modern worlds (Propertius and Pound); the old and new Romes (Augustus and Mussolini); and the dramatic manipulation of myth (Sophocles and Stravinsky's *Oedipus Rex*.) Other works include Thornton Wilder's *The Ides of March*, Lucian's *Dialogues of the Courtesans*, and Ronald Syme's *The Roman Revolution*. All readings are in translation.

Prerequisite: sophomore standing or consent of instructor

CLAS-3306 Ancient Cyprus

A survey of the material, political and cultural histories of Cyprus, from the arrival of the first human inhabitants (10th millennium BCE) through the rule of the Roman emperors (4th century CE), with a special emphasis on themes of diversity, assimilation and identity. The early history of the island will be considered primarily through the archaeological discoveries, which, prior to the availability of written records, are our only source of information. The later history will draw on other sources, such as historical and literary texts, inscriptions, sculpture, mosaics, and monuments.

Prerequisite: sophomore standing or consent of instructor.

CLAS-3307 The Homeric *Iliad*

The Homeric *Iliad* provides an intensive examination of a fundamental text of antiquity, including its historical, archaeological, and anthropological contexts. All readings are in English translation.

Prerequisite: sophomore standing or consent of instructor.

CLAS-3308 The Homeric *Odyssey*

The Homeric *Odyssey* provides an intensive examination of a fundamental text of antiquity, including its historical, archaeological, and anthropological contexts. All readings are in English translation.

Prerequisite: sophomore standing or consent of instructor.

CLAS-3309 Epic Journeys

A comparative study of epic traditions in literature and film. In the first half of the course, we focus on traditional epics, such as Gilgamesh, Homer's *Odyssey*, the Inuit tradition of the Fast Runner, and the Korean song tradition of Chunhyang, focusing especially on themes such as the heroic journey, exile and

homecoming. In the second half of the course, we examine the reception of traditional epic in the modern Western literacy tradition and films. (Also listed as CMLT 3309.)

Prerequisite: sophomore standing or consent of instructor.

CLAS-3319 The World of Late Antiquity

A study of the political, cultural, and religious life of the Roman Empire from the second to the fifth centuries CE—a vital transitional period between the classical and medieval worlds. Beginning with the “golden age” of the Antonine emperors, this course examines the military and political “crisis” of the third century, the Christianization of the empire in the fourth, and the religious and cultural conflicts that accompanied the fragmentation of power in the fifth. (Also listed as HIST 3319.)

Prerequisite: sophomore standing or consent of instructor.

CLAS-3338 Greek Religious Experience

A study of Greek religious festivals designed to produce a coherent image of a year in the religious life of the ancient Greeks. Through a combination of archaeological and literary evidence, we will attempt to reconstruct the rituals performed at the various festivals and explore the ways in which they organized and articulated the community through shared religious experience. We shall also consider the ways in which religion organized civic space and gave it meaning. (Also listed as RELI 3338.)

Prerequisite: sophomore standing or consent of instructor.

CLAS-3350 Theorizing Myth

A survey of theoretical approaches to myth from the eighteenth century to the present. This survey begins with the transition from renaissance belief that myth is a form of moral instruction conveyed by allegory to the romantic belief that myth is a symbolic mode of discourse offering insight into transcendental reality. We will then chart the evolution of this approach, beginning with its inspiration in Kantian metaphysics and early formulations by German romantics such as Schiller and proceeding on to Freud and Ricoeur. A second strand begins with Hegel's theories of “false consciousness” that would in time develop into interpretations of myth as ideology, under the influence of Marx, Adorno, and Althusser. A final strand begins with the earlier folklorists, the brothers Grimm, and would in time develop into functionalist approaches to myth by anthropologists such as Malinowski, Boas, and Levi-Strauss. The resulting big picture is as much an intellectual history of modernity as a history of theorizing myth. (Also listed as PHIL 3361)

Prerequisite: sophomore standing or consent of instructor.

CLAS-3371 Introduction to Romance Linguistics

A study of the science of language as it applies to those tongues having their origin in spoken Latin, principally French, Italian, Portuguese, Rumanian, and Spanish. Attention will be given both to historical developments and to the current situations of such languages. (Also listed as FREN 3371, ITAL 3371, and SPAN 3371).

Prerequisite: two years or the equivalent of Latin, ancient Greek, or a Romance language.

CLAS-3-72 Archaeological Practicum

Participation in an approved excavation in the Mediterranean world, Western Europe, or the Near East. Students will be expected to receive instruction in excavation techniques and in the recording and study of the site and the material. Two weeks' work will normally be counted as equivalent to 1 credit, up to a maximum of 3 credits.

Prerequisites: approval of the department chair and of the excavation director.

CLAS-3-90 Directed Studies

Individual work under supervisor in areas not covered by other courses. May be taken more than once as content varies.

Prerequisite: consent of the Department Chair.

CLAS-3398 Honors Readings

Independent study in selected areas in preparation for Honors Thesis.

Prerequisite: admission to Honors Program.

CLAS-4302 Advanced Seminar in Classical Studies

A seminar on selected special topics in Classical Studies. May be taken more than once, as topics vary.

Prerequisite: Classical Studies major with senior standing.

CLAS-4-72 Archaeological Practicum II

Students who have already taken CLAS 3-72 may obtain credit for one further season of work on the same conditions as for 3-72. (Also listed as ANTH 4-72.)

Prerequisites: CLAS 3-72 and approval of the department and of the excavation director.

CLAS-4-90 Directed Studies

Individual work under supervisor in areas not covered by other courses. May be taken more than once, as content varies.

Prerequisite: consent of the department chair.

CLAS-4-91 Selected Topics

Special study in fields not covered by other courses. Variations in credit according to work performed, from 1-6 hours. May be taken more than once as content varies.

Prerequisite: consent of the department chair.

CLAS-4-97 Museum Internship

Participation in a program of study to be determined by the Department and the Curator of the Ancient Art collection at the San Antonio Museum of Art. The program will focus on conservation, museum administration, original research on holdings in the San Antonio Museum of Art, and object display. Each internship must be directed by a faculty member who will draw up an agreement between the sponsoring institution, the student, and the Department outlining the scope and requirements of the course. One to 3 hours per semester, maximum 6 semester hours. Elective only. Pass/Fail only.

Prerequisite: consent of the department chair.

CLAS-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by senior Honors students in both semesters of their senior year.

ANTH-4-72 Archaeological Practicum

(For description, see under Sociology and Anthropology.)

ARTH-3320 The Minoan-Mycenaean Civilization

(For description, see under Art and Art History.)

ARTH-3321 Greek Vase Painting

(For description, see under Art and Art History.)

ARTH-3322 Greek Architecture

(For description, see under Art and Art History.)

ARTH-3325 Roman Art and Architecture

(For description, see under Art and Art History.)

ARTH-3328 Art and Archaeology of Mesopotamia and Persia

(For description, see under Art and Art History.)

ARTH-3330 Art and Architecture in the Late Classical World

(For description, see under Art and Art History.)

ARTH-3391 Topics in Art History (where appropriate)

(For description, see under Art and Art History.)

ARTH-4395 Seminar in Art History (where appropriate)

(For description, see under Art and Art History.)

ENGL-3322 Greek and Roman Drama

(For description, see under English.)

FREN-3371 Introduction to Romance Linguistics

(For description, see under Modern Languages and Literatures.)

HIST-3310 Archaic and Classical Greece

(For description, see under History.)

HIST-3314 The Mediterranean World in the Hellenistic Age

(For description, see under History.)

HIST-3318 The Roman Empire

(For description, see under History.)

HIST-3-92 Special Topics in History (where topics pertain to the ancient world)

(For description, see under History.)

ITAL-3371 Introduction to Romance Linguistics

(For description, see under Modern Languages and Literatures.)

PHIL-3310 Classical Greek Philosophy

(For description, see under Philosophy.)

PHIL-3311 Hellenistic Philosophy

(For description, see under Philosophy.)

PHIL-3361 Theorizing Myth

(For description, see under Philosophy.)

PLSI-3361 Classical Political Thought

(For description, see under Political Science.)

RELI-3338 Greek Religious Experience

(For description, see under Religion.)

RELI-3353 The Gospels, Jesus, and Christian Origins

(For description, see under Religion.)

RELI-3354 The Letters of Paul

(For description, see under Religion.)

RELI-3355 Non-Canonical Early Christian Literature

(For description, see under Religion.)

SPAN-3371 Introduction to Romance Linguistics

(For description, see under Modern Languages and Literatures.)

THTR-3335 Greek and Roman Drama

(For description, see under Human Communication and Theatre.)

XXXX-3-90 Directed Studies

Directed Studies courses in any of the above areas when dealing with the ancient world are also acceptable.

Prerequisite: consent of the chair of Classical Studies if counting toward major or minor in Classical Studies.

XXXX-4-90 Directed Studies

Directed Studies courses in any of the above areas when dealing with the ancient world are also acceptable.

Prerequisite: consent of the chair of Classical Studies if counting toward major or minor in Classical Studies.

GREEK**LOWER DIVISION****GREK-1301 Elementary Classical Greek I**

3 class hours a week for 1 semester. Spring

GREK-1302 Elementary Classical Greek II

3 class hours a week for 1 semester. Fall.

Prerequisite: GREK 1301 or the equivalent.

GREK-2301 Intermediate Classical Greek

3 class hours a week for 1 semester. Spring.

Prerequisite: GREK 1302 or the equivalent.

GREK-2302 Readings in Classical Greek Literature

Selections from Greek authors; emphasis on developing reading skills. Fall.

Prerequisite: GREK 2301 or the equivalent.

GREK-2303 Readings in the New Testament

Selections from the Greek New Testament. Emphasis on developing reading skills in Biblical Greek. Fall, as required.

Prerequisite: GREK 2301 or the equivalent. May either substitute for or be taken in addition to GREK 2302.

UPPER DIVISION**GREK-3301 Homer and Greek Epic**

Selections from the *Iliad* and *Odyssey*. May also include other epic poets.

Prerequisite: GREK 2302, 2303, or the equivalent.

GREK-3302 Attic Prose

Readings in Attic prose writers, especially Plato, Xenophon, and the orators.

Prerequisite: GREK 2302, 2303, or the equivalent

GREK-3303 Greek Drama

Readings from Greek drama.

Prerequisite: GREK 2302, 2303, or the equivalent.

GREK-3304 Greek Historians

Readings in Greek historians, especially Herodotus and Thucydides. Prerequisite:

GREK 2302, 2303, or the equivalent.

GREK-3305 Greek Lyric

A survey of Greek lyric texts in both their historical and literary contexts. Authors to be considered include Sappho, Theocritus, Theognis, and Pindar.

Prerequisite: GREK 2302, 2303, or the equivalent.

GREK-3-90 Directed Studies

Individual work under supervisor in areas not covered by other courses. May be taken more than once, as content varies.

Prerequisites: GREK 2302, 2303, or the equivalent; and consent of the department chair.

GREK-4-90 Directed Studies

Individual work under supervisor in areas not covered by other courses. May be taken more than once, as content varies.

Prerequisites: GREK 2302, 2303, or the equivalent; and consent of the department chair.

GREK-4-91 Selected Topics

Special study in fields not covered by other courses. Variation in credit according to work performed, from 1-6 hours. May be taken more than once, as content varies.

Prerequisites: GREK 2302, 2303, or the equivalent; and consent of the department chair.

LATIN***LOWER DIVISION*****LATN-1301 Elementary Latin I**

3 class hours a week for 1 semester. Fall.

LATN-1302 Elementary Latin II

3 class hours a week for 1 semester. Spring.

Prerequisite: LATN 1301 or the equivalent.

LATN-2301 Intermediate Latin I

3 class hours a week for 1 semester. Fall.

Prerequisite: LATN 1302 or the equivalent.

LATN-2402 Intermediate Latin II

Selections from Latin authors; emphasis on developing reading skills. Spring.

Prerequisite: LATN 2301 or the equivalent.

UPPER DIVISION**LATN-3301 Latin Prose Composition**

Drill in Latin grammar through the writing of Latin. Comparison of rhetorical devices of Latin with similar usages in English.

Prerequisite: LATN 2402 or the equivalent.

LATN-3302 Virgil and Latin Epic

Selected readings from the Eclogues, the Georgics, and/or the Aeneid together with consideration of Virgil's sources and his impact upon the pastoral, didactic and epic. May also include other epic poets.

Prerequisite: LATN 2402 or the equivalent.

LATN-3303 Latin Prose to 43 B.C.

Study of prose writers of the Late Republic, such as Caesar, Cicero, Nepos, or Sallust. Prerequisite: LATN 2402 or the equivalent.

LATN-3304 Lyric and Elegiac Poets

Selections in lyric and elegiac poetry, from authors such as Catullus, Horace, Ovid, Propertius or Tibullus.

Prerequisite: LATN 2402 or the equivalent.

LATN-3305 Latin Prose from 43 B.C.

Study of prose writers from the Augustan Age onwards, such as Livy, Pliny, Tacitus, or early Christian writers.

Prerequisite: LATN 2402 or the equivalent.

LATN-3306 Comedy and Satire

Selections in comedy and in satire, from authors such as Plautus, Terence, Horace, Juvenal, Martial or Petronius.

Prerequisite: LATN 2402 or the equivalent.

LATN-3307 Imperial Roman Literature

A study of Imperial Roman Literature in its social and historical contexts, with a special emphasis on post-Augustan texts.

Prerequisite: LATN 2402 or the equivalent.

LATN-3308 Ovid

An intensive study of the poetry of Ovid, with a particular emphasis on the poet's engagement with Augustan ideology. Texts may include a variety of genres, including epic, elegy, exile poetry, and epistolary fiction.

Prerequisite: LATN 2402 or the equivalent.

LATN-3309 The Roman Novel

An intensive investigation of Petronius' *Satyrical* and Apuleius' *The Golden Ass*, with special attention paid to issues of genre, religion, gender, and influence.

Prerequisite: LATN 2402 or the equivalent.

LATN-3-90 Directed Studies

Individual work under supervisor in areas not covered by other courses. May be taken more than once, as content varies.

Prerequisites: LATN 2402 or the equivalent, and consent of the department chair.

LATN-4-90 Directed Studies

Individual work under supervisor in areas not covered by other courses. May be taken more than once, as content varies.

Prerequisites: LATN 2402 or the equivalent, and consent of the department chair.

LATN-4-91 Selected Topics

Special study in fields not covered by other courses. Variations in credit according to work performed, from 1-6 hours. May be taken more than once, as content varies.

Prerequisites: LATN 2402 or the equivalent, and consent of the department chair.

Communication

FACULTY

WILLIAM G. CHRIST, Ph.D., Professor
AARON DELWICHE, Ph.D., Associate Professor
JENNIFER J. HENDERSON, Ph.D., Professor; Chair
ROBERT HUESCA, Ph.D., Professor
SAMMYE L. JOHNSON, M.S.J., Carlos Augustus de Lozano Professor of Journalism
PATRICK KEATING, Ph.D., Associate Professor
ZHAOXI LIU, Ph.D., Assistant Professor
MELISSA MCMULLEN, Ph.D., Assistant Professor

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in Communication are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. To be accepted as a major in Communication, a student must have successfully completed COMM 1301 (Mass Media) and 2302 (Media Interpretation and Criticism).
 - B. Thirty (30) hours (of which at least 15 must be upper division) of course work in the Department of Communication including:
 1. Nine (9) semester hours in core courses (COMM 1301, 2302, 3303).
 2. Nine (9) semester hours consisting of one course from each of the following three areas of study. These courses will be chosen in consultation with faculty adviser.
 - a. Three (3) semester hours in media studies (COMM 3321, 3322, 3325, 3326, 3328, 3-98, 4-90, 4398, 4399)
 - b. Three (3) semester hours in media messages (COMM 3340, 3341, 3342, 3343, 3344, 3-45, 4350)
 - c. Three (3) semester hours in media management (COMM 3360, 3361, 3362, 3363, 3364)
 3. Nine (9) semester hours in electives in the Department of Communication.
 4. Three (3) semester hours in the Communication Capstone Seminar (COMM 4395).
 - C. A minimum of eighteen (18) hours of course work in another department or program planned to meet the student's interests and approved by adviser.
 - D. Courses in the Department of Communication exceeding 36 hours must be over and above the 124 hours required for graduation.
- III. Elective hours outside the Department of Communication sufficient to total 124 hours.

THE MINOR IN COMMUNICATION

The minor in communication is designed for students who seek to enrich their liberal arts education with a greater understanding of communication.

Requirements for the minor are: Twenty-one (21) semester hours to include COMM 1301, 2302, 3303, and four (4) three-hour elective courses; at least nine (9) semester hours of the total 21 semester hours required must be upper division.

CLASSES

CORE

COMM 1301	Mass Media
COMM 2302	Media Interpretation and Criticism
COMM 3303	Media Audiences

CAPSTONE

COMM 4395	Communication Capstone Seminar
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MEDIA STUDIES

COMM 3120	La Telenovela en América Latina
COMM 3321	Arts Criticism
COMM 3322	International Communication
COMM 3325	Special Topics in Communication Media
COMM 3326	History of Mass Media
COMM 3328	Media, Culture, and Technology
COMM 3-98	Honors Readings
COMM 4-90	Directed Studies in Communication
COMM 4398, 4399	Honors Thesis

MEDIA MESSAGES

COMM 3340	Media Writing
COMM 3341	Audio Communication
COMM 3342	Visual Communication
COMM 3343	Print Communication
COMM 3344	Interactive Multimedia Communication
COMM 3-45	Media Communication Workshop
COMM 4350	Advanced Producing

MEDIA MANAGEMENT

COMM 3360	Principles of Public Relations
COMM 3361	Principles of Advertising
COMM 3362	Media Law and Policy
COMM 3363	Media Management
COMM 3364	Ethics and the Mass Media

APPRENTICESHIP AND PRACTICE

COMM 1094	Internship Experience
COMM 1110, 1120, 1121, 1122, 1130, 1131, 1140, 1150, 1160, 1170	Apprenticeship in Communication Media
COMM 3300	Media Management Practicum and Study

ELECTIVES

COMM 1302	Introduction to Film Studies
COMM 2301	International Cinema
COMM 3300	Media Management Practicum and Study
COMM-3354	Quantitative Research Methods in Speech Communication

COMM-3357 Sport Media

COURSES

LOWER DIVISION

COMM-1094 Internship Experience

Encourages formal, off-campus media work experience. Consent of department chair required.

COMM-1110, 1120, 1121, 1122, 1130, 1131, 1140, 1150, 1160, 1170 Apprenticeship in Communication Center Media

Positions for students in one of the student-managed media organizations that provide news and entertainment services and programming for the campus and San Antonio area media. Assignments in writing, reporting, electronic production, and other positions are based on client needs and apprentices' interests, experience, and performance. Time and performance requirements depend on the structure and nature of each organization. Apprentices work under the direct supervision of student managers, faculty, and staff advisors. (1110) Publication Production, (1120) KRTU Radio Host/Trainee, (1121) KRTU News, (1122) KRTU Sports, (1130) Digital Editing, (1131) TigerTV Production, (1140) Webpage Production, (1150) Public Relations, (1160) Underwriting and Development, and (1170) Media Management. Pass/Fail. Apprenticeship may be repeated up to 3 hours.

COMM-1301 Mass Media

Study of the communication process and critical analysis of the structural relationships within mass media industries.

COMM-1302 Introduction to Film Studies

This course is an introduction to the artistic, cultural, and scholarly importance of film. The course focuses on the development of film as a complex art form, the evolution of narrative as part of a formal system, the development of the industry and film genres, critical and cultural approaches to film analysis, and the construction of the audience. Students will read excerpts from primary texts as well as more general texts dealing with film interpretation and criticism. (Also listed as ARTH 1301, ENGL 1301, FILM 1301, and ML&L 1301.)

COMM-2301 International Cinema

This course focuses on the cultural and critical analysis of international films as an expression of particular artistic genres and/or styles within specific historical, ideological, and cultural contexts. Films selected have achieved wide, critical acclaim; others reveal unique and important visions of human experience; while still others are selected for their political, ideological, or sociological significance. Students should develop an awareness that the medium of film has a history and that its history is not confined to national boundaries. (Also listed as ARTH 2301, ENGL 2300, FILM 2301, and ML&L 2301.)

COMM-2302 Media Interpretation and Criticism

A critical study of the aesthetics, interpretation, and criticism of media messages.

UPPER DIVISION

COMM-3120 La Telenovela en América Latina

An examination of the Latin American telenovela, or soap opera, from the perspectives of development

communication, popular culture, and international television. This course will be conducted entirely in Spanish. (Also listed as LAC 3107.)

Prerequisite: SPAN 2302, the equivalent, or consent of instructor.

COMM-3300 Media Management Practicum and Study

Integration of work experience and study of management in information companies. Specific study areas include personnel, organization, programming and content policies, ethics and professional responsibilities, regulation, finance, sales, promotion, audiences, and administrative problems in newspapers, magazines, radio, television, cable, web publishing, and public relations and advertising companies. Includes a major project or case study related to management practices. Students are selected for management positions in media organizations including KTRU-FM, Publication Production, TigerTV, and Multimedia Production.

Prerequisites: junior status, recommendation of departmental faculty, and approval of instructor.

COMM-3303 Media Audiences

A study of audiences, how they use and are affected by media.

Prerequisite: COMM 1301 or consent of instructor.

COMM-3321 Arts Criticism

Integration and understanding of the role of the artist, the audience, and the critic in relation to the arts.

COMM-3322 International Communication

Studies communication as an essential component of international organizations and relations. Surveys major topics in international communication and international decision-making, comparative media systems and national philosophies, and Third World issues and policy development. (Also listed as HCOM 3374.)

Prerequisite: COMM 1301 or consent of instructor.

COMM-3325 Special Topics in Communication Media

Study and analysis of contemporary communication media topics offered at the initiative of the faculty. Past topics have addressed issues of representation in media, media effects, political communication, media criticism, and the role of various media in society. May be repeated when topics vary.

Prerequisite: COMM 1301 or consent of instructor.

COMM-3326 History of Mass Media

A survey and analysis of American mass media from the rudimentary colonial newspaper through the 20th century development of radio, television and film. Media contributions to the flow of information, opinion and culture will be studied as a counterpoint to changes in social and political processes.

Prerequisite: COMM 1301.

COMM-3328 Media, Culture, and Technology

Examines the economic, historical and social context of evolving communication technologies and how media help to structure, maintain, and alter power relations in contemporary society. Special attention is given to the creation and maintenance of subcultural groups by and through the media.

Prerequisites: COMM 1301 and junior status.

COMM-3340 Media Writing

Understanding and using the written word by conceptualizing, gathering information, researching, writing, and editing a variety of material. Classes may stress one or more genres, formats, or themes. Past topics have covered magazine writing, news writing, broadcast writing, public relations writing, public affairs reporting, Internet journalism, and cultural affairs reporting. May be repeated when topics vary.

Prerequisite: COMM 2302 or consent of instructor.

COMM-3341 Audio Communication

Understanding and using audio through conceptualizing, gathering information, writing, editing, and producing aural communication. Classes may stress one or more genres, formats, or themes. Past topics have addressed community radio and alternative communication. May be repeated when topics vary.

Prerequisite: COMM 2302 or consent of instructor.

COMM-3342 Visual Communication

Understanding and using visual communication techniques through conceptualizing, creating, and editing visual media productions. Classes may stress one or more genres, formats, or themes. Past topics have addressed narrative fictional video production, documentary, and theory and practice of montage. May be repeated when topics vary.

Prerequisite: COMM 2302 or consent of instructor.

COMM-3343 Print Communication

Understanding and using print editorial techniques and graphics through conceptualizing, gathering information, writing, editing, and producing print publications. Classes may stress one or more genres, formats, or themes. Past topics have covered magazine production/publishing, and newsletter production. May be repeated when topics vary.

Prerequisite: COMM 2302 or consent of instructor.

COMM-3344 Interactive Multimedia Communication

Understanding and using interactive multimedia techniques through conceptualizing, gathering information, writing, editing, and producing content for the Internet and the World Wide Web. Classes may stress one or more genres, formats, or themes. Past topics have addressed web design, virtual world promotions, game design, and ethnography of massively multiplayer online games. May be repeated when topics vary.

Prerequisite: COMM 2302 or consent of instructor.

COMM-3-45 Media Communication Workshop

Media communication production and procedures, to be offered at initiative of the faculty and announced during preregistration. Course may be repeated with department approval. 1-6 semester hours.

Prerequisite: COMM 2302 or consent of instructor.

COMM-3354 Quantitative Research Methods in Speech Communication

The goal of this course is to help you understand how communication is studied using quantitative (numerical) principles and techniques. Such understanding will enable you to be a more knowledgeable and critical consumer and producer of quantitative research findings. (Also listed as HCOM 3354.)

COMM-3357 Sport Media

This course will critically examine the relationship between sport media and issues such as race, gender, sexuality, nationalism, capitalism/consumerism, violence, and civic life. Ethical implications and the impact of social media will also be explored. (Also listed as SPMT 3317.)

Prerequisite: COMM 1301 or SPMT 1312 or consent of instructor.

COMM-3360 Principles of Public Relations

Covers both principles and techniques of public relations from the management and social science viewpoint of managing ideas, publics, corporate or personal images.

Prerequisite: COMM 1301.

COMM-3361 Principles of Advertising

Advertising fundamentals in relationship to modern marketing activities, audience analysis, and the planning of advertising campaigns.

Prerequisite: COMM 1301.

COMM-3362 Media Law and Policy

Study of issues in the contemporary media policy environment with special focus on "freedom of the press" in relation to emerging electronic communication technologies. The course adopts a broad historical and cultural approach to the role of the First Amendment in a democratic system (including defamation and libel), and emphasizes the study of the legal relationships that govern the interaction of individuals, groups, and institutions.

COMM-3363 Media Management

A survey of major management concerns in the print and electronic media. Specific areas to be covered include personnel, organization, programming and content policies, regulation, finance, sales, audiences, and administrative problems in newspapers, magazines, radio, television, cable, and Internet.

Prerequisite: COMM 1301.

COMM-3364 Ethics and the Mass Media

A study of the ethical decisions, going beyond mere legal restrictions, that media practitioners must face in the range of material they present to the public. Survey of literature and case studies.

Prerequisite: COMM 1301.

COMM-3-98 Honors Readings

Independent study in selected areas in preparation for Honors Thesis. May be taken for up to three hours of credit.

Prerequisite: admission to the departmental Honors Program.

COMM-4350 Advanced Producing

Special production activities in selected media areas. Past topics have covered the convergence of media distribution systems and print and video literacy. May be repeated when topics vary.

Prerequisites: any COMM 11-- course and any COMM 334- course.

COMM-4-90 Directed Studies in Communication

Independent study that allows advanced students to work on specified projects under the supervision of departmental faculty. 1-6 semester hours.

Prerequisites: advanced students who demonstrate competence in specific areas of study in communications; upper-class standing and permission of instructor.

COMM-4395 Communication Capstone Seminar

Students will select one of three options to demonstrate their understanding of communication theories and practices: (1) A traditional research paper; (2) A professional paper that investigates a communication issue or serves a client; (3) A significant creative project. In all options, a major component of the capstone course is research and analysis.

Prerequisites: Senior or rising senior standing and COMM 1301, 2302, and 2303.

COMM-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an honors thesis. To be taken only by senior honors students in both terms of their senior year. Includes participation in senior colloquium where students present reports on their thesis work.

Communication Management

FACULTY ADVISORY COMMITTEE

J. CHARLENE DAVIS, Ph.D., Associate Professor, Business Administration; Chair
JENNIFER J. HENDERSON, Ph.D., Professor, Communication
JOHN M. McGRATH, Ph.D., Professor, Human Communication and Theatre

OVERVIEW

The minor in Communication Management is an interdisciplinary program that studies both advertising and public relations as part of the management of communication processes by combining mass media, human communication, marketing, and business principles. Students interested in declaring a Communication Management minor should contact Professor J. Charlene Davis; each student will then be assigned to a minor adviser.

REQUIREMENTS

THE MINOR

The requirements for a minor in Communication Management are:

24 semester hours consisting of 15 hours in required courses and 3 hours in each elective area.

- **Required Courses: 15 hours**

COMM 3360	Principles of Public Relations
HCOM 3334	Persuasion
HCOM 3360	Small Group Communication
MGMT 2301	Management of Organizations
MKTG 2301	Principles of Marketing

- **Communication Elective: 3 hours**

COMM 3362	Media Law and Policy
COMM 3363	Media Management
COMM 3364	Ethics and the Mass Media

- **Business Elective: 3 hours**

MGMT 3371	Human Resources Management
MGMT 3372	Organizational Behavior
MKTG 3381	Consumer Behavior
MKTG 3382	Promotion Management
MKTG 4381	Marketing Management

- **Human Communication Elective: 3 hours**

BUSN 3311	Organizational Communication (also listed as HCOM 3362)
HCOM 1333	Public Speaking
HCOM 3362	Organizational Communication (also listed as BUSN 3311)
HCOM 4397*	Human Communication Internship

* As approved by minor adviser.

Comparative Literature

FACULTY ADVISORY COMMITTEE

ERWIN F. COOK, Ph.D., T. Frank Murchison Distinguished Professor of Classical Studies
STEPHEN L. FIELD, Ph.D., J. K. and Ingrid Lee Endowed Professor of Chinese Language and Literature, Modern Languages and Literatures
THOMAS JENKINS, Ph.D., Associate Professor, Classical Studies
TIMOTHY M. O'SULLIVAN, Ph.D., Associate Professor, Classical Studies
MICHAEL SOTO, Ph.D., Associate Professor, English
HEATHER I. SULLIVAN, Ph.D., Professor, Modern Languages and Literatures; Chair
RITA E. URQUIJO-RUIZ, Ph.D., Associate Professor, Modern Languages and Literatures
MICHAEL T. WARD, Ph.D., Associate Professor, Modern Languages and Literatures

OVERVIEW

Comparative Literature is an interdisciplinary program designed for students who want to pursue the study of literature unrestricted by national boundaries and conventional demarcations of culture. Comparative Literature recognizes that all literary texts exist within the framework of world cultures and emphasizes the importance of bringing a multicultural perspective to the understanding of literary traditions. It includes reading literature in the original language as well as in translation.

Completion of this program will be indicated on the student's transcript with the notation "Minor in Comparative Literature."

Students interested in a Comparative Literature minor should contact the Chair of the Committee, who will assign a faculty adviser to the student.

Students considering going on to graduate work in comparative literature are strongly encouraged to start studying one or more foreign languages (classical and/or modern) as soon as possible and to continue throughout their undergraduate career.

REQUIREMENTS

THE MINOR

The requirements for a minor in Comparative Literature are as follows:

- I. Introduction to Comparative Literature (CMLT 1300).
- II. Two courses from each of the three categories below (A, B, and C), for a total of six courses. (CMLT 1300 counts as one of the two courses from category C.)
- III. At least three of the total shall be upper division courses.

No more than two of the total may overlap with the student's primary major. These courses shall be chosen as follows:

- A. Two courses in the literature of a language other than English. All materials in these courses must be in the original language. These courses include the following:
 - In the Department of Classical Studies:
 - GREK 2302 Readings in Classical Greek Literature
 - GREK 2303 Readings in the New Testament
 - GREK 3301 Homer and the Greek Epic

GREK 3302	Attic Prose
GREK 3303	Greek Drama
GREK 3304	Greek Historians
LATN 3302	Virgil and Latin Epic
LATN 3303	Latin Prose to 43 B.C.
LATN 3304	Lyric and Elegiac Poets
LATN 3305	Latin Prose from 43 B.C.
LATN 3306	Comedy and Satire

- In the Department of Modern Languages and Literatures:

CHIN 3312	Chinese Cinema: A Historical and Cultural Perspective
CHIN 4321	Readings in Modern Chinese Literature
CHIN 4351	Classical Chinese
FREN 3305	Introduction to French Literature I
FREN 3306	Introduction to French Literature II
FREN 4301	Medieval French Literature
FREN 4302	Topics in French Literature of the Sixteenth Century
FREN 4303	Topics in French Literature of the Seventeenth Century
FREN 4304	Topics in French Literature of the Eighteenth Century
FREN 4305	Topics in French Literature of the Nineteenth Century
FREN 4306	Topics in French Literature of the Twentieth Century
FREN 4307	French Cinema
FREN 4310	Senior Seminar in Literature
GERM 3305	Introduction to German Literature I
GERM 3306	Introduction to German Literature II
GERM 4301	Genre Studies in German Literature
GERM 4310	Seminar in German Literature
RUSS 3305	Introduction to Russian Literature I
RUSS 3306	Introduction to Russian Literature II
RUSS 4301	Genre Studies in Russian Literature
RUSS 4310	Seminar in Russian Literature
SPAN 3321	Spanish Cinema
SPAN 3322	Spanish American Cinema
SPAN 3331	Introduction to Spanish Literature
SPAN 3332	Introduction to Spanish American Literature
SPAN 4331	Medieval Spanish Literature
SPAN 4332	Spanish Golden Age Literature
SPAN 4333	Don Quixote
SPAN 4334	Nineteenth-Century Spanish Literature
SPAN 4335	The Generation of '98
SPAN 4336	Twentieth-Century Spanish Literature
SPAN 4338	Spanish Women Writers
SPAN 4341	Literature of Colonial Spanish America
SPAN 4342	Spanish American Literature of the Nineteenth Century
SPAN 4343	Twentieth-Century Spanish American Poetry
SPAN 4344	Twentieth-Century Spanish American Novel
SPAN 4345	Twentieth-Century Spanish American Short Story
SPAN 4346	Twentieth-Century Spanish American Drama
SPAN 4347	National and Regional Literatures of Spanish America
SPAN 4348	Spanish American Women Writers
SPAN 4349	Sexualities in Literature and Film
SPAN 4361	Literature of Social Protest in Spanish America

B. Two literature courses in a language other than that chosen for A.

These may include courses listed above for A, literature and film courses in translation offered in the Department of Classical Studies and in the Department of Modern Languages and Literatures, German Studies courses listed as “GRST,” courses in American or British literature offered in the Department of English, the course in American drama offered in the Department of Human Communication and Theatre, and the FILM 1301 course (cross-listed as ARTH 1301, COMM 1302, ENGL 1301, and ML&L 1301). These may also include the following courses offered in the Department of Religion: RELI 3351—Narratives in the Hebrew Bible, and RELI 3352—Poetry in the Hebrew Bible.

- C. CMLT 1300, and one additional course to be chosen from the following list of courses with strong comparative components.

ARTH 2301	International Cinema (also listed as COMM 2301, ENGL 2300, FILM 2301, and ML&L 2301)
CLAS 1305	Classical Mythology
CLAS 1307	Gender and Identity in the Ancient World
CLAS 3302	Greek and Roman Epic
CLAS 3303	Greek and Roman Drama
CLAS 3304	The Ancient Romance and Novel
CLAS 3305	Antiquity and Modernity
CLAS 3309	Epic Journeys
COMM 2301	International Cinema (also listed as ARTH 2301, ENGL 2300, FILM 2301, and ML&L 2301)
CMLT 1300	Introduction to Comparative Literature) (<u>REQUIRED</u>)
CMLT 2350	Science Fiction and the Environment
CMLT 3309	Epic Journeys (also listed as CLAS 3309)
ENGL 2300	International Cinema (also listed as ARTH 2301, COMM 2301, FILM 2301, and ML&L 2301)
ENGL 2305	World Literature
ENGL 3322	Greek and Roman Drama (also listed as CLAS 3303 and THTR 3335)
ENGL 3329	Jewish Literature
ENGL 3359	Medieval Literature
ENGL 3375	Postmodern Literature
ENGL 3385	The Continental Novel
ENGL 4327	Literature of the Holocaust
FILM 2301	International Cinema (also listed as ARTH 2301, COMM 2301, ENGL 2300, and ML&L 2301)
GRST 3311	Fairy Tales
ML&L 2301	International Cinema (also listed as ARTH 2301, COMM 2301, ENGL 2300, and FILM 2301)
PHIL 3325	Existentialism
PHIL 3336	Philosophy of Literature
PLSI 1332	Film, Literature, and Politics of the Third World
RELI 3346	Islamic Literatures
THTR 3335	Greek and Roman Drama
THTR 3336	Modern Drama
THTR 3337	Contemporary Drama

COURSES

CMLT-1300 Introduction to Comparative Literature

Examines with a cross-cultural perspective texts from around the world. The course provides an introduction to the interdisciplinary field of comparative literatures. (Also listed as ENGL 1305.)

CMLT-2301 World Literature and the Environment

This course examines literary texts from around the world with an emphasis on environmental issues and a global perspective. The emphasis on literary and cultural perspectives develops similar themes to those explored through a scientific lens in its partner course, BIOL 2305.

Corequisite: BIOL 2305.

CMLT-2350 Science Fiction and the Environment

An introduction to science fiction with an emphasis on the literary exploration of environmental issues.

CMLT-3309 Epic Journeys

A comparative study of epic traditions in literature and film. In the first half of the course, we focus on traditional epics, such as Gilgamesh, Homer's Odyssey, the Inuit tradition of the Fast Runner, and the Korean song tradition of Chunhyang, focusing especially on themes such as the heroic journey, exile and homecoming. In the second half of the course, we examine the reception of traditional epic in the modern Western literacy tradition and films. (Also listed as CLAS 3309.)

Prerequisite: sophomore standing or consent of instructor.

CMLT-3-90 Reading and Conference

Individual work under faculty supervision not covered by other courses. May be repeated up to six hours.

Prerequisites: CMLT 1300 and approval of program chair.

Computer Science

FACULTY

SETH FOGARTY, Ph.D., Assistant Professor
ALBERT JIANG, Ph.D. Assistant Professor
MATTHEW HIBBS, Ph.D., Assistant Professor
THOMAS E. HICKS, Ed.D., Associate Professor
MARK LEWIS, Ph.D., Professor
BERNA L. MASSINGILL, Ph.D., Associate Professor
J. PAUL MYERS, JR., Ph.D., Professor; Chair

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Science with a major in Computer Science are as follows:

- I. The common curriculum
- II. Departmental requirements: 49 semester hours including:
 - A. Core Principles: CSCI 1120, 1320, 1321, 1323, 2320, 2321, 2322, 3320, 3321, 3322.
 - B. Colloquium: Four semesters of CSCI 2094.
 - C. Curricular Groups: At least three hours from each of the following groups:
 - i. Applications Group: CSCI 3311, 3342, 3343, 3352, 3353, 3366, 3-95.
 - ii. Systems Group: CSCI 3323, 3-96.
 - iii. Design Group: CSCI 3312, 3345, 3362, 3-97. Note: While not required, CSCI 3321 is recommended for courses in the Design Group.
 - D. Capstone: Advanced Software Engineering (CSCI 3384), Senior Software Project I & II (CSCI 3384, 4385, and 4386); OR Senior Thesis (CSCI 3398, 4398, and 4399).
 - E. Electives: Three additional upper division computer science hours sufficient to total at least 49 semester hours.
- III. Mathematics requirements:
 - A. Two courses from the following: MATH 1307, 1308, or 1311 or higher; CSCI 2324, 3351, or 3361; PHIL 3340.
 - B. Electives sufficient to total 124 semester hours.

COMPUTING AS A SECOND MAJOR

The requirements for Computing as a Second Major are as follows:

- I. The common curriculum
- II. Departmental requirements: 34 hours of computer science including:
 - A. Required courses: CSCI 1120, 1320, 1321, 1323, 2320; two semesters of CSCI 2094 (CS Seminar).

B. 21 additional hours of computer science including 18 upper-division hours.

III. Additional requirements are one of the following:

Six hours selected from MATH 1307, 1308, 1311, 1312, 1320, PHIL 2340, PSYC 2401, and BUSN 2301. Note: At most one of the following courses may be counted for this requirement: MATH 1320, PSYC 2401, and BUSN 2301.

IV. Completion of a first major from another department.

V. Electives sufficient to total 124 semester hours.

MINOR IN COMPUTER SCIENCE

The department offers a minor in Computer Science. This minor is designed to provide students with entry-level skills in computing, as well as a substantial computing background for graduate studies in fields where computers have become primary research tools. This minor consists of at least 21 hours of Computer Science and at least 6 hours of Mathematics. The Computer Science requirements are CSCI 1120, 1320, 1321, 1323, 2320, one semester of CSCI 2094 (CS Seminar) plus at least three additional upper division Computer Science electives. The Mathematics requirements are the same as for the Computer Science B.S. degree.

MINOR IN MANAGEMENT INFORMATION SYSTEMS

For the business-oriented student, the department offers a minor in Management Information Systems. This minor is designed to provide students with some knowledge of business principles and the necessary background to permit them, through the use of computer operations, to efficiently manage and transmit information.

The requirements are as follows:

I. Those courses required for the B.A., B.S., or minor in Business Administration.

II. CSCI 1120, 1320, 1321, 2320, one semester of CSCI 2094 (CS Seminar), plus two upper division Computer Science courses from the following list: CSCI 3311, 3321, 3342, 3345.

SENIOR SOFTWARE PROJECT

Requirements:

I. Successful completion of CSCI 3384 in the spring semester of the junior year.

II. Successful completion of CSCI 4385 in the fall semester of the senior year.

III. Successful completion of CSCI 4386 in the spring semester of the senior year.

SENIOR THESIS

Requirements:

I. Overall grade point average of 3.0 or better at the time the thesis option is selected.

II. Grade point average in computer science of 3.0 or better at the time the thesis option is selected.

III. Successful completion of CSCI 3398 in the spring semester of the junior year.

IV. Successful completion of CSCI 4398 in the fall semester of the senior year.

V. Successful completion of CSCI 4399 in the spring semester of the senior year.

VI. Selection of a faculty committee consisting of a thesis chair chosen from the computer science faculty and two additional faculty members during the spring semester of the junior year.

- VII. A public formal presentation and defense of the thesis during the spring semester of the senior year.
- VIII. A bound copy of the accepted thesis to be placed in the library. Binding costs will be paid by the student.

HONORS IN COMPUTER SCIENCE

To be eligible for the distinction of graduation with *Honors in Computer Science* the requirements are:

- I. Selection of the senior thesis capstone option described above.
- II. Grade point average of at least 3.33 or better in all courses prior to the semester of graduation.
- III. Grade point average of 3.33 or better in all computer science courses prior to the semester of graduation.
- IV. A written request for honors consideration, submitted to the department chair in the semester prior to the semester of graduation.

The decision of whether or not to confer the honors designation will be made by the departmental faculty and will be determined by departmental vote. The criteria include quality of the written thesis, quality of the oral presentation, and contribution to the field.

When a thesis receives the honors designation, this designation is so noted on the student's transcript and announced at graduation.

Students who successfully complete CSCI 4399 with a grade of C or better, but fail to achieve honors status or fail to meet the thesis deadline, will satisfy the capstone requirement provided they complete the thesis publication and pay the binding fee so the thesis may be placed in the library.

COURSES

CSCI-1120 Low-Level Computing

Seminar on concepts of computing that are close to the machine level. The course teaches skills such as command line processing and programming in a language that exposes more of the underlying machine. Internal data representations will also be explored.

Prerequisite: CSCI 1311 or 1320, or consent of instructor

CSCI-1300 Essential Information Technology

Introduction to computers and technology in an academic environment, including critical analysis regarding the nature of information itself. Computing hardware, software, files, and formats. Text processing and quantitative analysis. Information management. Graphics, image processing, and visualization. Communication, networking, and the internet. Information ethics, privacy, and legal use of software and data. Solution of problems in these areas with emphasis on information literacy. No credit after completion of CSCI 1321.

CSCI-1304 Computers and Society

An examination of the impact of computer technology on issues of society and culture. The course will contain several components: an introduction to computing (software and hardware concepts); an introduction to problem-solving using one or more high-level languages/software applications to include information retrieval and processing (numeric, text, and graphics); computer communications; and discussions of the uses and ethical issues surrounding computers in our society. No credit after completion of CSCI 1300, 1302, 1320, or 1321.

CSCI-1311 Introduction to Programming Logic

Introduction to the basics of computer programming and algorithmic thinking for non-science majors. The course focuses on the logic and problem decomposition skills that are critical for understanding computation. Use of a high-level programming language will stress creativity in problem solving using computation, and impart a hands-on understanding of the process of programming. The course will cover many of the most important concepts in programming and computer science, including choice, repetition, and abstraction. No prior experience in programming is necessary. The course assumes familiarity with high school algebra, geometry, and trigonometry.

CSCI-1320 Principles of Computer Science I

Concept-oriented introduction to programming and algorithmic problem solving principles in relation to computer solutions. Top-down design and analysis of algorithms. Searching and sorting strategies; recursion. Computer organization. Computer programming solutions to several laboratory exercises.

CSCI-1321 Principles of Computer Science II

Focus on object-oriented programming and the development of software to solve larger problems that can benefit from this approach. Abstraction, polymorphism, multithreading, and networking. Program correctness and program verification, algorithm analysis, and computational complexity. User defined structures, data types. Abstract data types including stacks, queues, linked lists, trees, and heaps. Computer programming solutions to several laboratory exercises.

Prerequisite: CSCI 1320 or consent of instructor.

CSCI-1323 Discrete Structures

Elements of discrete mathematics of particular importance in computer science: propositional and predicate logic; proof techniques, including mathematical induction; recursive functions, definitions, and algorithms; proofs of program correctness; algebra of sets; relations and functions; and elements of the theory of directed and undirected graphs. Application of these structures to various areas of computer science.

Prerequisite: CSCI 1311, 1320, or consent of instructor.

CSCI-2094 Computer Science Colloquium

Departmental colloquium on research, professional issues, ethics, and other topics.

CSCI-2195 Competitive Programming

Approaches to algorithmic problem solving; practice with problems that are commonly found in programming competitions. Focuses on the languages and tools used in the annual ACM International Collegiate Programming Competition. May be taken for a maximum of four (4) semester hours credit.

Prerequisite: CSCI 1320 or knowledge of programming.

CSCI-2320 Principles of Data Abstraction

Abstract data types and their implementation in an object-oriented environment. Axiomatic systems describing the classical computer science data structures: stacks, queues, lists, trees, graphs, and the like. Analysis of the computational complexity of alternative implementation strategies in the context of the typical algorithmic applications.

Prerequisites: CSCI 1321 and 1120.

CSCI-2321 Principles of Computer Design

A study of computer organization and design including emphasis on logical design, the role of performance, the structure of instructions, computer arithmetic, processor control, and methods of performance enhancement. Some attention will also be given to assembly programming.

Prerequisites: CSCI 1321, CSCI 1120.

CSCI-2322 Principles of Functional Languages

An introduction to functional programming. Functional composition, recursion, and iteration. Procedure and data abstraction using functions. Managing state, streams, delayed evaluation, and continuations. Using functional languages as an analytic notation for reasoning about programs. Solution of several laboratory problems.

CSCI-2323 Scientific Computing

Numerical and text processing methods with problems chosen from the sciences and mathematics. Focuses on the general idea of how computational science has expanded the realm of what is possible in the sciences. Builds on basic programming knowledge to give students understanding and skills as to how computers are used in the sciences.

Prerequisites: CSCI 1320, MATH 1311, or 1307.

CSCI-2324 Numerical Calculus

Introduction to the numerical algorithms fundamental to scientific computer work. Elementary error analysis, interpolation, quadrature, linear systems of equations, and introduction to the numerical solution of ordinary differential equations. (Also listed as MATH 2324.)

Prerequisites: CSCI 1320, MATH 1311 or 1307.

CSCI-3311 Information Assurance and Security

A contemporary introduction to the broad area of security in computing systems, exploring issues that abound when attempting to secure information in an interconnected society. An information-based examination of risk modeling, assessment and management; ethics; policies and behaviors; cryptography; code security; data security; operating system security; and network security. Approaches to assure information confidentiality, integrity, and availability (CIA).

Prerequisite: CSCI 2320.

CSCI-3312 Introduction to Game Development

An introduction to the various aspects of the computer game creation process including coding, game play, narrative development, and artwork. Students will explore the tools and methods of game design and will also work in groups to design and implement a two-dimensional, non-networked game.

Prerequisite: CSCI 2320. CSCI 3321 is recommended.

CSCI-3320 Principles of Theoretical Computer Science

Core topics from finite automata, languages and the theory of computation. The Chomsky hierarchy, abstract machines and their associated grammars. Models of computation (e.g., Turing machines), Church's thesis, unsolvability, and undecidability. Computational complexity, intractability, and NP-completeness.

Prerequisites: CSCI 2320, 1323, and junior standing.

CSCI-3321 Principles of Software Engineering

Issues involved in developing large-scale software systems. Models for the software lifecycle; techniques and tools of analysis, design, programming, testing, debugging, and maintenance. May include formal methods, CASE, expert systems, case studies.

Prerequisites: CSCI 2320, 1323, and junior standing.

CSCI-3322 Principles of Algorithms

Exploration of standard algorithm construction methods for solving varied problems including a comparison of the different efficiencies of these algorithms when implemented using different data structures. Methods will include branch and bound, backtracking, memorization, greedy algorithms, and dynamic programming. Heuristic-based methods for finding non-optimal solutions are also explored, especially for intractable problems.

Prerequisite: CSCI 2320.

CSCI-3323 Principles of Operating Systems

Introduction to operating systems. Role and purpose of operating systems. History of operating systems. Processes and process management, including a discussion of concurrency and related issues. Memory management. Input/output and device management. File systems. Operating system security.

Prerequisite: CSCI 2321.

CSCI-3342 Computer Networks

Local area networks, high-speed networks and bridges. Wide area networks and internetworking. Network protocols including OSI protocols. Network security, reliability and performance. Laboratory experience with one or more network protocols.

Prerequisite: CSCI 2320.

CSCI-3343 Database Systems

The goals of DBMS including data independence, relationships, logical and physical organizations, schema and subschema. Entity relationship diagrams. Hierarchical, network, and relations models. Data definition and data manipulation languages. Query languages, relational algebra, and relational calculus. Data normalization techniques, data security integrity, and recovery. Case studies of several existing systems.

Prerequisite: CSCI 2320.

CSCI-3344 Artificial Intelligence

The purpose of this course is to update the student on state-of-the-art artificial intelligence concepts, such as heuristic programming, state-space search techniques, and/or graphs for problem solving, game playing techniques, theorem proving procedures for propositions and first-order logic, knowledge representation, and examples of knowledge-based systems.

Prerequisites: CSCI 1323, 2320.

CSCI-3345 Web Application Design

An introduction to the development of Web applications and cloud computing. Basics of information sharing on the Web and an introduction to a standard Web application framework. Students will work in groups to analyze, design, and implement a Web application.

Prerequisite: CSCI 2320; CSCI 3321 is recommended.

CSCI-3351 Numerical Analysis

Methods of solution of algebraic and transcendental equations, simultaneous linear algebraic equations, numerical integration and differentiation, initial and boundary value problems or ordinary differential equations. (Also listed as MATH 3351.)

Prerequisites: CSCI 1321, MATH 3316.

CSCI-3352 Simulation Theory

Introduction to simulation, discrete simulation models, queuing theory, and stochastic processes. Survey of simulation languages. Simulation methodology including generation of random numbers, design of simulation experiments, and validation of simulation models.

Prerequisites: CSCI 1320 and knowledge of statistics.

CSCI-3353 Graphics

Survey of display devices, display data structures, graphics input, 2D transformations, windowing, clipping, viewing, 3D transformations, perspective, depth, hidden line removal. Graphics programming techniques and several laboratory problems using available graphics devices.

Prerequisites: MATH 1311, CSCI 2320.

CSCI-3361 Analysis of Algorithms

Complexity of algorithms, time and space requirements, and trade-offs. Searching and sorting, mathematical algorithms, graph and combinatorial algorithms. Divide and conquer, branch and bound, dynamic programming, exhaustive search. Limitations, intractability and NP-completeness, approximation algorithms.

Prerequisites: CSCI 1321, 1323.

CSCI-3362 Effective Programming Techniques

Effective strategies for programming in contemporary languages, including material on design patterns and other techniques that improve abstraction and reusability of code. Includes a significant group project that requires students to apply material learned in the course.

Prerequisite: CSCI 2320; CSCI 3321 is recommended.

CSCI-3366 Parallel and Distributed Programming

An introduction to parallel and distributed programming with particular emphasis on algorithm development. Comparison between sequential and parallel algorithm development. Survey of hardware and software for parallel and distributed computing. Comparison of different architectures and programming models. Design, analysis, and development of parallel algorithms. Students will be expected to implement several projects in one or more suitable parallel programming environments.

Prerequisite: CSCI 2320.

CSCI-3368 Principles of Programming Languages

An introduction to the syntax and semantics of programming languages. This will include a study of data structures and control structures, proof of programs, a comparison of functional and imperative programming languages, parameter passing, storage allocation schemes, and concurrent language features.

Prerequisite: CSCI 2320.

CSCI-3384 Advanced Software Engineering

In-depth experience with integrated cyclic design/development models with emphasis on testing and validation methods. Extensive application of proper testing and evaluation techniques will be applied to the previous year's senior software project.

Prerequisite: CSCI 3321.

CSCI-3-90 Directed Study

Credit will vary depending on work done.

Prerequisites: CSCI 1323, 2320, and junior standing.

CSCI-3-94 Seminar

Topics will vary depending on student interest. May be taken for a maximum of six (6) semester hours credit.

Prerequisites: CSCI 1323, 2320, and junior standing.

CSCI-3-95 Special Topics in Applications

Topics will vary depending on student and faculty interest. May be taken for a maximum of six (6) semester hours of credit.

Prerequisites: CSCI 1321 and 1323, or consent of instructor.

CSCI-3-96 Special Topics in Systems

Topics will vary depending on student and faculty interest. May be taken for a maximum of six (6) semester hours of credit.

Prerequisites: CSCI 1321 and 1323, or consent of instructor.

CSCI-3-97 Special Topics in Design

Topics will vary depending on student and faculty interest. May be taken for a maximum of six (6) semester hours of credit.

Prerequisites: CSCI 1321 and 1323, or consent of instructor; CSCI 3321 is recommended.

CSCI-3398 Thesis Reading

Independent study in selected areas in preparation for Thesis. Spring.

Prerequisites: CSCI 1323 and CSCI 2320, junior standing, and consent of instructor.

CSCI-4312 Advanced Game Development

A deeper exploration of the concepts presented in CSCI 3312 that provides a setting for students to work in groups on the design and implementation of a three-dimensional or networked game. Includes discussion of 3-D graphics options as well as networking options. Groups will be subdivided into coding, game play, and art subgroups and will work in a structure intended to model professional game studios.

Prerequisite: CSCI 3312.

CSCI-4353 Advanced Graphics

Geometric modeling, algorithms for hidden surface removal, shading models, rendering, texture mapping, reflectance mapping, ray tracing, and radiosity. Introduction to animation. Several laboratory programming problems using available graphics devices.

Prerequisite: CSCI 3353.

CSCI-4365 Advanced Theoretical Computer Science

Advanced topics in theory. Closure properties, ambiguity, context-sensitive and recursively enumerable languages, alternate models of computation, nondeterminism, decidability, Ackermann's function, computational complexity speed-up.

Prerequisite: CSCI 3320.

CSCI-4385 Senior Software Project I

The analysis and design of an actual large-scale software system. Application of the analysis and design tools within the software life cycle presented in CSCI 3321 (Principles of Software Engineering). Students work in teams under direct supervision of the faculty.

Prerequisite: 21 hours of Computer Science.

CSCI-4386 Senior Software Project II

The implementation, testing, and maintenance of the large-scale software systems designed in CSCI 4385. Students working in teams under direct supervision of faculty implement and demonstrate the deliverable software package.

Prerequisite: CSCI 4385.

CSCI-4398 Thesis I

Individual research and scholarly investigation under faculty supervision leading to the preparation of a senior thesis. To be taken only by students committed to the preparation of a thesis and those who wish to earn the Honors in Computer Science designation. Serves as a part of the departmental capstone requirement. Fall.

Prerequisite: CSCI 3398 and consent of instructor.

CSCI-4399 Thesis II

Continuation of CSCI 4398. Must be taken by students who desire honors in computer science. Serves as a part of the departmental capstone requirement. Thesis presentation to departmental faculty and students and a separate thesis defense are requirements for the completion of this course. Spring.

Prerequisite: CSCI 4398 and consent of instructor.

East Asian Studies

FACULTY ADVISORY COMMITTEE

ANGELA BREIDENSTEIN, Ed.D., Professor, Education
RICHARD M. BURR, Ph.D., Professor, Finance and Administration
DONALD N. CLARK, Ph.D., Professor, History; Co-Director
STEPHEN L. FIELD, Ph.D., J. K. and Ingrid Lee Endowed Professor of Chinese Language and Literature, Modern Languages and Literatures; Co-Director
CHIA-WEI LEE, D.M.A., Associate Professor, Music
RANDALL L. NADEAU, Ph.D., Professor, Religion
EUGENIO D. SUAREZ, Ph.D., Associate Professor, Finance and Decision Sciences
JIE ZHANG, Ph.D., Associate Professor, Modern Languages and Literatures

OVERVIEW

East Asian Studies at Trinity (EAST) is an interdisciplinary undergraduate degree program that combines the intensive study of East Asian languages and cultures with the study of the social sciences and business in an East Asian context. For each student, the study of the language will be fully integrated with the study of other disciplines through each year of the college career, insuring that the graduate will not only be proficient in the language, but that he or she will have achieved an advanced level of understanding across the curriculum. The number of hours required for completion of the program may not be fewer than 42 for the major and 24 for the minor. The student who completes the major in East Asian studies will receive a Bachelor of Science degree in Chinese Studies.

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor Science with a major in Chinese Studies are as follows:

- I. The Common Curriculum
- II. A core curriculum in East Asian culture (12 semester hours; at least one course from each of the following categories):
 - A. Art and Civilization
 - ARTH 1310 Introduction to Asian Art: China
 - CHIN 2311 Chinese Civilization
 - CHIN 3312 Chinese Cinema: A Historical and Cultural Perspective
 - CHIN 3313 Cities of Strangers: Trans-Cultural Chinese Cinema
 - B. History
 - HIST 1320 History of China
 - HIST 1324 Modern East Asia
 - C. Philosophy and Religion
 - PHIL 1302 Introduction to Asian Philosophy
 - RELI 1330 Asian Religions
- III. The concentration in Chinese studies:

- A. Completion of 21 semester hours of upper division Chinese language and literature courses taught in Chinese.

CHIN 3301	Third-Year Chinese I
CHIN 3302	Third-Year Chinese II
CHIN 4130	Global Business Culture
CHIN 4301	Fourth-Year Chinese I
CHIN 4302	Fourth-Year Chinese II
CHIN 4310	Advanced Conversation and Composition
CHIN 4321	Readings in Modern Chinese Literature
CHIN 4322	Readings in Contemporary Chinese Cinema
CHIN 4351	Classical Chinese
CHIN 4360	Senior Seminar
CHIN 4390	Reading and Conference
CHIN 4391	Selected Topics

or the equivalent study abroad coursework in Chinese.

- B. Completion of 9 semester hours of upper division electives. At least one course must be taken from each of the following categories. Courses not focused solely on China must contain at least one-third of their content on the subject of China.

1. History, Political Science, and Religion

CHIN 3320	The Rise of Modern China (also listed as HIST 3320)
CHIN 3333	Chinese Religions (also listed as RELI 3333)
CHIN 3343	Chinese Foreign Policy (also listed as PLSI 3343)
HIST 3320	The Rise of Modern China (also listed as CHIN 3320)
HIST 3324	History of Korea
HIST 4420	Seminar in Asian History
PLSI 3339	Special Topics in Comparative Politics (with adviser approval)
PLSI 3341	East Asian Security
PLSI 3343	Chinese Foreign Policy (also listed as CHIN 3343)
PLSI 3349	Special Topics in International Politics (with adviser approval)
PLSI 3369	Special Topics in Political Theory (with adviser approval)
PLSI 3372	Research Methods in Political Science (with adviser approval)
RELI 3313	Religion and Science in Asia
RELI 3332	The Buddhist Tradition
RELI 3333	Chinese Religions (also listed as CHIN 3333)
RELI 3391	Special Topics in Religion (with adviser approval)

2. Business and Economics

BUSN 3330	Global Business Culture (also listed as CHIN 3330)
BUSN 3347	International Trade (with adviser approval)
BUSN 3363	International Business Research (also listed as CHIN 3363)
BUSN 3396	Internship in International Business (with adviser approval)
BUSN 4130	Quanqiu Shangwu Wenhua-Zhong-Mei Jiaodian (Global Business Culture)
BUSN 4362	International Branding (also listed as CHIN 4362)
BUSN 4364	Internationalizing Intellectual Property (also listed as CHIN 4364)
CHIN 3330	Global Business Culture (also listed as BUSN 3330)
CHIN 3363	International Business Research (also listed as BUSN 3363)
CHIN 4130	Quanqiu Shangwu Wenhua-Zhong-Mei Jiaodian (Global Business Culture) (also listed as BUSN 4130)
CHIN 4362	International Branding (also listed as BUSN 4362)
CHIN 4364	Internationalizing Intellectual Property (also listed as BUSN 4364)
ECON 3361	International Finance (with adviser approval)

ECON 3371	Internship (with adviser approval)
FNCE 3390	Studies in Finance (with adviser approval)
MGMT 3390	Studies in Management (with adviser approval)
MKTG 3390	Studies in Marketing (with adviser approval)

IV. Completion of at least one semester abroad in a Chinese-speaking country.

THE MINOR

Students who want to explore the languages and cultures of East Asia in some depth but whose primary interests lie elsewhere may choose a minor in East Asian Studies. If the following requirements are met, the student's diploma will record the successful completion of a minor in East Asian Studies.

I. A core curriculum in East Asian culture (6 semester hours; one course from at least two of the following categories):

A. Art and Civilization

ARTH 1310	Introduction to Asian Art: China
ARTH 1311	Introduction to Asian Art: Japan
CHIN 2311	Chinese Civilization

B. History

HIST 1320	History of China
HIST 1324	Modern East Asia

C. Philosophy and Religion

GNED 1303	Japanese Perspectives
PHIL 1302	Introduction to Asian Philosophy
RELI 1330	Asian Religions

II. The concentration in an East Asian language:

A. Completion of 12 semester hours of upper division language and literature courses taught in the target language.

CHIN 3301	Third-Year Chinese I
CHIN 3302	Third-Year Chinese II
CHIN 4130	Global Business Culture
CHIN 4301	Fourth-Year Chinese I
CHIN 4302	Fourth-Year Chinese II
CHIN 4310	Advanced Conversation and Composition
CHIN 4321	Topics in Modern Chinese Literature
CHIN 4322	Readings in Contemporary Chinese Cinema
CHIN 4360	Senior Seminar

B. Completion of 6 semester hours of upper division electives taught in English

BUSN 3330	Global Business Culture (also listed as CHIN 3330)
BUSN 3363	International Business Research (also listed as CHIN 3363)
BUSN 4362	International Branding (also listed as CHIN 4362)
BUSN 4364	Internationalizing Intellectual Property (also listed as CHIN 4364)
CHIN 3320	The Rise of Modern China (also listed as HIST 3320)
CHIN 3330	Global Business Culture (also listed as BUSN 3330)
CHIN 3333	Chinese Religions (also listed as RELI 3333)
CHIN 3363	International Business Research (also listed as BUSN 3363)
CHIN 4362	International Branding (also listed as BUSN 4362)
CHIN 4364	Internationalizing Intellectual Property (also listed as BUSN 4364)

HIST 3320	The Rise of Modern China (also listed as CHIN 3320)
HIST 3324	History of Korea
PLSI 3331	Political Economy of the U.S., Europe, and Japan
PLSI 3341	East Asian Security
RELI 3333	Chinese Religions (also listed as CHIN 3333)
RELI 3334	Japanese Religions

When departments offer a relevant course coded under a “special topics” or “variable content” designation, the EAST Committee may approve such courses for inclusion within the major or minor.

GUIDELINES FOR ACCEPTANCE OF MAJORS

Full acceptance is granted if the following requirements are met at the time of application:

- I. Completion of the fourth semester of an East Asian language, or its equivalent, with a grade of C or better.
- II. Completion of the East Asian Studies core curriculum with grades of C or better.

Provisional acceptance may be granted if it is apparent that an applicant can meet the requirements for full acceptance by the end of the semester in which application is made.

Economics

FACULTY

DENNIS A. AHLBURG, Ph.D., Professor; President of the University
RICHARD V. BUTLER, Ph.D., Professor
NELS P. CHRISTIANSEN, Ph.D., Assistant Professor
JOHN H. HUSTON, Ph.D., Professor; Chair
DAVID A. MacPHERSON, Ph.D., E. M. Stevens Professor
MARIA P. PAGANELLI, Ph.D., Associate Professor
GINA PIETERS, Ph.D., Assistant Professor
RICARDO M. SANTOS, Ph.D., Assistant Professor
ROGER W. SPENCER, Ph.D., Vernon F. Taylor Distinguished Professor
JOHN J. McCUSKER, Ph.D., Ewing Halsell Distinguished Professor of American History
RICHARD J. SALVUCCI, Ph.D., Professor
EDWARD J. SCHUMACHER, Ph.D., Professor of Health Care Administration
BEN VAUGHAN, Ph.D., Associate Professor of the Practice of Economics
ELIZABETH A. WATSON, Ph.D., Assistant Professor

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in Economics are as follows:

- I. The common curriculum
- II. Departmental requirements:

Economics majors may choose among six separate curricula:

A. General Economics

Students desiring to major in Economics without selecting a concentration must complete 30 semester hours in Economics, including ECON 1311, 1312, 2320, 3325, and 3326. (MATH 1320 or 3335* may be substituted for ECON 2320.)

Recommended: MATH 1307 or 1311.

B. Concentration in Theoretical Economics

This concentration emphasizes mathematics and economic theory. It is recommended as the appropriate preparation for Ph.D. programs in economics.

Departmental Requirements:

1. 30 semester hours in Economics, including:
 - a. ECON 1311, 1312, 3325, 3326, 4365, 4367, and 4370;
2. MATH 1311, 1312, 2321, 3316, 3334, and 3335. (This combination satisfies the requirements for the minor in mathematics.) In addition, ECON 3351, MATH 3360 and CSCI 1320 are strongly recommended.

C. Concentration in Economics and Law

This concentration stresses the application of economic theory to questions of legal and social policy. It is especially appropriate for those planning to enter law school.

Departmental Requirements:

1. 30 semester hours in Economics, including ECON 1311, 1312, 2320, 3325, 3326, 3338, and 3339. (MATH 1320 or 3335* may be substituted for ECON 2320.)
2. Three courses, approved by the adviser, from departments other than Economics:
 - a. A course stressing the case method of legal instruction (e.g., BUSN 3302, PLSI 3351);
 - b. An appropriate course in logic, writing, or speech communication (e.g., ENGL 3314, HCOM 1333, PHIL 1341);
 - c. A course that views the law from a perspective other than that of economics (e.g., PHIL 3353).

Recommended: MATH 1307 or 1311.

D. Concentration in Economics and Business

This concentration is a liberal arts curriculum designed for students planning to enter graduate schools of business administration. In addition to a solid grounding in Economics, this concentration provides an introduction to many of the basic business subjects that students will encounter in MBA programs.

Departmental Requirements:

1. 30 semester hours in Economics, including:
 - a. ECON 1311, 1312, 2320, 3325, and 3326 (MATH 1320 or 3335* may be substituted for ECON 2320); b. ECON 3329 or 3362;
 - c. ECON 3335 or 3338 or 3356;
 - d. ECON 3347 or 3348 or 3361.
2. 18 semester hours outside Economics, including:
ACCT 1301, BUSN 3302, MIS 2301, MKTG 2301, FNCE 3301, and MGMT 2301.

Recommended: MATH 1307 or 1311 and MATH 1312.

E. Concentration in International Economics

The focus of this concentration is the analysis of two general phenomena: a) economic transactions across international borders, and b) the role of international institutions in shaping international economic life. Besides a firm basis in economic theory, international economics provides an ideal analytical framework for those students interested in any area of international and comparative studies.

Departmental Requirements:

- A. 33 semester hours in Economics, including:
 1. ECON 1311, 1312, 2320, 3325, 3326, 3347, and 3348. (MATH 1320 or 3335* may be substituted for ECON 2320.)
 2. ECON 3340 or 3341 or 3342 or 3343 or 3361.
- B. Three upper division semester hours in a modern foreign language.
- C. Two courses, approved by the adviser, that emphasize current sociopolitical aspects of:
 - 1) a foreign country; 2) a group of foreign countries; and/or 3) the relations between several countries or areas of the world.

Recommended: MATH 1307 or 1311.

F. Concentration in Economics and Public Policy

This concentration emphasizes the application of economic analysis to the design and implementation of public policy. It is especially appropriate for students intending to pursue careers and/or graduate study in public policy or public administration.

Departmental Requirements:

A. 33 semester hours of Economics, including:

1. ECON 1311, 1312, 2320, 3323, 3325, 3326, and 3330 (MATH 1320 or 3335* may be substituted for ECON 2320);
2. Two of ECON 3334, 3335, and 3338 (with approval of the adviser, ECON 3340 or 3347 may be substituted for one of these).

B. A course taught by the case method of instruction (e.g., BUSN 3302, PLSI 3351).

C. Two courses that examine the analysis or implementation of public policy from a perspective other than that of economics (e.g., HCAD 3350, PLSI 3313, SOCI 3339, URBS 3336/PLSI 3316).

D. PLSI 1301.

Recommended (strongly recommended for students planning on advanced degree in public policy/public administration): MATH 1307 or 1311, MATH 1312, ECON 3334, ECON 3336, ECON 3338, and ECON 4370.

Prospective majors should note that the Department has requirements for admission to the major. Full acceptance will be granted when the student has completed both Principles courses (ECON 1311 and 1312) with an average grade of C or better. Successful completion of the major also requires at least a C average across the four Principles and Intermediate Theory courses (ECON 1311, 1312, 3325, and 3326).

* Students intending to use MATH 3335 to fulfill this requirement should note that MATH 1311, 1312, 2321, and 3334 are prerequisites for that course.

III. Electives sufficient to total 124 hours.

THE MINOR

Students who wish to explore Economics in some depth but whose primary interests lie elsewhere may choose a minor in Economics. The minor requires 18 semester hours of Economics, including ECON 1311, 1312, and either 3325 or 3326. At least half the 18 semester hours must be in upper division courses, and at least nine semester hours must be taken at Trinity. None of the courses used to satisfy these requirements may be taken Pass/Fail.

HONORS IN ECONOMICS

The Economics Department offers an honors thesis option to its majors. Candidates must have a 3.5 grade point average in economics, approval by a majority of the economics faculty and permission of the faculty member directing the thesis. The six hours for the thesis must be in addition to the hours required for the major. Please see the Chair of the Department for further details.

COURSES

LOWER DIVISION

ECON-1311 Principles of Microeconomics

An introduction to the economic organization of society, with emphasis on how markets, prices, profits and losses guide and direct economic activity. Throughout the course, economic analysis is applied to a wide range of contemporary problems and issues.

ECON-1312 Principles of Macroeconomics

The theory and measurement of changes in the levels of prices, employment, national income and other aggregates. Topics addressed include money and the banking system, international economics, unemployment and inflation, and government stabilization policy.

Prerequisite: ECON 1311.

ECON-2320 Statistics for Management and Economics

Applications of statistical techniques to business and economics. Decision making based on sampling theory, parametric tests of significance, simple and multiple regression and correlation, and time series analysis. (Also listed as BUSN 2301.)

UPPER DIVISION

ECON-3115 Economists in the Elementary School

The application and communication of economic ideas in an educational context. Teams of Trinity students help teach Economics in local elementary schools by creating and leading hands on activities that illustrate and apply fundamental economic concepts. May be repeated for credit with permission of the instructor.

Prerequisites: ECON 1311 or one of the Education Practicum courses (EDUC 2201, 2202, or 2203) and consent of instructor.

ECON-3116 Economists in the Middle School

The application and communication of economic ideas in an educational context. Teams of Trinity students help teach Economics in local middle schools by creating and presenting applications of fundamental economic concepts. May be repeated for credit with permission of the instructor.

Prerequisites: ECON 1311 and consent of instructor.

ECON-3117 Economists in the High School

The application and communication of economic ideas in an educational context. Teams of Trinity students help teach Economics in local high schools by creating and presenting applications of fundamental economic concepts. May be repeated for credit with permission of instructor.

Prerequisites: ECON 1311 and 1312, and consent of instructor.

ECON-3141 La economía mexicana (The Mexican Economy)

Examination of significant contemporary issues affecting the economic life of Mexico: analysis of international, agricultural, financial, communications, and/or labor sectors of the economy and their relationship to Mexico's macroeconomic performance; special attention to the political situation in Mexico and its impact on the economy. (Also listed as LAC 3101.)

Prerequisites: SPAN 2302, ECON 1311, and 1312 or 3318; or consent of instructor.

ECON-3318 The Global Economy

An introductory survey of international economics aimed at students interested in political science, diplomacy, world affairs, history, or business. An examination of economic relationships among countries with an emphasis on globalization process and the debate it has produced. Economic analysis is used to study the impact of imposing (or removing) barriers to trade and the problems of the balance of payments and the exchange rate. Special emphasis is given to the changing policy options available to governments, multilateral organizations, non-governmental organizations, and multinational corporations in the rapidly evolving global economy. Cannot be taken for credit by students who have taken ECON 3347 or 3348 or 3361.

Prerequisite: ECON 1311.

ECON-3320 Strategies and Games

An introduction to strategic thinking and the basic concepts of Game Theory, according to which a participant's action depends critically on the actions of other participants. The course emphasizes the application of those concepts in a wide variety of areas, including finance, management, marketing, law, political science, biology, anthropology, and psychology. Topics include, but are not limited to, games with perfect information, games with asymmetric information, auctions, uncertainty and risk, and evolutionarily stable strategies.

Prerequisites: ECON 1311 and sophomore standing or consent of instructor.

ECON-3323 The Economics of Government

Microeconomic analysis of governmental decision-making and the democratic process. Emphasis is on evaluating the economic efficiency of taxation and expenditure decisions of policymakers, and on how institutional arrangements of majority voting, representative democracy, political parties, bureaucracies and special-interest groups affect those decisions.

Prerequisite: ECON 1311.

ECON-3325 Intermediate Microeconomics

An analytical study of decentralized economic decision-making, with primary emphasis on markets and prices. The range and precision of the analytical techniques developed in Economics 1311 are expanded substantially; these techniques are applied to a variety of economic situations, issues and problems. Attention is given to the economic efficiency consequences of different market structures in both product and input markets, and of various kinds of government intervention in market processes.

Prerequisite: ECON 1311.

ECON-3326 Intermediate Macroeconomics

Theoretical analysis of changes in national income, price level, employment, and the international value of the dollar. Evaluation of alternative stabilization policies. Introduction to economic forecasting.

Prerequisites: ECON 1311 and 1312.

ECON-3328 Monetary Policy, Financial Markets, and the Banking System

An introduction to the financial system and the impact of money and monetary policy on the economy. Major topics include: the economics of financial markets, the Federal Reserve and the fundamentals of the money supply process, and the macroeconomic effects of monetary policy. (Offered every year.)

Prerequisites: ECON 1311 and 1312.

ECON-3326 Intermediate Macroeconomics

Theoretical analysis of changes in national income, price level, employment, and the international value of the dollar. Evaluation of alternative stabilization policies. Introduction to economic forecasting.

Prerequisites: ECON 1311 and 1312.

ECON-3329 Labor Economics and Labor Relations

Theories of the demand for and the supply of labor. Analysis of human capital formation, labor force participation, income distribution, unemployment, and unions. Case studies in labor relations. (Offered every year.) (Also listed as MGMT 3311.)

Prerequisites: ECON 1312 and 3325. ECON 3325 may be taken concurrently..

ECON-3330 Economics and the Environment

The economic problem of coping with a finite environment. Study of the interrelationships among economic growth, environmental quality, urban concentration, and resource constraints. Economic analysis of pollution control and other environmental policy problems. (Also listed as URBS 3330).

Prerequisite: ECON 1311.

ECON-3333 Health Economics

An introduction to the application of the tools of microeconomics to issues in the organization, delivery, and financing of health care. Economic analysis will be utilized to better understand critical issues in health care such as the level and growth of health expenditures, the role of the government versus the private sector in financing care, the relationship between doctors, hospitals, insurance providers, patients, and employers, and the role of society in providing for the uninsured. (Also listed as HCAD 3333.)

Prerequisite: ECON 1311 or consent of the instructor.

ECON-3334 Urban Economics

Analytical study of the reasons for cities to exist, the location of economic activity, the economic base of urban areas and the functioning of urban land markets. Economic analysis of selected urban policy issues such as local economic development, zoning and growth controls, housing, transportation, poverty, crime, and the provision of local public services. Attention is paid to the urban experience outside as well as within the U.S. (Also listed as URBS 3334).

Prerequisites: ECON 1311, and three hours of upper-division credit in either Economics or Urban Studies.

ECON-3335 Industrial Organization

The determinants of market structure and the effects of market structure on firm and industry behavior. The relationship between industry characteristics and desirable economic performance. Frequent applications to particular American industries.

Prerequisite: ECON 1311.

ECON-3336 Antitrust Economics

The role of antitrust policy in the American economy. Examines the major antitrust statutes and court opinions of the United States as they relate to market structures and business practices. Landmark antitrust cases are discussed and analyzed with economic theory in an effort to gain insight into the implications of business practices encompassed by the antitrust laws. The penalties and remedies for antitrust violations will also be discussed.

Prerequisite: ECON 1311.

ECON-3338 Government Regulation of Business

Economic analysis of direct government regulatory activity. The course first explores how regulation arises from the political process. These insights, and the tools of microeconomic theory, are then applied to analyze public policy in such fields as electricity, telecommunications, broadcasting, transportation, and safety. (Also listed as BUSN 3338.)

Prerequisite: Three hours of upper division Economics, or consent of instructor.

ECON-3339 Economic Analysis of Law

Economic analysis of such basic legal concepts as property, contracts, torts and crime. Economic theory is also applied to the legal system itself, including an examination of such matters as law enforcement, civil procedure, and the effectiveness of legal sanctions.

Prerequisite: ECON 3325.

ECON-3340 Economic Growth and Development

An inquiry into the desirability, the methods of measurement, alternative strategies for, and the impact of individuals and groups within society on economic development. A survey of theories of economic development. Case studies in comparative perspective.

Prerequisites: ECON 1311 and 1312.

ECON-3341 Economic Development of Mexico

Economic aspects of Spanish colonialism; the transition to national independence; difficulties associated with the period through 1876; industrialization and development through the Revolution; the takeoff of the modern economy after 1940; contemporary issues.

Prerequisites: ECON 1311 and 1312.

ECON-3342 Latin American Economic History

A selective survey of the principal currents of economic growth and change in Latin America since the sixteenth century. Special attention given to the uneven formation of market economies and to problems associated with colonialism and neo-colonialism; with international financial crises and adjustment; and with ideologically diverse models of development. (Also listed as HIST 3348.)

Prerequisites: ECON 1311 and 1312.

ECON-3343 Slavery and the Atlantic Economy

Interdisciplinary analysis of the Atlantic market joining Europe, Africa, and the Americas from the sixteenth through the nineteenth centuries, with particular emphasis upon slavery, the slave trade, and the development of the "plantation complex." Makes explicit use of economic theory to explain historical change. (Also listed as HIST 3384.)

Prerequisites: ECON 1311 and HIST 1354 or HIST 1380 or consent of instructor.

ECON-3344 Economic and Business History of the United States to 1865

A study of the development of American business and the economy through the U.S. Civil War. (Also listed as BUSN 3344 and HIST 3360.)

Prerequisites: ECON 1311 and 3 hours of U.S. history or consent of instructor.

ECON-3345 Economic and Business History of US since 1865

A study of the development of American business and the economy from the U.S. Civil War to the

present. (Also listed as BUSN 3345 and HIST 3361.)

Prerequisites: ECON 1311 and 3 hours of U.S. history or consent of instructor.

ECON-3346 La economía española y la Unión Europea (The Spanish Economy and the European Union)

An examination of Spain's economic development and its position within the European Union. The business, economic, and political transformation of Spain from a struggling nation with an authoritarian regime to an economic power with an open and democratic society are studied. The course also examines the development of European Union, with a special focus on its influence on the Spanish business environment. The experiential component of the course includes visits to businesses, government agencies, and NGOs in Spain. (Also listed as BUSN 3346, LAC 3346, and SPAN 3346).

Prerequisites: ECON 1311, three additional hours in business or economics, SPAN 2302 or the equivalent, and consent of the instructor.

ECON-3347 International Trade

A study of the economic theory of international trade and the development of the practices of commercial policy. Emphasis is on the economic analysis of a variety of protectionist policies, the international institutions involved in trade and protectionist issues, the importance of trade for development, issues in international capital flows, and multinational corporations. Practice is provided in reading and understanding published sources of data and analysis.

Prerequisite: ECON 1312 and 3325.

ECON-3348 International Monetary Systems

A study of the principles and practices of foreign exchange, international money markets, the balance of payments, payments adjustment mechanism and the national policies for achieving both domestic and international objectives. Coverage includes the description and history of the relevant national and international institutions. Practice is provided in understanding recent international economic events and current policy issues. (Also listed as FNCE 3348.)

Prerequisites: ECON 1311 and 1312.

ECON-3351 Development of Economic Thought

A survey of the "Great Books" of Economics from Adam Smith's *Wealth of Nations* to John Maynard Keynes's *General Theory*. The course is intended to acquaint students with the ideas of the creators of economic theory in an effort to understand the intellectual forces that have shaped modern economic thought. Classical, Marxian, Neo-Classical, Institutional and Keynesian theory will be studied and analyzed against the backdrop of the times in which the ideas were developed.

Prerequisites: ECON 1311 and 1312.

ECON-3356 Financial Institutions and Markets

Analytical investigation of the structure, efficiency, and regulation of financial markets and institutions. Topics include determination of the level and structure of interest rates, asset valuation, and the flow of funds between markets, theory and practice of financial intermediation, and the social utility of the financial sector. (Also listed as FNCE 3351.)

Prerequisites: ECON 1311 and 1312 and junior standing.

ECON-3361 International Finance

This course emphasizes the study of the global exchange rate and associated derivatives markets with particular emphasis on foreign risk hedging; the study of financial equilibrium relations and their effects on

the international capital markets, and the potential arbitrage opportunities that result in the absence of equilibrium; and the use of case studies to illustrate the application of theoretical tools on the multinational corporate environment. (Also listed as FNCE 3361.)

Prerequisite: FNCE 3301 or consent of instructor.

ECON-3362 The American Corporation

This course acquaints the student with organization theory, corporate decision-making, and the role of the corporation in society. Contemporary corporate issues are discussed and analyzed through readings and the application of fundamental principles to case studies. (Also listed as BUSN 3313.)

Prerequisite: ECON 1311.

ECON-3365 Behavioral and Experimental Economics

Uses experimental findings to test existing theories and motivate the development of new ones. Students participate in both the design and running of experiments. Analyzes the impact of behavioral theories on such topics as trust, reciprocity, time discounting, portfolio choice, and altruism. Behavioral Economics incorporates psychological findings into both traditional economic and game theoretic models of decision making. Experimental Economics studies the design and methodology of economic experiments.

Prerequisite: ECON 3325 or permission of the instructor.

ECON-3367 Comparative View of Modern China

This course represents an overview of the most important economic relation of the twenty-first century: the USA and China. The rise of China has brought about a reorganization of the global economy and the international balance of power, creating a new world order carries challenges and opportunities. China remains a communist country with a significant legacy of a command economy, but it is also a market economy. Understanding this mixture, as it is seen through American and Chinese points of view, is the major aim of this course. (Also listed as BUSN 3367, CHIN 3367, and URBS 3367.)

ECON-3-71 Internship

Internships may be arranged with businesses, nonprofit institutions and government agencies. Economic analysis must be performed during the course of the internship, with work load requirements similar to those of typical Economics course carrying the same number of hours of credit. The sponsoring institution develops a work program, to include written economic analysis in conjunction with the supervising faculty member and the student. Students are limited to a maximum of six hours' credit for internship experiences.

Prerequisites: Six semester hours of economics and permission of the Department Chair.

ECON-3372 Práctica profesional en España (Internship in Spain)

A supervised summer internship in Spain. Students enrolled in ECON 3372 will serve as interns with various firms, trade groups, governmental agencies, or public interest groups where they will work and gain experience related to the Spanish economy and business world. The nature of the student's responsibilities will vary with the internship involved and be subject to the approval of the supervising faculty member. (Also listed as BUSN 3372, LAC 3372, and SPAN 3372.)

Prerequisites: ECON 1311, three additional hours in business or economics, SPAN 2302 or the equivalent, and consent of instructor.

ECON-3-90 Research Topics

Supervised independent study on selected topics in economics.

Prerequisites: Junior standing, 3.0 grade average in economics, and permission of instructor.

ECON-3-98 Honors Readings

Independent study in selected areas in preparation for Honors Thesis. May be taken for up to three hours credit.

ECON-4349 Seminar in Economic Issues

Use of economic analysis and reasoning to better understand current economic issues. Topics vary. Representative selection includes economics of the stock market, Social Security, welfare reform, and topics selected by students from articles in the Journal of Economic Perspectives. Emphasis is on oral and written analysis of economic issues, class discussion and debate, and reading of articles by leading economists from sources other than textbooks. Focus is on the questions being asked by economists and the approaches taken to address these questions—that is, what economists do and how they do it.

Prerequisites: Six hours of upper-division Economics and junior standing.

ECON-4365 Game Theory

The science of strategic thinking. A study of the strategic aspects of situations in which a person's choice depend critically on what other people may choose. Topics include static games with complete information, dynamic games, games with uncertainty and games with incomplete information. Emphasizes the application of game theoretic tools to a broad array of economic issues.

Prerequisites: ECON 3325, MATH 1312, and ECON 2320 (or equivalent), or consent of instructor.

ECON-4367 Advanced Microeconomic Theory

This course acquaints the student with classical microeconomic theory and enables him or her to construct mathematical economic models. Topics include: consumer theory; theory of the firm; multimarket equilibrium; decision-making under certainty; optimization over time; theoretical and applied welfare economics.

Prerequisites: ECON 3325 and MATH 2321.

ECON-4370 Econometrics

The development of statistical techniques of measurement and inference especially suited to empirical economics. The course covers linear regression, maximum likelihood estimation, and significance tests. The main emphasis is on the proper formulation and testing of hypotheses.

Prerequisites: ECON 1312, ECON 3325, ECON 2320 or equivalent, and MATH 1312, or permission of instructor.

ECON-4397 Seminar in Economics

Study of theoretical and empirical work in economics from scholarly books and periodicals. Independent research and group discussion. May be repeated when topics differ. Topic A: Microeconomics Topic B: Macroeconomics Topic C: Labor Economics Topic D: Selected topics.

Prerequisite: Permission of instructor.

ECON-4-98 Honor Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by senior Honors students in both semesters of their senior year.

Education

FACULTY

SHARI ALBRIGHT, Ed.D., Norine R. Murchison Professor of the Practice of Education; Chair

LAURA M. ALLEN, Ph.D., Professor

ANGELA BREIDENSTEIN, Ed.D., Professor

COURTNEY CRIM, Ed.D., Associate Professor

ROCIO DELGADO, Ph.D., Associate Professor

PATRICIA J. NORMAN, Ph.D., Associate Professor

ELEANOR TERRY ROBERTSON, Ph.D., Associate Professor

HEATHER HAYNES SMITH, Ph.D., Assistant Professor

OVERVIEW

The Department of Education offers select undergraduate coursework that allows students to explore teaching as a profession and is part of the 5-Year Teacher Education program that culminates in a Master of Arts in Teaching degree and Texas teacher certification. In addition, the department offers two other masters-level programs, which include the Master of Education in School Leadership and the Master of Arts in School Psychology. Each of these programs is described below.

5-YEAR TEACHER EDUCATION PROGRAM

The 5-year Teacher Education Program at Trinity University features preparation and certification in Early Childhood-Grade 6 (EC-6), Middle Grades (Grades 4-8), Grades 7-12, All-Level Music, Art, Theater, and Foreign Language. Supplemental certificates in Special Education and English as a Second Language (ESL) are also available. Students in teacher education major in the subject(s) they plan to teach, and the B.A. or B.S. degree is awarded at the completion of undergraduate studies. The fifth year, which students must complete to satisfy Texas certification requirements and to receive the benefits of existing reciprocity agreements with other states, consists of a summer and two semesters. Upon completion of the fifth year, students receive a M.A.T. (Master of Arts in Teaching), a professional degree.

The purpose of the undergraduate requirements in teacher education is to ensure that students achieve the academic content mastery, the intellectual habits of mind, and the pedagogical readiness that are required to gain admission to the 5th year graduate program and, ultimately, to meet state teacher certification standards. We expect that Trinity undergraduates who plan to apply for the M.A.T. program will follow one of the plans for certification described in the catalogue. In certain exceptional cases—for example, students who make a late decision to apply to the 5th year program—applicants may be able to demonstrate that they have attained the prerequisite academic knowledge and skills, intellectual habits of mind, and pedagogical readiness through assessments other than a transcript review. These supplemental assessments may include: outstanding grades in courses in the proposed teaching field, additional standardized examinations such as the PRAXIS II or TExES in the proposed teaching field, and other performance exhibitions that the faculty determine.

MASTER OF EDUCATION IN SCHOOL LEADERSHIP

The School Leadership program is designed to prepare candidates as innovative and transformational school leaders of elementary, middle, or high schools in today's school settings. Emphasis is given to the development of the knowledge, skills, and dispositions required of school leaders in a rapidly changing educational context. Candidates will pursue courses in school leadership, instructional

leadership, school law and policy, as well as courses in management, finance, design, and innovations in teaching and learning. An extensive, school-based clinical practice experience will be provided in partnership with the candidate's local school district. The Master of Education degree in School Leadership may be earned by completing 36 semester hours. Upon completion of coursework, clinical practice, and the requisite state certification exam, students will receive Texas' Principal certificate.

MASTER OF ARTS IN SCHOOL PSYCHOLOGY

Trinity University offers a three-year, 60-semester-hour program in School Psychology that prepares graduates to work in schools helping students succeed academically, socially, and emotionally.

Licensed Specialists in School Psychology (LSSPs) are responsible for collaborating with educators, parents, and other professionals to create safe, healthy, and supportive learning communities for all students. The Trinity School Psychology Program addresses knowledge, skills, and experiences in the areas of student evaluation, intervention, and counseling. Consultation and collaboration with parents and teachers is also an important focus of the program. Graduates are prepared to collect and compile data to assist in educational decisions at multiple levels from individual student to the larger class and school environments.

REQUIREMENTS

ADMISSION TO THE MASTER OF ARTS IN TEACHING (M.A.T.) PROGRAM

Students apply to the M.A.T. program in mid-January of their senior year (by the published deadline) or as post-baccalaureate candidates if they have an earned bachelor's degree or higher. Candidates submit a single, combined electronic application for admission to both the M.A.T. program and Trinity University Graduate Studies. The online application is available at <https://www.applyweb.com/apply/trinityg/>.

In addition to completing the online application, other items required for consideration for entry to the program include:

- I. Completion of at least one of the required prerequisite courses or an equivalent, preferably a practicum or field seminar course, for the intended M.A.T. cohort (Elementary or Secondary).
- II. Official transcripts documenting a cumulative grade-point average of 3.0 or higher overall, and/or on the last 60 undergraduate hours; and in major coursework (GPAs of 2.75 – 2.99 can be considered through an exceptions process and will possibly require additional coursework or assessment).
- III. Official GRE score report (if applicable). Currently enrolled Trinity students and applicants possessing a bachelor's degree from Trinity and/or an earned graduate degree from an accredited institution are exempt from this requirement.
- IV. Four (4) references obtained via the online application process, with one from each of the following categories: (a) a faculty advisor within the applicant's major and/or proposed teaching field; (b) an education professor who has overseen the applicant's field experience or coursework; (c) an individual who has observed the applicant's work with children or youth; and (d) an individual who has supervised the applicant in a job or volunteer position.
- V. Electronic Portfolio documenting the applicant's work with students and any coursework in education (format and examples will be provided).
- VI. Interview with a faculty panel where the applicant presents his/her electronic portfolio as well as answers questions.
- VII. Written essay completed at the time of the interview.

- VIII. Demonstration of deep content knowledge via transcript review and/or exam scores. Depending upon the strength of a candidate's content preparation in his/her proposed teaching field, the university may request that a candidate take the TExES exam for his/her respective content teaching area to demonstrate the content area proficiency required by the State of Texas for teaching certification.

If accommodations are required due to a special learning need, please provide documentation to the Education Department in advance so that appropriate arrangements can be made.

Please note that all candidates admitted to the M.A.T. program will be required to pass a criminal background check with the local school district in which they will intern before receiving an internship placement. Failure to pass this background check will result in the candidate's dismissal from the program since significant coursework cannot be completed within the assigned school setting. As part of the admission process, candidates will be asked to sign a statement indicating their understanding of this requirement.

All application materials will be reviewed by the Council on Teacher Education, a multi-disciplinary university committee that serves as the admission decision-making body for the Master of Arts in Teaching program.

APPLICATION FOR CERTIFICATION

It is necessary to apply for a Texas teacher certificate through the Texas Education Agency upon completion of the Master of Arts in Teaching program. This process will be facilitated by the Certification and Assessment Specialist in the Department of Education. Application for certification must be made during the semester in which the student will complete requirements, in the final semester of the Master of Arts in Teaching program.

All Teacher and Administrator Preparation Program graduates applying for state certification must pass proficiency tests and the TExES examinations in their fields of certification.

CERTIFICATION FOR ELEMENTARY GRADES EDUCATION

Students seeking certification to teach at the Early Childhood-Grade 6 level should complete any academic major and other requirements, as follows:

Note: An asterisk (*) indicates a course that fulfills a common curriculum requirement.

I. The Common Curriculum

II. Education Course of Study

- A. EDUC 1110 and 1210 (recommended).
- B. EDUC 1331*, 2201, 2202, 3301, 3320*, 3341, and 3351 are required. EDUC 3302 is recommended.
- C. CSCI 1300-7* or equivalency is required.

- III. **Recommended Courses:** In preparation for certification as an EC-6 Generalist, students are strongly encouraged to take as many of the courses listed below as possible, most of which satisfy Common Curriculum requirements.

ART 2314*	Creative Thinking and the Artistic Process (also listed as ENGL 2340, GNED 2340, MUSC 2340, and THTR 2340)
CLAS 1305*	Classical Mythology
COMM 2302*	Media Interpretation and Criticism
ECON 1311*	Microeconomics
ECON 3115	Economists in the Elementary School
EDUC 3330	Teaching Students with Learning and Behavior Problems

EDUC 3332	Reading Difficulties with Diverse Populations
EDUC 4341	Workshop in Education (Learners of English as a Second Language)
ENGL 2303*	American Literature: Colonization to 1900
ENGL 2304*	American Literature: New Realism through the Moderns
ENGL 2340*	Creative Thinking and the Artistic Process (also listed as ART 2314, GNED 2340, MUSC 2340, and THTR 2340)
GNED 2340*	Creative Thinking and the Artistic Process (also listed as ART 2314, ENGL 2340, MUSC 2340, and THTR 2340)
HIST 1360*	The History of the U.S. Through Reconstruction
HIST 1361*	The History of the U.S. Since Reconstruction
HIST 3376	History of Texas
HIST 3388	Methods of Instruction in History
HCOM 3360*	Small Group Communication
HCOM 3372*	Intercultural Communication
MUSC 2340*	Creative Thinking and the Artistic Process (also listed as ART 2314, ENGL 2340, GNED 2340, and THTR 2340)
MUSC 2361	Music in Childhood
MUSC 2362	Music in Early Childhood
PLSI 1301*	American Politics
PLSI 1331*	Comparing Countries
PSYC 1300*	Principles of Psychology
SOCI 1301*	Introduction to Sociology
SOCI 1316*	Places and Regions and Global Context (also listed as URBS 1316)
THTR 2340*	Creative Thinking and the Artistic Process (also listed as ART 2314, ENGL 2340, GNED 2340, and MUSC 2340)
URBS 1316*	Places and Regions in Global Context (also listed as SOCI 1316)

CERTIFICATION FOR MIDDLE GRADES EDUCATION

Students seeking certification to teach in the middle grades (grades 4-8) in Texas should complete the following requirements:

Note: An asterisk (*) indicates a course that fulfills a common curriculum requirement.

I. The common curriculum

II. Education Course of Study

- A. EDUC 1110 and 1210 (recommended).
- B. At least two practicum courses are required (EDUC 2202 plus EDUC 2201 or 2203).
- C. EDUC 1331*, 3302, and 3320* are required.
- D. CSCI 1300-7* or equivalency is required.

III. Teaching Field/Area of Certification

Students seeking certification at grades 4-8 or grades 7-12 will be certified in one or more teaching fields at the end of the Master of Arts in Teaching graduate program. At the undergraduate level, students must complete a major in order to graduate from the university. This major (and additional courses where noted) forms the basis of the requirements for the teaching field and prepares students for the certification content exam. Students may complete more than one major with additional requirements in order to attain certification in more than one area.

Courses listed after the major have been identified as important courses that meet the content standards for Texas certification. Some students will be able to take these courses within the major ("including"), while other students will need to take the courses in addition to the major

("plus"). Major advisers and the supplemental adviser within the education department will be able to advise students in each area.

CERTIFICATION AREAS:

- **Chinese Early Childhood—Grade 12 Certification**
 - **Chinese Studies Major**
- **English, Language Arts, and Reading 4-8 Certification**
 - **English Major**, including EDUC 3301 and EDUC 4338
- **French Early Childhood—Grade 12 Certification**
 - **French Major**
- **German Early Childhood—Grade 12 Certification**
 - **German Major**, including GERM 3305*
- **Latin Early Childhood—Grade 12 Certification**
 - **Latin Major**, including LATN 3301; plus HIST 3318
- **Mathematics 4-8 Certification**
 - **Math Major**, including MATH 3334 (3341, 3343, 3355 are recommended); plus EDUC 3351
- **Science 4-8 Certification**
 - **Biology Major** (plus GEOS 1304 and 1101, EDUC 3342)
 - **Chemistry Major** (plus BIOL 1311 and 1111, GEOS 1304 and 1101, EDUC 3342)
 - **Geosciences Major** (plus CHEM 1318 and 1118, BIOL 1311 and 1111, EDUC 3342)
 - **Neuroscience Major**, plus additional upper division Biology courses to equal 24 hours total in Biology, plus GEOS 1304 and 1101, plus EDUC 3342
 - **Physics Major** (plus BIOL 1311 and 1111, GEOS 1304 and 1101, CHEM 1318 and 1118, EDUC 3342)
- **Social Studies 4-8 Certification**
 - **History Major**, including HIST 3376 and 3388, plus 1 course from U.S. history, 1 course from European history, and at least 1 course each from 3 of the following 4 fields: African History, Asian History, Latin American History, and Middle East History
 Plus Economics (ECON 1311*, 1312*, 3116) [ECON 2320 and one (1) upper division economics course are recommended]
 Plus Political Science (PLSI 1301* and 1331*)
 Plus one of the following courses: URBS 1316/SOCI 1316, PSYC 1300*, or SOCI 1301
 - **Economics Major**, including ECON 2320 and 3116
 Plus History (HIST 3376 and 3388, plus 1 course from U.S. History, 1 course from European History, and at least 1 course each from 3 of the following 4 fields: African History, Asian History, Latin American History, and Middle East History)
 Plus Political Science (PLSI 1301* and 1331*)
 Plus one of the following courses: URBS 1316/SOCI 1316 (Human Geography), PSYC 1300*, or SOCI 1301*

– **Political Science Major**, including PLSI 1301* and 1331*

Plus History (HIST 3376 and 3388, plus 1 course from U.S. History, 1 course from European History, and at least 1 course each from 3 of the following 4 fields: African History, Asian History, Latin American History, and Middle East History)

Plus Economics (ECON 1311*, 1312*, 3116) [ECON 2320 and one (1) upper division economics course are recommended]

Plus one of the following courses: URBS 1316/SOCI 1316, PSYC 1300*, or SOCI 1301*

– **Sociology Major**, including SOCI 1301*

Plus History (HIST 3376 and 3388, plus 1 course from U.S. History, 1 course from European History and at least 1 course each from 3 of the following 4 fields: African History, Asian History, Latin American History, and Middle East History.

Plus Economics (ECON 1311*, 1312*, 3116) [ECON 2320 and one (1) upper division economics course are recommended]

Plus Political Science (PLSI 1301* and 1331*)

Plus Psychology (PSYC 1300*) is recommended, but not required

- **Spanish Early Childhood—Grade 12 Certification Spanish Major**, including SPAN 3311 or 3312*

COMBINATION CERTIFICATION FOR GRADES 4-8 AND 7-12 EDUCATION

Students seeking certification to teach Grades 4-8 and Grades 7-12 in Texas should complete the following requirements:

I. **The common curriculum**

II. **Education Course of Study** (required courses)

- A. EDUC 1110 and 1210 (recommended).
- B. EDUC 2202 and 2203.
- C. EDUC 3302 and 3303.
- D. EDUC 1331* and 3320*.
- E. CSCI 1300-7* or equivalency.

III. **Teaching Field/Area of Certification**

Students seeking certification in grades 4-8 and 7-12 will be certified at two levels and in one or more teaching fields at the end of the Master of Arts in Teaching program. At the undergraduate level, students must complete a major to graduate from the university. This major forms the basis of the requirements for the teaching field. Students seeking dual certification must complete requirements for a teaching field at both the Grades 4-8 and Grades 7-12 levels. These fields include English, reading, science, social studies, and math. Internships in the program consist of one semester in a middle grades classroom and one semester in a high school classroom. Please contact the faculty member in charge of the program for more specifics.

CERTIFICATION FOR HIGH SCHOOL EDUCATION

Students seeking certification to teach at the 7-12 level (or the 6-12 grade level in certain certification areas) should complete the following undergraduate requirements:

Note: An asterisk (*) indicates a course that fulfills a common curriculum requirement.

I. **The common curriculum**

II. **Education Course of Study**

- A. EDUC 1110 and 1210 (recommended).
- B. At least 2 practicum courses are required (EDUC 2203 plus EDUC 2201 or 2202).
- C. EDUC 1331*, 3303, and 3320* are required.
- D. CSCI 1300-7* or equivalency is required.

III. **Teaching Fields/Area of Certification**

Students seeking certification at grades 7-12 will be certified in one or more teaching fields at the end of the Master of Arts in Teaching graduate program. At the undergraduate level, students must complete a major in order to graduate from the university. This major (and additional courses where noted) forms the basis of the requirements for the teaching field and prepares students for the certification content exam. Students may complete more than one major with additional requirements in order to attain certification in more than one area.

Courses listed after the major have been identified as important courses that meet the content standards for Texas certification. Some students will be able to take these courses within the major (“including”), while other students will need to take the courses in addition to the major (“plus”). Major advisers and the supplemental adviser within the education department will be able to advise students in each area.

Certification Areas:

- **Chinese Early Childhood—Grade 12 Certification**
 - **Chinese Studies Major**
- **Chemistry 7-12 Certification**
 - **Chemistry Major**, plus EDUC 3342
- **Computer Science 8-12 Certification**
 - **Computer Science Major**, including CSCI 3343
(Note: CSCI required of all candidates for certification, including Computer Science candidates.)
- **English Language Arts and Reading 7-12 Certification**
 - **English Major**, including ENGL 3346 and EDUC 4338. ENGL 3304, GNED 3328, SOCI 3331, LING 1300, and PSYC 2330 are recommended but not required.
- **French Early Childhood—Grade 12 Certification**
 - **French Major**
- **German Early Childhood—Grade 12 Certification**
 - **German Major**, including GERM 3305*
- **History 7-12 Certification**
 - **History Major**, including HIST 3376 and 3388, plus 1 course from U.S. History, 1 course from European History, and at least 1 course each from 3 of the following 4 fields: African History, Asian History, Latin American History, and Middle East History
URBS 1316/SOCI 1316 (recommended)
- **Journalism 7-12 Certification**
 - **Communication Major**, including COMM 3340; two (2) of the following courses: COMM 3341, 3342, 3343, 3344; and two (2) of the following: COMM 3321*, 3322,

3326, 3328, 3362, 3364

- **Latin Early Childhood—Grade 12 Certification**

- **Latin Major**, including LATN 3301; plus HIST 3318

- **Life Science 7-12 Certification**

Select from one of the following options:

- **Biology Major**, including BIOL 3430, plus EDUC 3342
- **Neuroscience Major**, plus BIOL 3430 and additional upper division Biology courses to equal 24 hours total in Biology, plus EDUC 3342

- **Mathematics 7-12 Certification**

- **Mathematics Major**, including MATH 3334, plus EDUC 3342 (MATH 3341, 3343, and 3355 are strongly recommended, but not required)

- **Physical Science 6-12 Certification (Student is certified to teach Chemistry and Physics)**

Select from one of the following options:

- **Chemistry Major**

Plus Physics [PHYS 1111*, 1309*, 1112*, 1310*, 3323 (prerequisite waived)]

Plus Geoscience [GEOS 1304* or 1407*; and 2401* (lab prerequisite required)]

Plus EDUC 3342

- **Physics Major**

Plus Chemistry (CHEM 1118*, 1318*, 2119*, 2319*; 2220, and 2320)

Plus Geoscience [GEOS 1304* or 1407*; and 2401* (lab prerequisite required)]

Plus EDUC 3342

- **Geoscience Major**

Plus Chemistry (CHEM 1118*, 1318*, 2119*, 2319*; 2220, and 2320)

Plus Physics [PHYS 1111*, 1309*, 1112*, 1310*, 3323 (prerequisite waived)]

Plus EDUC 3342

- **Physics/Mathematics 7-12 Certification**

Select from one of the following options:

- **Physics Major**

Plus MATH 1320 or 3334 (MATH 3341, 3343, 3355 are strongly recommended), and EDUC 3342

- **Mathematics Major**

Plus PHYS [1111*, 1309*, 1112*, 1310*, 3323 (prerequisite waived)], and EDUC 3342

- **Social Studies 7-12 Certification**

Select from one of the following options:

- **History Major**, including HIST 3376 and 3388, plus 1 course from U.S. History, 1 course from European History, and at least 1 course each from 3 of the following 4 fields: African History, Asian History, Latin American History, and Middle East History

Plus Economics (ECON 1311*, 1312*, 3117) [ECON 2320 and one (1) upper

division economics course are recommended]

Plus Political Science (PLSI 1301* and 1331*)

Plus one of the following courses: URBS 1316/SOCI 1316, PSYC 1300*, or SOCI 1301*

– **Economics Major**, including ECON 2320 and 3117

Plus History (HIST 3376 and 3388, plus 1 course from U.S. History, 1 course from European History, and at least 1 course each from 3 of the following 4 fields: African History, Asian History, Latin American History, and Middle East History)

Plus Political Science (PLSI 1301* and 1331*)

Plus one of the following courses: URBS 1316/SOCI 1316, PSYC 1300*, or SOCI 1301*

– **Political Science Major**, including PLSI 1301* and 1331*

Plus History (HIST 3376 and 3388, plus 1 course from U.S. History, 1 course from European History, and at least 1 course each from 3 of the following 4 fields: African History, Asian History, Latin American History, and Middle East History)

Plus Economics (ECON 1311*, 1312*, 3117) [ECON 2320 and one (1) upper division economics course are recommended]

Plus one of the following courses: URBS 1316/SOCI 1316, PSYC 1300*, or SOCI 1301*

– **Sociology Major**, including SOCI 1301*

Plus History (HIST 3376 and 3388, plus 1 course from U.S. History, 1 course from European History, and at least 1 course each from 3 of the following 4 fields: African History, Asian History, Latin American History, and Middle East History)

Plus Economics (ECON 1311*, 1312*, 3117) [ECON 2320 and one (1) upper division economics course are recommended]

Plus Political Science (PLSI 1301* and 1331*)

Plus URBS 1316/SOCI 1316 (Human Geography) or PYSC 1300*

• **Spanish Early Childhood—Grade 12 Certification**

- **Spanish Major**, including SPAN 3311 or 3312*

• **Speech 7-12 Certification**

- **Human Communication Major**, including HCOM 1333, 3330, 3360* or 3362, 3372*, 4350, 4-80

CERTIFICATION FOR ALL-LEVEL THEATRE ARTS and ART (Early Childhood—Grade 12)

I. **The common curriculum**

II. **Education Course of Study**

- A. EDUC 1110 and 1210 (recommended).
- B. Choose 2 courses from the following: EDUC 2201, 2202, or 2203.
- C. Choose 1 course from the following: EDUC 3301, 3302, or 3303.
- D. EDUC 1331* and 3320* are required.
- E. CSCI 1300-7* or equivalency is required.

III. **Certification Area**

- **Theatre Arts EC-12 Certification**

Theatre Major, including THTR 1330, 2352 or 2356, 2354 and 3340. In addition, HCOM 2313 is recommended, but not required.

- **Art EC-12 Certification**

Art Major, including ART 2370; two (2) of the following courses: 3330, 3340, 3350, 3-60, 3372, or 3380.

CERTIFICATION FOR ALL-LEVEL MUSIC (Age 3—Grade 12)

Students pursue a major in music including courses for certification. Students will be certified to teach music to students age 3 to grade 12. Students should complete the following undergraduate requirements:

I. **The common curriculum**

II. **Education Course of Study**

- A. 2 practicum courses are required (EDUC 2204, 2205).
- B. EDUC 1331* and 3320* are required.
- C. CSCI 1300-7* or equivalency is required.

III. **Music major, including**

a minimum of 72 semester hours in music. Students may choose from a choral or an instrumental option.

- **Choral emphasis:** 1000 (7 semesters), 1203, 1103, 1113, 1204, 1104, 1114, 2203, 2103, 2113, 2204, 2104, 2114, 3121, 3223, 3225, 3341, 3342, 4301; 18 credits of applied music in one area (14 of which must be at the level of 22-- or above); four (4) credits of applied music in a secondary area; 8 credits of large ensemble, 1161, 3162, 4321, 4361, 4363; and 1 credit of music electives.
- **Instrumental emphasis:** 1000 (7 semesters), 1203, 1103, 1113, 1204, 1104, 1114, 2203, 2103, 2113, 2204, 2104, 2114, 3121, 3223, 3224, 3341, 3342, 4301; 18 credits of applied music in one area (14 of which must be at the level of 22-- or above); 1122 (or 1 credit of applied music in a secondary area); 8 credits of large ensemble, 1161, 2161, 2162, 2163, 2164, 4264, 4361, 4362; and 2 credits of music electives.
- **Elementary emphasis:** 1000 (7 semesters), 1203, 1103, 1113, 1204, 1104, 1114, 2203, 2103, 2113, 2204, 2104, 2114, 3121, 3223, 3224 or 3225, 3341, 3342, 4301, 18 credits of applied music in one area (14 of which must be at the level of 22-- or above) and 4 credits of applied music in a secondary area, 8 credits of large ensemble, 1161, 3162, 4321, 4361, 4364, and 1 credit of music electives.

SUPPLEMENTAL CERTIFICATION FOR ENGLISH AS A SECOND LANGUAGE (ESL) AND SPECIAL EDUCATION

Students who want to pursue the optional Special Education Supplemental or ESL Supplemental Certificate will be certified to teach Special Education or ESL in the content area and grade levels of their primary, standard certificate.

I. **Special Education**

Students may add a supplemental certificate in Special Education by taking three (3) additional undergraduate courses (EDUC 1331*, 3330, and 3332/3335) and specialized courses during the graduate year.

II. **English as Second Language (ESL)**

Students may add a supplemental certificate in English as a Second Language by completing the

following courses: LING 1300, LING 1310, EDUC 3344, and EDUC 3345. Students may work with supervising faculty to arrange to earn independent study credit toward the twelve (12) required hours.

FIFTH YEAR GRADUATE COURSE OF STUDY

The fifth year of the M.A.T. program consists of a summer session and two semesters (30 hours). Upon completion of the fifth year, students receive a M.A.T. (Master of Arts in Teaching), a professional degree.

Those students seeking Certification EC-6

- I. During the graduate year of study, students in general education will complete the following: EDUC 5263, 5339, 5350, 5351, 5352, 5360, 5661, and 5763.
- II. During the graduate year of study, students pursuing a supplemental Special Education certificate will complete the following: EDUC 5263, 5337, 5339, 5350, 5351, 5352, 5360, 5661, 5464, and 5340.

Those students seeking Certification 4-8/Dual

- I. During the graduate year of study, students in general education will complete the following: EDUC 5283, 5339, 5350, 5351, 5352, 5370, 5681, and 5783.
- II. During the graduate year of study, students pursuing a general education and a supplemental Special Education certificate will complete the following: EDUC 5283, 5337, 5339, 5350, 5351, 5352, 5370, 5681, 5484, and 5340.

Those students seeking Certification 7-12

- I. During the graduate year of study, students in general education will complete the following: EDUC 5273, 5339, 5350, 5351, 5352, 5370, 5671, and 5773.
- II. During the graduate year of study, students pursuing a general education and a supplemental Special Education certificate will complete the following: EDUC 5273, 5337, 5339, 5350, 5351, 5352, 5370, 5671, 5474, and 5340.

Those students seeking Certification All-Level Music

During the graduate year of study, students in general education will complete the following: EDUC 5339, 5349, 5350, 5351, 5346, 5647, and 5948.

MASTER OF EDUCATION IN SCHOOL LEADERSHIP

The School Leadership program is designed to prepare candidates as innovative and transformational school leaders of elementary, middle, or high schools in today's school settings. Emphasis is given to the development of the knowledge, skills, and dispositions required of school leaders in a rapidly changing educational context. Candidates will pursue courses in school leadership, instructional leadership, school law and policy, as well as courses in management, finance, design, and innovations in teaching and learning. An extensive, school-based clinical practice experience will be provided in partnership with the candidate's local school district. The Master of Education degree in School Leadership may be earned by completing 36 semester hours. Upon completion of coursework, clinical practice, and the requisite state certification exam, students will receive Texas' Principal certificate.

The course of study includes:

EDUC 5390	Educational Leadership
EDUC 5391	School Management and Finance
EDUC 5392	Leadership in Elementary and Secondary Schools
EDUC 5393	Research, Assessment and Data-Driven Decision Making
EDUC 5394	Clinical Practice—Leadership

EDUC 5395	Instructional and Curricular Leadership
EDUC 6390	School Law and Policy Analysis
EDUC 6393	Community Building and Civic Engagement
EDUC 6394	Systems Design and Implementation
EDUC 6395	Innovations in Teaching and Learning
EDUC 6693	Clinical Practice—Advanced Internship

MASTER OF ARTS IN SCHOOL PSYCHOLOGY

Trinity University offers a 60-semester hour specialist program in school psychology that is approved by the National Association of School Psychologists (NASP). The Master of Arts in School Psychology is awarded after completing 60 semester hours including two years of full-time study and a third-year internship.

The third-year internship (6 semester hours) consists of a minimum of 1200 clock-hour placement in a school setting. This full-time experience occurs over two consecutive semesters (Fall and Spring) and provides interns with opportunities for supervised work in assessment, counseling, consultation, and program evaluation.

Upon completing the 60-semester hour program, students are eligible for national certification by NASP. The Trinity University program meets the certification and licensure requirements by states that have adopted NASP standards such as Texas.

The course of study includes:

EDUC 5379	Psychological Assessment: Cognitive and Academic II
EDUC 5380	Biosocial Basis of Behavior and Emotion
EDUC 5381	Human Development and Learning
EDUC 5382	Psychological Assessment: Cognitive and Academic I
EDUC 5384	Behavior Management and Special Education
EDUC 5385	Research Methods I—Advanced Statistics
EDUC 5386	Psychological Assessment: Emotions and Personality
EDUC 5187	Emotional/Personality Assessment Lab
EDUC 5388	Neuropsychological Assessment and Remediation
EDUC 5389	Counseling Theory and Methods
EDUC 6380	Consultation Theory and Methods
EDUC 6381	Research Methods II: Design and Application
EDUC 6382	Group and Family Interventions
EDUC 6185	Developmental Assessment Lab
EDUC 6385	Developmental Assessment: Infants and Young Children
EDUC 6386	Supervised Practicum—School Psychology
EDUC 6388	Legal and Ethical Issues
EDUC 6183	Interventions Lab
EDUC 6384	School Psychology Practice
EDUC 5390	Educational Administration and Organization
EDUC 7380	School Psychology Internship: Part I
EDUC 7381	School Psychology Internship: Part II
EDUC 6389	(Optional Elective) Psychological Assessment II: Emotions and Personality Advanced

COURSES

EDUC-1105 Seminar on Current Issues in Education

A study of the principal issues in public education that affect teaching and learning. Sessions include field trips to selected institutions in the San Antonio community.

EDUC-1106 Seminar on School and Community

A study of selected schools and the communities they serve. Seminar includes field trips to school and community sites.

EDUC-1110 Service Learning in Education

This course will allow undergraduates to design and execute a service learning project in partnership with an area school or community site. In consultation with a faculty advisor, participants will design a suitable project comprising significant volunteer service. Students will prepare a written proposal outlining the intended project, document their field experience, and summarize contributions in a reflective paper. May be taken more than once provided project differs.

Prerequisite: Departmental Chair approval.

EDUC-1210 Seminar in Urban Education Policy and Practice

Education policy -- laws and rules made in Washington DC, and in state capitals -- has a greater impact on classroom practice than ever before. This course will investigate the impact of current policies like No Child Left Behind (NCLB, 2001) on classrooms in New Orleans, where the school system was nearly destroyed by Hurricane Katrina, as well as classrooms in San Antonio. School Visits and field site research will be integral course activities.

EDUC-1331 Survey of Special Education

An introduction to the causes, characteristics, strategies, trends, and issues in teaching students with learning, emotional, behavioral, communication, developmental, and physical disabilities. Identification, assessment, and planning for students with disabilities are discussed in the context of family involvement and cultural and linguistic diversity. This course includes a field placement working with students with disabilities in a range of educational and community settings.

EDUC-2201 Practicum: EC-6

An introduction to the development needs of young children in conjunction with a field placement in one or more early childhood classrooms. Study will include learning and teaching in the preschool.

EDUC-2202 Practicum: Grades 4-8

An introduction to the unique developmental needs of young adolescents in conjunction with a field placement in one or more middle grades classrooms. Study will include students' cognitive, physical, social, and emotional changes and the implications for middle grades curriculum and instruction.

EDUC-2203 Practicum: Grades 7-12

An introduction to the developmental needs of young to late adolescents in conjunction with a field placement in one or more high school classrooms. Study will include learning and teaching in the high school.

EDUC-2204 Practicum: Music EC-6

An introduction to music in the preschool through the fourth grade in conjunction with a field placement in a pre-kindergarten or elementary music classroom.

EDUC-2205 Practicum: Music 5-12

An introduction to music in the middle schools and high schools in conjunction with a field placement in a middle or high school band, orchestra, or choral music program.

EDUC-3301 Field Seminar EC—6

A study of literacy learning and instruction in the elementary school that integrates theory (seminars) and practice (field experiences).

Prerequisite: EDUC 2201.

EDUC-3302 Field Seminar: Grades 4-8

A study of the history, philosophy, organization, and curricula of middle grades schools in a field-based setting. Topics include programs and curricula that are culturally and developmentally responsive to young adolescent needs such as interdisciplinary teaming, advisory programs, flexible scheduling, activity programs, assessment, and parent/family collaboration and communication. This seminar also includes one or more field placements in a middle grades classroom.

Prerequisite: EDUC 2202.

EDUC-3303 Field Seminar: Grades 7-12

A study of teaching and learning in the high school that integrates theory (seminars) and practice (field experiences).

EDUC-3320 Growing Up in America

The cognitive, emotional, and social factors influencing children and adolescents in contemporary society will be explored. Emphasis will be placed on practical application of current theories in human development and learning related to the family, school, and peer groups.

EDUC-3321 Schooling in America

A study of the American school and its role in contemporary society. Includes an analysis of the literature related to effective schools and successful teaching and learning practices.

EDUC-3330 Teaching Students with Learning and Behavior Problems

An introduction to the identification, assessment, and instruction of students who exhibit learning and behavior problems. This course includes weekly three-hour practicum, where emphasis is placed on learning about strategies and specialized methods of instructing students with learning differences.

EDUC-3332 Reading Difficulties with Diverse Populations

This course focuses on learning about reading theory, assessment, materials, and strategies for instructing diverse elementary school students with reading difficulties. On-site supervised experiences will focus on conducting assessments and developing instructional plans for students. Credit may not be earned for both EDUC 3332 and 3335.

Prerequisite: EDUC 1331.

EDUC-3333 Positive Behavioral Supports for Students with Challenging Behaviors

An introduction to the principles of positive behavioral supports and their application to designing effective classrooms for students with challenging behaviors. This course includes a field placement where teachers will learn strategies to reduce behavior challenges of students with and without identified disabilities.

EDUC-3335 Reading Difficulties with Diverse Populations in the Middle School

This course focuses on learning about reading theory, assessment, materials and strategies for instructing middle school students with reading difficulties. On-site supervised experiences will focus on conducting assessments and developing instructional plans for students. Credit may not be earned for both EDUC 3335 and 3332.

Prerequisite: EDUC 1331.

EDUC-3341 Teaching Science in Elementary School

This course is designed to introduce pre-service elementary teachers to the principles of curriculum design and instruction for teaching science to elementary school teachers. Pre-service teachers in the course explore relevant research, national and state science standards, and curricular resources in an effort to understand the history, goals, and methods of science education. Class work throughout the semester is organized around the development of a project-based science unit that may be enacted in pre-service teachers' future classrooms.

EDUC-3342 Teaching Science and Mathematics in Middle and High School

This course is designed to introduce undergraduate pre-service teachers to the principles of teaching science and mathematics to middle and high school students. The course will examine the state and national content standards, discuss results from recent research on learning, and explore the implications of standards and research on curriculum design, instruction, and assessment practices in secondary science and mathematics classrooms. Class work throughout the semester is organized around the development of a project-based science unit that may be enacted in pre-service teachers' future classrooms.

EDUC-3344 Teaching in the Bilingual (English/Spanish) Classroom

An introduction to the education of second language learners in the context of bilingual education and English as a second language (ESL) programs. This course includes field experience in working with bilingual and ESL populations in an educational setting. (Also listed as LAC 3344.)

EDUC-3345 Principles and Practices for Teaching English Learners

This course is designed for students who would like to add the English as a Second Language (ESL) supplemental certification to their teaching credentials in the M..A.T. program or for students who may wish to teach English abroad through international programs such as the Peace Corps or teaching abroad programs. The course will focus on the design and application of ESL instruction using research-based ESL strategies and the identification and use of appropriate ESL materials.

EDUC-3351 Mathematics in Elementary School

This course examines key content, strategies and skills as well as methods of teaching and learning mathematics at the Early Childhood—Grade 6 level. The pre-service teachers in this course will reflect on their beliefs about teaching and learning mathematics and beliefs about how children learn mathematics. Assignments will familiarize students with the state and national instructional standards for Early Childhood—Grade 6 level mathematics.

EDUC-4100 Senior Seminar

In this capstone course, students will integrate their experiences in the undergraduate course of study in education and the liberal arts and sciences. Individually and collectively, students from EC-4, 4-8, and 7-12 certification levels will examine issues in education from multiple perspectives through seminars and discussions, inquiry and research, and the on-going development of a portfolio. Students will have the

opportunity to work closely with a faculty member and peers to organize, integrate, and extend their knowledge of schooling in the United States. This course fulfills the Senior Experience requirement of the University's Common Curriculum.

Prerequisite: senior standing.

EDUC-4338/5338 Teaching Reading in the Middle Grades

The study of literacy and learning in Grades 4-8 with an emphasis on the development of reading and writing processes as well as teaching reading in the content areas.

EDUC-4341 Workshop in Education

Intensive study into some facets of the school curriculum. Equivalence of 3 class hours a week for 1 semester; may be taken more than once provided content differs.

EDUC-4-90 Problems in Education

Independent study in selected areas. One to six semester hours.

Prerequisites: departmental approval and six semester hours of Education.

EDUC-5181 Human Development and Learning Laboratory

Practice in the application of human development and learning theories. The lab project addresses a selected case study's theoretical development stage and the construction of an intervention from learning theories. Monitoring, graphing, and development conclusions will be conducted throughout the semester. Must be taken in conjunction with EDUC 5381.

EDUC-5183 Cognitive Academic Assessment Laboratory

Practice in the administration and scoring of mental abilities tests. Course must be taken in conjunction with EDUC 5382.

EDUC-5184 Behavior Management Intervention Laboratory

Supervised Lab on writing Individualized Education Plans (IEP) and Behavior Management Plans for students with learning and emotional problems. The plans are developed based on actual cases that the student will observe and test. This lab must be taken in conjunction with EDUC 5384.

EDUC-5187 Emotional/Personality Assessment Laboratory

This class consists of various exercises and activities designed to provide students with opportunities to practice scoring, formulate interpretive hypothesis, synthesize and integrate data from a variety of assessment measures, and prepare written reports. Must be taken in conjunction with EDUC 5386.

EDUC-5263 Graduate Intern Seminar: EC-6

This weekly seminar is designed to help interns prepare for and make sense of their classroom- based experiences. Interns engage in action research, develop an exit portfolio, examine student work through use of protocols, and discuss professional readings. To be taken concurrently with EDUC 5763 or 5464.

EDUC-5273 Graduate Intern Seminar: 7-12

This weekly seminar is designed to help interns prepare for and make sense of their classroom- based experiences. Interns engage in action research, develop an exit portfolio, examine student work through the use of protocols, and discuss professional readings. To be taken concurrently with EDUC 5773 or

5474.

EDUC-5283 Graduate Intern Seminar: 4-8/Dual

This weekly seminar is designed to help interns prepare for and make sense of their classroom- based experiences. Interns engage in action research, develop an exit portfolio, examine student work through the use of protocols, and discuss professional readings. To be taken concurrently with EDUC 5783 or 5484

EDUC-5334 Curriculum Inquiry and Practice in Special Education

A study of the historical and recent curriculum development trends; the impact of national curriculum studies and movements; and current issues in curriculum planning and assessment as they relate to creating and modifying curricula for students with academic deficiencies.

EDUC-5335 Teaching Inquiry and Practice in Special Education

Presentation of curriculum and instructional approaches to teach special education and high-risk students. Study of methods, strategies, and materials to remotivate, reinforce, and instruct students with academic deficiencies in the least restrictive setting. Field placement required.

EDUC-5336 Clinical Practice in Special Education

Exploration of programming techniques appropriate for students with learning problems. Topics include interpretation of assessment as it relates to learning styles, individualization of instruction, classroom management, and interaction with teachers, administrators, and aides. On-site observation and participation. Fall semester.

EDUC-5337 Advanced Clinical Practice—Special Education

Demonstration of special education teaching methods and behavior management approaches in the classroom. Study of evaluation procedures to determine program and individual progress in special education and related services. Students will be assigned to a special education classroom for the student teaching experience.

EDUC-5339 Teaching Diverse Learners

An examination of current trends, issues, and influences in teaching and learning in regards to culturally and linguistically diverse (CLD) students with and without disabilities. Applied experience incorporated into the Master of Arts in Teaching's fifth-year internship.

EDUC-5340 Related Services for Students with Disabilities

This course supplements M.A.T. interns' clinical practice for those pursuing certification in special education. The course provides an opportunity for students to experience the continuum of placements in which students with disabilities receive related services in educational and community-based settings. In addition to the field experiences, students will participate in on-campus seminars.

EDUC-5342 Diagnosis and Remediation in Reading

Methods of diagnosing and remediation of reading disabilities in individual pupils. Remedial reading is considered from the viewpoint of prevention as well as correction.

EDUC-5-45 Independent Study

Independent study in selected areas. One to six semester hours. Approval of advisor and instructor.

EDUC-5346 Music Pedagogics

A field-based course dealing with music education in the elementary, middle and high schools.

EDUC-5349 Advanced Music Pedagogics

A field-based course dealing with the administration and supervision of programs in music education in the elementary, middle, and high schools.

Prerequisite: EDUC 5346.

EDUC-5350 Curriculum Inquiry and Practice

A study of the historical and recent curriculum development trends; the impact of national curriculum studies; current issues in curriculum planning and assessment; competing theories of curriculum design; and in-depth study of the content taught in public schools focusing on Early Childhood—Grade 6, Grades 4-8, or Grades 7-12.

EDUC-5351 Teaching Inquiry and Practice

An analysis of the research on teaching and models of teaching, contingency theories of teaching, the role of the teacher as decision maker and the nature of reflective practice. Emphasis is given to how scientific knowledge and context-specific knowledge can be used to inform professional judgment and to create knowledge in use.

EDUC-5352 School Leadership, Supervision, and Evaluation

A study of basic concepts, techniques and practices for understanding school leadership as it affects teacher professionalism and school improvement. Emphasis is given to the teacher's leadership role in collegial and clinical supervision, mentoring, staff development and evaluation. Concepts and practices are examined from political and nonrational perspectives of how schools as organizations work.

EDUC-5360 Pedagogics: Early Childhood-Grade 6

The study and application to teaching and learning of elementary school curriculum and methodology. Experiences in the university and the public schools are used to interpret, apply, and evaluate elementary school teaching and learning practices. Planning and teaching through various modalities and techniques is researched and developed to enhance individual teaching and learning styles.

EDUC-5370 Pedagogics: Grades 4-8 and 7-12

The study and application to teaching and learning of middle grades and secondary school curriculum and methodology. Experiences in the university and the public schools are used to interpret, apply, and evaluate grade-specific teaching and learning practices. Planning and teaching through various modalities and techniques are researched and developed to enhance individual teaching and learning styles at either the middle grades or secondary level.

EDUC-5379 Psychological Assessment: Cognitive and Academic II

The second course in the series of addressing the assessment of student cognitive and academic functioning. Focus is on the analysis of data and conveying results in a meaningful report with relevant recommendations for the intended audience.

Prerequisite: EDUC 5382 Psychological Assessment: Cognitive and Academic I

EDUC-5380 Biosocial Basis of Behavior and Emotion

A critical study of disorders of thought, behavior, and emotions throughout the lifespan. The impact of both social and biological factors on abnormal development are examined. The taxonomies to classify emotional and behavioral disorders are presented.

EDUC-5381 Human Development and Learning

A consideration of the major contribution of scientific research to an understanding of human development and learning. Emphasis on the biological, social, cultural, and psychological factors determining individual differences in children and adolescents. The major learning theories are studied in relation to their implications for teaching, and counseling and assessment.

EDUC-5382 Psychological Assessment: Cognitive and Academic I

The first in the two-course sequence in the assessment of cognitive and academic functioning. This course begins with a study of the theory of intelligence and achievement testing. Practice in administration, scoring, interpretation, and report writing using a variety of norm-referenced individual tests. Presentation of assessment strategies to assure reliable and valid appraisal of students from diverse cultural backgrounds.

EDUC-5384 Behavior Management and Special Education

Study of behavior management systems that are based on psychodynamic, cognitive-behavioral, and developmental theoretical orientations. Specific intervention strategies are presented to reduce the behavioral and learning problems that interfere with achievement and psychosocial functioning.

EDUC-5385 Research Methods I — Advanced Statistics

This course, the first in the graduate research methods sequence, covers major statistical procedures and their associated knowledge paradigms, including: 1) descriptive and correlational statistics; 2) inferential statistics; 3) nonparametric statistics; and 4) univariate and multivariate procedures.

EDUC-5386 Psychological Assessment: Emotions and Personality

A study of test and interview-based assessment methods to assess psychosocial development. Focus on how diagnostic formulation is used to prepare comprehensive intervention plans. Intensive training in administration, scoring, and interpretation of projective personality tests. Must be taken in conjunction with EDUC 5187.

EDUC-5388 Neuropsychological Assessment and Remediation

A study of brain-behavior relationships and neuropsychological-based learning disorders most commonly seen in youth. Administration, scoring, and interpretation of neuropsychological tests with emphasis on how to modify instruction to teach and counsel individuals with learning disabilities.

EDUC-5389 Counseling Theory and Methods

Theories of counseling and psychotherapy are presented. Counseling methods and approaches are studied and demonstrated according to the major theoretical paradigms in Psychology. Multicultural issues are discussed in implementing counseling services in schools.

EDUC-5390 Educational Leadership

Administrative theory as a means for directing attention to process and relationships. Organization of American public education. Principles and concepts of educational administration and leadership as related to the major administrative tasks. Knowledge of organizational patterns and administrative process, particularly as needed for the development and operation of special and compensatory education. Communication with the public. Examines components of administration and boards of control. Planning as a prerequisite to the implementation of programs and changes.

EDUC-5391 School Management and Finance

This course deals with the basic management functions required for the successful organization and operation of schools and school districts. An overview of administrative responsibility as it relates to school personnel, students, facilities, and the general public is provided.

EDUC-5392 Leadership in Elementary and Secondary Schools

A study of administration of elementary and secondary schools with emphasis upon organizing techniques, program management, and student and parent involvement. Stress is upon skills needed by a principal for success at each level.

EDUC-5393 Research, Assessment and Data-Driven Decision Making

This course focuses on statistical and research methods underlying psychological and educational research and analysis, and its application to understanding and utilizing the wealth of data available in schools regarding students, student performance, and trends of achievement over time in order to improve student achievement as well as the overall performance of the school.

EDUC-5394 Clinical Practice — Internship

This course focuses on the application of the knowledge, skills, and dispositions of a school leader in a diverse school-based setting. Structured learning activities, aligned to state and national standards, will comprise the applied portion of this course paired with reflective, analytical written entries of the experiences that will be included in candidate's professional portfolio.

EDUC-5395 Instructional and Curricular Leadership

An examination of modern curricular programs and instructional methodologies, analyzing philosophical backgrounds, purposes, and implications for implementation in schools. Studies include a major look at instructional needs, practices, new programs of instruction, how these programs operate at the elementary and secondary school levels, and how they are influenced by national and state entities.

EDUC-5396 Problems in Administration

Students are required to do in-depth reading in a variety of areas, make field trips to observe model programs in school administration, and conduct field studies.

EDUC-5397 Educational Leadership for Mid-Managers

Includes skills needed by administrators for successful leadership performance. Topics include effective communication, time management, coping with stress, motivation techniques, personal and group planning, leadership images, countering intimidation, human factors in administration, problem solving, and delegating. Emphasis is placed upon how to increase the performance of leadership personnel to benefit teachers, students, and the community.

EDUC-5398 School-Community Relations

Study and analysis of social agencies, power structure in communities; resistance to change, interpersonal and group relations, economic and multi-cultural characteristics as they may affect the school; development of criteria for effective school-community relations program.

Prerequisite: Consent of instructor.

EDUC-5464 Advanced Clinical Practice: Early Childhood-Grade 6

An internship in elementary school sites where students assume full responsibility for teaching and classroom management in an independent, but supervised, experience for a full semester. To be taken concurrently with EDUC 5337.

EDUC-5474 Advanced Clinical Practice: Grades 7-12

An internship in secondary school sites where students assume full responsibility for teaching and classroom management in an independent, but supervised, experience for a full semester. To be taken concurrently with EDUC 5337.

EDUC-5484 Advanced Clinical Practice: Grades 4-8

An internship in middle grades schools where students assume full responsibility for curriculum, instruction, assessment, management, and parent/family collaboration in an independent but supervised experience for a full semester. To be taken concurrently with EDUC 5337.

EDUC-5636 Clinical Practice in Special Education

Exploration of programming techniques appropriate for students with learning problems. Topics include interpretation of assessment as it relates to learning styles, individualization of instruction, classroom management, and interaction with teachers, administrators, and aides. Activities will include on-site observation and participation. Students will spend extended time in two different field placements.

EDUC-5647 Clinical Practice in Music

A supervised internship in music education in the elementary, middle and high schools.

EDUC-5661 Clinical Practice: Early Childhood-Grade 6

A supervised internship in elementary school sites where comprehensive experiences involving the school and community are provided. Students work with a team of professors, classroom teachers, and other school personnel to research, assess, and assimilate the teaching-learning process. These teams rotate through a variety of settings in the elementary schools.

EDUC-5671 Clinical Practice: Grades 7-12

A supervised internship in secondary school sites where comprehensive practical experiences involving the school and community are provided. Students work with a team of professors, classroom teachers, and other school personnel to research, assess, and internalize the teaching-learning process. These teams rotate through a variety of settings in the secondary schools.

EDUC-5681 Clinical Practice: Grades 4-8

A supervised internship in middle grades classrooms where comprehensive experiences are provided involving the school and community. Students work with a team of professors, teams of classroom teachers, and other school personnel to research, assess, and assimilate the teaching-learning process. To be taken concurrently with EDUC 5370.

EDUC-5763 Advanced Clinical Practice: Early Childhood-Grade 6

An internship in elementary school sites where students assume full responsibility for teaching and classroom management in an independent, but supervised experience for a full semester.

EDUC-5773 Advanced Clinical Practice: Grades 7-12

An internship in secondary school sites where students assume full responsibility for teaching and classroom management in an independent, but supervised, experience for a full semester.

EDUC-5783 Advanced Clinical Practice: Grades 4-8

An internship in middle grades schools where students assume full responsibility for curriculum, instruction, assessment, management, and parent/family collaboration in an independent but supervised experience for a full semester. To be taken concurrently with EDUC 5337.

EDUC-5948 Advanced Clinical Practice in Music

An independent, but supervised, internship in music education in the elementary, middle, and high school.

Prerequisite: EDUC 5647.

EDUC-5962 Clinical Practice: Early Childhood-Grade 6

A supervised internship in elementary school sites where comprehensive experiences involving the school and community are provided. Students work with a team of professors, classroom teachers, and other school personnel to research, assess, and assimilate the teaching-learning process. These teams rotate through a variety of settings in the elementary schools.

EDUC-5671 Clinical Practice: Grades 7-12

A supervised internship in secondary school sites where comprehensive practical experiences involving the school and community are provided. Students work with a team of professors, classroom teachers, and other school personnel to research, assess, and internalize the teaching-learning process. These teams rotate through a variety of settings in the secondary schools.

EDUC-5972 Clinical Practice: Grades 7-12

A supervised internship in secondary school sites where comprehensive practical experiences involving the school and community are provided. Students work with a team of professors, classroom teachers, and other school personnel to research, assess, and internalize the teaching-learning process. These teams rotate through a variety of settings in the secondary schools. Students will spend an additional 50 hours of field work than students in EDUC 5661.

EDUC-5982 Clinical Practice: Grades 4-8

A supervised internship in middle grades classrooms where comprehensive experiences are provided involving the school and community. Students work with a team of professors, classroom teachers, and other school personnel to research, assess, and assimilate the teaching-learning process. Students will spend an additional 50 hours of field work than students in EDUC 5661.

EDUC-5-99 Problems in Education

A conference course in education. The student pursues independent research in the area in which he/she is concentrating. Credit can vary according to work prescribed. May be taken more than once provided content differs.

EDUC-6098 Thesis Renewal**EDUC-6099 Degree Requirements in Progress****EDUC-6183 Interventions Laboratory**

Practice in group and family interventions. Must be taken in conjunction with EDUC 6382.

EDUC-6185 Developmental Assessment Laboratory

Practical experience in administering, scoring, and interpreting various instruments designed for the evaluation of cognitive, adaptive, social/ emotional, language, and motor skills of young children will be provided. Preparation of informative written reports that include appropriate recommendations for early childhood interventions will be emphasized. This lab must be taken in conjunction with EDUC 6385.

EDUC-6380 Consultation Theory and Methods

The types of school and mental health consultation are presented. The role of the consultant at all phases of the consultation process is studied. Specific techniques for case, program, and consultee-centered consultation are discussed and simulated.

EDUC-6381 Research Methods II: Design and Application

The second course in the sequence focuses on issues related to research methods for applied settings and the practice of making empirically-supported decisions related to underlying psychological and educational research. Topics addressed include: 1) the philosophy of science underlying research; 2) ethical issues in research, 3) challenges to internal and external validity; 4) research designs for applied settings; and 5) appropriate operations on different types of measurement scales.

EDUC-6382 Group and Family Interventions

Current theories, methods, and applications of group and family interventions are studied. Recognition of the influence of small group dynamics and process on learning and communication are analyzed. Must be taken in conjunction with EDUC 6183.

EDUC-6384 School Psychology Practice

Overview of the legal, ethical, and professional issues in the practice of school psychology. Examination of the role of the school psychologist in culturally and socially diverse educational and community organizations. Exploration of the interrelationship of the school psychologist to the campus student services personnel.

EDUC-6385 Developmental Assessment: Infants and Young Children

Presentation of methods and theory in the developmental/psychoeducational assessment of infants and young children. Mastery of skills to administer and interpret psychological tests to identify cognitive, language, motor, adaptive, and socioemotional problems in the birth-5 age group (with an emphasis on children ages 3-5). Community/family/school collaboration and educational/behavioral interventions for

young children will be discussed. Must be taken in conjunction with EDUC 6185.

EDUC-6386 Supervised Practicum—School Psychology

Required for certification and/or licensure. Consists of supervised experiences in appropriate institutions and/or agency settings. Credit may vary. Open to a limited number of qualified students in School Psychology. Practicum placement is in a multi-cultural setting.

EDUC-6387 Educational Planning for the Exceptional Student

Seminar and applied practice based upon state and federal education laws and their implementation in the school setting. Includes principles and methods to write psychoeducational evaluation reports, treatment plans, and individualized education plans (IEP). Lecture, case study, and field assignment.

EDUC-6388 Legal and Ethical Issues

Advanced seminar and applied practice based upon state and federal regulations, compliance standards, and their implementation in the public school setting. Specific cases are utilized to study the legal and ethical requirements for professionals in education and specifically in school psychology. Collaboration with other professionals is emphasized.

EDUC-6389 Psychological Assessment II: Emotions and Personality Advanced

This course builds upon information and work in EDUC 5386 (Psychological Assessment: Emotions and Personality) and EDUC 5187 (Emotional/Personality Laboratory). Graduate students participate in an advanced study and application of several instruments utilized to assess emotional functioning and personality characteristics in children and adolescents. Administration, scoring, and interpretation of these assessments are taught and applied in several cases. Recommendations for school and family settings are also included. (Offered every Fall.)

Prerequisites: EDUC 5386 and 5187.

EDUC-6390 School Law and Policy Analysis

This class focuses on the laws, rules, structures, and processes that define education in Texas and how to change them through analysis and argumentation. Students will: 1) explain the constitutional, statutory, and organizational framework of the Texas public education system; 2) apply their understanding of school law in response to common demands made on school administrators by parents, students, school employees, and other stakeholders; 3) analyze and develop arguments for changes in education policies and administrative structures, processes, and programs; and 4) research school related court cases, statutes, and administrative policies.

EDUC-6391 Advanced Problems in Administration

Problem solving and inductive inquiry themed to live and persistent problems of administrative practice through case study and simulation.

EDUC-6392 Supervision and Evaluation of Teaching

Emphasis is on supervision as a means to improve teaching by promoting reflection, action research, and enhanced staff development. Students review the research on teaching and examine philosophical and moral issues. Clinical supervision, portfolio development, and other evaluation techniques are developed and practiced.

EDUC-6393 Community Building and Civic Engagement

It is no longer sufficient for school leaders to solely focus on the operations of their school. They must interact with and form partnerships with varying constituencies that impact their schools across the community, region, and nation. This course will focus on the examination of these constituencies and will analyze successful school programs across the nation and beyond that leverage community and civic partnerships to add value to the educational experience for students and the success of the school in general.

EDUC-6394 Systems Design and Implementation

This course is designed to introduce a variety of school design and redesign structures and processes to equip prospective principals with a diverse set of tools to use in school transformation work. Topics will include: design thinking, principles of strategic planning, systems thinking and systems dynamics, research related to school turnaround, and developing an entrepreneurial stance regarding school system design and redesign.

EDUC-6395 Innovation in Teaching and Learning

This course is designed to engage school leadership candidates in an exploration of the current models of innovation that are most prevalent in the field of education. Topics may include: computer-mediated curriculum, blended learning, global education, “classrooms without walls,” expeditionary learning, and other evolving educational models. Students will visit, in person or virtually, a variety of these models and analyze the strengths, challenges, and possible impact of the innovations in the maximizing of student learning.

EDUC-6688, 6689 Thesis**EDUC-6693 Clinical Practice — Advanced Internship**

Field work in school administration under the direction and supervision of both a public school administrator and a university staff member.

EDUC-7380 School Psychology Internship: Part I

Supervised internship in the practice of school psychology. Experience provides opportunities for counseling, assessment, and consultation in school systems and community agencies.

EDUC-7381 School Psychology Internship: Part II

Supervised internship in the practice of school psychology. Experience provides opportunities for counseling, assessment, and consultation in school systems and community agencies.

Engineering Science

FACULTY

FARZAN AMINIAN, Ph.D., P.E., Professor; Chair
DIANA D. GLAWE, Ph.D., Associate Professor
PETER KELLY-ZION, Ph.D., Professor
JACK LEIFER, Ph.D., Associate Professor
KEVIN M. NICKELS, Ph.D., Associate Professor
JOSHUA D. SCHWARTZ, Ph.D., Assistant Professor
YURI SHARDT, Ph.D., Assistant Professor
WILSON TERRELL, JR., Ph.D., Associate Professor
MAHBUB UDDIN, Ph.D., Professor

OVERVIEW

MISSION

The mission of the Engineering Science Department at Trinity University is to provide talented students with a broad-based undergraduate engineering education by offering a design-oriented, multi-disciplinary engineering science curriculum in the context of the University's traditions of the liberal arts and sciences.

OBJECTIVES

The Engineering Science Department graduates are expected to attain the following objectives within a few years after graduation:

1. Successful practice of engineering design and analysis in their field;
2. Application of a broad background in liberal arts and sciences when solving engineering problems with humanistic dimensions in their professional practice;
3. Advancement in their engineering careers with increased responsibility and leadership roles;
4. Effective oral and written communication with diverse groups of people;
5. The pursuit of continuing or advanced education relevant to professional interests.

The curriculum emphasizes an in-depth understanding of the fundamentals of the physical sciences, mathematics, and engineering science that form the foundation for technical work in all fields of engineering. Some specialization is available through elective courses in Chemical, Electrical, and Mechanical Engineering, taken during the junior and senior years. The program provides significant hands-on experience in engineering laboratories and participation in engineering design projects throughout the eight-semester engineering design course sequence. The emphasis on fundamentals is intended to prepare students for dealing with the rapid pace of technological change and the interdisciplinary demands of today's, and tomorrow's, engineering practice. The laboratory and design portions of the program provide the student with a balanced perspective of the realities and limitations required for practical problem solving.

The professional practice of engineering requires skill and resourcefulness in applying science and technology to the solution of problems in our complex technological society. The successful engineer must possess a thorough understanding of social and economic forces and have an appreciation of cultural and humanistic traditions. The Trinity Engineering Science Program encourages the development of this

kind of graduate by providing a broad technical background and a significant liberal education in the humanities and social sciences.

ACCREDITATION

Trinity's undergraduate Engineering Science Program is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology.

REQUIREMENTS

ADMISSION TO THE ENGINEERING SCIENCE MAJOR

- I. Students will normally apply for acceptance to the Engineering Science major during the second semester of their sophomore year. Those students who do not apply in this period, but do apply later, will be handled as transfers. The transfer criteria for acceptance are consistent with those listed below, and they generally apply to all courses taken up to the time of application.
- II. For full acceptance a student must ordinarily satisfy the following requirements:
 - A. Completion of MATH 1311, 1312, and 2321 with an average of 2.0 or better.
 - B. Completion of PHYS 1311, 1111, 1312, 1112 and CHEM 1318 and 1118 with a minimum grade of C- in each course and an average of 2.0 or better.
 - C. Completion of ENGR 1381, 1382, 1313, 2314, 2320/2120, and 2181 with a minimum grade of C- in each course and an average of 2.0 or better.
 - D. A grade of C or better in ENGR 1313, 2314, 2320/2120.
 - E. Approval by the Chair of the Department.
- III. Provisional acceptance may be granted to applicants with no more than two grades of C- in the courses listed in 2d.
- IV. After completing ENGR 2311, 2364/2164, 3355/3155, and 3327, the progress of provisional students will be reviewed. Upon recommendation of the faculty advisor and approval by the Chair of the Department, full acceptance will be granted.
- V. Requests for exceptions to this policy will be considered by the Chair of the Department.

BACHELOR OF SCIENCE IN ENGINEERING SCIENCE DEGREE

Engineering students normally follow programs of study specifically tailored to long term career objectives. Each program is composed of a combination of required and elective courses. The electives are chosen through required consultation with the engineering science adviser.

Requirements for the Bachelor of Science in Engineering Science degree are as follows:

- I. The common curriculum. At least one upper division course or a two-course sequence, where the second course builds on the first course in the sequence, must be taken in Understanding Cultural Heritage or Understanding Arts and Literature or Understanding Human Social Interaction. This requirement is designed to provide depth as well as breadth in the humanities or the social sciences.
- II. Engineering Science departmental requirements:
 - A. ENGR 1313, 1381, 1382, 2181, 2182, 2311, 2314, 2320/2120, 2364/2164, 3181, 3182, 3323/3123, 3327, 3355/3155, 4326/4126, 4341, 4381, and 4382, totaling 51 semester hours.
 - B. MATH 1311, 1312, 2321, 3316, 3320, 3357; PHYS 1311/1111 and 1312/1112; CHEM 1318/1118 plus a basic science or math elective for a total of at least 33 semester hours.

- C. ECON 1311, plus one ethics course: PHIL 1354, PHIL 2359, or RELI 1320.
- D. Proficiency in any modern high-level computer programming language. This requirement can be met by: 1) completing an appropriate college-level course (such as CSCI 1311 or 1320), 2) providing evidence of having completed an appropriate secondary school course (subject to approval by the Department Chair), or 3) passing an examination administered by the Department.
- III. Electives necessary to bring the total semester hours earned for the degree to 129.

FOUR-YEAR CLASS SCHEDULE

The suggested arrangement of courses for a four-year program leading to the degree of Bachelor of Science in Engineering Science should be determined in conference with the student's adviser. The recommended first-year program is shown below.

First Year

Fall semester	Semester hours	Spring Semester	Semester Hours
ENGR 1381	3	ENGR 1382	3
MATH 1311	3	ENGR 1313	3
PHYS 1311	3	MATH 1312	3
PHYS 1111	1	PHYS 1312	3
Common Curriculum	6	PHYS 1112	1
	16	Common Curriculum	3
			16

PREREQUISITE REQUIREMENT

The Engineering Science Department enforces the University's policy on prerequisites.

COURSES

ENGR-1313 Mechanics I

Forces and couples acting on rigid bodies in equilibrium using vector analysis including equivalent force systems, free body diagrams, truss analysis, friction, centroids, and moments of inertia.

Prerequisites: MATH 1311 and PHYS 1311.

ENGR-1381 Engineering Analysis and Design I

Introduces students to the engineering design process utilizing a competitive design project. Small groups of students conceive, design, build, and test a structure or device to best achieve specified performance criteria under realistic constraints. Emphasis is placed on Computer Aided Design (CAD). Supporting topics include sketching, construction and testing techniques, measurement concepts, data analysis, communication, and time management.

ENGR-1382 Engineering Analysis and Design II

Continues the introduction to engineering design with another interactive team-oriented design project. Emphasis is placed on numerical analysis using computational software. Supporting topics include programming mathematical models of physical systems, and data gathering, analysis, and presentation. Consideration of alternative and past solutions.

Prerequisite: ENGR 1381.

ENGR-2181 Engineering Design III

Continues the development of students' design skills through a project emphasizing constraints including:

ethics, health and safety, manufacturability, sustainability, economics, the environment, and social and political issues. Supporting topics include project management, literature search, and communication skills. Oral and written reports are required.

Prerequisite: One course in engineering.

Corequisite: ENGR 2314.

ENGR-2182 Engineering Design IV

Continuation of ENGR 2181: final design, construction, testing, and evaluation. Engineering economics and life-cycle costs are introduced in support of the project. Multimedia presentations are required.

Prerequisite: ENGR 2181.

ENGR-2311 Mass and Energy Balances

Conservation of mass and energy concepts applied to open and closed systems with and without chemical reactions. Phase equilibria.

ENGR-2314 Mechanics II

Accelerated rigid body motion including kinematics and kinetics of particles and bodies, work and energy, linear and angular impulse and momentum, and vibrations.

Prerequisite: ENGR 1313.

Corequisite: MATH 1312.

ENGR-2320 Electric Circuits

An introduction to the techniques of analysis and design of elementary linear electric circuits. Topics include mesh, node and equivalent circuit analyses, DC resistive circuits, operational amplifiers, modeling of RLC circuits using differential equations, transient responses and AC steady state.

Prerequisite: MATH 1312.

Corequisite: ENGR 2120.

ENGR-2120 Electric Circuits Laboratory

Laboratory course accompanying ENGR 2320. An introduction to the measurement of voltage and current, uses of simulation and experimentation for analysis and design, and the design of elementary electric circuits. The writing of technical reports and the interpretation and documentation of experimental results is emphasized.

Corequisite: ENGR 2320.

ENGR-2359 Fundamentals of Environmental Engineering

Engineering analysis and design of treatment processes for industrial pollution of air, water, and soil. Topics include contaminants, their sources, and cleanup. Economic and legal consideration.

Prerequisite: CHEM 1318.

ENGR-2364 Electronics I

An introduction to the techniques of analysis, design, and understanding of elementary electronic devices and circuits. Modeling of linear and non-linear electronic devices and systems such as diodes, bipolar junction, and field effect transistors, operational amplifiers, and digital logic devices. Analysis and design of circuits using device and system models. An introduction to digital logic, including analysis and design techniques.

Prerequisite: ENGR 2320.

Corequisite: ENGR 2164.

ENGR-2164 Electronics I Laboratory

Laboratory course accompanying ENGR 2364. A continuation of the topics in ENGR 2120, with emphasis on electronic devices and systems. Experiments and design projects employing diodes, transistors, operational amplifiers, and combinational and sequential digital logic.

Corequisite: ENGR 2364.

ENGR-3181 Engineering Design V

Builds on the students' background in electrical engineering with emphasis on the design of a system that may employ circuits, electronics, electromagnetics, and controls. Supporting topics include safety, electrical measurements, component tolerances, specification, performance standards and manufacturability. An introduction to six-sigma concepts. Oral and written reports are required.

Prerequisites: ENGR 2364 and 2164.

ENGR-3182 Engineering Design VI

Builds on the students' background in thermodynamics/fluids with the introduction of a competitive thermal-fluids design project. Supporting topics include thermal-fluids instrumentation and measurements; and computerized data acquisition, analysis, and visualization. Application of uncertainty analysis and design of experiments. Oral and written reports and design journals are required.

Corequisites: ENGR 3323 and 3123.

ENGR-3321 Signals and Systems

The analysis of signals and linear systems in the time and frequency domains using transform methods. Topics include: methods of modeling signals and systems, convolution, frequency response, impulse response, the Fourier and Laplace transforms, and transfer functions as applied to circuits and general linear systems.

Prerequisites: ENGR 2320 and MATH 3316.

ENGR-3121 Signals and Systems Laboratory

Laboratory to accompany ENGR 3321. A mix of experiments and short design projects intended to motivate, illustrate, and apply concepts from ENGR 3321. Modern methods of simulation and computer-aided design of linear systems are introduced.

Corequisite: ENGR 3321.

ENGR-3323 Fluid Mechanics I

An introduction to the fundamentals of fluid mechanics, including hydrostatics, conservation of mass, momentum, and energy for a control volume, dimensional analysis and similarity, flow measurement, and pipe flow.

Prerequisites: ENGR 3327 and 2314.

Corequisites: ENGR 3123 and MATH 3357.

ENGR-3123 Fluid Mechanics I Laboratory

Experimental investigations in fluid mechanics with a strong emphasis on design, analysis and reporting of results.

Prerequisite: MATH 3320.

Corequisite: ENGR 3323.

ENGR-3327 Thermodynamics I

Basic principles of macroscopic thermodynamics including pressure-volume-temperature relationship of pure substances, work, heat, first and second laws of thermodynamics, entropy and the degradation of energy, thermodynamic system analysis, computer-aided design, and analysis of simple power and refrigeration systems.

Prerequisite: ENGR 2311.

ENGR-3339 Mechanics of Materials

Stresses and deflections of structural elements including stress strain relations, Mohr's circle, tie rods, columns, beams, torque tubes, and statically indeterminate systems for both elastic and plastic stress levels.

Prerequisite: ENGR 1313.

ENGR-3355 Control Systems I

Techniques of modeling and analyzing mechanical and electrical systems, linear systems including feedback control systems, solutions to system differential equations using classical techniques, both analytical using the Laplace transform, and numerical methods; transfer functions, transient and steady-state response, stability, and frequency response.

Prerequisites: ENGR 2320, MATH 3316.

Corequisite: ENGR 3155.

ENGR-3155 Control Systems I Laboratory

Experimental observation of the behavior of physical systems and comparison with the mathematical models. Construction and analysis of simple control systems with examples taken from the thermal, fluid, mechanical, and electrical sciences.

Corequisite: ENGR 3355.

ENGR-4326 Heat Transfer

A study of conduction, convection, and radiation separately and in combination; steady and unsteady states; analytical and numerical methods including explicit and implicit finite differences.

Prerequisites: ENGR 3323, MATH 3357.

Corequisites: ENGR 4126.

ENGR-4126 Heat Transfer Laboratory

Experimental investigations in heat transfer with a strong emphasis on design, analysis and reporting of results.

Prerequisite: MATH 3320.

Corequisite: ENGR 4326.

ENGR-4328 High-Frequency Electromagnetics

The fundamental theory of electromagnetic waves is developed and applied to the design of high-frequency electrical circuits. Topics include: how electromagnetic waves travel and are usefully directed; how to design signal transmission lines, filters and couplers; analysis of high-frequency circuit networks,

and high-frequency circuit concepts such as distributed impedance. Students will also prepare an individually researched assignment on a subject of their choice exploring an emerging technology in the electrical engineering area. (Also listed as PHYS 4328.)

Prerequisites: MATH 2321 and either ENGR 2320 or PHYS 2131.

ENGR-4341 Engineering Materials

Principles underlying the structure-property-application relationships of various engineering materials including metals, ceramics, glasses, polymers, composites, semiconductors, and superconductors. Analysis of material microstructures with respect to thermal, mechanical, electrical, optical, magnetic, and chemical properties. The role of material selection in engineering design. Laboratory work includes material testing, uses of x-ray diffractometer and the electron scanning microscope. Supplemental of x-ray diffractometer and the electron scanning microscope. Supplemental movies on advances in engineering materials. Individual project.

ENGR-4342 Bioengineering Science

Structure, function, and modeling of transport systems in the human body with emphasis on cardiovascular, pulmonary, and related systems. Mathematical modeling and system responses to environmental changes. Homeostasis and control systems.

Prerequisites: CHEM 1318, MATH 1311.

ENGR-4356 Modern Control System Design

Selected topics from the broad range of modern methods of control system analysis and design, such as: state-space and modern transfer function models and methods; discrete-time and/or nonlinear systems; multivariable systems; computer-aided control system design.

ENGR-4357 Chemical Reaction Engineering

Chemical reaction kinetics and its relationship to the design and scale-up of chemical reactors. Mathematical analysis of batch, mixed flow and plug flow reactors, advanced topics including multireaction analysis, heat and mass transfer in chemical reactors and catalytic reactors. Computer simulation.

Prerequisites: ENGR 2311.

ENGR-4358 Biochemical Engineering

The fundamentals of analysis and design of bioprocesses. Topics include enzyme kinetics, immobilized enzyme reactors, cell cultivation, growth kinetics, and bioreactor design.

Prerequisite: ENGR 2311.

ENGR-4365 Digital Logic Design

A comprehensive study of digital logic design and analysis techniques for combinational and sequential circuits. Small-scale and medium scale integrated circuits as well as several varieties of programmable logic are used as design components. Includes a case study of complex sequential circuit such as a microprocessor.

ENGR-4165 Digital Logic Design Laboratory

Laboratory to accompany ENGR 4365. A series of short design projects intended to motivate, illustrate, and apply design techniques taught in ENGR 4365. Projects are implemented using various programmable logic devices.

Corequisite: ENGR 4365.

ENGR-4366 Unit Operations

Mass transfer in multi-component systems and its relationship to fluid mechanics and heat transfer. Techniques of design of transfer operations including distillation, gas absorption, liquid extraction and cooling towers. Computer aided design and simulation.

Prerequisite: ENGR 2311.

ENGR-4367 Mechatronics

This course surveys topics underlying the design of mechatronic systems such as electronics, system modeling and control, and computer control of systems. Components supporting system design such as sensors, actuators, and data acquisition are also covered. Case studies of mechatronic systems, including discussion of tradeoffs between mechanical, electrical, electronic, and microcomputer control, are studied. A final project involving the design and implementation of a mechatronic system puts these principles into practice.

Prerequisites: ENGR 2314, 2364, and 3355.

ENGR-4369 Embedded Microcomputer Systems

Study of microprocessor and microcontroller systems: hardware, including basic system architectures, processors, memory, and peripheral devices; software, including assembly language programming; and system design, including electrical and mechanical applications. Hands-on experience in a typical development environment, including interfacing and programming. Includes a case study of a typical embedded system.

ENGR-4370 Mechanics of Continuous Media

Mechanics of solids including elasticity, plasticity, advanced strength of materials, energy methods, experimental stress analysis, and an introduction to the finite element method.

Prerequisite: ENGR 3339.

ENGR-4371 Machine Design

Topics chosen from among static and fatigue theories of failure, fracture, probabilistic design, shafts and shaft components, springs, welded and bolted connections, and gear design. (Offered every other Spring.)

Prerequisite: ENGR 3339.

ENGR-4372 Computational Methods in Engineering

Application of contemporary numerical methods to problems in chemical, electrical and mechanical engineering. Formulation of governing differential equations, weighted residuals, finite-difference, and control volume finite-element methods.

Prerequisite: MATH 3316.

ENGR-4373 Thermal/Fluid Applications

This course covers advanced topics in fluid mechanics, heat transfer, and thermodynamics. Applications in which the interdependence of these fields is critical to the understanding of engineering systems will be emphasized.

Prerequisite: ENGR 3327.

ENGR-4375 Structural Dynamics

Free and forced vibrations of single and multiple degree of freedom systems with and without damping, structural response to dynamic loads, eigenvalue problems, energy methods, differential equation methods, forcing functions, and numerical analysis.

Prerequisites: ENGR 2314 and MATH 3316

ENGR-4377 Electronics II

Analysis and design of digital electronic circuits using MOS transistors; analysis and design of operational amplifiers; feedback amplifiers and frequency response of amplifiers.

Prerequisite: ENGR 2364.

ENGR-4177 Electronics II Laboratory

Laboratory to accompany ENGR 4377. Computer-aided design of integrated circuits and verification of design using simulation and/or laboratory experimentation.

Corequisite: ENGR 4377.

ENGR-4381 Engineering Design VII

A capstone design experience with small groups of students, each group advised by a designated faculty member. Includes the establishment of objectives and criteria, modeling, analysis and synthesis, and aesthetics for the preliminary design stages of each group's project. Projects will involve realistic design constraints such as ethics, health and safety, manufacturability, sustainability, economics, the environment, and social and political issues. Oral and written reports and design journals are required.

Prerequisite: consent of Department Chair.

ENGR-4382 Engineering Design VIII

The capstone experience continued, including final design, construction, testing, and evaluation of the projects started in ENGR 4381. Oral and written reports and design journals are required.

Prerequisite: ENGR 4381 or consent of Department Chair.

ENGR-1-90 Directed Research—Introductory Level

Individual research conducted under faculty supervision. Oral and written communication of results is required, including an end-of-semester written report. Credit may vary from 1 to 3 hours. The course may be repeated for additional credit.

Prerequisite: consent of instructor and Department Chair.

ENGR-2-91 Problems in Engineering

Independent work on problems in engineering as indicated by the student's preparation and interest. 1 to 6 semester hours.

Prerequisite: consent of Department Chair.

ENGR-3-90 Directed Research

Individual research conducted under faculty supervision. Oral and written communication of results is required, including an end-of-semester written report. Credit may vary from 1 to 3 hours. The course may be repeated for additional credit.

Prerequisites: consent of instructor and the Department Chair.

ENGR-4-91 Problems in Engineering

Independent work on problems in engineering as indicated by the student's preparation and interest. 1 to 6 semester hours.

Prerequisite: consent of Department Chair.

English

FACULTY

VICTORIA AARONS, Ph.D., O.R. and Eva Mitchell Distinguished Professor of Literature
PETER H. BALBERT, Ph.D., Professor
JENNY BROWNE, M.F.A., Associate Professor
KELLY CARLISLE, Ph.D., Assistant Professor
DUANE COLTHARP, Ph.D., Associate Professor; Associate Vice President for Academic Affairs
MICHAEL FISCHER, Ph.D., Professor; Vice President for Faculty and Student Affairs
COLEEN GRISSOM, Ph.D., Professor
ANDREW KRAEBEL, Ph.D., Assistant Professor
ANDREW PORTER, M.F.A., Associate Professor
DAVID RANDO, Ph.D., Associate Professor
WILLIS A. SALOMON, Ph.D., Associate Professor
MICHAEL SOTO, Ph.D., Associate Professor
CLAUDIA STOKES, Ph.D., Associate Professor; Chair
BETSY TONTIPLAPHOL, Ph.D., Associate Professor

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in English are as follows:

I. The common curriculum

II. Departmental requirements:

A. Forty-two (42) hours in the Department of English

B. Lower-division requirements:

At least fifteen (15) hours of lower-division courses including:

ENGL 2301	British Literature: Epic to Romantic
ENGL 2302	British Literature: Romanticism and After
ENGL 2303	American Literature: Colonization to 1900
ENGL 2304	American Literature: New Realism Through the Moderns
ENGL 2311	Literary Methods; required of all English majors and must be completed by the end of the fifth semester; limited to majors, minors, and prospective majors.

C. Upper-division requirements:

At least twenty-seven (27) hours of upper-division courses, including:

1. At least nine (9) hours of literary periods before 1800 and at least nine (9) hours of literary periods after 1800, with at least three (3) of these hours after 1800 in British Literature, and at least three (3) of these hours after 1800 in American Literature.

Courses pre-1800 include: 3356, 3357, 3358, 3359, 3360, 3362, 3363, 3364, 3370, 3383, 4301, 4302, 4303, 4304, 4320, 4321, 4323.

Courses post-1800 include: 3320, 3321, 3327, 3329, 3366, 3367, 3370, 3371, 3372, 3375, 3380, 3381, 3383, 3384, 4322, 4323, 4327.

2. Nine (9) hours of upper-division electives, with a maximum of one (1) in creative writing.

THE MINOR

A minor in English consists of a minimum of 21 semester hours of English above ENGL 1302, of which at least 12 semester hours must be upper-division.

THE MINOR IN CREATIVE WRITING

The minor in Creative Writing is designed for the student who wishes to pursue an emphasis in creative writing to complement a major in another area.

The requirements for the minor are as follows:

- I. Twelve (12) hours in creative writing including:

ENGL 3301	Non-Fiction Writing
ENGL 3302	Fiction Writing
ENGL 3303	Poetry Writing

- II. Three (3) hours in advanced creative writing from the following:

ENGL 3311	Advanced Non-Fiction Writing
ENGL 3312	Advanced Fiction Writing
ENGL 3313	Advanced Poetry Writing

- III. Six (6) additional hours from the following:

COMM 3340	Media Writing: Magazine Writing
COMM 3340	Media Writing: Scriptwriting
ENGL 3311	Advanced Non-Fiction Writing
ENGL 3312	Advanced Fiction Writing
ENGL 3313	Advanced Poetry Writing
ENGL 3316	Writing Internship
ENGL 3327	Contemporary Literature
ENGL 3335	Rhetorical Analysis
ENGL 3375	Postmodern Literature
ENGL 4305	Topics in Creative Writing
ENGL 4323	Studies in American Literature: The American Short Story
THTR 3360	Playwriting

When departments offer a relevant “special topics” or “variable content” course, the Chair of the English Department may designate such a course as meeting a relevant requirement for the minor.

THE SENIOR THESIS AND HONORS PROGRAM

The senior thesis may be either a substantial piece of creative writing or an in-depth, original, analytical argument of approximately 40 pages, using primary and secondary research. The 6-hour thesis program (ENGL 4398 and 4399) may be chosen by any student with the consent of an appropriate instructor, and it is required of all students wishing to graduate with departmental Honors.

A student wishing to graduate with Honors in English must do all of the following:

- I. Maintain an overall grade point average of at least 3.33.
- II. Maintain a grade point average of at least 3.5 in English.
- III. Enroll in ENGL 4398 (in the first semester of the senior year) and 4399 (in the second semester of the senior year) with an appropriate faculty member who has approved the student’s project and has agreed to serve as the student’s thesis adviser.

- IV. Complete ENGL 4398 and 4399 with a grade of "A."
- V. Declare his or her intention to be considered for Honors by submitting a written application to the chair of the department, along with a formal recommendation from the thesis adviser.
- VI. Submit a completed draft of the senior thesis to the thesis adviser and to a second faculty reader approved by the departmental Honors committee.
- VII. Submit the completed senior thesis to the departmental Honors committee, along with formal recommendations from the thesis adviser and second reader.
- VIII. Make an oral presentation of the senior thesis to the department.

After evaluating the quality of the senior thesis, the Honors committee will decide whether to confer or not to confer departmental Honors.

A full description of the Honors program is available in the English department office.

COURSES

ENGL-1301 Introduction to Film Studies

This course is an introduction to the artistic, cultural, and scholarly importance of film. The course focuses on the development of film as a complex art form, the evolution of narrative as part of a formal system, the development of the industry and film genres, critical and cultural approaches to film analysis, and the construction of the audience. Students will read excerpts from primary texts as well as more general texts dealing with film interpretation and criticism. (Also listed as ARTH 1301, COMM 1302, FILM 1301, and ML&L 1301.)

ENGL-1302 Writing Workshop

A course in composition that stresses expressive, analytical and persuasive writing with emphasis on rhetorical strategies in relation to aims and audience. The course is designed to refine student skills in critical reading, analysis, and judgment.

ENGL-1303 Intermediate Writing

Students who have exempted from ENGL 1302 with a score of 4 or 5 on the Language and Composition AP examination or a score of 5 on the Literature and Composition AP Examination but who wish to take 1302 may register for this section and attend a 1302 section after receiving the consent of the instructor. Students registered for 1303 will be expected to do work beyond the requirements of 1302.

Prerequisite: consent of instructor.

ENGL-1305 Introduction to Comparative Literature

Examines with a cross-cultural perspective texts from around the world. The course provides an introduction to the interdisciplinary field of comparative literature. (Also listed as CMLT 1300.)

ENGL-1310 Applied Linguistics

Examines applications of linguistics in psycholinguistics (language acquisition and language processing), sociolinguistics (language development and change in groups and organizations), the interaction of language and culture, and analytical procedures (discourse and text analysis). (Also listed as HCOM 1310 and LING 1310.)

Prerequisite: LING 1300 or consent of instructor.

ENGL-2300 International Cinema

This course focuses on the cultural and critical analysis of international films as an expression of particular artistic genres and/or styles within specific historical, ideological, and cultural contexts. Films selected have achieved wide, critical acclaim; others reveal unique and important visions of human experience; while still others are selected for their political, ideological, or sociological significance. Students should develop an awareness that the medium of film has a history and that its history is not confined to national boundaries. (Also listed as ARTH 2301, COMM 2300, FILM 2301, and ML&L 2301).

ENGL-2301 British Literature: Epic to Romantic

An examination of the literary perspectives of cultural changes in English from the early medieval period to the beginnings of Romanticism.

ENGL-2302 British Literature: Romanticism and After

An examination of the literary expressions of cultural changes from the French Revolution through the mid-20th century, with a primary concentration on British writers, although other writers and texts may be used to broaden the course's perspective.

ENGL-2303 American Literature: Colonization to 1900

An examination in the literary expressions of cultural changes in America from the early explorers and colonists through the end of the nineteenth century.

ENGL-2304 American Literature: New Realism through the Moderns

An examination of the literary expressions of cultural changes in America from 1900. Special attention is paid to the relation between the new spirit of America after the First World War and the resultant formal and thematic adaptations in literature.

ENGL-2305 World Literature

A course designed to complement the American and British Literature offerings. Includes, primarily, texts from European, Asian, African, and Central and South American cultures written in the past 2,000 years in all major genres.

ENGL-2306 Advanced Placement Credit I

Students entering with a score of 4 or higher on the Advanced Placement Literature and Composition examination or a 6 on the Higher-Level International Baccalaureate English exam will receive credit for this course.

ENGL-2307 Advanced Placement Credit II

Students entering with a score of 5 on the Literature and Composition examination or a 7 on the Higher-Level International Baccalaureate English exam will receive credit for this course. These credits are in addition to the credits received for ENGL 2306, for a total of 6 credits.

ENGL-2308 The Literary Imagination

This course introduces students to a variety of topics in the study of literature. Individual offerings emphasize historical, thematic, or genre approaches to reading and writing about literary texts (consult appropriate Class Schedule for details).

Prerequisite: First- or second-year status, or consent of instructor.

ENGL-2311 Literary Methods

Introduction to the practice of literary studies. Special attention will be paid to evaluating and interpreting both primary literature (in its major genres) and a variety of secondary critical arguments. Frequent writing assignments will include major essay that demonstrates an awareness of important critical work on the subject. Topics vary.

ENGL-2340 Creative Thinking and the Artistic Process

This course encourages students to synthesize a theoretical and experiential approach to the creative process as studied through the visual arts, music, creative writing, and theatre. Students enter into the creative process as a means to develop creative self-expression, aesthetic sensibility, and an understanding of the arts. The nature and drive of artistic endeavor is explored through studies of the lives of significant thinkers and artists, examinations of art works, guest lectures, and projects. Students will engage in activities and projects that will enable them to access and develop their own creative thinking skills in concert with traditional, analytic modes. (Also listed as ART 2314, GNED 2340, MUSC 2340, and THTR 2340.)

ENGL-2373 African American Literature

Survey of African American literature from the early slave narrative to the present. Examines the history, culture, and intellectual traditions informing this literature, as well as the political and aesthetic debates that shaped the tradition.

ENGL-3301 Introduction to Non-Fiction Writing

Study in the theory, technique, and practice of non-fiction writing.

ENGL-3302 Fiction Writing

Study in the forms of fiction with a primary focus on writing the short story.

ENGL-3303 Poetry Writing

Study of the theory, techniques, and practice of poetry writing.

ENGL-3304 Writing Tutors/Writing Workshop

Writing tutors assigned by permission of instructor to individual sections of ENGL 1302. At the discretion of the instructor, tutors assist students in the process of producing written essays. Office hours and class attendance required.

Prerequisite: consent of instructor.

ENGL-3311 Advanced Writing of Creative Non-Fiction

Extensive writing in forms and techniques of creative non-fiction (memoir, travel writing, nature writing, etc.). Course alternates by semester between memoir/personal essay and more research-driven work. May be repeated for up to 6 hours of credit when topics vary.

Prerequisites: ENGL 3301 or consent of instructor.

ENGL-3312 Advanced Fiction Writing

Extensive writing in forms and techniques of fiction. May be repeated for up to 6 hours credit with the permission of instructor.

Prerequisites: ENGL 3302 or consent of instructor.

ENGL-3313 Advanced Poetry Writing

Extensive writing in forms and techniques of poetry. May be repeated for up to 6 hours credit with permission of instructor.

Prerequisites: ENGL 3303 or consent of instructor.

ENGL-3314 Advanced Exposition and Argument

Intensive writing workshop concentrating on individual projects and focusing on the traditional rhetorical principles of invention, structure, and style.

Prerequisite: ENGL 1302 or equivalent or consent of instructor.

ENGL-3315 Advanced Writing for the Professions

Intensive writing workshop concentrating on individual writing concerns with relation to specific professions. Focus on audience, structure, and professional expectations.

ENGL-3316 Writing Internship

Supervised work on individually specified projects under the supervision of departmental faculty. Each project involves work on literary publications. The number of internships varies with available opportunities. Pass/Fail only.

ENGL-3320 Modern Drama

Study of trends in dramatic literature from Realism to the present. (Also listed as THTR 3336.)

ENGL-3321 Contemporary Drama

Study of trends in dramatic literature from World War II through the present as manifested in the United States, Great Britain, Europe, and representative Third World countries. (Also listed as THTR 3337.)

ENGL-3322 Greek and Roman Drama

Study of trends in Greek and Roman dramatic literature, with attention to social, cultural, and political contexts. Topics will include the development of dramatic conventions and traditions of reception and performance. (Also listed as CLAS 3303 and THTR 3335.)

Prerequisite: sophomore standing or consent of instructor.

ENGL-3327 Contemporary Literature

Selected studies in contemporary prose fiction, primarily American and Canadian short stories and novels. May be repeated for up to 6 hours when topics vary.

ENGL-3329 Jewish Literature

A survey of Jewish writers, including Kafka, Babel Singer, Sholem Aleichem, Roth, Bellow, Malamund, Paley, and Wiesel, in response to Jewish literary and cultural traditions, rooted in Hebrew scripture.

Prerequisite: 6 hours of English above 1302.

ENGL-3334 Rhetorical Criticism

Examines approaches to the critical analysis of rhetorical discourse with emphasis on methodological issues as well as techniques for doing scholarly criticism. (Also listed as HCOM 3350.)

ENGL-3335 Rhetorical Analysis

Introduction to rhetoric as a mode of analysis as it applies to discursive modes and genres. (Also listed as HCOM 3352.)

Prerequisite: 6 hours in English above 1302.

ENGL-3339 Philosophy of Literature

In this course we will investigate several philosophical issues raised by literature, such as what exactly literature is, the nature of literary authorship and interpretation, why is it we respond emotionally to fictional characters, and what the value of engaging with literature is. (Also listed as PHIL 3360.)

Prerequisite: PHIL 1301 or 6 hours in English.

ENGL-3346 History of the English Language

Traces the history of modern English varieties of language from their common Indo-European origin. Emphasis upon the relation between cultural changes and changes in English vocabulary, grammar, pronunciation, and spelling.

Prerequisite: 6 hours in English above 1302.

ENGL-3356 Readings in Old English Literature

A survey of the major genres of Old English literature in their cultural context: heroic poetry, elegies, Biblical narratives, riddles, the saint's life, homilies, and theological tractates.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-3357 English Literature of the Late 14th Century

A survey of the works of the major authors in late medieval England: Geoffrey Chaucer, the Gawain poet, William Langland, John Gower, Sir Thomas Malory, as well as the anonymous authors of some of the moralities and mystery plays.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-3358 Medieval and Early Renaissance Drama

A study of English drama from the liturgical beginnings through Christopher Marlowe. Within a rich historical, Biblical, cultural, and aesthetic context, the course emphasizes the quem quaeritis trope, miracles, mysteries, moralities, interludes, and tragedies.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-3359 Medieval Literature

Study of literature from the European Middle ages, which may include such areas as prose, poetry, drama, and historical background. May be repeated for up to six hours when topics vary.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-3360 Shakespeare

An introduction to Shakespeare's plays with special attention to genre, periodization, and topical issues that situate Shakespeare's plays within their cultural context. Topics will vary and the course may be repeated for up to six hours of credit when topics vary.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-3362 Early Modern British Literature, 1485-1603

A survey of poetry and prose from More to Shakespeare, roughly corresponding to the consolidation of the Tudor monarchy and emphasizing the discursive, political, and cultural contexts of emergent English Renaissance literary production.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-3363 Early Modern British Literature, 1603-1660

A survey of poetry and prose from Donne to Marvell emphasizing the effects of monarchical succession, emergent capitalism, colonialism, scientism, religious controversy, and revolutionary conflict on British literature of the earlier seventeenth century.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-3364 British Literature, 1660-1798

A study of poetry, prose, and drama from the Restoration through the eighteenth century, emphasizing the flourishing of satire, the rise of the novel, the emergence of sentiment, and the increasing literary activities of women.

ENGL-3365 19th-Century British Poetry

Study of selected poetry from nineteenth-century England. Emphasis on major authors and movements from the Romantics, the Victorians, or the Edwardians.

Prerequisite: ENGL 2302 or consent of instructor.

ENGL-3366 19th-Century British Fiction

Study of selected fiction from nineteenth-century Britain. Emphasis on major authors and movements from the Romantics, The Victorians, or Edwardians. May be repeated when topics vary.

Prerequisite: ENGL 2302 or consent of instructor.

ENGL-3367 British Literature, 1900-Present

Studies in major British writers and literary movements. May be repeated when topics vary.

Prerequisite: ENGL 2304 or consent of instructor.

ENGL-3370 Early American Literature

Examines the literature of the colonies and early republic, up to 1830. Considers literature in the light of Puritan and Enlightenment attempts to build a nation as well as the social conflicts that undermined those projects.

Prerequisite: ENGL 2303 or consent of instructor.

ENGL-3371 American Literature of the 19th Century

Study of particular periods, literary movements, authors, themes, or genres. Prerequisite: ENGL 2303 or consent of instructor.

ENGL-3372 American Literature, 1900-Present

Studies in major American writers and literary movements. May be repeated when topics vary.

Prerequisite: ENGL 2304 or consent of instructor.

ENGL-3375 Postmodern Literature

Major authors and issues involved with the postmodern aesthetic.

Prerequisite: ENGL 2302, 2304, or consent of instructor.

ENGL-3380 The Modern Novel

Study of influence of the changing concepts of time, space, and personality on the British and American novel after 1915. Works by Joyce, Woolf, Lawrence, Hemingway, Faulkner, and others.

Prerequisite: ENGL 2302, 2304, or consent of instructor.

ENGL-3381 Modern Poetry

Examines the major figures and movements of poetry written in English during the twentieth and twenty-first centuries.

Prerequisite: ENGL 2302, 2304, or consent of instructor.

ENGL-3383 The British Novel

Study of the development of the novel from Defoe through the twentieth century.

Prerequisite: ENGL 2301, 2302, or consent of instructor.

ENGL-3384 The American Novel

Evolution of the American novel in its historical and cultural setting. Prerequisite: ENGL 2303, 2304, or consent of instructor.

ENGL-3385 The Continental Novel

Study of a selection of novels in translation from French, Russian, and German literatures. Includes Balzac, Hugo, Dostoevsky, Koestler, Hesse, and Boll.

Prerequisite: ENGL 2302, 2304, 2305, or consent of instructor.

ENGL-3386 Theory of the Novel

Evolution of the novel from its roots in the seventeenth and eighteenth centuries to its modern flowering in the twentieth. Includes Fielding, Austen, Eliot, Dickens, Hardy, Conrad, James, Woolf, and Faulkner.

Prerequisite: ENGL 2311 or consent of instructor.

ENGL-3-90 Directed Studies—Junior Level

Independent Study. Discretion of Instructor. Prerequisite: consent of instructor.

ENGL-4301 Geoffrey Chaucer

Examines Chaucer's poetry, emphasizing in separate semesters either the dream poetry and the Troilus, or The Canterbury Tales.

ENGL-4302 Elizabethan and Jacobean Playwrights

Non-Shakespearean drama from the opening of professional theaters (1576) until the closing under Cromwell (1642). Includes Kyd, Marlowe, Jonson, Webster, Middleton, and Rowley, Beaumont and Fletcher, and Ford. Works studied in relation to social and theatrical conditions and contemporary literary

criticism.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-4303 Milton

Examines Milton's major poetry and prose in historical, theological, and political contexts.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-4304 Restoration Drama

Examines English drama from 1660 to 1800. Covers heroic drama, tragedy, comedy, and satire.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-4305 Topics in Creative Writing

Extensive writing in a specific form or genre. May be repeated once when topics vary. Prerequisites: ENGL 3301, 3302, or 3303, or consent of instructor.

ENGL-4317 Seminar in Literary Methods

An examination of literary theory for advanced students. May entail the study of one or more methodologies, such as psychoanalysis, feminism, or reader-centered criticism. May be repeated for up to 6 hours with permission of the instructor; if appropriate, may count toward a distribution requirement (in which case it does not count as an elective).

Prerequisite: ENGL 2311 or consent of instructor.

ENGL-4318 Seminar in Literary Theme or Genre

Literary works from more than one historical period examined in relation to a selected thematic or generic topic. May be repeated when topics vary; if appropriate, may count toward a distribution requirement (in which case it does not count as an elective).

ENGL-4319 Studies in Medieval Literature

Selected topics concerning the intersection of literature and culture in medieval England in the context of current critical theory and debate. Topics vary, including selected topics, genres, and cultural issues of Anglo-Saxon and Late Medieval English literatures. May be repeated when topics vary.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-4320 Studies in Early Modern British Literature

Selected topics concerning the intersection of literature and culture in sixteenth and earlier seventeenth-century England in the context of current critical theory and debate. May be repeated when topics vary.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-4321 Studies in 18th-Century British Literature

A study of selected topics in the literature and culture of Restoration and eighteenth-century Britain in the context of current critical theory and debate. May be repeated when topics vary.

Prerequisite: ENGL 2301 or consent of instructor.

ENGL-4322 Studies in 19th-Century British Literature

Study of the literature, literary movements, history, and criticism of nineteenth-century England. Topics

vary from the Romantics to the Victorians to the Edwardians. May be repeated when topics vary.

Prerequisite: ENGL 2302 or consent of instructor.

ENGL-4323 Studies in American Literature

Course examines selected topics, genres, and cultural issues of American literature. Includes the Harlem Renaissance; Theory and Practice of American Gothic. May be repeated when topics vary.

Prerequisite: appropriate survey or consent of instructor.

ENGL-4325 Seminars in Literary Periods

Examines issues and authors within their specific historical periods. May be repeated when topics vary.

Prerequisites: appropriate survey and ENGL 2311 or consent of instructor.

ENGL-4326 Seminar on Individual Authors

In-depth study of one or more major figures. May be repeated when authors vary. Prerequisites: appropriate survey and ENGL 2311 or consent of instructor.

ENGL-4327 Literature of the Holocaust

Examines cultural, generational, and literary perspectives of the Holocaust. (Offered every Spring.)

ENGL-4330 Studies in Literary and Cultural Theory

Selected topics and issues in contemporary theory, examining major texts of feminism, new historicism, marxism, deconstructionism, psychoanalysis, and literary canons and traditions. May be repeated when topics vary.

Prerequisite: ENGL 2311 or consent of instructor.

ENGL-4-90 Directed Studies—Senior Level

Independent study. Discretion of instructor. Prerequisite: consent of instructor.

ENGL-4398 Senior Thesis I

Individual research and scholarly investigation under faculty supervision leading to the preparation of a Senior Thesis. To be taken only by Senior Honors students in the first semester of their senior year.

Prerequisite: consent of instructor.

ENGL-4399 Senior Thesis II

Individual research and scholarly investigation under faculty supervision leading to the preparation of a Senior Thesis. To be taken only by students in the second semester of their senior year.

Prerequisite: ENGL 4398.

Entrepreneurship

FACULTY ADVISORY COMMITTEE

RICHARD V. BUTLER, Ph.D., Professor, Economics

LUIS MARTINEZ, Ph.D., Director of the Center for Innovation and Entrepreneurship

DANIEL T. WALZ, Ph.D., Professor, Finance and Decision Sciences

OVERVIEW

The Entrepreneurship minor is designed to cultivate, coordinate, and integrate Trinity's diverse resources for the development and application of more creative entrepreneurial behavior and achievement. It builds on the overlap of three clusters of programs: arts and humanities, science and engineering, and business and social sciences.

The Entrepreneurship minor provides students an interdisciplinary approach to the process of creativity and entrepreneurship. This minor focuses on the process of creativity, opportunity identification and evaluation, design and innovation, financing, strategy, marketing, and new venture development. This minor offers an opportunity for students to form multidisciplinary entrepreneurship project teams (E-Teams) for transforming creative ideas into practical realities, and to interact with alumni entrepreneurs.

This minor requires twenty-one hours of coursework with at least nine hours at the upper-division level.

Students who wish to go beyond the minimum required of this minor should investigate the possibility of an Interdisciplinary Second Major and prepare an expanded plan that integrates more of these courses. A form that describes the Interdisciplinary Second Major is available in the Office of the Registrar.

REQUIREMENTS

THE MINOR

Core Courses. From this list select twelve hours of coursework, including the specified section of GNED 1300 or GNED 2340 and ENTR 3340, 3341, and 4193.

GNED 1300	First Year Seminar: Creativity and Entrepreneurial Behavior
ENTR 2190	Exploring Entrepreneurial Opportunities
GNED 2340	Creative Thinking and the Artistic Process
ENTR 3-90	Directed Studies—Junior Level
ENTR 3340	Innovation, Design, and Entrepreneurship
ENTR 3341	Entrepreneurial Planning and Strategies
ENTR 4-90	Directed Studies—Senior Level
ENTR 4193	Capstone—E-Team Project

Elective Courses. Along with members of the advisory committee, students will select three elective courses that meet the following criteria: (1) the specific courses selected should encourage students to develop essential skills for their entrepreneurial development or lead students to investigate broader areas of social concern; and (2) the courses must be approved by the advisory committee of the minor.

COURSES

ENTR-2190 Exploring Entrepreneurial Opportunities

This course focuses on the process of recognizing entrepreneurial opportunities. In this course students learn various ways to identify an opportunity such as observing trends, solving a problem, and finding

gaps in the market place. Students learn how to analyze economic and social forces, technological advances, and political and regulatory changes to develop entrepreneurial opportunities. May be repeated three times.

Prerequisite: GNED 2340 (also listed as ART 2314, ENGL 2340, MUSC 2340, and THTR 2340) or consent of instructor.

ENTR-3340 Innovation, Design, and Entrepreneurship

This course focuses on the process of innovation and design for entrepreneurial venture development. In this course students learn to develop a persuasive structure to make innovative ideas attractive and defensible. Design is an essential step in transforming innovative ideas into practical reality. This course focuses on the use of design as a form of expression, including development of functional prototypes of innovative ideas potentially leading to entrepreneurial ventures. In this course students are required to form multidisciplinary design teams. Students develop the knowledge, skills, and behaviors related to developing innovative ideas, design methodologies, use of appropriate information, materials, tools, and technology for entrepreneurial ventures.

Prerequisites: GNED 2340 (also listed as ART 2314, ENGL 2340, MUSC 2340, and THTR 2340) and junior standing, or consent of instructor.

ENTR-3341 Entrepreneurial Planning and Strategies

This course focuses on entrepreneurial planning and strategies with emphasis on the areas of financing, management, and marketing. Major topics include attracting seed and growth capital from sources such as individuals, venture capital, investment banking, and government and commercial banks; creating marketing plans for a new venture; entrepreneurial or opportunity oriented management, strategic control, operational functions, and organizational management; short- and long- range planning; and measurement of economic performance.

Prerequisite: ENTR 3340.

ENTR-3-90 Directed Studies: Junior Level

Independent study under faculty supervision with emphasis on the latest developments in entrepreneurship and preparation of the E-Team projects. May be repeated up to three hours.

Prerequisites: GNED 2340 (also listed as ART 2314, ENGL 2340, MUSC 2340, and THTR 2340) and junior standing, or consent of instructor.

ENTR-3-95 Internship

An off-campus internship with an accepted employer in the private, public, or non-public sector. This structured and supervised professional work experience must be pre-approved and include specific learning objectives and a relevant deliverable assignment, service, or project for the company or non-profit. The experience may be paid or unpaid. Variations in credit according to the work performed, from 0 to 6 hours. A maximum of 6 hours of internship credit may be applied to a Trinity degree. Must be taken pass/fail. (Offered every semester.)

Prerequisite: consent of program director.

ENTR-4-90 Directed Studies—Senior Level

Independent Study under faculty supervision with emphasis on completing the major project of the entrepreneurship program. May be repeated for up to three hours.

Prerequisites: ENTR 3340 and senior standing.

ENTR-4193 Capstone for E-Team Project

This is the capstone course for students in the entrepreneurship program, a course in which all elements of the program are tied together. In this course each E-Team project group develops a comprehensive business or operational plan for its entrepreneurial venture. Students are required to defend their strategic plan for a panel of potential investors. This course incorporates wisdom, insight, and experiences for successful entrepreneurs and explains the benefits and risks involved in the proposed entrepreneurship ventures.

Prerequisites: ENTR 3341 and senior standing, or consent of instructor.

Environmental Studies

FACULTY ADVISORY COMMITTEE

RICHARD V. BUTLER, Ph.D., Professor, Economics
DIANA D. GLAWE, Ph.D., Associate Professor, Engineering Science
GLENN C. KROEGER, Ph.D., Associate Professor, Geosciences
KELLY G. LYONS, Ph.D., Associate Professor, Biology
JENNIFER P. MATHEWS, Ph.D., Professor, Sociology and Anthropology
JUDITH NORMAN, Ph.D., Professor, Philosophy
RICHARD K. REED, Ph.D., Professor, Sociology and Anthropology; Chair
DAVID O. RIBBLE, Ph.D., Murchison Term Professor of Biology, Biology
HEATHER I. SULLIVAN, Ph.D., Professor, Modern Languages and Literatures
BENJAMIN E. SURPLESS, Ph.D., Associate Professor, Geosciences
ELIZABETH D. WARD, Ph.D., Professor, Art and Art History

OVERVIEW

Environmental Studies is an interdisciplinary major that focuses on the environment and humans' relationship with it. The program incorporates a variety of approaches in the arts and humanities, the natural sciences, social analysis, and social policy. Students may choose an Environmental Studies major to explore the environment from a scientific perspective or to prepare for a career in one of the many fields that seek to monitor, shape, or interpret our relationship with it. Environmental Studies majors have extensive interaction with the natural world in research, class projects, and internships.

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in Environmental Studies are at least 43 semester hours as follows:

I. The Introductory Course (3 semester hours):

ENVI 1301 Introduction to the Environment

II. Fundamental skills (21 semester hours):

ANTH 2357 Humans and the Environment
BIOL 1311 Integrative Biology
CMLT 2350 Science Fiction and the Environment
OR GNED 3391 Special Topics in General Education: Literature and the Environment
OR ART 2395 Outdoor Studio
ECON 1311 Principles of Microeconomics
ECON 3330 Economics and the Environment (also listed as URBS 3330)
GEOS 1304 Environmental Geology
PHIL 2350 Environmental Ethics
URBS 3330 Economics and the Environment (also listed as ECON 3330)

III. Area Concentration (16-22 semester hours):

Students must complete one of the following concentrations:

- Environmental Science
- Environmental Policy
- Environmental Arts and Humanities

A. **Environmental Science:** (16-22 semester hours)

The Environmental Science concentration prepares students for graduate programs in environmental science and for careers in laboratory and field monitoring and evaluation of environmental data.

CHEM 1318 General Chemistry
CHEM 1118 General Chemistry Laboratory

And Concentration Courses completing one of the following areas:

1. **Biology**

BIOL 1111 Introductory Biology Laboratory
BIOL 1312 Integrative Biology II
BIOL 1212 Methods for Biological Problem Solving

and 3 of the following:

ANTH 2310 Human Evolution
BIOL 3434 Ecology
BIOL 4351 Conservation Biology
BIOL 3426 Vertebrate Evolution
BIOL 3427 Plant Biology
BIOL 3440 Animal Behavior

2. **Geosciences (4 of the following):**

GEOS 3300 Oceanography
GEOS 3411 Hydrology
GEOS 3400 Earth Materials
GEOS 2304 Earth Surface Processes
GEOS 2401 Earth History
GEOS 3308 GIS and Remote Sensing

3. **Physics (4 of the following):**

PHYS 1309 General Physics I
PHYS 1310 General Physics II
PHYS 2311 Introduction to Biophysics
PHYS 3312 Geophysics
PHYS 3321 Statistical Physics and Thermodynamics
PHYS 3322 Classical Mechanics and Nonlinear Dynamics

4. **Engineering (4 of the following):**

ENGR 2311 Mass and Energy Balances
ENGR 2359 Fundamentals of Environmental Engineering
ENGR 3327 Thermodynamics I

One course from the courses listed above for the Environmental Science concentration in Biology, Geosciences, or Physics.

B. **Environmental Policy:** (18 semester hours)

The **Environmental Policy** concentration is intended for students seeking an interdisciplinary approach to the evaluation of environmental policy, environmental justice,

and environmental issues. It prepares students for graduate programs in public policy and other social sciences and for careers in nonprofit, education, government, and consulting organizations.

ENVI 2301 Environmental Science Methods and Analysis

And 1 course from each of the following areas:

1. Analytical Approaches: Economics:

BUSN 3338	Government Regulation of Business (also listed as ECON 3338)
ECON 3323	Economics of the Government
ECON 3334	Urban Economics (also listed as URBS 3334)
ECON 3338	Government Regulation of Business (also listed as BUSN 3338)
URBS 3334	Urban Economics (also listed as ECON 3334)

2. Analytical Approaches: Political Science

PLSI 3313	Policy Analysis
PLSI 3314	Bureaucratic Politics
PLSI 3316	Comparative Urban Governance

3. Perspectives: Case Studies I

ANTH 3367	Indigenous Peoples
ANTH 3464	Morality in the Marketplace
ANTH 4354	Seminar on Primatology

4. Perspectives: Case Studies II

ENVI 4309	Special Topics in Environmental Policy
SOCI 3340	Urban Geography
SOCI 4362	Globalization and International Development

5. Applications:

ENVI 4395	Environmental Internship
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C. Environmental Arts and Humanities: (18 semester hours)

The **Environmental Arts and Humanities** concentration offers students the opportunity to develop their interpretive, expressive, and critical skills and talents in areas of art, literature, and the humanities in the context of environmental issues.

ENVI 2301 (Environmental Science Methods and Analysis)

And 5 courses from the following (* These classes may be taken as Concentration Courses if not included as a Required Foundation Course.):

ART 2395*	Outdoor Studio
ARTH 3352	Nineteenth-Century Architecture and Urbanism
ARTH 3364	Twentieth-Century Architecture and Urbanism
CMLT 2301*	World Literature and the Environment
ENGL 2303	American Literature: Colonization to 1900
ENGL 3365	Nineteenth-Century British Poetry
ENVI 4395	Environmental Internship
GNED 3391*	Special Topics in General Education: Literature and the Environment
HIST 3392	Special Topics in History: History of U.S. Science and Technology
PHIL 3332	Philosophy of Science
PHIL 3351	Social and Political Philosophy

IV. Senior Seminar in Environmental Studies: ENVI 4301

THE MINOR

The Environmental Studies minor is an interdisciplinary study of the Earth's environment and human interaction with that environment. The required courses address environmental issues from natural science, economic, and sociocultural perspectives. At least nine hours need to be upper-division courses. In addition, it is recommended that Environmental Studies Minors complete ENVI 4301, Senior Seminar in Environmental Studies.

Given the breadth of this minor, a significant overlap with a student's choice of Common Curriculum courses is both expected and encouraged. To that end, courses that fulfill an understanding are indicated (*) in the following lists.

Requirements for the minor are listed below, including at least 12 hours of lower division and 9 hours of upper division courses.

I. Required courses

ENVI 1301*	Introduction to Environmental Studies
BIOL 1311*	Integrative Biology I
ECON 1311*	Principles of Microeconomics
GEOS 1304*	Environmental Geology

II. Required upper division courses (check catalog for prerequisites)

ECON 3333*	Economics and the Environment (also listed as URBS 3333)
GEOS 3300*	Oceanography
URBS 3333	Economics and the Environment (also listed as ECON 3333)

III. One course from the following list (check catalog for prerequisites)

BIOL 3434	Ecology
BIOL 3440	Animal Behavior
CHEM 2319*	Organic Chemistry I
CHEM 2119*	Laboratory Methods in Organic Chemistry
ENGR 2311	Mass and Energy Balances
GEOS 2304	Earth Surface Processes
GEOS 3411	Hydrology
GEOS 3308	GIS and Remote Sensing

IV. One course from the following list (check catalog for prerequisites)

ANTH 2357	Humans and the Environment
ANTH 3367	South American Indigenous Peoples: Conquest and Development
ANTH 3364	Morality in the Marketplace
ANTH 4354	Seminar in Primatology
CMLT 2301	World Literature and the Environment
ECON 3318	Global Economy
ECON 3334	Urban Economics (also listed as URBS 3334)
ENVI 4390	Special Topics in Environmental Policy
HIST 3382	The City in History (also listed as URBS 3305)
HIST 4360	Seminar in United States History: Environmental History
PLSI 3313	Policy Analysis and the Policymaking Process
PLSI 3346	Geography and World Politics
URBS 3305	The City in History (also listed as HIST 3382)
URBS 3334	Urban Economics (also listed as ECON3334)

Recommended:

ENVI 4301—Senior Seminar in Environmental Studies

The course is available to seniors and may be taken only once for credit.

HONORS IN ENVIRONMENTAL STUDIES

Environmental Studies majors are eligible to receive Honors if they have completed two semesters of Senior Thesis credit and presented a senior thesis or project, which has been evaluated and approved by Environmental Studies faculty. In addition, students must attain an overall 3.3 grade point average cumulatively and in the major. Prior to registration for their senior year, Environmental Studies Honors candidates must meet with the Environmental Studies program chair and arrange for the faculty thesis director and two additional faculty members to act as an Honors Advisory Committee. Students must submit to the program chair a written request to graduate with Honors in Environmental Studies no later than the first full week of the student's final semester before graduation. The decision to confer or not to confer Honors will be made by the program chair, the Honors Committee and two additional faculty from the Environmental Studies Committee, based on the quality of the written thesis or art work and the oral presentation of that material.

ESAC CERTIFICATION: "GREEN LEAF" COURSES FOR ENVIRONMENT/SUSTAINABILITY ACROSS THE CURRICULUM (ESAC)

Students interested in an Environment/Sustainability across the Curriculum (ESAC) certification have the opportunity to study the wide-ranging interdisciplinary questions relating to the environment and sustainability through a variety of courses while they pursue any major at Trinity. The program offers a certification as a supplement to traditional majors and minors.

Students earn the certification by successfully completing a minimum of five of the "Green Leaf" courses accepted by the program. ("Green Leaf" courses are noted in the class schedules in the text under the course title.)

At least one class of the five must be taken from each of the three categories:

- I. Sciences and engineering;
- II. Humanities and arts;
- III. Social sciences and business.

No more than two courses can be in the student's major.

Green Leaf courses counting toward certification:

I. Sciences and Engineering:

BIOL 1307	Biological Impact and Issues
BIOL 1311	Integrative Biology I
BIOL 3391	Selected Topics: La biodiversidad y Conservación de México
BIOL 3427	Plant Biology
BIOL 3434	Ecology
BIOL 4351	Conservation Biology
CHEM 3321	Inorganic Chemistry
ENGR 2359	Fundamentals of Environmental Engineering
GEOS 1304	Environmental Geology
GEOS 1307	Exploring Earth
GEOS 1405	Oceanography
GEOS 3411	Hydrology
PHYS 1303	The Earth's Changing Environment
PHYS 3348	Atmospheric Physics

II. Humanities and Arts:

ART 2395	Outdoor Studio
ARTH 3352	Nineteenth-Century Architecture and Urbanism
ARTH 3364	Twentieth-Century Architecture and Urbanism
ARTH 3365	Contemporary Architecture
CLAS 1304	Introduction to Archeology of the Aegean, Classical, and Roman Worlds
CMLT 2301	World Literature and the Environment
ENGL 3365	Nineteenth-Century British Poetry
ENGL 3371	American Literature of the Nineteenth Century: Realism and Naturalism
HIST 3337	Technology and Culture
HIST 3344	Modern Brazil
HIST 3382	The City in History (also listed as URBS 3304)
ML&L 3342	The Peoples of Russia
URBS 3304	The City in History (also listed as HIST 3382)

III. Social Sciences and Business:

ANTH 1301	Introduction to Anthropology
ANTH 2357	Humans and the Environment
ANTH 3349	Globalization and Social Change (also listed as SOCI 3349)
ANTH 3364	Economic Anthropology
ANTH 3367	South American Indigenous Peoples: Conquest and Development
ANTH 4354	Seminar in Primatology
ECON 3330	Economics and the Environment (also listed as URBS 3330)
PLSI 1332	Film, Literature, and Politics of the Third World
SOCI 1316	Places and Regions in Global Context (also listed as URBS 1316)
SOCI 3340	Urban Geography (also listed as URBS 3340)
SOCI 3349	Globalization and Social Change (also listed as ANTH 3349)
URBS 1310	The Urban Experience
URBS 1316	Places and Regions in Global Context (also listed as SOCI 1316)
URBS 3330	Economics and the Environment (also listed as ECON 3330)
URBS 3340	Urban Geography (also listed as SOCI 3340)

Additional Green Leaf Courses:

When First-Year Seminars and Writing Workshops have topics related to environment/sustainability, or when departments offer a relevant “special topics” or “variable content” course, the Faculty Advisory Committee may approve such courses for inclusion within the ESAC certification program.

COURSES**ENVI-1301 Introduction to Environmental Studies**

This course analyzes the environment from three related perspectives: the natural sciences, social policy and aesthetic appreciation. The course perspectives including biology, geosciences, policy, art and ethics. In addition to lectures and laboratory work, the course uses field and site trips to investigate the real world conditions for environmental understanding and action.

ENVI-1305 Advanced Placement Credit in Environmental Science

Students earning 4 or 5 on the Advanced Placement Test in Environmental Science will receive credit for this course.

ENVI-2-10 Environmental Studies Field School

Students will analyze the changing face of geological systems, flora and fauna, and human society over time and space. Particular attention will be paid to land use over time and space, using skills of the natural sciences and policy analysis, as well as perspectives of art and literature.

ENVI-2301 Environmental Science Methods and Analysis

This course is an introduction to methods and analysis used by different disciplines in the environmental sciences. Three field investigations will be conducted by students that involve field and laboratory methods using instrumentation and spatial analysis (e.g. Geographic Information Systems). These investigations will emphasize interdisciplinary approaches, experimental design, access to and use of scientific literature and effective communication of scientific process and results. This 3 credit course meets once per week for a 75 min lecture and once per week for a 4 hour laboratory.

Prerequisites: BIOL 1311 and GEOS 1304.

ENVI-4301 Senior Seminar in Environmental Science

An in-depth synthesis of special topics from the Environmental Studies curriculum, with application to current environmental problems. Student work will integrate the three primary areas of environmental studies: the natural sciences, policy analysis and arts and humanities.

Prerequisite: senior standing.

ENVI-4390 Topics in Environmental Policy

The course examines environmental policy as applied to specific cases of environmental problems and natural resource management. Topics vary. A student may repeat the course for a maximum of six semester hours.

Prerequisite: consent of the program chair.

ENVI-4395 Environmental Studies Internship

Field work experience in a setting arranged and approved by the student, a faculty member of the Environmental Studies Advisory committee, and a non-University institution. Supervision and guidance will be provided by the host agency and contact with the professor must be maintained. A student may repeat the course for a maximum of six semester hours. This course is taken Pass/Fail.

ENVI-4398 Thesis Research

Independent scholarly, scientific, or artistic work conducted under the supervision of a faculty thesis director. Course enrollment requires that the student submit a proposal, with the approval of a thesis director, to the Environmental Studies program chair before classes commence in the semester of ENVI 4395 credit. That proposal will be considered for approval by the program chair in consultation with the thesis director before the end of the add/drop period. (Offered every semester.)

ENVI-4399 Thesis Writing and Presentation

A continuation of student work begun in ENVI 4398. Students are required to complete the project and present their work to students and faculty, the latter including the Environmental Studies program chair, the faculty mentor, and at least two other faculty members. Senior status required. (Offered every semester.)

Prerequisite: ENVI 4398.

Film Studies

FACULTY ADVISORY COMMITTEE

AARON DELWICHE, Ph.D., Associate Professor, Communication
NINA C. EKSTEIN, Ph.D., Professor, Modern Languages and Literatures
JENNIFER HENDERSON, Ph.D., Professor, Communication
RACHEL JOSEPH, Ph.D., Assistant Professor, Human Communication and Theatre; Chair
PATRICK KEATING, Ph.D., Associate Professor, Communication
RITA E. URQUIJO-RUIZ, Ph.D., Associate Professor, Modern Languages and Literatures
MICHAEL T. WARD, Ph.D., Associate Professor, Modern Languages and Literatures

OVERVIEW

The minor in Film Studies is an interdisciplinary program that explores film as a cultural, artistic, and commercial product. Students will have the opportunity to study film principles through theory, history, and practice.

REQUIREMENTS

THE MINOR

The requirements for a minor in Film Studies are as follows:

- I. Complete 21 semester hours in the following distribution:
 - A. FILM 1301 (Introduction to Film Studies).
 - B. One of the following seven courses:

CHIN 3313	Cities of Strangers: Trans-Cultural Chinese Cinema
FILM 2301	International Cinema
ML&L 3303	Chinese Cinema
ML&L 3311	French Cinema
ML&L 3321	German Cinema
SPAN 3321	Spanish Cinema
SPAN 3322	Spanish American Cinema
 - C. Six additional hours taken from at least two departments or languages from the Study Coursework list.
 - D. Three hours from the Practice Coursework list.
 - E. Six hours of electives chosen from either the Study or Practice Coursework list.
- II. Guidelines for selection of coursework:
 - A. At least nine hours of coursework in the Film Studies Minor must be upper division.
 - B. No more than nine hours of the coursework can be taken from one department to fulfill the requirements of the minor.

FILM STUDIES CORE

Study Coursework

ARTH 3357 History of Photography

CHIN 3313	Cities of Strangers: Trans-cultural Chinese Cinema
COMM 3325	Special Topics: Women Journalists in Film
COMM 3325	Special Topics: Film Noir
HIST 3372	Black Images in Film
ML&L 3303	Chinese Cinema
ML&L 3311	French Cinema
ML&L 3321	German Cinema
PHIL 3357	Philosophy of Film
PLSI 1332	Film, Literature, and Politics of the Third World
SPAN 3321	Spanish Cinema
SPAN 3322	Spanish American Cinema
RELI 3318	Religion and Film
THTR 2332	Play Structure and Analysis

Practice Coursework

ART 2350	Beginning Photography
ART 3350	Intermediate Photography
ART 4-50	Advanced Photography
ART 2352	Beginning Digital Photography
ART 3352	Intermediate Digital Photography
ART 4-52	Advanced Digital Photography
ART 2380	Digital Art
ART 3380	Advanced Digital Art
COMM 3340	Media Writing: Scriptwriting
COMM 3342	Visual Communication: Narrative Video Production
COMM 3342	Visual Communication: Theory and Practice of Montage
COMM 4350	Advanced Producing
ENGL 3302	Fiction Writing
THTR 1320	Introduction to Production Techniques
THTR 1352	Acting I
THTR 2310	Principles of Design
THTR 2314	Principles of Stage Lighting
THTR 2352	Acting II: Scene Study
THTR 3340	Directing
THTR 3360	Playwriting

COURSES

FILM-1301 Introduction to Film Studies

This course is an introduction to the artistic, cultural, and scholarly importance of film. The course focuses on the development of film as a complex art form, the evolution of narrative as part of a formal system, the development of the industry and film genres, critical and cultural approaches to film analysis, and the construction of the audience. Students will read excerpts from primary texts as well as more general texts dealing with film interpretation and criticism. (Also listed as ARTH 1301, COMM 1302, ENGL 1301, and ML&L 1301.)

FILM-2301 International Cinema

This course focuses on the cultural and critical analysis of international films as an expression of particular artistic genres and/or styles within specific historical, ideological, and cultural contexts. Films selected have achieved wide, critical acclaim; others reveal unique and important visions of human experience; while others are selected for their political, ideological, or sociological significance. Students should develop an awareness that the medium of film has a history and that its history is not confined to national boundaries. (Also listed as ARTH 2301, COMM 2301, ENGL 2300, and ML&L 2301.)

General Education

COURSES

GNED-1300 First-Year Seminar

An interdisciplinary seminar focusing on variable themes, required of all first-year students.

GNED-1301 Readings in Science and Religion

An examination of key issues regarding human nature and our place in the universe from religious, literary, and scientific perspectives, focusing on major debates in the discourse between science and religion in Western culture over the last five hundred years. Involves readings from primary texts, discussion of ideas in the texts both orally and in writing, and instruction in analytical and argumentative writing. Offered to first-year students as alternative to First-Year Seminar (GNED 1300).

GNED-1303 Japanese Perspectives

This course introduces the student to Japanese culture. The course begins with an inspection of Japanese religions, especially its native Shinto, Buddhism, and Zen. It includes the development from rule by Emperor through rule by military or shogun to modern democracy. A third section covers the development of Japanese aesthetics as seen in its major literary and artistic production, for example, in poetry, Noh drama, ink-brush painting, pottery, and drama/film. The last section of the course covers the modern era, from Japan's reopening to outsiders in the 19th century to its current place as a world power. The stresses on Japanese social structures as they adapt to Western influence are viewed through a variety of means: government policies, societal experiments, novels and films, and so on. (Also listed as ML&L 1303.)

GNED-1306 Energy and Society

A study of the physics and technology of energy systems and their impact on society.

GNED-1341 Connected Science: Powering our Lives

This course is intended primarily for students planning to become elementary school teachers or middle school science teachers. The course emphasizes the interdisciplinary application of fundamental scientific principles, practices, and ways of thinking to address questions relevant to everyday life. By exploring questions such as "How do we power our cars?" and "Why do we cook our food?", students will explore and apply foundational scientific concepts and processes such as energy, Newton's Laws, atomic theory, and chemical reactions. Students will explore science concepts and processes by actively participating in scientific investigations and considering implications for curriculum design.

Prerequisite: Consent of instructor.

GNED-2110 McNair Tutorial—Sophomore Level

An examination of research design, research ethics, the presentation of research findings, and related issues for sophomore level participants in the McNair Scholars Program. May be repeated for a maximum of two hours credit. Pass/Fail only.

Prerequisite: admission to the McNair Scholars Program and consent of instructor.

GNED-2340 Creative Thinking and the Artistic Process

This course encourages students to synthesize a theoretical and experimental approach to the creative process as studied through the visual arts, music, creative writing, and theatre. Students enter into the

creative process as a means to develop creative self-expression, aesthetic sensibility, and an understanding of the arts. The nature and drive of artistic endeavor is explored through studies of the lives of significant thinkers and artists, examinations of art works, guest lectures, and projects. Students will engage in activities and projects that will enable them to access and develop their own creative thinking skills in concert with traditional, analytic modes. (Also listed as ART 2314, ENGL 2340, MUSC 2340, and THTR 2340.)

GNED-3110 McNair Tutorial—Junior Level

An examination of research design, research ethics, the presentation of research findings, and related issues for Junior level participants in the McNair scholars Program. May be repeated for credit for a maximum of two hours credit. Pass/Fail only.

Prerequisite: admission to the McNair Scholars Program and consent of instructor.

GNED-3-12 McNair Research Internship

Independent Study in connection with McNair Scholars Program research activities. May be repeated for a maximum of four hours credit. Pass/Fail only.

Prerequisite: admission to the McNair Scholars Program and consent of instructor.

GNED-3325 The U.S. Latino Experience

An examination of the evolution of the Latino communities of the United States, with attention to the role of U.S. foreign policy in creating Latino communities, the impact of domestic policy on the various sub-groups, continuity and change in the Latino communities of the U.S. and the emergence of a trans-national Latino community and culture in the U.S.

GNED-3326 U.S. Latino Cultural and Artistic Expression

An examination and evaluation of U.S. Latino artistic/cultural expression, with specific attention to the artistic production of U.S. Latino artists, and the development of a unique U.S. Latino artistic expression.

GNED-3328 The Peer Tutor

Course for peer tutors to First-Year Seminar.

GNED-3-91 Special Topics in General Education

Nondepartment-specific special-topic courses. Each offering must be approved by the University Curriculum Council. Students may repeat the course if on a different topic. There may be prerequisites.

GNED-4110 McNair Tutorial—Senior Level

An examination of research design, research ethics, the presentation of research findings, and related issues for senior level participants in the McNair Scholars Program. May be repeated for a maximum of two hours credit. Pass/Fail only.

Prerequisites: admission to the McNair Scholars Program and consent of instructor.

GNED-4300 Senior Interdisciplinary Seminar

An Interdisciplinary Seminar focusing on various themes drawn from the humanities, social sciences, natural sciences, and/or quantitative reasoning.

Prerequisite: consent of instructor.

GNED-4301 Senior Synthesis

A course designed to allow the student to draw together and apply creatively the content acquired in the courses taken in the Understandings. Significant paper and presentation required for completion.

Prerequisite: 3.0 GPA or better and consent of the course administrative coordinator.

GNED-4355 Time across Disciplines

This course pulls together the theme of time across the Common Curriculum and explores their interconnections. Sample topics include cultural differences in punctuality and orientations toward the future and the past, the social construction of life-stages and age-graded roles, jet lag and circadian rhythms, zeitgeists, controversies over evolution and the age of the earth, and the relationships between economic and political cycles, religious revivals, and retro movements in the arts.

Prerequisite: Junior standing.

HUMA-1600 Readings From Western Cultures

An examination of persistently contested ideas in the history of Western cultures, focusing on the intellectual heritage of the Greco-Roman and Judeo-Christian strands of Western history. Involves readings from primary texts, discussion of ideas in the texts both orally and in writing, and instruction in analytical and argumentative writing. HUMA 1600 combines sections of First-Year Seminar and Writing Workshop into an integrative academic experience with one common theme, syllabus, and readings (Also listed as GNED 1300 and ENGL 1302.)

HUMA-2301 Further Readings in Western Culture

An examination of persistently contested ideas in the history of Western cultures, concentrating on the intellectual heritage of the post-classical world (from the Renaissance to the present). Involves readings from primary texts (literary, religious, philosophical, and political) and discussion of ideas in the texts both orally and in writing. All sections share a common them, syllabus, and readings.

Prerequisite: HUMA 1600.

Geosciences

FACULTY

THOMAS W. GARDNER, Ph.D., Imogene and Harold D. Herndon Distinguished Professor of Geology
GLENN C. KROEGER, Ph.D., Associate Professor
DANIEL J. LEHRMANN, Ph.D., Gertrude and Walter Pyron Professor of Geosciences
DIANE R. SMITH, Ph.D., Professor; Chair
BENJAMIN SURPLESS, Ph.D., Associate Professor
KATHLEEN SURPLESS, Ph.D., Associate Professor

REQUIREMENTS

THE MAJOR

BACHELOR OF ARTS DEGREE IN EARTH SYSTEMS SCIENCE (ESYS)

The Bachelor of Arts program prepares students interested for careers or disciplines (e.g., environmental science, secondary education, law, geography) that require a fundamental understanding of earth systems. This program offers flexibility, allowing students to pursue intensive study in other disciplines. The requirements for the degree of Bachelor of Arts with a major in Earth Systems Science are:

- I. The common curriculum
- II. Departmental requirements:
 - A. At least 30 semester hours in geosciences, including:
 1. One of GEOS 1303, GEOS 1304, GEOS 1405, or GEOS 1406.
 2. GEOS 2400.
 3. GEOS 2401, 2304, and 3400.
 4. Participation in GEOS 3120 is required for junior majors. Trip expenses, including transportation, must be paid by each student.
 5. At least eleven additional upper division hours in geosciences; no more than three hours of Directed Studies or Thesis may be applied to this upper division hour requirement.
 5. GEOS 4001.
 - B. 18 additional semester hours from the following courses:
 - i. At least 9 semester hours from ANTH 2310, BIOL 1311, 1111, 2305, 3434; BUSN 2301/ECON 2320; CHEM 1318, 1118, 2319, 2119; MATH 1307, 1308, 1311, 1312, 1320; CSCI 1320; PHYS 1303, 1309, 1311, 1111, 1310, 1312, 1112; PSYC 2401.
 - ii. At least 6 semester hours from CMLT 2301; CMLT 2305; ECON/URBS 3330; ANTH 2310, 2357, 3363; PHIL 2350, 2356; PLSI 3313; SOCI 1316, 2314; URBS 3340.
- III. Electives sufficient to total 124 hours.

BACHELOR OF SCIENCE DEGREE IN GEOSCIENCES

The Bachelor of Science program prepares students for graduate work in geosciences or for entry-level positions in geosciences or related fields. The program serves the student interested in a broad-based introduction to geosciences and provides the opportunity for research in the field or laboratory

setting for students at the upper division level.

The requirements for the degree of Bachelor of Science with a major in geosciences are:

- I. The common curriculum
- II. Departmental requirements:
 - A. At least 35 semester hours in geosciences, including:
 1. One of GEOS 1303, GEOS 1304, GEOS 1405, or GEOS 1406.
 2. GEOS 2400.
 3. GEOS 2401, 2304, 3400, 3309, and 3401; plus 10 additional upper division hours in geosciences; no more than 3 hours of Directed Studies or Thesis may be applied to this upper division hour requirement.
 4. Participation in GEOS 3120 is required for junior majors. Trip expenses, including transportation, must be paid by each student.
 4. GEOS 4001.
 - B. MATH 1307 or 1311 and one of MATH 1308, 1312, or 1320; CHEM 1318 and 1118; PHYS 1309 or 1311, PHYS 1310 or 1312; PHYS 1111 and 1112.
- III. Electives sufficient to total 124 hours. It is recommended that students planning to attend graduate school or enter directly into a field-oriented aspect of the discipline take an accredited and departmentally approved summer field geology course.

GUIDELINES FOR ACCEPTANCE OF MAJORS

- I. Full acceptance is granted if the following requirements are met at the time of application:
 - A. Completion of GEOS 2400, and one of GEOS 2401, 2304, or 3400 with an average grade of C or better.
 - B. A cumulative grade point average of at least 2.0.
- II. Provisional acceptance may be granted to students who have not yet met the above requirements if there is a reasonable expectation that they can complete the major.

THE MINOR

This course of study is designed for students who desire to study geosciences in some depth although their major is in another field. The requirements include GEOS 2400, 2401, or 2304, plus additional upper division geosciences courses to total a minimum of 18 hours.

HONORS IN GEOSCIENCES

A student in Geosciences may work toward Departmental Honors by satisfying the University guidelines for Departmental Honors published in this bulletin, including the minimum 3.33 cumulative grade point average and 3.33 grade point average or better in the major. In addition, the Department of Geosciences has the following requirements:

Application and Procedures

Students planning to write a thesis in geosciences must discuss research plans with at least two department faculty members and secure the support of the thesis director and second reader by the end of the Junior year. Normally the student will initiate research during the Junior year or the summer following the Junior year.

Requirements

Six hours of Thesis credit, GEOS 4395 and 4396, must be completed over two semesters. Students may enroll for thesis credit only with the permission of the thesis director. A formal written thesis proposal must be submitted to the geosciences faculty before the end of the fourth week of classes during the first semester of enrollment for thesis credit. The student may become a formal candidate for Departmental Honors by addressing a written request for consideration, accompanied by a letter of support from the student's thesis director, to the Chair of the department. Achievement of Department Honors will be determined by the quality of the thesis research, the written and oral presentations, and satisfaction of University requirements.

COURSES

GEOS-1303 Volcanology

The study of volcanoes with emphasis on volcanic morphology, eruptive mechanisms, rock types, and magmatic properties and processes. Volcanoes will be examined in the context of plate tectonic theory. Natural resources produced by volcanic processes and geologic hazards associated with volcanism will be discussed. Field trip may be required; field trip costs must be paid by each student.

GEOS-1304 Environmental Geology

A study of the environment that humans inhabit on Earth. Topics include geologic hazards such as volcanism, earthquakes, mass wasting and flooding; geologic resources such as soils, groundwater, mineral resources and fossil fuels; and the interaction of human activities with the geologic environment including urban development, flood control, agriculture, and climate change. Field trip is required; field trip costs must be paid by each student.

GEOS-1405 Oceanography

An inquiry-based introduction to the geological, chemical, physical, and biologic aspects of the earth's oceans. Topics include plate tectonics, seawater composition, waves, tides, currents, marine habitats and ecosystems, economic resources, and global climate change. Approximately one half of the course meeting times will be data analysis, laboratory, or field activities. Field trips required; field trip costs must be paid by each student. (Offered every year.)

GEOS-1406 History and Evolution of Life

An inquiry-based study of major events in the history and evolution of life. Topics include fundamentals of earth systems, the origin of life, mechanics of evolution, diversification of life, the invasion of land, innovation of flight, the rise of reptiles, mass extinctions, evolution of mammals, primates and hominids, and how human activity may affect the future of life. Three class hours each week, three full-day field trips, and out of class projects including analysis and synthesis of data gathered on field trips. Field trips are required; field trip costs must be paid by each student. (Offered every Spring.)

GEOS-2304 Earth Surface Processes

A survey of the important processes that create landforms on the Earth's surface. Emphasis will be on chemical and physical weathering, running water, wind, ice, and the resulting erosional and depositional landforms. The laboratory component will emphasize data collection and analysis techniques, including topographic maps, surveying and field trips. Two class hours and three laboratory hours per week for one semester. Field trips required; field trip costs must be paid by each student.

Prerequisites: GEOS 2400.

GEOS-2400 Dynamic Earth

An intermediate-level, inquiry-based study of the fundamental geological materials and processes of the Earth. Topics include plate tectonics, geophysical studies of the subsurface, mineral properties and formation, rock properties and formation, volcanic processes and landforms, earthquake processes, geologic map interpretation, cross-section construction, and relative and absolute age dating. Three class hours and three laboratory hours each week. Field trips are required; field trip costs must be paid by each student. (Offered every semester.)

Prerequisites: GEOS 1303, 1304, 1405, or 1406.

GEOS-2401 Earth History

A study of the significance of time as reflected in the rock and fossil record, with emphasis on understanding geological processes within a time framework. An analysis of time concepts, stratigraphic principles, and the fundamentals of sedimentary geology including the historical development of geological concepts and the recognition and reconstruction of ancient environments. Laboratory: study of minerals, rocks, and fossils; interpretation of surface features and time relationships through the use of topographic and geologic maps, cross sections, correlation diagrams, and aerial photos. Three class hours and three laboratory hours a week. Field trips are required; field trip costs must be paid by each student.

Prerequisites: GEOS 2400.

GEOS-3307 Planetary Geology

An introduction to the geologic processes that operate on the surfaces and within the interiors of rocky ice-rich objects in the Solar System. Earth analogues, remote sensing, and the latest results from the robotic planetary exploration are used to investigate the origin and geology of the solar system. Topics include nebular materials and processes in the early solar system, orbital dynamics, meteorites and impact cratering, formation and evolution of lithospheres and atmospheres, volcanism and tectonics, weathering phenomena, planetary environments, space missions and the data sets they collect.

Prerequisite: GEOS 2400.

GEOS-3309 Tectonics

Study of the tectonic processes of the Earth with emphasis on the historical development of tectonic theory and current research in tectonics. Topics include: geophysical and geochemical characterization of the Earth's interior, plate kinematics and dynamics, earthquake mechanisms, the nature and origin of continental crusts and margins, and the relationship between tectonics and rock-forming processes.

Prerequisite: GEOS 3400.

GEOS-3412 Environmental and Exploration Geophysics

An introduction to the use of physical principles and measurements in the study of the Earth's subsurface, with an emphasis on applications in environmental science, engineering, mineral exploration, and archaeology. Topics include Fourier analysis, seismic waves in elastic media, refraction tomography, reflection seismology, multichannel analysis of surface waves, gravity, electrical resistivity, and ground-penetrating radar. (Also listed as PHYS 3412.) Three class hours and three laboratory hours per week. Field trips are required; field trip expenses must be paid by each student.

Prerequisite: PHYS 1310 or 1312 (may be taken concurrently).

GEOS-3319 Field Geology in China

Field study of the evolution of sedimentary basins and mountain belts in China. Emphasis on developing observational and interpretative skills in the field. Additional goals are to gain an appreciation of Chinese

culture, language, and history by working together with Chinese students and studying a variety of sites of historical and cultural importance. Students interested in geosciences, environmental studies, anthropology, and Chinese language and cultures are encouraged to apply.

Prerequisites: One course in geology and consent of instructor.

GEOS-3400 Earth Materials

An introduction to the origin, classification, and identification of minerals and rocks, including topics related to crystal systems and structures, bonding, mineral chemistry, the nature of magma, solidification of magma, magma genesis and evolution, types of metamorphism, metamorphic mineral reactions, metamorphic zones and facies, determination of metamorphic grade, and the importance of mineral and rock resources to our society. The laboratory will emphasize methodologies and techniques used to identify and classify common minerals and rocks in hand specimen and thin section. Three class hours and three laboratory hours per week. Field trips required; field trip costs must be paid by each student.

Prerequisites: GEOS 2400.

GEOS-3401 Structural Geology

A study of the mechanics of crustal deformation in the context of plate tectonics. An introduction to the descriptive, kinematic, and dynamic analysis of structures such as folds, faults, joint systems, and foliation. Emphasis on the application of structural cross-sections, stereonet analysis, graphical techniques, and computer applications to problems involving stress and strain of earth materials. Three class hours and three laboratory hours per week. Field trips required; field trip costs must be paid by each student.

Prerequisite: GEOS 2401.

GEOS-3402 Paleontology

A study of invertebrate fossils, their classification, morphology, and geologic history. Also included will be an introduction to the principles of paleontologic investigation and their application to the study of geology. Three class hours and three laboratory hours a week. Field trips required; field trip costs must be paid by each student.

Prerequisite: GEOS 2401, or consent of instructor.

GEOS-3405 Field Methods in Quaternary Geology

A study of the tectonic and climatic controls on long-term landscape evolution. Emphasis will be on field and laboratory techniques for describing Quaternary landforms and deposits. Three class hours per week and an all-day field trip every other Saturday for one semester. Field trips required; field trip costs must be paid by each student.

Prerequisite: GEOS 2304.

GEOS-3408 GIS and Remote Sensing

An introduction to computer based mapping and spatial data analysis used in earth and life sciences and environmental monitoring and management. Topics include: cartographic principles and the use of GPS, data and image storage formats; geostatistics and visualization of geospatial data sets; acquisition and analysis of remote sensing data, including airborne and satellite multispectral and radar data, principle component analysis and classification techniques; raster and vector based Geographical Information Systems (GIS). Three class hours and three laboratory hours a week.

Prerequisites: completion of Information Technology Skills requirement; completion of at least one of the following courses: GEOS 2400, GEOS 2304, BIOL 1311, BIOL 1312, ENVI 1301, ENVI 2301, CSCI 1311, CSCI 1320; or consent of instructor.

GEOS-3411 Hydrology

A description of the terrestrial hydrologic cycle and its fundamental components including precipitation, evapotranspiration, infiltration, hillslope hydrology, runoff, flood hydrology and ground-water flow. Emphasis will be placed on physical principles governing the movement of water across and through the Earth's surface. Human interaction with all aspects of the hydrologic cycle will be addressed. The laboratory component of the course will focus on data collection, analysis and manipulation, and involve a significant field component. Three class hours and three laboratory hours a week. Field trips are required; field trip expenses must be paid by each student.

Prerequisites: GEOS 2304; PHYS 1309 and 1111, or PHYS 1311 and 1111, or equivalent.

GEOS-3120 Majors' Field Trip

Field study of selected areas in Texas and surrounding regions: emphasis on developing observational and interpretative skills in the field. May only be taken on a pass-fail basis. Field trip costs must be paid by each student. May be taken twice for credit.

Prerequisite: departmental major or by invitation of the department.

GEOS-3321 Geochemistry

A study of geochemical principles and their application in solving geologic problems. Emphasis is placed on topics in inorganic geochemistry, including phase equilibria, isotopes and trace elements.

Prerequisites: GEOS 3400 and MATH 1307, or 1311, or consent of instructor.

GEOS-3422 Sedimentology and Stratigraphy

The identification, description, and interpretation of sediments, sedimentary rocks, and sedimentary strata; an introduction to the principles of stratigraphy and of sedimentary processes as they relate to modern depositional systems and their ancient analogs. Emphasis will be placed on the interpretation of depositional systems and sequence stratigraphy. Three class hours and three laboratory hours a week. Field trips are required; field trip costs must be paid by each student.

Prerequisites: GEOS 2401 and 3400.

GEOS-3423 Basin Analysis

Application of stratigraphic concepts to the study of basin evolution and the environmental history and geometry of sedimentary rock successions. Emphasis will be placed on tectonic evolution of basins, principles of stratigraphic correlation, carbonate depositional systems, sequence stratigraphy, event stratigraphy, stratigraphic modeling, and hydrocarbon systems. Laboratory experiments with outcrop sample suites, core and subsurface geophysical data sets. Three class hours and three laboratory hours per a week. Field trips required; field trip costs must be paid by each student.

Prerequisites: GEOS 2401 and 3400.

GEOS-3-90 Directed Studies—Junior Level

Individual work under supervision. Credit may vary.

Prerequisites: major or minor standing and consent of project supervisor.

GEOS-3-91 Special Topics

An in-depth study of a topic in geosciences that is otherwise not covered in existing courses. May be repeated for credit on different topics.

Prerequisite: consent of instructor.

GEOS-4001 Senior Comprehensive Examination

Geosciences and Earth Systems majors with senior standing will take a comprehensive exam. Students will be required to attend a one-hour meeting held early in the semester, and the exam will be administered later in the semester. May only be taken on a pass/fail basis.

Prerequisites: departmental major and senior standing.

GEOS-4301 Land Use, Geology, and the Environment

The study of local, regional, and worldwide land use issues in the context of geological and environmental processes. In addition to investigating the impacts of natural processes upon land use, students will also study the complex legal, social, economic, and political factors that affect the land use decision-making process in both rural and urban settings. A term project will emphasize the integration of environmental science, environmental policy, and environmental arts and humanities to address specific real-world land use problems.

Prerequisite: Junior or senior standing and at least one course in GEOS.

GEOS-4395 Thesis Research

Student research conducted under the supervision of a Trinity University faculty member leading to written communication of the research in thesis format. Course enrollment requires planning with the thesis director during the Junior year. A written thesis proposal must be submitted to the department.

Prerequisites: senior standing and acceptance by a thesis director.

GEOS-4396 Thesis Research and Presentation

A continuation of student project begun in GEOS 4395. Students are required to write and defend their thesis according to University guidelines set forth in this Bulletin. An oral presentation of the thesis will be made to the students and faculty of the department.

Prerequisite: GEOS 4395.

GEOS-4-90 Directed Studies—Senior Level

Individual work under supervision. Credit may vary.

Prerequisites: major or minor standing and consent of project supervisor.

Health Care Administration

FACULTY

AMER A. KAISSI, Ph.D., Professor
JODY R. ROGERS, Ph.D., Visiting Professor
EDWARD J. SCHUMACHER, Ph.D., Professor; Chair
PATRICK SHAY, Ph.D., Assistant Professor
MARY E. STEFL, Ph.D., Professor

OVERVIEW

The Department of Health Care Administration offers an M.S. degree only, and does not have an undergraduate major. The department does offer, however, three undergraduate courses. HCAD 3333 (Health Economics) and HCAD 3350 (The U.S. Health Care System) fulfill a Common Curriculum requirement for Understanding Human Social Interaction: Social Issues and Values. HCAD 3383 (Management of Health Care Organizations) is cross-listed with MGMT 3383 and can be applied towards a Management concentration in Business Administration.

REQUIREMENTS

ON-CAMPUS PROGRAM

The graduate program in Health Care Administration is designed to promote the development and refinement of the conceptual, interpersonal, and technical skills necessary for understanding individual and community health problems, for effective planning for and management of health care organizations and institutions, and for leadership in the community at large.

ADMISSION REQUIREMENTS

Any undergraduate major is carefully considered. The following items are required for admission to the program: completed application for admission to graduate study and a \$30 application fee, official transcripts from all colleges previously attended, aptitude test scores from the Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT), autobiographical sketch of educational and employment background, a brief statement of purpose indicating specific reasons for selecting a career in health care administration, and two letters of recommendation from individuals who are familiar with academic and/or employment performance. For optimal consideration, applicants are encouraged to apply by May 1.

The department also requires that applicants complete three prerequisite courses. These are three-hour undergraduate courses in accounting, economics, and statistics. In general, the pre-requisites should be completed in advance of the student's registration. An applicant may fulfill the requirements in one or more of the following ways:

- I. Completion of three-hour undergraduate level courses in each of the three subject areas with a grade of A or B. (C grades will be evaluated on an individual basis.)
- II. Individual petition to the Admissions Committee for any exceptions.

An advance deposit of \$200, which will be applied toward tuition, is required of applicants who have been accepted for admission. Checks should be made payable to Trinity University and directed to the Health Care Administration Department. Consult the Tuition and Fees section for details.

COURSE OF STUDY

A Master of Science in Health Care Administration will be conferred by Trinity University upon completion of a course of study that includes 16 months of on-campus study and an administrative residency, usually of 12 months. A class is admitted in the fall semester. Degree requirements may be met under either a thesis or non-thesis alternative. Each plan requires 48 semester hours during the on-campus portion of the program, but the non-thesis alternative substitutes 6 hours of coursework for 6 hours of thesis credit. Both plans require an administrative residency that carries 6 hours of graduate credit. The specific courses for either of these plans shall be determined by the student's adviser and Chair of the Department of Health Care Administration after consideration of the student's academic background and experience.

The following courses are recommended:

HCAD 5101	Seminar in Professional Development for Health Care Executives
HCAD 5102	Physicians and Physician Relations
HCAD 5220	Statistical Analysis in Health Care Organizations
HCAD 5221	Operations Management in Health Care Organizations
HCAD 5310	Health Services Organization and Policy I
HCAD 5311	Health Services Organization and Policy II
HCAD 5313	Economic Aspects of Health Care Administration
HCAD 5330	Health Care Organization Theory and Management
HCAD 5333	Legal Aspects of Health Care Administration
HCAD 5340	Health Care Strategic Planning and Marketing
HCAD 5350	Seminar in Current Health Care Issues
HCAD 5353	Financial Management for Health Care Administration
HCAD 5365	Leadership and Conflict Management
HCAD 5373	Health Administration Ethics
HCAD 5380	Health Care Human Resource Management
HCAD 5383	Health Care Institutional Management
FNCE 5351	Financial Analysis for Decision Making

EXECUTIVE PROGRAM

Trinity University's Health Care Administration Executive Program is designed to meet the educational needs of those individuals currently holding responsible positions in a health care organization. The Executive Program is a part-time, distance-learning experience designed for individuals employed full-time in the health care field. Because students must have prior management-level experience, the program fosters learning opportunities that integrate the theory and principles of health care administration with the richness of each participant's practice setting. A detailed description of the Executive Program can be found at the [department's website](#).

The program requires 23 months to complete 42 credit hours. Students register for two to three courses (two to four credit hours each) in each of the fall, spring, and summer semesters. Each semester begins with a three- to four-day intensive on-campus session followed by home study and supplemented by regular teleconferencing or webinar sessions.

Students enrolled in the Executive Program are required to complete an integrated field experience within their employment setting (or another organization) during their time in the program. This will provide them with the opportunity to get exposed to and learn about aspects of health care administration that they do not experience in their current settings. The nature and duration of the field experience is tailored to individual student needs in consultation with the student's academic advisor. It involves both an experiential phase and project phase. The project requirement is part of the Seminar in Strategic Management of Health Services offered in the final program semester.

The following items are required for application to the program: completed Trinity University Graduate application, completed departmental application, a \$30 application fee, official transcripts from all previous colleges attended, including evidence of a baccalaureate degree from an accredited institution, aptitude test scores from the Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT), a resume, a brief statement of purpose indicating the applicant's reasons for selecting a career in health care administration, and two letters of recommendation from individuals who are familiar with the applicant's academic and/or employment performance. The general deadline is July 1.

Provisional admission will be considered if the grade point average on the last 60 hours of undergraduate course work is less than 3.0. A graduate degree can obviate the need to take the GRE or GMAT. Admission to the Executive Program assumes the applicant has basic knowledge of accounting, statistics, and economics. Competency in computer spreadsheet applications (e.g., Excel) is strongly encouraged prior to enrolling. An on-campus interview is required.

Trinity University regulations permit transfer of up to twenty percent of the total degree requirement of appropriate graduate credit from an accredited institution after satisfactory completion of 12 semester hours at Trinity University. Graduate courses taken at another accredited university will be transferred in accordance with the policies stated in the Trinity University *Courses of Study Bulletin*.

TYPICAL COURSE OF STUDY IN THE EXECUTIVE PROGRAM IN HEALTH CARE ADMINISTRATION:

First Year

Fall Semester

HCAI 5220	Statistical Analysis in Health Care Organizations
HCAI 5221	Operations Management in Health Care Organizations
HCAI 5330	Health Services Organization and Policy Spring Semester
HCAI 5231	Health Care Organization Theory and Management
HCAI 5223	Information Technology
HCAI 5270	Health Administration Ethics

Summer Semester

HCAI 5301	Managerial Accounting
HCAI 5340	Managerial Epidemiology

Second Year

Fall Semester

HCAI 5380	Health Care Human Resources Management
HCAI 5353	Financial Management for Health Care Administration

Spring Semester

HCAI 5313	Economic Aspects of Health Care Administration
HCAI 5360	Leadership Effectiveness
HCAI 5456	Seminar in Strategic Planning and Marketing

Summer Semester

HCAI 5333	Legal Aspects of Health Care Administration
HCAI 5451	Seminar in Strategic Management of Health Services

The Degree of Master of Science in Health Care Administration is conferred by Trinity University upon completion of all coursework.

COURSES

HCAD-5-90 Problems

Independent reading and research. Credit varies from 1 to 6 semester hours, based on the scope and depth of the proposed work.

Prerequisites: 12 semester hours in health care administration and consent of instructor.

HCAD-5101 Seminar in Professional Development for Health Care Executives

This course is designed to introduce students to the professional requirements associated with being a health care executive. Students will be introduced to the behavior, dress, demeanor, and expectations of health care administrators. In addition, students will be introduced to the professional competencies so important to an executive's success in today's health care environment.

HCAD-5102 Physicians and Physician Relations

This course is designed to introduce students to the various roles and responsibilities that physicians assume in the health care system. Topics will include physician education, physician culture, physician practice patterns, physician executives, and the management of physician practices. Special emphasis will be on strategies to foster effective relationships between physicians and health care management.

HCAD-5220 Statistical Methods in Health Care Organizations

This course covers topics in basic statistical analysis designed to assist the future health leader in understanding and interpreting data and in the role of decision maker. The course covers the collection, aggregation, and presentation of data and basic descriptive and inferential statistics. Students will get hands-on instruction in the application of spreadsheets and statistical software to the solution of various statistics problems.

HCAD-5221 Operations Management in Health Care Organizations

Applications of operations research techniques to health care planning, control, and decision making including, deterministic and random models, mathematical programming, queuing, simulation, forecasting, and quality improvement. Emphasis is placed on model formulation and computer solution of decision models.

HCAD-5310 Health Services Organization and Policy I

An overview of the organization, delivery, financing, and evaluation of the U.S. health care system. Emphasis is on major system components and their inter-relationships. Key concepts include: social values, health personnel, health facilities, major financing mechanisms, and health policy.

HCAD-5311 Health Services Organization and Policy II

Continuation of HCAD 5310 providing an overview of the organization, delivery, financing, and evaluation of the U.S. health care system. Emphasis is on: health care financing and regulation, organized delivery models, quality assessment and management, and health program effects on patients, providers and payers.

HCAD-5313 Economic Aspects of Health Care Administration

Application of economic concepts to the health care sector. Demand and supply, elasticity, health insurance, regulation, competition, and cost-effectiveness analysis. Emphasis on use of economic analysis for strategic planning.

HCAD-5330 Health Care Organization Theory and Management

Cases, concepts, and research findings in health care organizational behavior and administration. Analysis of the impact of individuals, groups, organizational structure, and environment on management performance. Instruction on formulating organizational strategy.

HCAD-5333 Legal Aspects of Health Care Administration

The legal principles and processes influencing health care providers. Basic instruction in contract law and tort law. Focus on major health care liability producing areas and interface between law and ethics.

HCAD-5340 Health Care Strategic Planning and Marketing

An analysis of the strategic planning and marketing processes used by health care managers. The processes examined include the uses of strategic planning models and marketing methodologies as they apply to patients, physicians, and managed care buyers as separate markets for health care services.

HCAD-5350 Seminar in Current Health Care Issues

This is an integrative seminar where current topics in health care administration are examined in a broad context. Skills and knowledge introduced earlier in the curriculum are used to analyze current health care issues, and special efforts are made to include the perspective of practitioners.

HCAD-5353 Finance Management for Health Care Administration

Financial management concepts and techniques, with particular attention to differences between for-profit and not-for-profit organizations and regulatory constraints in the health care sector. Topics include: ratio analysis, cost accounting, rate setting, capital budgeting, sources of financing, cash management, variance analysis, and current issues.

HCAD-5360-5361 Seminar in Contemporary Issues

Contemporary issues in health care administration including new forms of organization for health services delivery, financing of health care, and increased governmental regulation of health services. May be repeated on different topics.

HCAD-5365 Leadership and Conflict Management

An introduction to leadership and conflict management theories, models, and practices within health care organizations. Areas to be covered include leadership models and theories common to organizations delivering health care services, styles and their application in the health care industry, methods and techniques that can be used to manage conflict within organizations, and exposure to current trends and conceptual models of leadership and conflict management.

HCAD-5373 Health Administration Ethics

An analysis of health care issues through lecture, case study, and practitioner involvement. Emphasis on overseeing the moral mission of health institutions while at the same time maintaining the economic viability of those institutions.

HCAD-5380 Health Care Human Resources Management

Analysis of health manpower; professional, technical, and continuing education; credentialing; and emerging directions in strategic human resource management. The recruitment, selection, compensation, retention, and performance evaluation of health manpower; the role of independent contractors of

services; and the impact of federal legislation such as NLRA, FLSA, OSHA, EEOA, and ERISA.

HCAD-5383 Health Care Institutional Management

The organization and management of health care institutions in an era of change in the health care system. The course covers the major systems in organizations delivering health care service, involving organizational design, governance, executive functions, clinical systems, and support systems.

HCAD-5385 Quality Control Management in Health Care Administration

Conceptual framework and practical tools for measuring and improving the quality of care in health care settings; role of JCAHO and other regulators in quality assurance; the organizational setting of quality management functions; cost/quality relationships; and patient and consumer involvement in quality improvement functions.

HCAD-5387 Information Systems for Health Care Administration

A survey of the current status of management information systems in health services administration. This course prepares students to participate in the analysis of information systems requirements, design of information systems, evaluation and selection of computer resources, and management of the implementation process.

HCAD-6000 Thesis Renewal Administration**HCAD-6099 Degree Requirements in Progress****HCAD-6201, 6202, 6203 Administrative Residency**

Field experience in a health care organization under the supervision of a selected preceptor and a university faculty member. The student is oriented to the total operations of the institution and participates in administrative activities in preparation for major administrative responsibilities. The preparation of three reports is required during the residency to demonstrate the integration and application of theory and management skills to practical problems of health care institutions.

HCAD-6300 Thesis Administration**HCAI-5220 Statistical Methods in Health Care Organizations**

This course covers topics in basic statistical analysis designed to assist the future health leader in understanding and interpreting data and in the role of decision maker. The course covers the collection, aggregation, and presentation of data and basic descriptive and inferential statistics. Students will get hands-on instruction in the application of spreadsheets and statistical software to the solution of various statistics problems.

HCAI-5221 Operations Management in Health Care Organizations

This course covers topics in basic applications of operations research techniques to health care planning, control, and decision making, including deterministic and random models, mathematical programming, queuing, simulation, forecasting, and quality improvement. Emphasis is placed on model formulation and computer solution of decision models.

HCAI-5231 Health Care Organization Theory and Management

Cases, concepts, and research findings in health care organizational behavior and administration.

Analysis of the impact of individuals, groups, and organizational structure and environment on management performance. The topics of power and leadership are covered in other required courses. Available only to two-year Executive Program students.

HCAI-5233 Information Technology and the Management of Health Care Organizations

As information systems and information technology continue to evolve, health care managers must have a conceptual and operational understanding of the ways that technology can enhance both the delivery and management of health care services. This course will explore how health care organizations can utilize information systems and technology to integrate strategic management with clinical and web-based functions, assess organizational effectiveness, improve clinical care, and achieve patient safety goals.

HCAI-5270 Health Administration Ethics

An analysis of health care issues through lecture, case study, and practitioner involvement. Emphasis on overseeing the moral mission of health institutions while at the same time maintaining the economic viability of those institutions. Available only to two-year Executive Program students.

HCAI-5301 Managerial Accounting

Concepts and techniques of managerial accounting for generalist health care administrators. Emphasizes managerial accounting applications for using financial data as a tool for management planning and decision making in health care. Topics covered include financial accounting, cost accounting, source of revenues, budgeting and control, pricing, and profitability determination. Available only to two-year Executive Program students.

HCAI-5313 Economic Aspects of Health Care Administration

Application of economic concepts to the health care sector. Demand and supply, elasticity, health insurance, regulation, competition, and cost-effective analysis. Emphasis on use of economic analysis for strategic planning.

HCAI-5330 Health Services Organization and Policy

An overview of the organization, delivery, financing, and evaluation of the U.S. health care system. Emphasis is on major system components and their inter-relationships. Key concepts include social values, health personnel, health facilities, major financing mechanisms, and health policy.

HCAI-5333 Legal Aspects of Health Care Administration

The legal principles and processes influencing health care providers. Basic instruction in contract law and tort law. Focus on major health care liability producing areas and interface between law and ethics.

HCAI-5340 Managerial Epidemiology

Managerial epidemiology is the application of the principles and tools of epidemiology to the decision-making process. It applies analytic techniques to the management of health services through the study and measurement of the health of populations. Topics include population health appraisals, determinants of health and disease, health status measurement, health service use, and design and evaluation of health care interventions. Available only to two-year Executive Program students.

HCAI-5353 Finance Management for Health Care Administration

Practical and theoretical aspects of the decision-making process in the financial management of health care facilities and systems. Topics include: price level problems; financial statement analysis and

interpretation; evaluation of methods of hospital financing.

HCAI-5360 Leadership Effectiveness

This course will analyze managerial leadership models and the exercise of power in the health care setting. These managerial concepts will be assessed for their effectiveness in guiding managerial behavior in professional-dominated organizations and in assisting health care managers in carrying out essential tasks dealing with conflict in organizations and effecting organizational change. This course available only to two-year Executive Program students.

HCAI-5380 Health Care Human Resource Management

Analysis of health manpower; professional, technical, and continuing education; credentialing and emerging directions in strategic human resource management. The recruitment, selection, compensation, retention, and performance evaluation of health manpower; the role of independent contractors of services; and the impact of federal legislation such as NLRA, FLSA, OSHA, EEOA and ERISA.

HCAI-5451 Seminar in Strategic Management of Health Services

This integrative seminar focuses on the management of health care organizations from a strategic perspective. The various tenets of strategic management will be explored and then applied to various health care organizations. Special emphasis is placed on organization responses to new trends and changing circumstances. Students will be expected to draw on skills and knowledge introduced earlier in the curriculum. They will also analyze and reflect on the individual Integrated Field Experience required prior to graduation.

HCAI-5456 Seminar in Strategic Planning and Marketing

This course is designed to provide knowledge and skills pertaining to the function of strategic planning, marketing, and business plans in the health care setting. These will be applied to the line or staff manager in the health care setting whose responsibilities center upon management functions other than an assignment as a planning or marketing specialist. This course only available to two-year Executive Program students.

UNDERGRADUATE

HCAD-3333 Health Economics

An introduction to the application of the tools of microeconomics to issues in the organization, delivery, and financing of health care. Economic analysis will be utilized to better understand critical issues in health care such as the level and growth of health expenditures, the role of the government versus the private sector in financing care, the relationship between doctors, hospitals, insurance providers, patients, and employers, and the role of society in providing for the uninsured. (Also listed as HCAD 3333.)

Prerequisite: ECON 1311 or consent of the instructor.

HCAD-3350 The U.S. Health Care System

The course examines the development, organization, and evolution of the U.S. Health Care System and analyzes the impacts of major changes in that system on the values and behavior of both consumers and providers of health care services. Special emphasis is placed on the influence that our nation's second largest "business" has in contemporary society, and on the human consequences of that influence.

Prerequisite: junior standing.

HCAD-3383 Management of Health Care Organizations

This course provides the unique knowledge and skills necessary to understand and effectively manage individuals and groups in challenging health care organizations such as hospitals, medical group practices, and nursing homes. The focus is on developing a theoretical and practical approach to managerial functions as related to dealing with health care professionals and workers, developing a conceptual understanding of the health care system in which the organization operates, and understanding the relationship between the organization, its regulatory environment, and the reimbursement system. Case studies are used to provide real-world applications relevant to health care management. (Also listed as MGMT 3383.)

Prerequisite: junior standing.

HCAD-3-91 Special Topics

Special topics or contemporary issues in health care administration, including new forms of health services organization, management, delivery, or financing. Permission of the instructor is required. May be repeated on different topics.

History

FACULTY

DONALD N. CLARK, Ph.D., Professor
ANENE EJKEME, Ph.D., Associate Professor
JASON B. JOHNSON, Ph.D., Assistant Professor
ALLAN O. KOWNSLAR, D.A., Professor
CAREY H. LATIMORE IV, Ph.D., Associate Professor; Chair
DAVID W. LESCH, Ph.D., Professor
KENNETH LOISELLE, Ph.D., Associate Professor
NICOLE MARAFIOTI, Ph.D., Assistant Professor
JOHN J. McCUSKER, Ph.D., Ewing Halsell Distinguished Professor of American History
AARON NAVARRO, Ph.D., Associate Professor
LINDA K. SALVUCCI, Ph.D., Associate Professor

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in history are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - 31 semester hours in history including a 4000 level seminar that serves as the capstone course for the major, and one course from each of these three areas: (a) United States history; (b) European history; (c) Asian, Middle East, Latin American history, and African history. A maximum of 12 hours from 1000 level courses may count toward the major.
- III. Electives sufficient to total 124 semester hours.

THE MINOR

The requirements for a minor in history are as follows:

- I. 18 semester hours in history.
- II. At least 9 hours must be from upper division.

THE HONORS PROGRAM

- I. University requirements
- II. Departmental requirements:
 - A. Admission to the program
 1. 3.33 overall Trinity University G.P.A.
 2. 3.66 average department G.P.A.
 3. 3.66 average in the following courses:
 - a. HIST 3381: Historians and Their Craft
 - b. Seminar (HIST 4400, 4420, 4430, 4440, 4450, 4460, or 4470)

c. Two upper-division courses in the student's field of specialty

4. Applications will be made by May 5.

B. Requirements: Successful completion of a senior thesis written in a fall and spring (HIST 4498, 4499).

A full description of the program is available in the department office.

CRITERIA FOR SOCIAL STUDIES 4-8 AND 8-12 CERTIFICATION

History Majors seeking certification in Social Studies 4-8 and Social Studies 8-12 must take HIST 3376, HIST 3388, and one course each from three of the following four fields: African History, Asian History, Latin American History, and Middle East History.

COURSES

LOWER DIVISION

African History

HIST-1300 The African Experience

This course introduces students to aspects of African history and their relation to contemporary issues. The approach is interdisciplinary and incorporates visual and literary documents. Topics may include the politics of antiquity, the trans-Atlantic slave trade, the historical development of Islam, Christianization, colonization and decolonization, with particular attention to West Africa and the Ethiopian region.

Ancient Greece and Rome

HIST-1310 Ancient Greece and Rome

A historical introduction to selected aspects of the political, cultural, and intellectual life of the Greek and Roman world, with particular attention to the Greek and Roman contribution to western civilization.

HIST-1311 Gender and Identity in the Ancient World

An examination of the roles of women and men in society, religion, and culture of the ancient world. Readings will include historical, religious, medical, legal, philosophical, and literary texts. Representations of men and women in the visual arts will also be considered. (Also listed as CLAS 1307.)

HIST-1312 Greeks, Romans, and Barbarians

This course gives students an opportunity to examine the cultures and achievements of peoples labeled "barbarians" by the ancient Greeks and Romans. Students will use a broad selection of historical documents originating from the Near East, Egypt, Greece and Rome, as well as the results of archaeological research, for investigating the social structures and values of these cultures. Critical methods for interpreting ancient and modern evidence about these societies will also be discussed. (Also listed as CLAS 1312.)

HIST-1333 Medieval Christianity: Tradition and Transformation, 200-1200

This course will focus on the emergence, spread, and development of Christian religion and culture in

western Europe between 200 and 1200. Topics may include: Christianity in the Roman Empire; missionary activity in the early Middle ages; biblical and theological writings; growth of the western Church and papacy; traditions of worship and belief, including saints' cults and monasticism; Christian kingship and holy war; and interactions with non-Christians and heretics.

Asian History

HIST-1320 History of China

China from the bronze age through the communist revolution, with special emphasis on institutions, social and family life, philosophy and religion, and the effects of revolution and modernization. Survey readings supplemented by primary sources and a research component.

HIST-1324 Modern East Asia

A survey of the East Asian region since 1800 that addresses the modern histories of China, Japan, Korea, and Vietnam. The course begins with late traditional patterns and covers the stresses of imperialism and colonialism, the emergence of revolutionary independence movements, Communism, and the ordeals of war and economic modernization.

European History

HIST-1332 Medieval Europe

Europe from fall of Roman Empire through the 14th century; rise of Christianity; barbarian invasions; development of feudalism; rebirth of urban civilization and achievements of medieval culture. Attention to social and political developments and major thinkers of the period. Lecture and discussion format.

HIST-1334 Early Modern Europe (1500-1815)

Chief cultural and political developments from the Renaissance through the Napoleonic Empire, including the Reformation, Counter Reformation, Thirty-Years War, Puritan Revolution, rise of absolute monarchy, the Enlightenment, and the French Revolution. Special emphasis on religion and social change, church-state relations, ideals of religious reform, and critiques of religion itself.

HIST-1335 Modern Europe

Chief economic, political and social developments in European society since 1815, including the Industrial Revolution, Marxism, the Russian Revolution, political and economic imperialism, World Wars I and II, the Great Depression and the rise of totalitarian states.

HIST-2340 Medieval Kingship: Power, Patronage, and Propaganda, 750-1035

This writing-intensive seminar-style course will introduce historical methods and skills through the study of three medieval kings: Charlemagne, Emperor of the Franks; Otto I, Emperor of Germany; and Cnut the Great, King of England, Norway, and Denmark. We will examine primary sources, conduct secondary research, and develop our own historical hypotheses about the significance of these kings and their reigns. Writing assignments will include source analyses, secondary critiques, and a final research project. (Offered once every two years.)

Latin American History

HIST-1140 Preceptorial in Latin American Cultural Traditions

This one hour course provides enrichment for interested students in HIST 1340, "Latin American Cultural Traditions." The preceptorial meets once a week for 50 minutes in order to discuss primary sources, such as written documents, maps, images, or literature. Special attention will be given to writing. Students must be enrolled concurrently in HIST 1340.

HIST-1340 Latin American Cultural Traditions

Beginning with the first Americans and ending with contemporary Latin America, this course provides a synthetic overview of the emergence of distinctive cultural traditions in Latin America. The "old" worlds of Pre-Columbian American, Iberia, and Africa are studied as are the historical processes that created "new" world cultural traditions in Latin America. Interested students may register concurrently for HIST 1140 (Preceptorial in Latin American Cultural Traditions).

Middle East History

HIST-1350 Medieval Islamic History, 570–1517

Historical developments in the Middle East from the life of the Prophet Muhammad to the establishment of the Ottoman Empire: the initial expansion of Islam, the Umayyad and Abbasid empires, Islamic Spain, the Crusades, Fatimid and Mamluk Egypt, and the Turco-Mongolian migrations and conquests.

HIST-1351 The Modern Middle East

Historical developments in the Middle East from the Ottoman conquest of Cairo in 1517 to the present: the Ottoman empire during the age of Sulayman the Magnificent, European imperialism in the Middle East and Ottoman reform efforts, the rise of Arab nationalism and of Zionism, World War I and the creation of the modern Arab state system, the development of oil, the Cold War in the Middle East, the Arab-Israeli conflict, and the Persian-Arabian Gulf arena.

United States History

Students may not count more than two lower-division U.S. history courses for credit for either the major or the minor. One of these courses must cover the period through Reconstruction; the other must cover the period since Reconstruction.

HIST-1360 The History of the United States through Reconstruction

An integrative survey of major political, economic and social developments in the history of the United States of America from colonial settlement through the post-Civil War era of Reconstruction.

HIST-1361 The History of the United States since Reconstruction

An integrative survey of the political, economic and diplomatic history of the United States of America from Reconstruction to the present, emphasizing those factors most influential in shaping contemporary society.

HIST-1370 The African American Experience through Reconstruction

This course focuses on the social, cultural, and political history of African Americans from approximately 1619 to 1877. Topics may include the genesis and evolution of Black slavery and freedom, the

Revolutionary War, Nat Turner's Rebellion, and the Civil War and Reconstruction. Particular emphasis is placed on changing ideals of freedom and how African Americans struggled both to achieve and then redefine ever-evolving conceptions of freedom, whether understood politically, socially, or economically.

HIST-1371 The African American Experience since Reconstruction

This course focuses on the social, cultural, and political history of African Americans from approximately 1877 to the present. Topics may include the genesis and evolution of Jim Crow, Black urban migration, the Harlem Renaissance, the Civil Rights Movement, and the Black Power Movements. Particular emphasis is placed on changing ideals of freedom and how African Americans struggled both to achieve and then redefine ever-evolving conceptions of freedom, whether understood politically, socially, or economically.

HIST-1375 Value Conflicts in American History through Reconstruction

Use of critical methodologies to assess the conflicting value systems in pre-industrial America and the way social, political and economic issues associated with those conflicts resulted in the formation of a U.S. national identity.

HIST-1376 Value Conflicts in American History since Reconstruction

Use of critical methodologies to assess the conflicting value systems prominent in post-industrial America and the way social, political and economic issues illustrate value conflict.

HIST-1380 History of Modern Science

This course surveys major developments in the history of science from 1500 to the present, emphasizing the broad social and cultural implications of scientific change. Topics may include: early modern astronomy and anatomy; science and empire in the Enlightenment; the impact of Darwinism on science and religion; scientific racism; nuclear physics and World War II; and the rise of information technologies.

UPPER-DIVISION COURSES

These are courses that assume varying degrees of preparation in the subject. Many classes require prerequisites or the consent of the instructor.

African History

HIST-3300 Gender Matters in African History

Focuses on the history of women in Africa from 1800 to the present. Topics may include the family, marriage, childhood, education, sports, and recreation, work and the workplace, politics and political life, labor movements, and women's movements.

Prerequisite: HIST 1300 or consent of instructor.

HIST-3304 Religion in African History

Focuses on the role of religious identity in African history. Topics may include the histories of specific religious movements, the ways in which gender and leadership have intersected in new religious movements, the spread of Islam, Sufi orders, European missionary activities, African responses to non-African Christian missionizing, African missionary activities, and the interactions of different religious

traditions and communities. Focus is on the period since 1800.

Prerequisite: HIST 1300 or consent of instructor.

Ancient Greece and Rome

HIST-3310 Archaic and Classical Greece

A study of Greek history from the age of colonization to the death of Alexander the Great (c. 750-323 B.C.), with emphasis on the social and political institutions of Athens and Sparta, relations between Persia and the Greeks, the period of the Peloponnesian War, and the rise of Macedon.

HIST-3314 The Mediterranean World in the Hellenistic Age

A study of the Hellenistic world, including Rome and Carthage, Ptolemaic Egypt, and other Hellenistic kingdoms, with emphasis on the range of Hellenistic culture and the growing power of Rome, from the death of Alexander to the battle of Actium (323-31 B.C.).

HIST-3318 The Roman Empire

A study of the early Roman Empire (31 B.C.—A.D. 235), with emphasis on the work of Augustus, the social and economic development in Italy and the provinces, the condition of the Roman world in the Antonine Age, and the rise of Christianity.

HIST-3319 The World of Late Antiquity

A study of the political, cultural, and religious life of the Roman Empire from the second to the fifth centuries CE—a vital transitional period between the classical and medieval worlds. Beginning with the “golden age” of the Antonine emperors, this course examines the military and political “crisis” of the third century, the Christianization of the empire in the fourth, and the religious and cultural conflicts that accompanied the fragmentation of power in the fifth. (Also listed as CLAS 3319.)

Prerequisite: sophomore standing or consent of instructor.

HIST-3331 The Anglo-Saxons: Scholars, Saints, and Warriors

This course explores the history and culture of the Anglo-Saxons, who ruled England from 500 through 1066. Themes may include Anglo-Saxon warrior culture, foreign invasion and conquest, the development of kingship and government, and the spread of Christianity. The discussion driven course will focus on the analysis of primary texts, works of art, and archaeological evidence.

Asian History

HIST-3320 The Rise of Modern China

Studies of modern Chinese history since 1800, with emphasis on the processes of modernization, the major phases of the Chinese revolution from the experience with Western imperialism through the Republican period and the emergence of the People’s Republic of China. Class methods emphasize reading primary sources in translation and research and writing. Course taught in English. (Also listed as CHIN 3320.)

Prerequisite: HIST 1320 or consent of instructor.

HIST-3324 History of Korea

A survey of Korean history from the archaeological record through source materials on the development of the Korean state, the Confucian culture of the Choson kingdom, and the multiple ordeals of modernization in the twentieth century.

European History

HIST-3332 Vikings, Saxons, and Franks: The Barbarian North, 500-1300

This discussion-driven course examines concepts of barbarism and civilization among three medieval populations: the Vikings, Saxons, and Franks. Students may analyze medieval histories and chronicles, pagan myths and saints' lives, epic poetry and sagas, and modern historical scholarship. Classroom discussions and student research will focus on how these three societies constructed their own identities by recording and narrating their past.

HIST-3334

History of modern Germany, including the Second Empire, Weimar Republic, National Socialism, two post-World War II German states, and the unified Federal Republic.

HIST-3335 The Enlightenment

This course examines the Enlightenment as both an intellectual and cultural watershed moment in the eighteenth century life in the West. Students will explore the social and political thought of the period, looking at a variety of topics such as natural law theory, religious toleration, and the critique of absolute monarchy. Time will also be devoted to examining the emerging cultural institutions in which such ideas took form and circulated from the second half of the seventeenth century to the French Revolution.

Prerequisite: HIST 1334 or consent of instructor.

HIST-3336 French Empire in the Americas, 1500-1800

Examination of French exploration and settlement in the Americas from the fifteenth century to the reign of Napoleon. Topics may include political, economic, and cultural explanations for exploration, interaction with indigenes and slaves, daily life in the colonial era, and the growing tensions between France and other imperial powers.

Prerequisite: HIST 1334, 1360, 1370, or 1375, or consent of instructor.

HIST-3337 History of France

History of France from the rise of Louis XIV in 1661 to the modern day. The course will focus on the rise of the nation-state, the Enlightenment, the French Revolution, the struggle for Democracy in the nineteenth century, the World Wars, and the cultural revolution of 1968, and will conclude with a consideration of the political, economic, and cultural challenges facing France today.

HIST-3338 History of the Holocaust

Special attention will be paid to the motivations and actions of the perpetrators, the perspectives of the victims, and historiographical debates concerning the genocide.

HIST-3339 The World War II Era

Rise of the dictators and the road to war, 1919-1939; World War II in Europe, Africa and Asia; major Cold War events from 1945 to the death of Stalin.

Latin American History

HIST-3340 Latin American Perspectives

An examination of Latin American history through a study of 19th and 20th century texts from different social and ethnic groups; special attention to interpretations by Native Americans and African Americans. Prerequisite: HIST 1340 or consent of instructor.

HIST-3344 Modern Brazil

The history of Brazil from 1500 to present. Topics include: slavery and race relations; family life; Indians and the Amazon; the changing Catholic Church.

HIST-3346 Modern Mexico

Mexico since independence with emphasis on Juarez and the Reform, the Diaz regime, the Revolution, relations with the United States, and major developments since 1920.

HIST-3348 Latin American Economic History

A selective survey of the principal currents of economic growth and change in Latin America since the sixteenth century. Special attention given to the uneven formation of market economies, and to problems associated with colonialism and neo-colonialism; with international financial crises and adjustment; and with ideologically diverse models of development.

Prerequisites: ECON 1311 and 1312.

Middle East History

HIST-3352 Modern History of Syria

After a brief survey of Syrian history going back to the Assyrians, Romans, Umayyads, Fatimids, Crusades, and Mamluks, this course will focus on a political, culture, and social examination of the modern history of Syria from the Ottoman period through the present, including Syria's vital role in the disposition of the Middle East during and after World War One, the French mandate, the post-World War Two rise of Arab nationalism intertwined with the Arab and superpower cold wars, the Arab-Israeli conflict, and post-cold war peace efforts and political transitions in Syria itself under the Assad family.

HIST-3354 The Modern History of the Persian Gulf Region Since 1500

Examination of the history of the Persian-Arabian Gulf region from the rise of the Safavid Empire to the present; focus on political developments in Iran, Iraq, Saudi Arabia, and the Gulf Sheikdoms.

Prerequisite: HIST 1350, 1351, or consent of instructor.

United States History

HIST-3360 Economic and Business History of the United States to 1865

A study of the development of American business and the economy through the U.S. Civil War. (Also listed as ECON 3344 and BUSN 3344.)

Prerequisites: ECON 1311 and 3 hours of U.S. history or consent of instructor.

HIST-3361 Economic and Business History of the United States Since 1865

A study of the development of the American economy from the U.S. Civil War to the present. (Also listed as ECON 3345 and BUSN 3345.)

Prerequisites: ECON 1311 and 3 hours of U.S. history or consent of instructor.

HIST-3362 History of Early British America

The history of early British America from the sixteenth through the eighteenth centuries, concentrating on the establishment and development of indigenous if disparate polities, societies and economies.

Prerequisite: at least one lower-division course in U.S. history through Reconstruction, or consent of instructor.

HIST-3363 Early American Social History

Discussion-oriented course focusing on the everyday life of ordinary people from the initial cultural contacts among Europeans, Native Americans, and Africans brought to the New World down through the Revolutionary period. Emphasis on the development and maturation of diverse mainland and island communities in British North America, as well as regional and temporal variations in gender, race, and class relations.

Prerequisite: at least one lower-division course in U.S. history through Reconstruction, or consent of instructor.

HIST-3365 The American Revolution

Historical interpretations of the period 1763-1793 with focus on the Stamp Act crisis, the final break and war with Great Britain, and state and national constitution-making.

Prerequisite: at least one lower-division course in U.S. history through Reconstruction, or consent of instructor.

HIST-3366 U.S. Intellectual History since The Civil War

This discussion-based course focuses on significant changes in American thought from 1865 to the 1990s. Topics may include changing ideas about religion, science, modernity, democracy, social reform, race, and gender. The course will stress critical analysis of primary texts.

Prerequisite: At least one lower-division course in U.S. history since the Civil War, or consent of instructor.

HIST-3367 Science, Technology, and War

This course explores the relationship between science, technology, and war with a primary focus on the 19th and 20th century United States and Europe. Topics may include industrialized war and total war, military medicine, psychological warfare, the rise of the military-industrial complex, and the ethical and international implications of weapons of mass destruction. This course requires no previous background in science or technology.

HIST-3369 United States Diplomatic History

A survey of key events, policies, personalities, and ideas that shaped American foreign relations between the late nineteenth century and the end of the Cold War.

HIST-3370 Free Blacks in America

This course traces the lives of free blacks in America from the early seventeenth century to the Civil War.

The course examines free blacks in relation to the origins of American slavery, the Revolutionary War, black radicalism, community development, antebellum slavery, and the American Civil War. Attention will be given to issues of class, gender, and identity.

Prerequisite: at least one lower-division course in U.S. history, or consent of instructor.

HIST-3372 Black Images in Film

Examines the depictions of blacks in America cinema from 1915 to present. This course introduces students to the history of blacks in film and examines how film has been used as a tool of social and political commentary. Attention will be given to issues of race, color, class, and gender.

Prerequisite: at least one lower-division course in U.S. history, or consent of instructor.

HIST-3374 The Old South

Historical developments in the South from the late sixteenth century through the Civil War. This course will examine the South in relation to such major topics as the Revolutionary War, slavery, and the rise and fall of the Confederacy. Attention will be given to issues of race, class, gender, identity, and political ideology.

Prerequisite: at least one lower-division course in U.S. history, or consent of instructor.

HIST-3375 The Civil War and Reconstruction

This course focuses on the Civil War and Reconstruction as dramatic and defining episodes in American history. Student will examine the emerging sectional conflicts that led up to the war, the military and social history of the war itself, and Reconstruction, with particular attention given to the construction of "freedom" following the upheaval. The class will focus on race, class, gender, and the shaping of individual and collective identities.

Prerequisite: at least one lower-division course in U.S. history, or consent of instructor.

HIST-3376 History of Texas

Spanish and Mexican periods; revolution and the Republic; social, political, and economic changes since statehood.

Historiography, Thematic, and Comparative History

These courses do not count towards the distribution requirement.

HIST-3381 Historians and Their Craft

A colloquium on selected current debates, schools, and conflicting approaches among historians. Critical discussion of emerging fields as well as attention to ongoing debates within more traditional historical scholarship. Especially appropriate for anyone considering history as a major.

HIST-3382 The City in History

Cross-cultural examination of urban life in the pre-industrial, industrial, and contemporary cities of Asia, Europe, and the Americas with special emphasis on the U.S. urban experience. Interdisciplinary perspective drawing upon history, political science, sociology, and urban planning for an understanding of the complexity of urbanization. (Also listed as URBS 3305.)

HIST-3384 Slavery and the Atlantic Economy

Interdisciplinary analysis of the Atlantic market joining Europe, Africa and the Americas from the sixteenth through nineteenth centuries, with particular emphasis upon slavery, the slave trade, and the development of the "plantation complex." Makes explicit use of economic theory to explain historical change. (Also listed as ECON 3343.)

Prerequisites: ECON 1311 and HIST 1334 or HIST 1340, or consent of instructor.

Special Topics and Honors

These courses must be arranged with individual instructors and approved by the Chair.

HIST-1392 Topics in History

From time to time, the department will offer lower division courses not described in the Courses of Study Bulletin. May be repeated on different topics

HIST-3-90 Independent Study

Independent study in selected areas. 1 to 6 semester hours.

Prerequisites: 6 advanced hours in history and consent of instructor.

HIST-3388 Methods of Instruction in History

Examination of various ways to teach history at the elementary, secondary, or college levels with special emphasis on the inquiry process. Students will work with both original and secondary sources and develop an extensive teaching unit as a final project. Topics may include Texas, U.S., or world history.

HIST-3-92 Special Topics in History

From time to time the department will offer special topic courses not described in the Courses of Study Bulletin. Announcement of such courses will be by special prospectus. May be repeated on different topics.

HIST-4498 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by Senior Honors students in their first semester of their senior year.

HIST-4499 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by Senior Honors students in their second semester of their senior year.

Seminars:

Seminars require advanced work both in the classroom and in the library. Classes are devoted to common readings and are designed to help the student master the major secondary works and the research methods appropriate to the topic; work in the library is to be devoted to the development of individual topics, research, and writing. The outcome of a seminar is a major research paper that represents the student's contribution to the broader historical debates within the particular field.

Students may take a second seminar with the same course number if the topic offered under that number is different. Prerequisite: senior standing or consent of instructor.

HIST-4400 Seminar in African History

HIST-4420 Seminar in Asian History

HIST-4430 Seminar in European History

HIST-4440 Seminar in Latin American History

HIST-4450 Seminar in Middle East History

HIST-4460 Seminar in United States History A

HIST-4470 Seminar in United States History B

Human Communication and Theatre

FACULTY

ERIN BRYANT, Ph.D., Assistant Professor, Human Communication
STACEY J. CONNELLY, Ph.D., Associate Professor, Theatre
TIMOTHY S. FRANCIS, M.F.A., Technical Director and Lighting Designer, Theatre
KYLE GILLETTE, Ph.D., Associate Professor, Theatre; Director of Theatre
ANDREW C. HANSEN., Ph.D., Associate Professor, Human Communication; Chair
RACHEL JOSEPH, Ph.D., Assistant Professor, Theatre
JODI KARJALA, M.F.A., Costume Designer/Costumer, Theatre
SARAH MARTIN, M.F.A., Assistant Professor, Theatre
JOHN M. McGRATH, Ph.D., Professor, Human Communication
SUSANNA MORROW, Ph.D., Associate Professor, Theatre
WILLIAM MOSLEY-JENSEN, Ph.D.*, Assistant Professor, Human Communication; Director of Debate
ROBERTO PRESTIGIACOMO, M.F.A., Associate Professor, Theatre
JAMIE THOMPSON, M.Ed., Coordinator for Student Organizations, Campus & Community Involvement
AMANDA ZUCKMAN, B.A., Coordinator of Theatre Arts, Theatre

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in Human Communication or Theatre are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. The Human Communication major consists of 30 semester hours to be taken as follows:
 1. Required core consists of 15 semester hours.
 - a. Within Human Communication (12 semester hours):

HCOM 1300	Theories of Human Communication
HCOM 2304	Interpersonal Communication
HCOM 3334	Persuasion
HCOM 3350	Rhetorical Criticism (also listed as ENGL 3334)
 - b. Select one of the following in quantitative research methods:

HCOM 3354	Quantitative Research Methods (also listed as COMM 3354)
BUSN 2301	Statistics for Management and Economics
MATH 1320	Statistical Methods
PSYC 2422	Statistics and Methods I
SOCI 3360	Research Methods: Social Statistics
 2. Controlled electives consist of 9 semester hours. At least 3 semester hours must be chosen from each of the following areas:
 - a. Public Communication

HCOM 1333	Public Speaking
HCOM 2140	Forensics
HCOM 3374	International Communication (also listed as COMM 3322)
HCOM 4350	Political Communication (also listed as PLSI 3304)

HCOM 4391 Special Topics in Public Communication

b. Rhetorical and Communication Theory

HCOM 2350 Classical Rhetorical Theory

HCOM 2352 Modern Rhetorical Theory

HCOM 3330 Argumentation

HCOM 3352 Rhetorical Analysis (also listed as ENGL 3335)

c. Communication and Social Context

HCOM 3360 Communicating in Small Groups and Teams

HCOM 3362 Organizational Communication (also listed as BUSN 3311)

HCOM 3364 Communication and Effective Leadership

HCOM 3372 Intercultural Communication

3. General Human Communication Electives consist of at least 6 more hours of Human Communication courses to achieve greater focus in the major.

4. At least 18 hours of the Human Communication major must be upper-division coursework.

B. The Theatre major consists of 40 semester hours to be taken as follows:

1. Required core consists of 28 semester hours.

a. Theatre Practicum (4 hours):

- University Theatre Company (four semesters for a total of four credit hours; at least one semester must be taken in THTR 1101)
- THTR 1100—University Theatre Company I—Acting, directing, dramaturgy, choreography. May be repeated up to 3 times.
- THTR 1101—University Theatre Company II—Construction, running crew, stage management, design. May be repeated up to 4 times.

b. Technology and Design (6 hours):

- THTR 1320—Introduction to Production Techniques OR
THTR 1330—Principles of Costume Technology
- THTR 2310—Principles of Design OR
ART 1310—Design

c. Performance Theory (3 hours):

- THTR 1350 (Introduction to Acting) OR
THTR 1352 (Acting I)

d. Advanced Performance or Design Theory (3 hours)

- Choose one of the following:

THTR 2314	Principles of Stage Lighting
THTR 2352	Acting II: Scene Study
THTR 3312	Costume Design
THTR 3313	Scene Design
THTR 3340	Directing

e. Literature and History of Theatre (9 hours):

THTR 2332 Play Structure and Analysis

THTR 3331 History of Theatre: The Classical Theatre to 1642

THTR 3332 History of Theatre: The Restoration to 1850

- f. Capstone for the Theatre Major, if Primary Major (3 hours):
 - THTR 4393—Capstone for Theatre Majors OR both THTR 4398 and 4399—Honors Thesis
- g. 12 additional hours of Theatre electives of which no more than 3 credit hours of directed studies or special topic courses may be applied toward the required 40-hour major.
- h. At least 15 hours of the Theatre major must be upper-division coursework.
- i. Additional courses in Theatre may be taken, but not substituted for those listed to fulfill the major requirements.

THE MINOR

Two minors are available in the Department of Human Communication and Theatre. In both minors at least 9 hours must be upper-division coursework.

HUMAN COMMUNICATION: Minor consists of 18 semester hours to be taken as follows:

- I. 6 of the 18 hours must be selected from the required core of Theatre Communication courses for the major.
- II. 3 hours must be selected from each of the three controlled elective areas of the major.

THEATRE: The Theatre Minor consists of 20 hours to be taken as follows.

- I. Required core consists of 11 semester hours.

THTR 1100—University Theatre Company I (two semesters for a total of two semester hours)

An additional 9 hours to be selected from the following courses:

THTR 1304	Introduction to Theatre
THTR 1314	Introduction to Drama
THTR 1320	Introduction to Production Techniques
THTR 1330	Principles of Costume Technology
THTR 1350	Introduction to Acting OR
THTR 1352	Acting I
THTR 2100	Stage Makeup Design
THTR 2310	Principles of Design OR
ART 1310	Design
THTR 2314	Principles of Stage Lighting
THTR 2332	Play Structure and Analysis
THTR 2354	Vocal Performance for the Actor (also listed as HCOM 2313)
THTR 2356	Physical Performance for the Actor
THTR 3331	History of Theatre: The Classical Theatre to 1642 OR
THTR 3332	History of Theatre: The Restoration to 1850

- II. 9 additional hours of Theatre electives of which no more than 3 credit hours of directed study or special topic courses may be applied.

THE HONORS PROGRAM

- I. University requirements
- II. Departmental requirements:

The Department of Human Communication and Theatre offers a major Honors Program in both

Human Communication and Theatre. A description of the program is available in the departmental office.

COURSES

HUMAN COMMUNICATION COURSES

LOWER DIVISION

HCOM-1104 Effective Listening

Effective listening is central to information exchange and the development of successful interpersonal relationships. This course will provide an opportunity to assess one's strengths and weaknesses and to develop the skills for more active listening behavior.

HCOM-1160 Parliamentary Procedure

An overview of modern parliamentary practice as set forth in the standard work on the subject, Robert's Rules of Order, most newly revised. Consideration will be given to the purpose and functions of parliamentary procedure, the types of assemblies that employ it, and the significant differences between the standard rules of procedure and the specialized rules utilized by legislative bodies.

HCOM-1162 Interviewing

Examines the goals, techniques, and interpersonal dynamics of the interviewing process. This course focuses on communication skill development in employment, journalistic, counseling, appraisal, persuasive, and research interviews.

HCOM-1170 Leadership Academy

Leadership Academy is a one-credit comprehensive leadership course for first-year and sophomore students. It is an experiential leadership course where students learn leadership essentials and explore how their leadership impacts others. The course requires individuals to explore their own leadership through theory-to-practice transformational leadership activities, small and large group discussions, and reflection. Leadership Academy concludes with a service project.

HCOM-1300 Theories of Human Communication

Examines the concepts, principles, and applications of human communication theory and research with emphasis on the formats, roles, strategies, and constraints on human communication in varied social contexts.

HCOM-1305 Foundations of Linguistics

Examines the foundations of human language including its phonology, morphology, syntax, and semantics. (Also listed as LING 1300.)

HCOM-1310 Applied Linguistics

Examines applications of linguistics in psycholinguistics (language acquisition and language processing), sociolinguistics (language development and change in groups and organizations), the interaction of language and culture, and analytical procedures (discourse and text analysis). (Also listed as ENGL 1310 and LING 1310.)

Prerequisite: LING 1300 or consent of instructor.

HCOM-1323 Oral Interpretation

Examines the performative and other critical approaches to the study of literature. Investigates and explores critical methods for analyzing texts and their application to the oral study and performance of a variety of literary genres. (Also listed as THTR 1306.)

HCOM-1333 Public Speaking

A basic course in the theory and practice of public speaking. Emphasizes the preparation and adaptation of messages for effective public presentation. Also addresses the development of critical thinking and listening skills. Not available for P/F option.

HCOM-2133 Advanced Public Speaking

Allows student to extend public speaking skills by refining all aspects of the public presentation of their character and material. This course focuses on the creation and delivery of organized discursive presentations for a public and oral venue.

Prerequisite: HCOM 1333 or permission of instructor.

HCOM-2140 Forensics

Independent research and analysis as well as group brainstorming on issues involved in the current national policy debate resolution. Offered in conjunction with participation in the intercollegiate debate program. May be repeated for no more than six credits.

Prerequisite: admission by consent of instructor only.

HCOM-2304 Interpersonal Communication

A basic course in the theory and practice of interpersonal communications with emphasis on intrapersonal concerns, development and maintenance of interpersonal relations through communication, and the practical skills necessary for interpersonal effectiveness.

HCOM-2312 Nonverbal Communication

Nonverbal Communication is a course designed to familiarize students with theoretical concepts and research centered on the nonverbal aspects of meaning making. Nonverbal Communication refers to everything we use to communicate besides words themselves. This includes ways we use our voices, faces, bodies, and clothing, to create meaning, as well as the ways we use time, space, and touch. So much of communication happens in place of and alongside the use of language. Students will learn about these modes of communication as well as their evolutionary and social origins.

HCOM-2313 Voice and Diction

Provides fundamental concepts and techniques of vocal production, voice and diction, and vocal performance training. Various modes of body/voice exploration are employed. Voice and body work are developed through multiple performance opportunities that seek to increase the performer's vocal clarity, power, flexibility, and range. (Also listed as THTR 2354.)

HCOM-2320 Human Communication and Human Relations

This course employs communication concepts, principles, and practices to develop students' abilities to understand, evaluate, and improve their interpersonal and group communication. Specifically, the course provides opportunities for students to understand more fully, critically reflect on, and enact alternatives to taken-for-granted interpersonal communication in dyadic and small group settings. To accomplish those

goals, the majority of the class employs an experiential group method—an inductive form of learning in which students first participate in creating and then analyze and evaluate how they created high-quality interpersonal communication with other class members.

HCOM-2350 Classical Rhetorical Theory

Traces the emergence of rhetoric as a theory of public discourse developed by the Greeks and adapted by the Romans. Examines the works of such theorists as Plato, Isocrates, Aristotle, Cicero, and Quintilian.

HCOM-2352 Modern Rhetorical Theory

Examines the evolution of rhetorical theory from the Renaissance to the present, focusing on the works of such leaders as Locke, Campbell, Richards, Burke, and Perelman. Also, studies associated movements such as epistemology, form and genre, and dramatism.

UPPER DIVISION

HCOM-3330 Argumentation

A study of the theoretical basis of argument as a rhetorical device for critical decision-making. Includes, but is not limited to, consideration of the types of propositions; questions of definition; uses of evidence; reasoning and delivery; and procedural issues including the burden of proof, and the nature of the decision to be made.

HCOM-3332 Computer Mediated Communication and Social Relations

This course examines the role of computer-mediated communication in social relationships. Students will gain practical and theoretical understanding of how communication technologies (e.g., email, social media, and mobile devices) are utilized to initiate, develop, maintain, and dissolve interpersonal and group communication. Additionally, students will gain knowledge regarding how traditional interpersonal communication concepts can be augmented to understand the increasingly mediated nature of social interaction. Such understanding will enable students to become more mindful regarding the positive and negative outcomes of using communication technology in such areas as constructing individual or multiple self-presentations, in managing interpersonal impressions and relations, in considering communication privacy, and in providing social support.

HCOM-3334 Persuasion

Examines theory, research, and practice in persuasive communication with an emphasis on the interaction of rhetorical and social scientific approaches. Considers the development of strategies and tactics for application in various contexts, especially campaigns and social movements. Addresses ethical issues and questions throughout.

HCOM-3350 Rhetorical Criticism

Examines approaches to the critical analysis of rhetorical discourse with emphasis on methodological issues as well as techniques for doing scholarly criticism. (Also listed as ENGL 3334.)

HCOM-3352 Rhetorical Analysis

Introduction to rhetoric as a mode of analysis as it applies to discursive modes and genres. (Also listed as ENGL 3335.)

Prerequisite: 6 hours of English above 1302.

HCOM-3354 Quantitative Research Methods in Human Communication

The goal of this course is to help you understand how communication is studied using quantitative (numerical) principles and techniques. Such understanding will enable you to be a more knowledgeable and critical consumer and producer of quantitative research findings. (Also listed as COMM 3354.)

HCOM-3360 Communicating in Small Groups and Teams

The theory and practice of small group and team dynamics, including the examination of such concepts as group problem-solving; discussion making; normative behavior; roles; leaderships; conflict; group climates; and teamwork.

HCOM-3362 Organizational Communication

Studies the theory and practice of communication within organizations. Includes the fit of communication into organizational theory; communication climate and cultures; leadership and management styles; information networking; and the diagnosis and evaluation of communication problems. (Also listed as BUSN 3311.)

HCOM-3364 Communication and Effective Leadership

An examination of the theories and skills necessary for the development of effective communication and leadership. The course includes opportunities for evaluating leaders, leadership behavior and communication in a variety of civic and non-profit contexts.

HCOM-3372 Intercultural Communication

Examines theory, research, and the application of communication in an intercultural context with an emphasis on verbal and non-verbal language variables; world view; acculturation; diffusion of innovation; and training for foreign assignments.

HCOM-3374 International Communication

Studies communication as an essential component of international organizations and relations. Surveys major topics in international communication and emphasizes communication and international decision-making, comparative media systems and national philosophies, and Third World issues and policy development. (Also listed as COMM 3322.)

Prerequisite: COMM 1301 or permission of instructor.

HCOM-3-90 Directed Studies

Independent work under faculty supervision. The nature of the project will be agreed upon by the student and participating faculty member prior to registration. Credit varies from 1 to 4 semester hours, depending on the scope of the project.

Prerequisites: 15 hours of Human Communication, documentation of ability to study, consent of instructor.

HCOM-3398 Honors Reading

Independent study in selected areas in preparation for Honors Thesis. Prerequisite: admission to Honors Program.

HCOM-4340 Gender and Human Communication

Gender is both personal and social. It is personal because it infiltrates our daily lives; it plays an important part in our identities, our relationships, the goals we set for ourselves, the things we value, and the ways we communicate. Gender is social in that it exists in and is created and sustained by social interactions, positions, and roles, as well as by cultural discourses and institutions. In this course, we will seek out the ways that gender is communicated and the ways communication is gendered.

HCOM-4350 Political Communication

Studies communication aspects of the political processes in a democratic society with an emphasis on contemporary political campaigns; presidential and congressional rhetoric; and less public forms of communication in the policy-making process. (Also listed as PLSI 3304.)

HCOM-4-80 Teaching Speech and Directing Forensics Activities

Through extra- and co-curricular study, this course examines the philosophy, methods, and problems of teaching speech communication. Emphasis is given to the administration of high school forensic programs, including debate, oratory, extemporaneous speaking, and oral interpretation. Credit varies from 1 to 4 semester hours, depending on responsibilities and/or scope of the project. Course may be repeated for a maximum of 6 credit hours.

Prerequisites: 12 hours of Human Communication or consent of instructor.

HCOM-4-85 The Human Communication Peer Tutor

Functioning as a peer mentor in introductory human communication courses, students will examine the philosophy, methods, and challenges of teaching speech under the direction of the human communication instructor for the course. Credit varies from 1 to 3 semester hours, depending on responsibilities and/or scope of the project. Course may be repeated for a maximum of 6 credit hours.

Prerequisites: 15 hours of Human Communication or consent of instructor.

HCOM-4-90 Directed Studies

Independent work under faculty supervision. The nature of the project will be agreed upon by the student and participating faculty member prior to registration. Credit varies from 1 to 4 semester hours, depending on the scope of the project.

Prerequisites: 15 hours of Human Communication, documentation of ability to undertake study, consent of instructor.

HCOM-4391 Special Topics in Public Communication

An in-depth study of special topics in public communication including, but not limited to, the Rhetoric of the Women's Movement, American Public Address, British Public Address, and Social Movement Rhetoric. May be repeated when subject varies. Maximum credit is six credit hours.

HCOM-4394 Seminar in Human Communication

A variable content seminar emphasizing selected topics in human communication theory, research, and/or application. May be repeated for credit with a different topic. Maximum credit is nine credit hours.

HCOM-4-97 Human Communication Internship

Supervised on- and off-campus experience in human communication appropriate to the student's specialty. Specific guidelines are available in the departmental office. Credit varies with responsibilities. May be repeated for a maximum of six hours of credit.

Prerequisites: 12 hours of Human Communication and consent of instructor.

HCOM-4398, 4399 Honors Readings

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by senior Honors students in both semesters of their senior year.

THEATRE COURSES

LOWER DIVISION

THTR-1100 University Theatre Company I

Course focuses on specific responsibilities assigned by faculty and staff regarding University Theatre Productions. Included are performance, assistant directing, dramaturgy, choreography, and a weekly course meeting. May be repeated for three credit hours. Students working in University Theatre Productions who are neither drama majors nor minors are encouraged to enroll in Theatre 1100 but are not required to do so.

THTR-1101 University Theatre Company II

Course focuses on specific responsibilities assigned by faculty and staff regarding University Theatre Productions. Included are construction, running and operating crews, stage management, design, and a weekly course meeting. May be repeated for four credit hours. Students working in University Theatre Productions who are neither drama majors nor minors are encouraged to enroll in Theatre 1100 but are not required to do so.

THTR-1154 Dance for Theatre

Dance for theater is for students of various levels of expertise in dance, ranging from beginner to advanced, to acquire and polish their skills and convey character through dance. The topic varies based on production needs within the department, but all courses will be primarily skill-based and performance oriented, with short choreography and dance appreciation segments. Topics may include: jazz, tap, modern, ballet, choreography, and other pertinent dance forms. Course is repeatable for up to six credit hours.

THTR-1304 Introduction to Theatre

A hands-on approach to the fundamentals of theatre including literature, acting, directing, and design. Intended as a survey, this course will provide an overview of theatre's numerous components, from the page to the stage, so that the beginning student may better understand the theatrical world.

THTR-1306 Oral Interpretation

Examines the performative and other critical approaches to the study of literature. Investigates and explores critical methods for analyzing texts and their application to the oral study and performance of a variety of literary genres. (Also listed as HCOM 1323.)

THTR-1314 Introduction to Dramatic Literature

A survey of dramatic literature in the western canon from Ancient Greeks to the contemporary era. Students will read and discuss a significant number and range of plays in their theatrical, social, and cultural contexts.

THTR-1320 Introduction to Production Techniques

Introduction to traditional stagecraft, including backstage organization, scenery construction, theatrical lighting, sound design, scene painting and drafting. May be taken instead of THTR 1330 as core credit toward the major.

THTR-1330 Principles of Costume Technology

An introductory course that explores the fundamentals of costume construction, patterning and draping, textiles, and related crafts such as millinery and fabric painting and dyeing. May be taken instead of THTR 1320 as core credit toward the major.

THTR-1343 Improvisation

This course teaches students to increase spontaneity and intuition. Students will practice generating scenes and creating hypothetical worlds without scripts or pre-planning. Using exercises drawn from theatre as well as from music, visual art, storytelling, writing, extemporaneous speaking, and dance, students will learn to develop the spontaneous aspects of creativity and to collaborate effectively with peers.

THTR-1350 Introduction to Acting

This class will provide the beginning acting student with basic acting techniques and vocabulary through exercises, monologues, and scene work. (Not available for P/F option.) Students may not receive credit for both THTR 1350 and 1352.

THTR-1352 Acting I

This class will provide acting students with a core of techniques from which to further develop their acting skills as individuals and as members of a theatrical ensemble. The course is suggested for students planning to major in Theatre. Open to all students by audition or permission of instructor. (Not available for P/F option.) Students may not receive credit for both THTR 1350 and 1352.

THTR-2100 Stage Makeup Design

Introductory course that studies the theory and practice of makeup design and application for the stage, including the creation of special effects.

THTR-2310 Principles of Design

This course is an experiential introduction to the art of design. Students explore 2-D and 3-D compositional problems and practice integrating visual elements with aesthetic principles to communicate creative solutions. Students may not receive credit for both ART 1310 and THTR 2310.

THTR-2314 Principles of Stage Lighting

An introductory course that explores the use of light as an artistic medium in theatrical productions. This overview course acquaints the students with the equipment, design elements, and conceptual processes employed in lighting design.

THTR-2332 Play Structure and Analysis

This course will introduce students to multiple theatrical models and methods used to understand dramatic structure and to analyze specific plays. This course seeks answer to the question: How can we discover the ways in which plays work? (Also listed as GRST 2332.)

THTR-2340 Creative Thinking and the Artistic Process

This course encourages students to synthesize a theoretical and experimental approach to the creative process as studied through the visual arts, music, creative writing, and theatre. Students enter into the creative process as a means to develop creative self-expression, aesthetic sensibility, and an understanding of the arts. The nature and drive of artistic endeavor is explored through studies of the lives of significant thinkers and artists, examinations of art works, guest lectures, and projects. Students will engage in activities and projects that will enable them to access and develop their own creative thinking skills in concert with traditional, analytic modes. (Also listed as ART 2314, ENGL 2340, GNED 2340, and MUSC 2340.)

THTR-2352 Acting II: Scene Study

This course will focus on scene work from a variety of periods and playwrights, and in class exercises to further develop the acting student's ability. (Also listed as GRST 2352.)

Prerequisites: THTR 1350 or 1352, and at least Sophomore standing or consent of instructor.

THTR-2354 Vocal Performance for the Actor

Provides fundamental concepts and techniques of vocal production, voice and diction, and vocal performance training. Various modes of body/voice exploration are employed. Voice and body work are developed through multiple performance opportunities that seek to increase the performer's vocal clarity, power, flexibility, and range. (Also listed as HCOM 2313.)

THTR-2356 Physical Theatre Laboratory

Drawing together movement, dance, text, mask, song, fiction, and design, students will develop a creative vocabulary that will lay the foundation of a physical approach to theatre. By recalling the traditional popular theatre forms of commedia dell' arte and clowning, as well as mask performance and puppetry, the students will explore the creation of a performance which breaks the boundaries of individual disciplines.

UPPER DIVISION**THTR-3215 Design Project**

Students design costumes, lights, or scenery which is actualized in a university mainstage production. Admission to course by consent of Theatre Faculty and Staff.

THTR-3227 Stage Management Project

Provides the students with the opportunity to stage manage a university theatre production. Admission to course by consent of the Theatre Faculty and Staff.

THTR-3301 Theatre Graphics

An examination of current graphic techniques used to communicate designer concepts for the theatre and related fields, which include perspective drawing for the stage, costume drawing, scenic and costume rendering, and an understanding of selected computer-assisted design soft- wares.

THTR-3311 History of Dress and Style

A study of the evolution of western dress from the Greeks to the present, focusing on how, within each era, the social, political, and cultural environment shaped the fashions of rich and poor. In the course of the semester, students will learn how sex, politics, and self-expression have influenced dress throughout

the ages.

THTR-3312 Costume Design

Costume design for theatrical productions. This course acquaints the student with the artistic techniques and principles used to create costume designs. Students will analyze play scripts in terms of their dramatic components and visual environment and use this information to create appropriate theatrical costume designs. Emphasis is placed on the visual interpretation of literary works using character study, period research, and script analysis.

Prerequisite: ART 1310 or THTR 2310 or consent of instructor.

THTR-3313 Scene Design

Rooted in the discipline of theatre, this course explores the art of conceptualization, visualization, and creativity. Problem solving activities include the use of metaphor to communicate literature for live performance, the creation of sculptural installations for plays and poetry, and the management of scenic design projects. The course examines the various means necessary to communicate a design to a producer, director, or client (sketching, drafting, painter elevations, and model making).

Prerequisite: ART 1310 or THTR 2310 or consent of instructor.

THTR-3315 Theatrical Scene Painting

A study of color theory, scenic techniques, and painting styles introducing the student to the art of theatrical scene painting.

THTR-3320 Advanced Production Techniques: Computer Aided Design

Course will explore the increasing use of computer technology in the theatrical production. The course will acquaint the student with computer aided drafting, computer control of theatrical lighting, computer control and manipulation of sound for the theatre, and computer control of mechanized scenery. The course will also explore the potential integration of these systems.

Prerequisite: THTR 1320 or consent of instructor

THTR-3330 Dramaturgy

Dramaturgy combines advanced play analysis with writing, production research, collaboration with directors, and the presentation of written and visual materials to enhance a theatre company's and audience's understanding and appreciation of a dramatic text.

Prerequisite: THTR 2332

THTR-3331 History of Theatre: The Classical Theatre to 1642

An examination of the history of theatre, covering Classical, Medieval, and early Renaissance theatre, including African and Asian forms during these periods, up to the closing of the theatres in England in 1642. The course will utilize historical and critical writings and iconography, as well as representative dramatic texts from each period.

THTR-3332 History of Theatre: The Restoration to 1850

An examination of the history of theatre, from the Restoration period to the beginnings of realistic theatre in 1850, including African and Asian forms during these periods. The course will utilize historical and critical writings and iconography, as well as representative dramatic texts from each period. (Also listed as GRST 3332.)

THTR-3335 Greek and Roman Drama

Study of trends in Greek and Roman dramatic literature, with attention to social, cultural, and political contexts. Topics will include the development of dramatic conventions and traditions of reception and performance. (Also listed as CLAS 3303 and ENGL 3322.)

Prerequisite: sophomore standing or consent of instructor.

THTR-3336 Modern Drama

Study of trends in dramatic literature from Realism to the present. (Also listed as ENGL 3320.)

THTR-3337 Contemporary Drama

Study of trends in dramatic literature from World War II through the present as manifested in the United States, Great Britain, Europe, and representative Third World Countries. (Also listed as ENGL 3321.)

THTR-3340 Directing

This course will teach and develop the skills necessary for directing. These include: reading a script, casting, rehearsing, and staging. Class time will be divided between lecture/discussion and presentation of student prepared scenes.

Prerequisites: THTR 1350 or 1352 and 2332 or consent of instructor.

THTR-3342 Stage Management

A study of the art of stage management, from the organizational paperwork to the running of a theatrical production. This course examines the necessary project management skills to communicate effectively with producers, directors, actors, designers, and technical staff. This class will identify and discuss the various responsibilities of theatrical stage managers and effective stage management techniques. Students will understand the working relationships with other theater professionals and unions, and learn proper stage management procedures for Trinity University Theater and other theatre organizations.

THTR-3343 Arts Management

Principles of Arts Management is an introductory course designed to acquaint students with essential behind-the-scenes and administrative responsibilities necessary for theater, opera, and museum management. The course is recommended for Business, Theatre, Art, and Music majors who are interested in understanding professional opportunities beyond performance. The course will also introduce to Business and other majors new venues and opportunities where their talents and interests may be applied. Note: This course provides upper division Business elective credit.

THTR-3352 Advanced Acting: Verse Drama

Verse Drama offers the advanced student scene work in plays from Classical antiquity, Elizabethan drama, Seventeenth Century drama, and other verse dramas from various periods and styles. Exercises explore scansion, rhyme, and period movement.

Prerequisites: THTR 1350 or THTR 1352 and THTR 2352.

THTR-3353 Advanced Acting: Non-Realistic Drama

Non-realistic Drama offers experience in acting scenes from non-realistic texts from nineteenth and twentieth-century European and American drama. Course includes exercises in voice, movement, and performance theory/art.

Prerequisites: THTR 1350 or THTR 1352 and THTR 2352.

THTR-3354 Stage Dialects

Students learn to use International Phonetic Alphabet (IPA) as an effective tool for identifying individual sounds of speech. This knowledge improves articulation, contributes to the development of good Standard American Speech, and provides the actor with an ability to play a range of performance roles. The course employs the use of visual and audio technology as well as phonetics to analyze, create, and perform stage dialects.

THTR-3355 Theater for Social Change

Theater for Social Change investigates the critical issues and creative process that chart the field of community-based theater. The critical investigation is framed by the following questions: What happens when theater gets into the community? How might we define "community"? Can theater stimulate political and social change? What is the role of the artist in relationship to the community? How can performance serve raise consciousness? The collaborative creative process will primarily draw upon August Boal's work and will consist of learning exercises taken from the Image Theater, Invisible Theater, and Forum Theater. This is a participatory and hands-on course.

THTR-3360 Playwriting

This course investigates and practices systematic methods for developing dramatic ideas and turning them into dramatic literature through readings, discussions, and exercises. Each student will, at the end of the semester, have written a one-act play.

THTR-3-90 Directed Studies

Independent work under faculty supervision. The nature of the project will be agreed upon by the student and participating faculty member prior to registration. Credit may vary from 1 to 3 hours depending on the scope of the project. Maximum credit three hours.

Prerequisites: 15 hours in Theatre, documentation of ability to undertake study, consent of instructor.

THTR-3-97 Theatre Internship

Supervised off-campus experience in theatre production and/or management appropriate to the student's specialty. Credit varies with responsibilities, but maximum is three credit hours.

THTR-3398 Honors Readings

Independent study in selected areas in preparation for Honors Thesis. Prerequisite: admission to Honors Program.

THTR-4215 Design Project

Students design costumes, lights, or scenery which is actualized in a university mainstage production. Admission to course by consent of the Theatre Faculty and Staff.

THTR-4227 Stage Management Project

Provides the students with the opportunity to stage manage a university theatre production. Admission to course by consent of the Theatre Faculty and Staff.

THTR-4340 Directing II

Builds on the fundamentals studied in Directing I to explore further the process of directing for the theatre, from image to context to created word. Special attention will be paid to working with essential elements of the stage, and developing resources into a created space of interaction. Image, time, space, text,

character, relationship, rhythm, sound, will all be addressed as means of creating theatrical environment. The course is taught through practical work and developed presentation of short dramatic pieces.

Prerequisite: THTR 3340 or consent of instructor.

THTR-4-85 The Theatre Peer Tutor

Functioning as a peer mentor in introductory theatre arts courses, students will examine the philosophy, methods, and challenges of teaching theatre arts under the direction of the theatre instructor for the course. Credit varies from 1 to 3 semester hours, depending on responsibilities and/or scope of the project. Course may be repeated for a maximum of 6 credit hours.

Prerequisites: 15 hours of Theatre or consent of instructor.

THTR-4-90 Directed Studies

Independent work under faculty supervision. The nature of the project will be agreed upon by the student and participating faculty member prior to registration. Credit may vary from 1 to 3 hours depending on the scope of the project. Maximum credit three hours.

Prerequisites: 15 hours of Theatre, documentation of ability to undertake study, consent of instructor.

THTR-4-91 Special Topics in Design

An in-depth study of select design topics. May be repeated once when subject varies. Maximum credit is six semester-credit hours.

THTR-4-92 Special Topics in Performance

An in-depth study of select performance topics. May be repeated when subject varies. Maximum credit is six credit hours.

THTR-4393 Capstone for Theatre Majors

Theatre majors with senior standing will create a portfolio of Theatre coursework and production experiences, research career opportunities for the potential application of this portfolio, and present this synthesis to the Theatre faculty, staff, and students. Applicable guidelines are available from Theatre advisors.

Prerequisite: senior status.

THTR-4394 Seminar in Drama

An in-depth study of selected plays, dramatists, and/or movements. May be repeated when subject varies.

Prerequisite: junior or senior standing or consent of instructor.

THTR-4-97 Theatre Internship

Supervised off-campus experience in theatre production and/or management appropriate to the student's specialty. Credit varies with responsibilities, but maximum is three credit hours.

Prerequisite: 12 hours of Theatre and consent of instructor.

THTR-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by senior Honors students in both semesters of their senior year.

Interdisciplinary Second Major

FACULTY ADVISORY COMMITTEE

DUANE COLTHARP, Ph.D., Associate Professor, English; Associate Vice President for Academic Affairs

CARL LEAFSTEDT, Ph.D., Associate Professor, Music

NATASA MACURA, Ph.D., Associate Professor, Mathematics

RUBEN MANCHA, Ph.D., Assistant Professor, Business Administration

RICHARD REED, Ph.D., Professor, Sociology and Anthropology

AMY STONE, Ph.D., Associate Professor, Sociology and Anthropology

OVERVIEW

The Interdisciplinary Second Major (ISM) allows students to pursue a unique learning path that integrates material from several disciplines. Working with a variety of faculty members, each student designs a comprehensive curriculum for rigorous study of a specific topic or intense training in a closely defined area.

The ISM is designed for students who have already declared a primary major in an existing program. Students may not use the ISM to achieve a second, and different, bachelor's degree.

REQUIREMENTS

Requirements

- I. Each proposed major must have an advisory committee of three faculty members representing two or more different disciplines, one of whom will be chair.
- II. The advisory committee will help the student prepare a proposal for the major, select courses, and develop a course that synthesizes the diverse work of the major (normally, an existing three-hour independent study course directed by a member of the faculty advisory committee).
- III. In order to submit a proposal for an Interdisciplinary Second Major, a student must have already declared a first major.
- IV. The proposal should identify at least twelve (12) hours of courses that will serve as a core for the major and an array of supporting courses from which the remaining credits will be chosen. One of the core courses must be the synthesis course.
- V. The minimum number of hours for an interdisciplinary major is thirty-six (36). Of that number, at least eighteen (18) must be upper-division. No more than eighteen (18) hours may be taken from a single discipline. No more than nine (9) hours may be selected from courses that are used towards the student's first major.
- VI. The selection of courses must ensure depth in the area of study as well as breadth of exposure to varied perspectives.

Procedures

- I. A student who wishes to pursue an Interdisciplinary Second major must submit a proposal before the end of the second semester of the junior year. The proposal form may be obtained from the Office of the Registrar.
- II. The Interdisciplinary Second Major Committee will consider this proposal and, if approved, will recommend it to the University Curriculum Council for final approval.

- III. The advisory committee will monitor the student's progress toward the major, provide guidance, and evaluate any changes to the course of study.
- IV. Upon registration for the last semester of courses taken toward the Interdisciplinary Second Major, the student must submit a form for completion of an Interdisciplinary Second Major to her or his advisory committee. The completion form may be obtained from the Registrar. The committee will then return that form, if approved, to the Registrar and will forward a copy of the form to the Interdisciplinary Second Major Committee and the University Curriculum Council.
- V. During the semester in which the student completes the coursework for the major, he or she will make a public presentation to his or her advisory committee in order to demonstrate a mastery of the interdisciplinary topic. This presentation must be organized in conjunction with the student's synthesis course.

International Studies

FACULTY

DONALD N. CLARK, Ph.D., Professor, History; Coordinator, East Asian Studies
ANENE EJIKEME, Ph.D., Associate Professor, History; Coordinator, African Studies
STEPHEN L. FIELD, Ph.D., J. K. and Ingrid Lee Endowed Professor of Chinese Language and Literature, Modern Languages and Literatures
ROBERT HUESCA, Ph.D., Professor, Communication
NANETTE LE COAT, Ph.D., Associate Professor, Modern Languages and Literatures; Coordinator, European Studies; Director of International Programs
ARTURO MADRID, Ph.D., T. Frank and Norine R. Murchison Professor, Modern Languages and Literatures; Coordinator, Mexico, The Americas, and Spain (MAS) Program
TAHIR H. NAQVI, Ph.D., Assistant Professor, Sociology and Anthropology
AARON NAVARRO, Ph.D., Associate Professor, History; Coordinator, Mexico, The Americas, and Spain (MAS) Program
DAVID O. RIBBLE, Ph.D., Murchison Term Professor of Biology; Coordinator, International Environmental Studies
DARRYL G. WALDRON, Ph.D., Professor, Business Administration

OVERVIEW

INTERNATIONAL STUDIES PROGRAM

International Studies is an interdisciplinary undergraduate degree program that combines broad approaches to world affairs, foreign language learning, experience abroad, and specialized studies in one of the regional or functional concentrations.

REQUIREMENTS

THE MAJOR

The requirements for a Bachelor of Arts with a major in International Studies are as follows:

- I. The common curriculum
- II. Program requirements
 - A. No fewer than 33 semester hours.
 - B. Advanced Language study (at least 6 upper division hours). This requirement in the Middle East and East Asian Studies concentrations may be modified in special circumstances upon recommendation of the adviser and the consent of the International Programs director.
 - C. One of the following courses: HIST 3369 (U.S. Diplomatic History), or PLSI 1331 (Comparing Countries), or SOCI/URBS 1316 (Introduction to Human Geography).
 - D. Required enrollment during each semester of residence in the major in INTL 3100 (International Studies Colloquium). Course may be repeated for 6 hours, only 3 of which may be applied to the major.
 - E. Completion of INTL 4104 (Senior Portfolio).
 - F. Concentrations (15-18 hours including courses taken while abroad).

International Studies concentrations are individual programs of study that are designed by students in consultation with the appropriate concentrations adviser. A student may propose

courses from the concentration list (below), or with the approval of the adviser and program director, from among courses taken abroad or unlisted courses taken while at Trinity.

III. Electives sufficient to total 124 semester hours.

While not required, students may select the Internship Course option (INTL 4-01; maximum 3 hours).

While not required, INTL 4-00 (Senior Research Project) may be taken by students wishing to pursue an international studies project independently or in conjunction with an upper division course.

Students are strongly encouraged to take courses in the Languages across the Curriculum Program.

Study Abroad recommended, with the advice of the major adviser and study abroad adviser.

THE MINOR

The requirements for a minor in International Studies are as follows:

- I. Completion of no fewer than 21 semester hours.
- II. The lower division sequence in an appropriate foreign language (the equivalent of four college semesters). This requirement in the Middle East and East Asian Studies concentrations may be modified in special circumstances upon recommendation of the adviser and the consent of the International Programs director.
- III. One of the following courses: HIST 3369 (U.S. Diplomatic History), or PLSI 1331 (Comparing Countries), or SOCI/URBS 1316 (Introduction to Human Geography).
- IV. Required enrollment during each semester of residence in the minor in INTL 3100 (International Studies Colloquium). Course may be repeated for 6 hours, only 3 of which may be applied to the minor.
- V. Concentrations (12-15 hours including courses taken while abroad).
International Studies concentrations are individual programs of study that are designed by students in consultation with the appropriate concentrations adviser. A student may propose courses from the concentration list (below), or with the approval of the adviser and program director, from among courses taken abroad or unlisted courses taken while at Trinity.
- VI. At least 9 hours must be upper division.
- VII. Internship Course option (INTL 4-01; maximum 3 hours).
- VIII. Study Abroad recommended, with the advice of the minor adviser and study abroad adviser.

THE CONCENTRATIONS

International Studies concentrations are individual programs of study that are designed by students in consultation with the appropriate concentration adviser. A student may substitute courses taken abroad or special offerings that are not shown on the lists upon recommendation of the adviser and approval by the program director.

Concentrations and Faculty (*concentration coordinator and head adviser)

African Studies: Professor Anene Ejikeme*

East Asian Studies: Professors Donald N. Clark*, Stephen L. Field, Randall Nadeau

European Studies: Professors Nanette Le Coat*, Heather Sullivan

Mexico, the Americas, and Spain Program: Professors Arturo Madrid and Aaron Navarro

Middle East Studies: Professors David Lesch, Sussan Siavoshi

International Affairs: Professor Donald N. Clark

International Environmental Studies: Professors Richard Reed, David Ribble*

THE SENIOR EXPERIENCE

The Senior Experience offers various ways for students to reflect on and unify their interdisciplinary coursework in International Studies.

LANGUAGES ACROSS THE CURRICULUM PROGRAM

Qualified Trinity students are eligible to enroll in the Languages across the Curriculum (LAC) Program, which gives them practice in using professional and academic Spanish, Portuguese, Chinese, Russian, German, or French in special courses in the humanities, social, and natural sciences. Some of these courses are coordinated with existing upper-division courses that are taught in English, and students may enroll in both. Other LAC courses are taught separately as “stand-alone” courses. All LAC courses make extensive use of the target foreign language and most use it as the medium of instruction. Offerings vary from semester to semester and are listed in the pre-registration course schedule under International Studies.

Students may earn a Spanish across the Curriculum certification by successfully completing advanced work in Spanish and a series of courses listed in the Spanish across the Curriculum Program. This certification will be indicated on the student’s official transcript. The requirements are:

- I. SPAN 3301 (Advanced Grammar) or the equivalent
- II. 3 semester hours of upper-division Spanish electives
- III. 4 Spanish across the Curriculum courses or 7 credit hours in Spanish across the Curriculum courses

CONCENTRATION COURSE REQUIREMENTS

CONCENTRATIONS (*coordinator and head adviser)

AFRICAN STUDIES (Professor Anene Ejikeme*)

African Studies focuses on the study of the historical experience of the peoples of Africa as well as the social, political, economic, and religious institutions and practices of Modern African states. The concentration invites exceptional students to combine courses at Trinity with study abroad to address in an integrative fashion the evolution of the African experience.

Requirements: Eighteen hours, including at least one semester of study abroad in Africa. Students will satisfy the International Studies language requirement as noted below. Students may substitute courses abroad or other special course offerings for comparable courses in the Concentration list.

Language (6-9 hours): Will be satisfied by either of the following options:

6 hours in an African language, which may include Arabic OR

6 upper-division hours in French or Portuguese and at least 3 hours in the study of an African language, which may include Arabic

Concentration Courses (9-12 hours): Selected from the following lists:

- **Required Course List (3 hours)**

HIST 3300 Gender Matters in African History

HIST 3304 Religion in African History

- **History and Religion List (3 hours)**

HIST 1300	The African Experience
HIST 1350	Medieval Islamic History, 570-1517
HIST 3384	Slavery and the Atlantic Economy
RELI 3343	The Islamic Tradition
RELI 3346	Islamic Literatures

• **Anthropology and Political Science List (3 hours)**

ANTH 3358	The Anthropology of International Relations
PLSI 1332	Film, Literature, and Politics of the Third World
PLSI 1341	The Individual in World Politics

Special Topics courses from departments may be included as concentration courses when topics pertain to Africa.

Study Abroad (6-9 hours): To be taken while studying abroad, selected in consultation with the concentration coordinator. Note: These hours do not include the hours devoted to the study of African languages including Arabic.

EAST ASIAN STUDIES (Professors Donald N. Clark*, Stephen L. Field, and Randall Nadeau)

Among the courses taken, the student must take at least one course in each of the following departments: History, Religion, and Political Science.

Art History

ARTH 1310	Introduction to Asian Art: China
ARTH 1311	Introduction to Asian Art: Japan

Business Administration

BUSN 3330	Global Business Culture (also listed as CHIN 3330)
BUSN 3363	International Business Research (also listed as CHIN 3363)
BUSN 4130	Quanqiu Shangwu Wenhua-Zhong-Mei Jiaodian (Global Business Culture) (also listed as CHIN 4130 and INTL 4130)
BUSN 4362	International Branding (also listed as CHIN 4362)
BUSN 4364	Internationalizing Intellectual Property (also listed as CHIN 4364)

General Education

GNED 1303	Japanese Perspectives (also listed as ANTH 1303 and ML&L 1303)
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History

HIST 1320	History of China
HIST 1324	Modern East Asia
HIST 3320	The Rise of Modern China (also listed as CHIN 3320)
HIST 3324	History of Korea

International Studies

INTL 4130	Quanqiu Shangwu Wenhua-Zhong-Mei Jiaodian (Global Business Culture) (also listed as BUSN 4130 and CHIN 4130)
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Modern Languages and Literatures

CHIN 2311	Chinese Civilization
CHIN 3305	The Culture of Taiwan
CHIN 3312	Chinese Cinema: A Historical and Cultural Perspective
CHIN 3313	Cities of Strangers: Trans-cultural Chinese Cinema
CHIN 3320	The Rise of Modern China (also listed as HIST 3320)
CHIN 3328	The Philosophies of China (also listed as PHIL 3328)
CHIN 3330	Global Business Culture (also listed as BUSN 3330)

CHIN 3333	Chinese Religions (also listed as RELI 3333)
CHIN 3363	International Business Research (also listed as BUSN 3363)
CHIN 4130	Quanjia Shangwu Wenhua-Zhong-Mei Jiaodian (Global Business Culture) (also listed as BUSN 4130 and INTL 4130)
CHIN 4321	Readings in Modern Chinese Literature
CHIN 4322	Readings in Contemporary Chinese Cinema
CHIN 4351	Classical Chinese
CHIN 4360	Senior Seminar
CHIN 4362	International Branding (also listed as BUSN 4362)
CHIN 4364	Internationalizing Intellectual Property (also listed as BUSN 4364)
CHIN 4-91	Selected Topics
ML&L 1303	Japanese Perspectives (also listed as ANTH 1303 and GNED 1303)
ML&L 3330	Japanese Literature in Translation

Philosophy

PHIL 1302	Introduction to Asian Philosophy
PHIL 3328	The Philosophies of China (also listed as CHIN 3328)

Political Science

PLSI 3331	Political Economy of the U.S, Europe, and Japan
PLSI 3341	East Asian Security

Religion

RELI 1330	Asian Religions
RELI 3332	The Buddhist Tradition
RELI 3333	Chinese Religions (also listed as CHIN 3333)
RELI 3334	Japanese Religions

EUROPEAN STUDIES (Professors Nanette Le Coat* and Heather Sullivan)

Among the courses taken, the student must take at least one course in each of the following departments: History, Religion, and Political Science.

Art History

ARTH 1308	Art History II: Renaissance to Modern Art
ARTH 3360	Twentieth Century Art: Cubism to Conceptualism (c.1900-1970)

Economics

ECON 3343	Slavery and the Atlantic Economy (also listed as HIST 3384)
ECON 3351	Development of Economic Thought

English

ENGL 2301	British Literature: Epic to Romantic
ENGL 2302	British Literature: Romanticism and After
ENGL 3320	Modern Drama (also listed as THTR 3336)
ENGL 3367	British Literature: 1900-Present

History

HIST 1334	Early Modern Europe (1500-1815)
HIST 1335	Modern Europe
HIST 3332	Culture and Society in Early Modern Europe
HIST 3334	History of Russia
HIST 3335	The Enlightenment
HIST 3336	French Empire in the Americas

- HIST 3337 History of France from the Old Regime to the Present
 HIST 3382 The City in History
 HIST 3384 Slavery and the Atlantic Economy (also listed as ECON 3343)

Human Communication and Theatre

- THTR 3336 Modern Drama (also listed ENGL 3320)

Languages across the Curriculum Courses

- INTL 3301 Paris: La biographie d'une ville (Paris: The Biography of a City)
 INTL 3123 Deutsche Politik (German Politics)

Modern Languages and Literatures

- FREN 3303 French Civilization
 FREN 3305 Introduction to French Literature I
 FREN 3306 Introduction to French Literature II
 GERM 3305 Introduction to German Literature I
 ML&L 3321 German Cinema
 ML&L 3340 Russian Literature in Translation I
 ML&L 3341 Russian Literature in Translation II
 RUSS 3303 Russian Culture
 RUSS 3305 Introduction to Russian Literature I
 RUSS 3306 Introduction to Russian Literature II
 SPAN 3311 Spanish Civilization
 SPAN 3331 Introduction to Spanish Literature
 SPAN 4334 Nineteenth-Century Spanish Literature
 SPAN 4336 Twentieth-Century Spanish Literature

Music

- MUSC 3341 Music History and Literature I
 MUSC 3342 Music History and Literature II

Philosophy

- PHIL 3322 Classical Modern Philosophy
 PHIL 3323 German Idealism

Political Science

- PLSI 3330 European Politics
 PLSI 3331 Political Economy of the U.S., Europe, and Japan
 PLSI 3362 Modern Political Thought
 PLSI 3363 Masters of Suspicion: Contemporary Political Thought

Religion

- RELI 3341 The Jewish Tradition
 RELI 3342 The Christian Tradition
 RELI 3343 The Islamic Tradition

Sociology and Anthropology

- ANTH 3358 The Anthropology of International Relations

MEXICO, THE AMERICAS, AND SPAIN PROGRAM (Professors Arturo Madrid and Aaron Navarro)

Requirements: Eighteen hours, which may be taken abroad, spread across the following areas:

Overview (at least 6 hours)

GNED 3325	The U.S. Latino Experience
HIST 1340	Latin American Cultural Traditions
SPAN 3311	Spanish Civilization
SPAN 3312	Latin American Civilization

Cultural Expression (at least 3 hours)

ANTH 3357	Pre-Columbian Art of Mesoamerica (also listed as ARTH 3335)
ARTH 3355	Pre-Columbian Art of Mesoamerica (also listed as ANTH 3357)
ARTH 1312	Art and Architecture of Latin America since the 16 th Century
ARTH 3345	Spanish Colonial Art and Architecture in Mexico
ARTH 3354	Mexico City
ARTH 3361	Public Art across the Border
COMM 3120	La Telenovela en America Latina (also listed as INTL 3107)
ENGL 4323	Studies in American Literature: Literature and Culture in the Latina/o Borderlands
GNED 3326	U.S. Latino Cultural and Artistic Expression
INTL 3103	La Cultura Popular Española
INTL 3107	La Telenovela en America Latina (also listed as COMM 3120)
INTL 3119	Identidades juveniles en Latinoamérica: Música contemporánea y expresiones artísticas urbanas (Youth Identities in Latin America: Contemporary Music and Urban Artistic Expression)
INTL 3308	Una breve historia de América Latina en el siglo XX a través de su música popular (A Concise 20 th -Century History of Latin America through its Popular Music)
SPAN 3312	Spanish Cinema
SPAN 3322	Spanish American Cinema
SPAN 3331	Introduction to Spanish Literature since 1700
SPAN 4332	Spanish Golden Age Drama
SPAN 3332	Introduction to Spanish American Literature

History and Society (at least 6 hours)

ANTH 3349	Globalization and Social Change (also listed as SOCI 3349)
ANTH 3356	Seminar on the Ancient Maya
ANTH 3364	Economic Anthropology
BUSI 3340	Haciendo Negocios en Latinoamérica (also listed as INTL 3340)
ECON 3341	Economic Development of Mexico
ECON 3342	Latin American Economic History
ECON 3343	Slavery and the Atlantic Economy (also listed as HIST 3384)
HIST 3344	Modern Brazil
HIST 3346	Modern Mexico
HIST 3384	Slavery and the Atlantic Economy (also listed as ECON 3343)
INTL 3101	La Economía Mexicana
INTL 3133	La República Dominicana
INTL 3340	Haciendo Negocios en Latinoamérica (also listed as BUSI 3340)
INTL 3346	The Spanish Economy in the European Union
INTL 3372	Internship in Spain
PLSI 3333	Latin American Politics
SOCI 3349	Globalization and Social Change (also listed as ANTH 3349)
SPAN 4350	History of the Spanish Language

Race, Ethnicity, and Gender Track (at least 3 hours)

ANTH 3343	Relaciones Fronterizas México-Estados Unidos (also listed as INTL 3343 and SOCI 3343)
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ANTH 3367	South American Indigenous Peoples: Conquest and Development
HIST 3340	Latin American Perspectives
INTL 3104	La experiencia latina en los Estados Unidos
INTL 3105	La opinion pública del inmigrante: Trabajo de campo sobre migración mexicana
INTL 3106	Los Cubanos-Americanos
INTL 3118	Historia, Resistencia y Rebelión en la Música Chicana
INTL 3134	Culture, Identity, and Language in Contemporary Brazil
INTL 3343	Relaciones Fronterizas México-Estados Unidos (also listed as ANTH 3343 and SOCI 3343)
RELI 3380	U.S. Latino Religious Practices and Traditions
SOCI 3343	Relaciones Fronterizas México-Estados Unidos (also listed as NATH 3343 and INTL 3343)
SPAN 4338	Spanish Women Writers
SPAN 4348	Spanish American Women Writers
SPAN 4349	Sexualities in Literature and Film
SPAN 4351	Transnational Mexican Popular Culture
SPAN 4391	Gender and Violence in Spain

MIDDLE EAST STUDIES (Professors David Lesch and Sussan Siavoshi)

For the major concentration in Middle East Studies, students must take 15-18 hours. After fulfilling the specific course requirements of the concentration (below), students may take additional courses from the concentration list or substitute courses taken while abroad or other special course offerings subject to the approval of the concentration coordinator and the International Programs director.

Majors in this concentration must take:

- I. HIST 1350—Medieval Islamic History, 570-1517 or HIST 1351—The Modern Middle East
- II. PLSI 3334—State, Society and Change in the Middle East or PLSI 3344—The Middle East and the World
- III. RELI 1340—Islam, Judaism, and Christianity or RELI 3343—The Islamic Tradition

For the minor concentration in Middle East Studies, students must take 12-15 hours. After fulfilling the specific course requirements of the concentration (below), students may take additional courses from the concentration list or substitute courses taken while abroad or other special course offerings subject to the approval of the Concentration coordinator and the International Programs director.

Minors in this concentration must take:

- I. HIST 1350—Medieval Islamic History, 570-1517 or HIST 1351—The Modern Middle East
- II. RELI 1340—Islam, Judaism, and Christianity or RELI 3343—The Islamic Tradition

Trinity courses for the Middle East Studies concentration (major or minor) include:

History

HIST 1350	Medieval Islamic History, 570-1517
HIST 1351	The Modern Middle East
HIST 3350	The Arab Cultural Tradition
HIST 3354	The Persian-Arabian Gulf Region Since 1500

Political Science

PLSI 3334	State, Society, and Change in the Middle East
PLSI 3344	The Middle East and the World

Religion

RELI 1340	Islam, Judaism, and Christianity
RELI 2356	The Qur'an
RELI 3341	The Jewish Tradition
RELI 3343	The Islamic Tradition
RELI 3346	Islamic Literatures

Sociology and Anthropology

SOCI 3391	Special Topics in Sociology: Modern South Asia: History, Culture, and Society
ANTH 3391	Anthropology Special Topics: Modern South Asia: History, Culture, and Society

INTERNATIONAL AFFAIRS (Professor Donald N. Clark)

A student with a concentration in International Affairs must take 15-18 hours from the lists below. In place of certain courses on the specialization lists below, students may substitute other courses taken while abroad or special course offerings for comparable courses in the areas on the concentration list, subject to the approval of the concentration coordinator and the International Programs director.

Introductory List (9 semester hours)

ECON 1311	Principles of Microeconomics
ECON 1312	Principles of Macroeconomics
OR	OR
ECON 3330	Economics and the Environment
PLSI 1341	The Individual in World Politics
OR	OR
PLSI 1342	International Politics

Specialization List (9 semester hours)

One course in Economics

ECON 3318	The Global Economy
ECON 3340	Economic Growth and Development
ECON 3347	International Trade
ECON 3348	International Monetary Systems
ECON 3361	International Finance (also listed as FNCE 3361)
FNCE 3361	International Finance (also listed as ECON 3361)

One course in Political Science

PLSI 1342	International Politics
PLSI 3341	East Asian Security
PLSI 3342	International Law
PLSI 3443	Violent Conflict in International Politics
PLSI 3346	War and Alliance
PLSI 4341	International Political Economy

One course from the following

ANTH 2357	Humans and the Environment
ANTH 3349	Globalization and Social Change (also listed as SOCI 3349)
ANTH 3464	Morality in the Marketplace
COMM 3322	International Communication (also listed as HCOM 3374)
HIST 3339	The World War II Era
HIST 3382	The City in History
HCOM 3372	Intercultural Communication
HCOM 3374	International Communication (also listed as COMM 3322)

RELI 1340	Islam, Judaism, and Christianity
SOCI 3349	Globalization and Social Change (also listed as ANTH 3349)

INTERNATIONAL ENVIRONMENTAL STUDIES (Professors Richard Reed and David Ribble*)

Students must take 15-18 hours from the following list, or from among courses taken while abroad, or from among special course offerings subject to the approval of the concentration coordinator and the International Programs director. The student must take at least one course in each of the following topical areas: economics, natural resource science and management, and humans and their environment.

- **Economics Area**

Economics

ECON 3330	Economics and the Environment (also listed as URBS 3330)
URBS 3330	Economics and the Environment (also listed as ECON 3330)

- **Natural Resource Science and Management Area**

Biology

BIOL 1311	Integrative Biology I
BIOL 3434	Ecology
BIOL 4351	Conservation Biology

Geosciences

GEOS 1405	Oceanography
GEOS 3408	GIS and Remote Sensing
GEOS 3411	Hydrology

- **Humans and their Environment Area**

Comparative Literature

CMLT 2301	World Literature and the Environment
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General Education

GNEC 1306	Energy and Society
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Geosciences

GEOS 1304	Environmental Geology
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Physics and Astronomy

PHYS 1302	Frontiers of Physics
PHYS 1303	The Earth's Changing Environment

Sociology and Anthropology

ANTH 1301	Introduction to Anthropology
ANTH 2357	Humans and the Environment
ANTH 3349	Globalization and Social Change (also listed as SOCI 3349)
ANTH 3358	The Anthropology of International Relations
ANTH 3464	Morality in the Marketplace
ANTH 3367	South American Indigenous Peoples: Conquest and Development
SOCI 3349	Globalization and Social Change (also listed as ANTH 3349)

Urban Studies

URBS 3347	Urban Systems
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COURSES

INTL-1100 International Student Orientation

A one-credit course to assist new international students in successfully adjusting to Trinity University. It will provide: 1) an overview of the U.S. higher education system, including basic student and faculty roles; 2) a review of key academic differences with other educational systems from around the world; 3) an introduction to cultural adjustment and culture shock; and 4) a review of laws and legal structures that affect immigration status. Assignments may include readings, interviews of students, staff members, and faculty, and brief reports and reflexive essays. The course is required of all incoming, first-year international students who are not U.S. citizens or permanent residents. Must be taken Pass/Fail.

INTL-2101 Biblical Hebrew

The primary goal of this course is to introduce students to ancient Hebrew so they will be able to read parts of the Hebrew Bible in the original language. This course begins with an introduction to the Hebrew alphabet and vowel system and therefore requires no prior knowledge of Hebrew. (Also listed as RELI 2101.).

INTL-2102 Preparing for Study Abroad

A one-credit course for students preparing to study abroad (or away) for academic credit. Includes academic planning including written proposals for student abroad; program selection and logistical planning for the time away; pre-departure orientation; studies of cross-cultural communication and adjustment; guided individual country studies and studies of US relations with the proposed host country. The course should be taken the semester immediately preceding the planned study abroad (or away) experience. Must be taken Pass/Fail.

INTL-2103 Alternative Spring Break

Faculty led course that will introduce students to contemporary issues as well as cultural and historical background materials to prepare students for service learning projects in specific national and international destinations. Cross-cultural competencies and sensitivities will be developed prior to field experiences. The course is offered on a Pass/Fail basis only. Repeatable for credit.

INTL-3100 International Studies Colloquium

The Colloquium consists of a weekly meeting of all majors and minors in the program. Under the direction of an assigned faculty member the session topics include discussions of world affairs; presentations by student faculty members and other guests; reports from affiliated student groups; presentations on careers and graduate school opportunities; and reports from seniors about their seminars and tutorial projects. Offered each semester. Required of all International Studies majors and minors while in residence in the program up to a maximum of six hours credit, only three of which may be counted toward the major. Must be taken Pass/Fail.

INTL-3103 Returning from Study Abroad

A one-credit course for students returning from study abroad that is designed to help students maximize the benefit of their study abroad experiences and to help them readjust to the U.S. and university culture. Students will reflect upon and integrate their experiences in relation to their academic interests and various facets of university life. Must be taken Pass/Fail.

INTL-4-01 International Studies Internship

Between zero and six hours of credit may be arranged for appropriate international internships that are

undertaken while abroad if they meet academic criteria set by the Committee. Credit may also be arranged for internships in San Antonio during the school year and away, during the summer, with the approval of the International Programs Director. Must be taken Pass/Fail.

INTL-4-02 Special Topics in International Studies

From time to time the International Studies program will present special topic courses not described in the Courses of Study Bulletin. Announcements of such courses will be by special prospectus. May be repeated on different topics.

INTL-4103 Model United Nation

Students chosen for the Trinity delegation to national Model United Nations competitions are required to register for this one-hour course. The course involves participation in parliamentary training sessions, learning about the country being represented by the Trinity delegation, and research and writing on the topics before the various Model United Nations committees. May be repeated for credit in successive years. Must be taken Pass/Fail.

INTL-4104 Senior Portfolio

A required course for majors in the senior year to prepare a selective, self-reflexive portfolio that draws on achievements in the major and explains them in terms of personal development and professional and scholarly goals and objectives.

INTL-4-00 Senior Research Project

A course for seniors who wish to pursue an international studies project—either independently or in conjunction with an existing, upper-division course—with the permission of and under the supervision of a faculty member.

COURSES IN THE LANGUAGES ACROSS THE CURRICULUM PROGRAM

Qualified Trinity students are eligible to enroll in the Languages across the Curriculum (LAC) Program, which gives them practice in using professional and academic Spanish, Portuguese, Chinese, Russian, German, or French in special courses in the humanities, social, and natural sciences. Some of these courses are coordinated with existing upper-division courses that are taught in English, and students may enroll in both. Other LAC courses are taught separately as “stand-alone” courses. All LAC courses make extensive use of the target foreign language and most use it as the medium of instruction. Offerings vary from semester to semester and are listed in the preregistration course schedule under International Studies.

Students may earn a Spanish across the Curriculum certification by successfully completing advanced work in Spanish and a series of courses listed in the Spanish across the Curriculum program. This certification will be indicated on the student's official transcript. The requirements are:

- SPAN 3301 (Advanced Grammar) or the equivalent
- 3 semester hours of upper-division Spanish electives
- 4 Spanish across the Curriculum courses or 7 credit hours in Spanish across the Curriculum courses

LAC-3101 La economía mexicana (The Mexican Economy)

An examination of the most significant contemporary issues affecting the economic life of Mexico. The international, agricultural, financial, communications, and labor sectors of the economy are analyzed in depth, and their relationship to the macroeconomic performance of the country is studied. Special attention is given to the political situation of the country and its impact on the economy. This course will be conducted entirely in Spanish. (Also listed as ECON 3141.)

Prerequisites: SPAN 2302, ECON 1311 and 1312 or 3318, or consent of instructor.

LAC-3103 Cultura popular española (Spanish Popular Culture)

Spanish Popular Culture focuses on recent cultural production that includes film, television, periodicals, and recently published literature. This course is taught in Spanish, and students will gain practice in reading, writing, speaking, and listening comprehension.

Prerequisite: SPAN 2302, the equivalent, or consent of instructor.

LAC-3104 La experiencia latina en los Estados Unidos (The U.S. Latino Experience)

An examination of the historical experience and cultural expression of the Latino population of the United States, with attention to the role of U.S. foreign policy in creating Latino communities, the impact of domestic policy on the various subgroups, the evolution of U.S. Latino cultural expression, and the changing relationship of Latinos to U.S. society and its institutions. This course will be taught entirely in Spanish and is designed to accompany GNE 3325.

Prerequisites SPAN 2302, the equivalent, or consent of instructor; and students must have completed, or be enrolled in, GNE 3325.

LAC-3106 Los cubanos-americanos

This course explores significant Cuban-American cultural, artistic, cinematic, musical, sociopolitical, and literary representations from 1960 to the present. A principal objective is to analyze and deconstruct stereotypes about Cuban-Americans. This course is taught in Spanish.

Prerequisite: SPAN 2302, the equivalent, or consent of instructor.

LAC-3107 La telenovela en América Latina (The Latin American Soap Opera)

An examination of the Latin American telenovela, soap opera, from the perspectives of development communication, popular culture, and international television. This course will be conducted entirely in Spanish. (Also listed as COMM 3120.)

Prerequisite: SPAN 2302, the equivalent, or consent of instructor.

LAC-3110 La música popular latinoamericana (Latin American Popular Music)

A study of Latin American culture through popular music, this course will explore both musical forms and lyrics. Musical forms include bolero, tango, balada, cumbia, salsa, rumba, merengue. The multilayered messages in the lyrics will be analyzed for social and political insights into Latin American culture. This course will be conducted entirely in Spanish.

Prerequisite: SPAN 2302, the equivalent, or consent of instructor.

LAC-3111 Narody Rossii (The Peoples of Russia)

A companion course to ML&L 3342, which introduces Russian culture from medieval through modern times, including not only the Russians, but also the peoples of southern and eastern Russia. The course will emphasize religion, folklore, and art through a series of short Russian-language readings and weekly discussions. The course will be conducted entirely in Russian.

Prerequisite: RUSS 2302 or the equivalent. LAC 3111 is designed to be taken concurrently with ML&L 3342 (The Peoples of Russia), although it may be taken separately with consent of instructor.

LAC-3112 Shangye Zhongwen (The Practice of Business in China)

A study of cultural concepts and customs that have influenced contemporary Chinese business practices and behaviors, through the use of readings and weekly discussions. The course will be conducted entirely in Chinese.

Prerequisite: CHIN 2302 or the equivalent.

LAC-3114 Zhongguo Gudai Sixiang (Classical Chinese Thought)

A study of traditional Chinese thought as manifested in the language of selected classical texts of history, philosophy, poetry, and religion. All readings will be conducted in classical Chinese. No prior knowledge of Chinese is required.

Corequisite: simultaneous enrollment in a Chinese civilization, literature, history, philosophy, political science, or religion course, or consent of instructor.

LAC-3117 Teorii i iskusstvo russkogo avangarda (Theories and Art of the Russian Avant-Garde)

A companion course to ARTH 3362, which is a survey of the main artistic movements and artists in Russia from 1880-1930: Symbolism, Primitivism, Futurism, Suprematism, Constructivism. The course will pay special attention to the works of Vrubel, Goncharova, Malevich, Kandinsky, and Filonov through slides, a series of short Russian-language readings, and weekly discussions. The course will be conducted entirely in Russian. LAC 3117 is designed to be taken concurrently with ARTH 3362 (Theories and Art of the Russian Avant-Garde), although it may be taken separately with consent of instructor.

Prerequisite: RUSS 2302 or the equivalent.

LAC-3118 Historia, resistencia, y rebelión en la música chicana (History, Resistance, and Rebellion in Chicana/o Music)

A study of important historical events and issues of resistance against racism, classism, and the economic exploitation of Chicanas and Chicanos through samples of the music produced by them throughout the 20th century. The course will analyze both musical forms and lyrics. The musical genres will include corridos (ballads), Pachuca and Pachuco (zootsuiter) music, Rock 'n' Roll, Civil Rights movement music, Chicana/o Punk, Mariachi, Tejano, and Conjunto music among other styles. This course will be conducted entirely in Spanish.

Prerequisite: SPAN 2302 or equivalent.

LAC-3119 Identidades juveniles en Latinoamérica: Música contemporánea y expresiones artísticas urbanas (Youth Identities in Latin America: Contemporary Music and Urban Artistic Expression)

This course will examine how contemporary music from different Latin American singers (or groups) and popular arts play a significant role in the process through which youth cultures configure their worlds. The class will be exclusively in Spanish.

Prerequisite: SPAN 2302 or the equivalent.

LAC-3122 Faust—auf Deutsch (Faust—in German)

A companion course to ML&L 3320 which deals with major German figures and movements in the context of Western literary, political, and cultural history.

Prerequisite: GERM 2302 or the equivalent. LAC 3122 is designed to be taken concurrently with ML&L 3320. The course may be taken separately with consent of instructor.

LAC-3123 Deutsche Politik (German Politics)

This course offers an overview of German politics. It seeks to familiarize students with important theories about, actors, and institutions in, and developments of German politics. After completing the course students should feel confident and comfortable conversing about German politics with German-speaking instructors.

Prerequisite: GERM 2302 or the equivalent, or consent of instructor.

LAC-3124 L'histoire française: un parcours cinématographique (French History through Film)

Moving chronologically through the centuries, this course will explore key historical moments in French culture through film. This course will be conducted entirely in French.

Prerequisite: French 2302 or the equivalent.

LAC-3125 Russian Basics: Language and Culture for Non-Specialists

LAC 3125 offers an introduction to Russian language and culture for non-specialists. Topics include the Cyrillic alphabet, basics of Russian grammar and pronunciation, and Russian bibliographic, computing and conversation skills. LAC 3125 is open to all students and has no prerequisites.

LAC-3133 La República Dominicana: Una introducción (An Introduction to the Dominican Republic)

As an introduction to the Dominican Republic, this course includes information on the history, politics, economy, society, literature, arts, and culture of the island nation. The course draws on academic and literary texts in Spanish, as well as on slides, audiovisual recordings, food, and other resources to explore the various themes. This course will be entirely conducted in Spanish.

Prerequisite: SPAN 2302, the equivalent, or consent of instructor

LAC-3134 Culture, Identity, and Language in Contemporary Brazil

In this course we will critically examine iconic representations of Brazilian identity, including choro, samba, Afro-Raggae, and Cinema Novo, all of which have served as significant forms of self-expression within the broader framework of Brazilian culture. Through this examination, students will develop a deeper appreciation of Brazilian culture that goes beyond the stereotypical images of Brazil as the tropical land of Carnival and the country of soccer. Although the medium of instruction of this class is Spanish, students will develop reading skills in Brazilian Portuguese using their knowledge of Spanish.

LAC-3301 Paris: La biographie d'une ville (Paris: the Biography of a City)

This course covers the political, social, economic, and cultural history of Paris from the Middle Ages to the present. The course draws on a variety of sources in French, including film and television.

Prerequisite: FREN 3305, 3306, or the equivalent, or consent of instructor.

LAC-3308 Una breve historia de América Latina en el siglo XX a través de su música popular (A Concise 20th-Century History of Latin America through its Popular Music)

This 3-hour regular course will survey major events and characters that have shaped Latin American history in the 20th century using musical renditions deeply rooted in the collective memory of Latin Americans.

Prerequisite: SPAN 2302.

LAC-3340 Haciendo negocios en Latinoamérica (Doing Business in Latin America)

This course is both a language and an applied business course. On the language part, it is intended to increase the Spanish proficiency in reading, writing, and speaking. The other aspect of the course includes a thorough understanding of cultural, political, and economic aspects of the Latin American business environment. Moreover, the course will immerse the student in the intricacies of exporting to, importing from, establishing a new business in, or operating a foreign branch in a Latin American country. (Also listed as BUSN 3340.)

Prerequisites: ECON 1311, Spanish proficiency, and consent of instructor.

LAC-3343 Relaciones fronterizas México-Estados Unidos (bilingüe)

In the seminar we will examine a variety of social, cultural, political, and economic phenomena that characterize the Mexico-United States border region. Include an optional overnight excursion to communities located on the international boundary itself. This course is conducted bilingually in Spanish and English, i.e., in both languages of the Mexico-U.S. border region. Competence in speaking, reading, writing, and listening in both Spanish and English is a requirement for participation in the course. (Also listed as ANTH 3343 and SOCI 3343.)

Prerequisites: SPAN 2302, the equivalent, and consent of instructor.

LAC-3344 Teaching in the Bilingual (English/Spanish) Classroom

An introduction to the education of second language learners in the context of bilingual education and English as a second language (ESL) programs. This course includes field experience in working with bilingual and ESL populations in an educational setting. (Also listed as EDUC 3344.)

LAC-3346 La economía española y la Unión Europea (The Spanish Economy and the European Union)

An examination of Spain's economic development and its position within the European Union. The business, economic, and political transformation of Spain from a struggling nation with an authoritarian regime to an economic power with an open and democratic society are studied. The course also examines the development of European Union, with a special focus on its influence on the Spanish business environment. The experiential component of the course includes visits to businesses, government agencies, and NGO's in Spain. (Also listed as BUSN 3346, ECON 3346, and SPAN 3346.)

Prerequisites: ECON 1311, three additional hours in business or economics, SPAN 2302 or the equivalent, and consent of instructor.

LAC-3372 Práctica profesional en España (Internship in Spain)

A supervised summer internship in Spain. Students enrolled in INTL 3372 will serve as interns with various firms, trade groups, governmental agencies, or public interest groups where they will work and gain experience related to the Spanish economy and business world. The nature of the student's responsibilities will vary with the internship involved and be subject to the approval of the supervising faculty member. (Also listed as BUSN 3372, ECON 3372, and SPAN 3372.)

Prerequisites: ECON 1311, three additional hours in business or economics, SPAN 2302 or the equivalent, and consent of instructor.

LAC-4130 Quanjū Shangwū Wenhua-Zhong-Mei Jiāodiān (Global Business Culture)

A companion course to BUSN/CHIN 3330 which examines the diverse business culture in China in comparison to that in other countries, particularly in the United States. This course must be taken concurrently with BUSN/CHIN 3330 and will be taught entirely in Chinese. Students must have the ability to write and converse in Chinese. (Also listed as BUSN 4130 and CHIN 4130.)

Prerequisites: senior Standing, CHIN 3302 or the equivalent, and consent of instructor.

Corequisite: BUSN 3330 or CHIN 3330.

LAC-4-02 Special Topics in Languages across the Curriculum

From time to time the LAC program will present special topic courses not described in the *Courses of Study Bulletin*. Announcements of such courses will be by special prospectus. May be repeated on different topics.

Linguistics

FACULTY ADVISORY COMMITTEE

JANE B. CHILDERS, Ph.D., Professor, Psychology; Chair
ROCIO DELGADO, Ph.D., Associate Professor, Education
ANDREW C. HANSEN, Ph.D., Associate Professor, Human Communication and Theatre
MARK C. LEWIS, Ph.D., Professor, Computer Science
MICHAEL T. WARD, Ph.D., Associate Professor, Modern Languages and Literatures

OVERVIEW

The minor in Linguistics provides students an opportunity to study the principles involved in the most basic and universal of human symbol systems. Classical and modern languages share with the disciplines of anthropology, computer science, mathematics, philosophy, psychology, sociology, and speech pathology an interest in the nature of language: how it is acquired, how it is used, and how it changes across time and space. The minor allows the student to learn the basics of linguistics and to pursue the application of these tenets in a variety of fields.

Completion of this program will be indicated on the student's transcript with the notation "Minor in Linguistics."

REQUIREMENTS

Students interested in a Linguistics minor should submit an application to the chair of the Committee, who will assign a faculty adviser to the student.

The requirements for a Linguistics minor are as follows:

Eighteen (18) semester hours including at least nine (9) hours from the Primary Curriculum—three (3) hours from the Core area and three (3) hours each from any two other areas—and the remaining nine (9) hours from the Primary Curriculum and/or the Supporting Curriculum. At least nine (9) hours must be upper division.

PRIMARY CURRICULUM

- **Core**
 - LING 1300 Introduction to Linguistics
 - LING 1310 Applied Linguistics (also listed as ENGL 1310 and HCOM 1310)
- **Acquisition**
 - PSYC 2330 Fundamentals of Cognition
 - PSYC 3321 Cognitive Development
- **Syntax**
 - FREN 3301 Advanced Grammar
 - GERM 3301 Advanced German I
 - LATN 3301 Latin Prose Composition
 - MATH 3326 Introduction to Abstract Mathematics
 - RUSS 3301 Advanced Russian I
 - RUSS 3302 Advanced Russian II
 - SPAN 3301 Advanced Grammar
- **Semantics**

PHIL 3333	Philosophy of Language
HCOM 3352	Rhetorical Analysis (also listed as ENGL 3352)

SUPPORTING CURRICULUM

- **Classical Studies**

CLAS 3371	Introduction to Romance Linguistics (also listed as FREN 3371, ITAL 3371, LING 3371, and SPAN 3371)
GREEK 3302	Attic Prose
GREEK 3304	Greek Historians
LATIN 3303	Latin Prose to 43 B.C.
LATIN 3305	Latin Prose from 43 B.C.

- **Communication**

COMM 3322	International Communication (also listed as HCOM 3374)
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- **Computer Science**

CSCI 3320	Principles of Theoretical Computer Science
CSCI 3368	Principles of Programming Languages
CSCI 3-94	Seminar: Provability

- **English**

ENGL 3346	History of the English Language
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- **French**

FREN 3371	Introduction to Romance Linguistics (also listed as CLAS 3371, ITAL 3371, LING 3371, and SPAN 3371)
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- **Human Communication**

HCOM 3372	Intercultural Communication (also listed as ANTH 3332)
HCOM 3374	International Communication (also listed as COMM 3322)

- **Italian**

ITAL 3371	Introduction to Romance Linguistics (also listed as CLAS 3371, FREN 3371, and SPAN 3371)
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- **Linguistics**

LING 3-90	Directed Studies—Junior Level
LING 4-90	Directed Studies—Senior Level

- **Philosophy**

PHIL 2340	Symbolic Logic I
PHIL 3331	Philosophy of Mind
PHIL 3333	Philosophy of Language
PHIL 3340	Symbolic Logic

- **Psychology**

PSYC 3331	Memory and Cognition
PSYC 3360	Special Topics in Psychology: Language Development

- **Sociology and Anthropology**

ANTH 3331	Language, Culture, and Society (also listed as SOCI 3331)
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ANTH 3332 Intercultural Communication (also listed as HCOM 3372)

- **Spanish**

SPAN 3303 Spanish Phonetics and Phonology

SPAN 3371 Introduction to Romance Linguistics (also listed as CLAS 3371, FREN 3371, ITAL 3371, and LING 3371)

Departmental topics courses, readings courses, and seminars on linguistic topics are acceptable as approved by the Linguistics Committee chair.

COURSES

LING-1300 Foundations of Linguistics

Examines the foundations of human language including its phonology, morphology, syntax, and semantics. (Also listed as HCOM 1305.)

LING-1310 Applied Linguistics

Examines applications of linguistics in psycholinguistics (language acquisition and language processing), sociolinguistics (language development and change in groups and organizations), the interaction of language and culture, and analytical procedures (discourse and text analysis). (Also listed as ENGL 1310 and HCOM 1310.)

LING-3-90 Directed Studies—Junior Level

Independent work under faculty supervision. The nature of the project will be agreed upon by the student and participating faculty member prior to registration. Credit varies from 1 to 4 semester hours, depending on the scope of the project.

Prerequisite: consent of instructor.

LING-4-90 Directed Studies-Senior Level

Independent work under faculty supervision. The nature of the project will be agreed upon by the student and participating faculty member prior to registration. Credit varies from 1 to 4 semester hours, depending on the scope of the project.

Prerequisite: consent of instructor.

Mathematical Finance

FACULTY ADVISORY COMMITTEE

EDUARDO CABRAL BALREIRA, Associate Professor, Mathematics
L. PAIGE FIELDS, Dick and Peggy Prassel Professor of Business Administration, Finance and Decision Sciences
JULIO ROBERTO HASFURA-BUENAGA, Associate Professor, Mathematics
JOHN H. HUSTON, Professor, Economics; Chair
RICARDO M. SANTOS, Assistant Professor, Economics
SHAGE ZHANG, Assistant Professor, Finance and Decision Sciences

OVERVIEW

The Mathematical Finance major is an interdisciplinary study of financial markets. Increasingly, firms of all types, and financial institutions in particular, rely on sophisticated mathematical models to understand financial markets, to evaluate financial instruments, and to measure and manage risk. To understand and utilize these models, students need specific capabilities that can be only gained from study in the fields of economics, finance, and mathematics. The major is specifically designed for students considering graduate studies and careers in Finance, Applied Financial Economics, Mathematical Finance, Applied Mathematics, or Actuarial Science.

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Science with a major in Mathematical Finance are as follows:

1. The common curriculum

2. Required Courses

ACCT 1301	Fundamentals of Financial Accounting
FNCE 3301	Financial Administration of Business Firms
ECON 1311	Principles of Microeconomics
ECON 1312	Principles of Macroeconomics
ECON 3325	Intermediate Microeconomics
ECON 4367	Advanced Microeconomic Theory
ECON 4370	Econometrics

MATH 1311	Calculus I
MATH 1312	Calculus II
MATH 2321	Calculus III
MATH 1320	Statistical Methods*
MATH 3370	Mathematical Finance
MATH 3316	Differential Equations and Linear Algebra

* MATH 3334, Probability, may be substituted for MATH 1320.

3. Three Additional Elective Courses from the following:

FNCE 3351/	Financial Institutions and Markets
ECON 3356	

FNCE 3352	Investment Principles and Analysis
FNCE 3353	Student Managed Fund I
FNCE 3361/ ECON 3361	International Finance
FNCE 4351	Financial Management and Policy

Mathematics

FACULTY

EDUARDO CABRAL BALREIRA, Ph.D., Associate Professor

RYAN DAILED, Ph.D., Associate Professor

SABER ELAYDI, Ph.D., Professor

JULIO ROBERTO HASFURA-BUENAGA, Ph.D., Associate Professor

EDDY KWESSI, Ph.D., Assistant Professor

NATASA MACURA, Ph.D., Associate Professor

BRIAN MICELI, Ph.D., Associate Professor

HOA NGUYEN, Ph.D., Assistant Professor

PETER OLOFSSON, Ph.D., Professor; Chair

DIANE G. SAPHIRE, Ph.D., Associate Professor; Associate Vice President for Information Resources; Director, Institutional Research

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in mathematics are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. Mathematics core: MATH 1307 or 1311, 1308 or 1312, 2321, 3323, 3326, 3360, 3362.
 - B. Seminar/Writing: MATH 2094, 3194, 3195.
 - C. Mathematics electives: Eighteen (18) additional MATH semester hours numbered above 3320. At least three (3) of them must be numbered 4xxx.
 - D. Programming proficiency: CSCI 1320.
 - E. Completion of the capstone courses: MATH 4394, or MATH 4398 and 4399.
- III. Electives sufficient to total 124 semester hours.

The appropriate choice of courses beyond those in the core depends on the student's interests and career plans and should be determined in consultation with the academic adviser. Further course suggestions and other information appear on the department's Web site.

ACCEPTANCE INTO PROGRAM

FULL ACCEPTANCE is granted if the following requirements are met at the time of application:

- I. MATH 1307 or 1311, 1308 or 1312, 2321, 3323 with grades of C or better.
- II. Grade point average of at least 2.0 in all mathematics courses.
- III. Completion of at least one mathematics course required for the major while enrolled at Trinity University.
- IV. CSCI 1320 with a grade of C or better.

PROVISIONAL ACCEPTANCE may be granted if the Department of Mathematics is convinced that the applicant has promise of graduating with a degree in mathematics. In cases of provisional acceptance, courses and performance standards will be specified so that the applicant may be

granted full acceptance.

THE MINOR

A mathematics minor must complete MATH 1307 or 1311, 1308 or 1312, 2321, and nine (9) hours of upper division mathematics.

THE HONORS PROGRAM

Objectives

The Mathematics Department offers an Honors Program to provide students the opportunity to develop their capacity for mathematical skill and knowledge by completing a senior honors thesis. The thesis may be written in collaboration with any other university department that offers instruction. Specifics for interdisciplinary thesis must be worked out on an individual basis with the department.

Application and Procedures

Application for admission to the Honors Program is made through the department in the fall of the junior year. The University requires a 3.3 overall grade point average and two faculty letters of recommendation for admission to the program. In addition, the mathematics department requires at least 15 hours of work in mathematics courses as well as a 3.2 average on all work attempted in the department.

Before an application is submitted, the candidate must obtain the consent of a full time department member to serve as the thesis adviser. The application is then submitted to the thesis adviser who determines if the documentation merits further consideration. Given the judgment by the thesis adviser that the student is a good candidate for the thesis, the student, in collaboration with the adviser, prepares a description of the work proposed along with a bibliography. These documents are forwarded to the department faculty for approval. Given a positive recommendation from the faculty, the student is then an official candidate for departmental honors. At this point the department, in collaboration with the thesis adviser, recommends a thesis committee to the Office of Academic Affairs. The committee will consist of the thesis adviser, another mathematics department faculty member who serves as reader, and a third member who may be from another department or an expert from outside the University.

Requirements

The Honors Program requires a minimum of nine credit hours arranged over two or three semesters. Six of these hours must be taken in the senior year and devoted to work on the thesis. The remaining three hours must be taken in an upper division course completed by the end of the junior year in the area in which the thesis is to be written. The specific upper division course will be chosen with the consent of the adviser.

A final presentation of the completed thesis will be made to the department during the second semester of the student's senior year. After the presentation and a reading of the final thesis, the department will determine its acceptability for departmental honors. The accepted thesis will be sent to the Office of Academic Affairs for binding. The student will pay the cost of the binding. The completed thesis will be bound and placed in the Trinity University library.

For further information, contact the department at (210) 999-8205.

COURSES

MATH-1190 Putnam Exam Seminar

This course involves preparation for the Putnam Exam. Topics include problem-solving applications of geometry, calculus, mathematical induction, counting techniques, and more. The course may be

repeated up to four times for credit. Fall.

Prerequisite: MATH 1307 or MATH 1311, concurrent, or consent of instructor.

MATH-1301 Pre-Calculus

Equations and inequalities; systems of linear equations. Polynomial and rational functions; trigonometric functions and identities; and transcendental functions. MATH 1301 provides a thorough preparation for Calculus 1.

MATH-1307 Calculus A

A study of functions, limits and continuity, differential and integral calculus. Motivation and support for these topics will draw from applications in the life sciences. In particular, topics in discrete dynamics, differential equations, polynomial approximation, regression, and matrix algebra will be used to support biological examples. MATH 1307 and 1311 cannot both be taken for credit.

Prerequisite: Successful completion of either MATH 1301 or the equivalent. Students who have completed the equivalent of MATH 1301, as opposed to taking MATH 1301 at Trinity, must take the Mathematics Placement Exam to determine readiness for this course.

MATH-1308 Calculus B

Applications of calculus; topics include techniques of integration, ordinary differential equations, convergence of geometric series, probability, numerical analysis, and simulation. This course is designed to assist students in the applications of calculus to other disciplines.

Prerequisite: MATH 1307 or 1311 or the equivalent.

MATH-1310 Mathematics for Decision-Making

This course will examine a number of concepts, tools, and methods useful in the search for optimal solutions to a variety of problems, in the resolution of conflicts, and in the discernment of patterns or trends in raw data. Among the topics to be considered are routing problems, shortest networks and scheduling; the mathematics of voting and methods of apportionment; linear, exponential and logistic growth, chaos and symmetry; basic statistics: collection and description of data, and margin of error. Applications to fields like economics and political science will be emphasized, but the level throughout will be elementary.

MATH-1311 Calculus I

A study of functions including transcendental and trigonometric: Limits and continuity; differential and integral calculus; and applications. MATH 1307 and 1311 cannot both be taken for credit.

Prerequisite: Successful completion of either MATH 1301 or the equivalent. Students who have completed the equivalent of MATH 1301, as opposed to taking MATH 1301 at Trinity, must take the Mathematics Placement Exam to determine readiness for this course.

MATH-1312 Calculus II

A study of methods of integration, series, and an introduction of differential equations and linear algebra.

Prerequisite: MATH 1307 or 1311 or the equivalent.

MATH-1320 Statistical Methods

Methods of analyzing data, statistical concepts and models, estimation, tests of significance, and regression. MATH 1320 and 3320 cannot both be taken for credit.

Prerequisite: MATH 1307 or 1311 or the equivalent.

MATH-1330 Introduction to Modern Mathematics

A survey of modern mathematics. Topics to include infinity and infinities, the fourth dimension, fractional dimensions, fractals and chaos, pitfalls of statistics, and objects with fewer than the expected number of sides.

MATH-2094 Majors' Seminar

Attendance at the departmental seminar. Grade based on attendance. This course cannot be taken concurrently with MATH 3194, 3195, or 4394.

MATH-2303 Math for Elementary School Teachers

A course based on the National Council of Teachers of Mathematics standards designed to develop understanding of the algebraic principles essential for elementary school teachers. Topics include Problem Solving Strategies, Numbers and Numeration, Tests for Divisibility, Estimation and Electronic Computation, Introductory Probability and Statistics.

Prerequisites: satisfying the Mathematics Skill Requirement and EDUC 2201 or EDUC 2202 or the equivalent.

MATH-2321 Calculus III

The study of partial differentiation, multiple integrals, and vector calculus.

Prerequisite: MATH 1308 or 1312.

MATH-2324 Numerical Calculus

Introduction to the numerical algorithms fundamental to scientific computer work. Elementary error analysis, interpolation, quadrature, linear systems of equations, and introduction to the numerical solution of ordinary differential equations. (Also listed as CSCI 2324.) Spring.

Prerequisites: CSCI 1320, MATH 1311 or 1307.

MATH-3194 Junior Writing Workshop

Students work to improve their mathematical skills as well as their writing and presentation skills. They will be required to submit computer solutions to several math problems. They will attempt to solve a mathematical problem and will present their findings in both written and oral form. Attendance at the Majors' Seminar (MATH 2094) is required.

MATH-3195 Junior Technology Workshop

Students work to improve their mathematical software skills as well as their writing and presentation skills. They will be required to submit computer solutions to several mathematical problems. They will also be required to read a referred mathematics journal article and present their findings in both written and oral form. Attendance at the Majors' seminar (MATH 2094) is required.

Prerequisite: MATH 3194.

MATH-3316 Differential Equations and Linear Algebra

The theory and applications of first order equations, linear second order equations, linear systems of equations, Laplace transforms, the eigenvalue problem, matrix algebra, and vector spaces. MATH 3316 and MATH 3366 may not both be taken for credit.

Prerequisite: MATH 1308 or 1312.

MATH-3320 Probability and Statistics for Engineers And Scientists

An introduction to statistics specifically for engineers and scientists. Topics include probability, random variables and their distributions, univariate and multivariate distributions, sampling distributions, estimation, hypothesis tests, confidence intervals, simple and multiple regression, analysis of variance, and reliability. Fall.

Prerequisite: MATH 2321.

MATH-3323 Linear Algebra

A study of the theory and computations of linear algebra. Topics include matrix and vector operations, least squares, linear transformations, eigenvalues and eigenvectors. Fall.

Prerequisite: MATH 1308 or 1312 or consent of instructor.

MATH-3326 Introduction to Abstract Mathematics

This course begins with an elementary survey of logic and set theory. From there, the course introduces the concept of the mathematical proof, framed in introductions to the real line, point set topology, and modern algebra. This course is offered every semester.

Prerequisite: MATH 1308 or 1312 or equivalent, or consent of instructor.

MATH-3327 Probabilistic Models in Life Sciences

An introduction to probabilistic modeling with emphasis on its use in biology. Fundamental concepts such as conditional probability and conditional expectation are studied in depth in order to prepare for an introduction to the theory and applications of Markov chains. Applications in biology may include birth-and-death processes, branching processes, sequence alignment, population genetics, epidemic processes, molecular evolution, and phylogenetic tree construction. Spring.

Prerequisite: MATH 1320 or MATH 3320 or MATH 3334.

MATH-3328 Mathematical Models in Life Sciences

The course is designed to introduce advanced tools to study discrete mathematical models in the life sciences including their practical applications. The focus will be on understanding the processes, implications, and results of modeling phenomena in life sciences in the laboratory setting or field. The course investigates exponential growth and logistic models, competitive and predatory-prey models, age structured models, harvesting models, and epidemiological models. The integrated laboratory experience consists of several experiments on model organisms such as bacteria and protists. In addition, human epidemiological data will also be utilized.

Prerequisite: MATH 1307 or 1311, and MATH 1308 or 1312.

MATH-3334 Probability

This course covers the basic concepts of probability, including counting methods, events, conditional probability, discrete and continuous random variables and their distributions, multivariate distributions, commonly used discrete and continuous distributions, functions of random variables, expectation, variance, and correlation. Fall.

Prerequisite: MATH 2321.

MATH-3335 Mathematical Statistics

This course covers the basic concepts of statistics, including samples, statistics, estimation, sampling distribution of estimators, confidence intervals, tests of hypotheses, significance, power, and simple linear

regression. Additional topics may include Bayesian statistics, analysis of variance, and nonparametric methods. Spring.

Prerequisite: MATH 3334.

MATH-3338 Mathematical Modeling

Formulation, analysis, and interpretation of models arising in the life, physical, or social sciences. The actual source for the models will depend upon the interests of the instructor. Mathematical topics will include one or more of the following areas: linear algebra, differential equations, difference equations, numerical analysis, statistics, stochastic processes, and optimization. Fall.

Prerequisites: MATH 2321, 3316, or 3366, and knowledge of computer programming, or consent of instructor.

MATH-3341 Number Theory I

A study of the arithmetic properties of the ring integers. Topics may include factorization, modular arithmetic, solution of polynomial congruences, the law of quadratic reciprocity, Diophantine equations, and applications to cryptography.

Prerequisite: MATH 3326 or consent of instructor.

MATH-3343 Combinatorics I

A study of the theory and problem-solving techniques of algebraic and enumerative combinatorics. Topics include basic enumeration and the combinatorial proofs, the binomial theorem, recurrence relations, generating functions, and inclusion-exclusion. Fall, alternate years.

Prerequisite: MATH 3326 or consent of instructor.

MATH-3351 Numerical Analysis I

Methods of solution of algebraic and transcendental equations, simultaneous linear algebraic equations, numerical integration and differentiation, initial and boundary value problems of ordinary differential equations. (Also listed as CSCI 3351.) Spring.

Prerequisite: CSCI 1321, MATH 3316.

MATH-3352 Numerical Analysis II

Direct and iterative solution of linear systems of equations, approximation theory, eigenvalues and eigenvectors, solution of non-linear systems of equations, boundary value problems for ordinary differential equations, numerical solutions of partial differential equations. Irregular.

Prerequisite: MATH 3351.

MATH-3355 Non-Euclidean Geometry

Topics include the fifth postulate of Euclid, hyperbolic geometry of Lobachevsky, elliptic geometry of Riemann. Spring, alternate years.

Prerequisite: MATH 3326 or consent of instructor.

MATH-3357 Partial Differential Equations

The heat, wave and Laplace equations and boundary value problems, the method of separation of variables, special functions, orthogonal expansion, Sturm-Liouville theory, the Fourier and Laplace transform methods. Additional topics may include Green's functions, Poisson's integral formula for the disk and variational calculus if time permits.

Prerequisites: MATH 2321 and 3316 or 3366.

MATH-3359 Difference Equations

Dynamics of first order difference equations, difference equations of higher order, stability analysis, methods of Z-transform. Offered infrequently.

Prerequisite: MATH 3316 or 3323.

MATH-3360 Real Analysis I

An introduction to the real number system, elementary topology of Euclidean spaces, calculus of real-valued functions of one and several variables including a rigorous development of limits, continuity, differentiation and integration. Fall.

Prerequisite: MATH 3326.

MATH-3362 Modern Algebra I

A study of the theory of groups, rings, and fields. Spring. Prerequisite: MATH 3326.

MATH-3366 Differential Equations

Introduction to the basic quantitative and qualitative concepts of differential equations. Topics include first order differential equations, second order differential equations and applications, Laplace transforms, and systems of differential equations. MATH 3316 and MATH 3366 may not both be taken for credit. Spring, infrequently.

Prerequisite: MATH 3323.

MATH-3370 Financial Mathematics

Problems that arise in the area of finance and the mathematics of their solutions. Examples include portfolio selection option pricing, arbitrage, single-agent optimization, the Fundamental Theorem of Asset Pricing, and the Black-Scholes formula.

Prerequisites: MATH 1320 or 3320 or 3334 and MATH 3316 or 3323.

MATH-3-90 Reading and Conference

Course will vary in credit according to scope of work included. Prerequisite: consent of instructor.

MATH-3391 Special Topics

Special topics not covered by courses described in the Courses of Study Bulletin. Announcements of this course will be made by special prospectus. The course may be repeated for credit on different topics.

MATH-4324 Linear Algebra II

Topics beyond MATH 3323, which may include canonical forms, spectral decompositions, analysis of linear systems, and matrix norms. Fall, alternate years.

Prerequisite: MATH 3323 or consent of instructor.

MATH-4336 Stochastic Processes

An Introduction to the theory and applications of stochastic processes. Topics may include processes,

random walks, Markov chains in discrete and continuous time, branching processes, queuing systems, and Brownian motion. Spring, alternate years.

Prerequisite: MATH 3320 or 3334, or consent of instructor.

MATH-4342 Number Theory II

Topics beyond MATH 3341, which may include the theory of fractional ideals in number fields, arithmetic functions and Dirichlet series, distribution of primes, and the prime number theorem. Spring, alternate years.

Prerequisites: MATH 3341 and MATH 3360 or 3362, or consent of instructor.

MATH-4344 Combinatorics II

Topics beyond MATH 3343, which may include Polya counting, partition theory, special functions, the R-S-K algorithm, combinatorial species, and other advanced topics in algebraic and enumerative combinatorics. Spring, alternate years.

Prerequisite: MATH 3343 or consent of Instructor.

MATH-4361 Real Analysis II

Topics beyond MATH 3360, which may include measure, Lebesgue theory, Banach and Hilbert spaces, manifolds, and differential forms. Spring, alternate years.

Prerequisite: MATH 3360.

MATH-4363 Modern Algebra II

Topics beyond MATH 3362, which may include field and ring theory, representation theory, Galois theory, additional algebraic structures, and applications to other branches of mathematics. Fall, alternate years.

Prerequisite: MATH 3323 and 3362.

MATH-4364 Theory of Complex Variables

A study of functions of a single complex variable including properties of complex numbers, analytic functions, contour integration and Cauchy's theorem, Taylor and Laurent series, the calculus of residues and applications. Additional topics may include conformal mappings, analytic continuation, Rouché's theorem, and infinite products. Fall, alternate years.

Prerequisites: MATH 3360 or consent of instructor.

MATH-4365 Topology

Introduction to the study of basic topological concepts including topological spaces, continuous functions, homeomorphisms, separation properties, connectedness, and compactness. Additional topics may be chosen from algebraic or geometric topology. Fall, alternate years.

Prerequisite: MATH 3360 or 3362, or consent of instructor.

MATH-4367 Dynamical Systems

Topics beyond MATH 3366, which may include chaos theory, bifurcation, and discrete continuous systems. Offered infrequently.

Prerequisites: MATH 3360 and 3366, or consent of instructor.

MATH-4391 Special Topics

This course will treat special topics not covered by courses described in the Courses of Study Bulletin. Announcements of such courses will be by special prospectus. This course may be repeated for credit on different topics.

MATH-4394 Senior Project

Independent project under faculty supervision. Oral and written presentation of results and attendance at the Majors' seminar (MATH 2094) are required.

Prerequisite: MATH 3195 and senior standing.

MATH-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by senior Honors students in both semesters of their Senior year.

Prerequisite: senior standing.

Medieval and Renaissance Studies

FACULTY ADVISORY COMMITTEE

LAURA AGOSTON, Ph.D., Associate Professor, Art History; Chair
DOUGLAS BRINE, Ph.D., Assistant Professor, Art History
DAMIAN CALUORI, D.Phil., Assistant Professor, Philosophy
NICOLE MARAFIOTI, Ph.D., Assistant Professor, History
KIMBERLYN W. MONTFORD, Ph.D., Associate Professor, Music
WILLIS A. SALOMON, Ph.D., Associate Professor, English

OVERVIEW

The minor in Medieval and Renaissance Studies is an interdisciplinary program with the following objectives: (a) discovery and re-examination of knowledge about the Middle Ages and the Renaissance and (b) employment of a variety of methods of historical and theoretical analysis as models for such scholarship.

Completion of this program will be indicated on the student's transcript with the notation "Minor in Medieval and Renaissance Studies."

Students interested in a Medieval and Renaissance Studies minor should submit an application to the Chair of the Committee, who will assign a faculty adviser to the student.

REQUIREMENTS

The requirements for a minor in Medieval and Renaissance Studies are as follows:

- I. A total of 18 semester hours, including at least 12 hours from the Primary Curriculum and the remainder from the Supporting Curriculum (upon recommendation by the Chair of the Committee, a student may be permitted to substitute one or more other appropriate courses). Two of the three MDRS core courses from the list below (MDRS 2301, 2302, and 2303) are required of all students for the minor.
- II. At least 6 hours from the Primary Curriculum must be in Medieval courses and at least 6 hours from the Primary Curriculum must be in Renaissance courses.
- III. At least 9 semester hours of the total to be in upper division courses.
- IV. No more than 6 semester hours from the Primary Curriculum and Supporting Curriculum to overlap with the student's primary major.
- V. No more than 12 semester hours from the Primary Curriculum and Supporting Curriculum to be taken in any one department.

Students are encouraged to prepare themselves in modern European languages (normally French, German, Italian, and/or Spanish), as well as in Latin and Greek.

I. Primary Curriculum

M = counts toward the Medieval requirement

R = counts toward the Renaissance requirement

MR = counts toward either the Medieval or the Renaissance requirement

ARTH 1314 Art and Architecture of Medieval Europe (M)
ARTH 3339 Art at the Courts of Europe, c. 1330-1416 (M)

ARTH 3340	Northern Renaissance Art in the Fifteenth Century (MR)
ARTH 3344	Northern Renaissance Art in the Sixteenth Century (R)
ARTH 3341	Early Renaissance Art in Italy (R)
ARTH 3342	High Renaissance Art and Mannerist Art in Italy (R)
ARTH 3346	Jan van Eyck and His Legacy (MR)
ARTH 3391	Special Topics in Art History: Michelangelo (R)
ARTH 3392	Women's Studies in Art History: Gender and Sexuality in Early Modern Italy (MR)
ENGL 2306	Medieval Imagination (M)
ENGL 3346	History of the English Language (MR)
ENGL 3355	Introduction to Old and Middle English Philology (M)
ENGL 3356	Readings in Old English Literature (M)
ENGL 3357	English Literature of the Late 14th Century (M)
ENGL 3358	Medieval and Early Renaissance Drama (MR)
ENGL 3359	Medieval Literature: The World of King Arthur (M)
ENGL 3359	Medieval Literature: <i>Sir Gawain and the Green Knight</i> and Medieval Romance (M)
ENGL 3362	Early Modern British Literature, 1485-1603 (R)
ENGL 3363	Early Modern British Literature, 1603-1660 (R)
ENGL 4301	Geoffrey Chaucer (M)
ENGL 4302	Elizabethan and Jacobean Playwrights (R)
ENGL 4319	Studies in Medieval Literature (M)
ENGL 4320	Studies in Early Modern British Literature: The Performance of Gender, Wyatt to Shakespeare (R)
ENGL 4320	Studies in Early Modern British Literature: Shakespeare's Sonnets and the Subject of Sexuality (R)
FREN 4301	Medieval French Literature (M)
FREN 4302	Topics in French Literature of the Sixteenth Century (R)
HIST 1332	Medieval Europe (M)
HIST 1333	Medieval Christianity: Tradition and Transformation, 200-1200 (M)
HIST 1350	Medieval Islamic History, 570-1517 (M)
HIST 3331	The Anglo-Saxons: Scholars, Saints and Warriors (M)
HIST 3350	The Arab Cultural Tradition (MR)
PHIL 3312	Late Ancient and Medieval Philosophy (M)
PHIL 3322	Early Modern Philosophy (R)
SPAN 4331	Medieval Spanish Literature (M)
SPAN 4332	Spanish Golden Age Literature (R)
SPAN 4333	Don Quixote (R)
SPAN 4391	Special Topics: History of the Spanish Literature (MR)

II. Supporting Curriculum

ARTH 1307	Art History I: Prehistoric through Medieval Art
ARTH 1308	Art History II: Renaissance to Modern Art
ARTH 3330	Art and Architecture in the Late Classical World
ARTH 3345	Spanish Colonial Art and Architecture in Mexico
CLAS 3304	The Ancient Romance and Novel
ENGL 2301	British Literature: Epic to Romantic
ENGL 4303	Milton
ENGL 4320	Studies in Early Modern Literature: The Literature of the English Civil Wars
ENGL 4326	Seminars on Individual Authors: John Donne
ENGL 4326	Seminars on Individual Authors: Edmund Spenser
FREN 3305	Introduction to French Literature I

FREN 4303	Topics in French Literature of the Seventeenth Century
GERM 3303	German Civilization and Culture
GERM 3305	Introduction to German Literature I
GREK 2303	Readings in the New Testament
HIST 1334	Early Modern Europe
HIST 3314	The Mediterranean World in the Hellenistic Age
HIST 3318	The Roman Empire
MUSC 3341	Music History I
PLSI 3361	Classical Political Thought
RELI 1340	Islam, Judaism, and Christianity
RELI 3341	The Jewish Tradition
RELI 3342	The Christian Tradition
RELI 3343	Classical Islam
RELI 3354	The Letters of Paul
RUSS 3303	Russian Culture
RUSS 3305	Introduction to Russian Literature I
SPAN 3311	Spanish Civilization
SPAN 3331	Introduction to Spanish Literature
SPAN 4301	Spanish Phonetics and Phonology
SPAN 4341	Literature of Colonial Spanish America
THTR 3333	History of Theatre and Drama

COURSES

MDRS-2301 Topics in Medieval Studies

Selected topics on some aspect of Medieval Studies, focusing on the intersections of texts, visual art, history, politics, philosophy, religion, and culture. May be repeated when topics vary.

MDRS-2302 Topics in Renaissance Studies

Selected topics on some aspect of Renaissance and Early Modern Studies, focusing on the intersections of texts, visual art, history, politics, philosophy, religion, and culture. May be repeated when topics vary.

MDRS-2303 Topics in Medieval and Renaissance Studies

Selected topics integrating aspects of Medieval and Renaissance/Early Modern Studies, focusing on the intersections of texts, visual art, history, politics, philosophy, religion, and culture. May be repeated when topics vary.

Modern Languages and Literatures

FACULTY

DANIA ABREU-TORRES, Ph.D., Assistant Professor, Spanish
CARLOS X. ARDAVÍN, Ph.D., Associate Professor, Spanish
ALAN M. ASTRO, Ph.D., Professor, French
ROSANA BLANCO-CANO, Ph.D., Associate Professor, Spanish
NINA C. EKSTEIN, Ph.D., Professor, French
STEPHEN L. FIELD, Ph.D., J. K. and Ingrid Lee Endowed Professor of Chinese Language and Literature
JINLI HE, Ph.D., Assistant Professor, Chinese
BRUCE T. HOLL, Ph.D., Associate Professor, Russian
NANETTE LE COAT, Ph.D., Associate Professor, French
ARTURO MADRID, Ph.D., Norine R. and T. Frank Murchison Distinguished Professor of the Humanities, Spanish
PABLO A. MARTINEZ, Ph.D., Associate Professor, Spanish
DEBRA OCHOA, Ph.D., Associate Professor, Spanish
BLADIMIR RUIZ, Ph.D., Associate Professor, Spanish; Chair
MATTHEW D. STROUD, Ph.D., Professor, Spanish
HEATHER I. SULLIVAN, Ph.D., Professor, German
RITA E. URQUIJO-RUIZ, Ph.D., Associate Professor, Spanish
MICHAEL T. WARD, Ph.D., Associate Professor, Italian and Spanish
JIE ZHANG, Ph.D., Associate Professor, Chinese

OVERVIEW

The Department of Modern Languages and Literatures offers courses leading to the degree of Bachelor of Arts with a major in Chinese, French, German, Russian, or Spanish. Programs are also available in French, German, and Spanish as teaching fields under the interdepartmental major for teachers in secondary schools. Arabic and Italian are offered on the elementary and intermediate levels. Courses in Greek and Latin are the responsibility of the Department of Classical Studies.

REQUIREMENTS

THE MAJOR

In order to be granted full acceptance for admission to a major in Chinese, French, German, Russian, or Spanish, a student must have completed the 3301 course in that language with a grade of C or better.

CHINESE

The requirements for the degree of Bachelor of Arts with a major in Chinese are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. Completion of 21 semester hours of upper division courses taught in Chinese, including:
 1. CHIN 4351
 2. CHIN 4360

- B. Completion of one of the following additional requirements:
1. Nine additional semester hours of upper division courses in Chinese.
 2. The lower division courses, or the equivalent, and at least 3 semester hours of upper division courses in a second foreign language.
 3. Completion of at least one semester or summer abroad in a Chinese-speaking country.

FRENCH

The requirements for the degree of Bachelor of Arts with a major in French are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. Completion of 21 semester hours of upper division courses, including:
 1. FREN 3301

This course, with a grade of “C” or above, is required for admission to the French major. It must be taken at Trinity University with the following exceptions:

 - a. A student receives a 5 on the College Board Advanced Placement exam or a 6 or 7 on the International Baccalaureate exam;
 - b. A student takes an advanced French grammar course elsewhere (including abroad) and then takes the final exam for FREN 3301 at Trinity and passes it with a grade of “C” or above. Students will receive advanced French credit for such courses taken elsewhere, but the course will not be designated as FREN 3301 unless they take the final exam for FREN 3301 and receive at least a “C.”
 2. FREN 3305 or FREN 3306.
 - B. Completion of one of the following additional requirements:
 1. Nine additional semester hours of upper division courses in French; OR
 2. The lower division courses, or the equivalent, and at least 3 semester hours of upper division courses in a second foreign language.

GERMAN STUDIES

The requirements for the degree of Bachelor of Arts with a major in German Studies are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. Completion of 21 hours of coursework taught in German at the level of GERM 2302 or higher, including GERM 3301 and either GERM 3305 or GERM 3306.
 - B. Completion of 9 additional hours of upper-division German (GERM) or of any of the accepted German Studies courses taught in English (GRST).

The accepted German Studies courses are as follows:

GRST 1314	Medieval Art (also listed as ARTH 1314)
GRST 2332	(Play Structure and Analysis (taught in English) (also listed as THTR 2332)
GRST 2352	Acting II: Scene Study (taught in English) (also listed as THTR 2332)
GRST 3307	Berlin: From Cabarets to Communists

GRST 3310	German Cinema
GRST 3311	Fairy Tales
GRST 3321	Northern Renaissance Art, 1300-1550 (also listed as ARTH 3340)
GRST 3332	History of Theatre: The Restoration to 1850 (also listed as THTR 3322)
GRST 3341	Music History I: Ancient Greece to Mozart (also listed as MUSC 3341)
GRST 3342	Music History II: Beethoven to the Present (also listed as MUSC 3341)
GRST 3343	Mozart (also listed as MUSC 3350)
GRST 3360	Hegel and German Idealism (also listed as PHIL 3323)
GRST 3361	Nietzsche and German Philosophy (also listed as PHIL 3326)
GRST 3370	European Politics (also listed as PLSI 3330)
GRST 3371	Political Economy of U.S., Europe, and Japan (also listed as PLSI 3331)
GRST 3372	Masters of Suspicion: Contemporary Political Thought (also listed as PLSI 3363)

RUSSIAN

The requirements for the degree of Bachelor of Arts with a major in Russian are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. Completion of 21 semester hours, of which no more than 3 may be lower division (2302). Upper division hours will include:
 1. RUSS 3301
 2. RUSS 3305

The RUSS 3305 requirement will be waived for students who have taken ML&L 3340.
 - B. Completion of one of the following additional requirements:
 1. Nine additional semester hours of upper division courses in Russian.

Students have the option of substituting up to 9 semester hours from the following courses: ARTH 3362; ECON 3327; HIST 3311; PLSI 3335; OR
 2. The lower division courses, or the equivalent, and at least 3 semester hours of upper division courses in a second foreign language.

SPANISH

The requirements for the degree of Bachelor of Arts with a major in Spanish are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. Completion of 21 hours, of which no more than 3 may be lower division (2302) and no more than 3 may be taken as Internship. Upper division hours will include:
 1. SPAN 3301
 2. SPAN 3330 or 3331
 3. SPAN 3332
 - B. Completion of one of the following additional requirements:
 1. Nine additional semester hours of upper division courses in Spanish (students have the option of substituting up to three hours of Spanish across the Curriculum courses); OR
 2. The lower division courses, or the equivalent, and at least three semester hours of

upper division courses in a second foreign language.

THE MINOR

The requirements for a minor in Chinese, French, German, Russian, and Spanish are as follows: Completion of at least 18 semester hours, of which no more than 6 may be lower division. A minimum of 12 hours toward the minor must be completed at Trinity.

TRANSFER CREDIT

In conjunction with the Registrar's Office, transfer credit for language courses must be evaluated and approved by the language section in addition to the chair of the department. Such evaluation may include, but need not be limited to, the syllabus for the course and the test required of students showing competency in the language.

THE HONORS PROGRAM

- I. University requirements
- II. Departmental requirements:

The Department of Modern Languages and Literatures offers an Honors Program in Chinese, French, German, Russian, and Spanish. The requirements for Honors in Modern Languages and Literatures are the same as the university requirements. A full description of the program is available in the departmental office.

SELF-INSTRUCTIONAL LANGUAGE PROGRAM

The Department of Modern Languages and Literatures offers self-instructional courses in critical languages of global and economic importance. Although students will meet with a native-speaking tutor for 2 hours per week, the self-instructional nature of these courses demands that students have a demonstrated ability to learn a foreign language and be highly motivated and disciplined. Registration is by consent of the Director only. The courses for which students may enroll are the following:

SILP 1301	Beginning Self-Instructional Language I
SILP 1302	Beginning Self-Instructional Language II
SILP 2301	Intermediate Self-Instructional Language I
SILP 2302	Intermediate Self-Instructional Language II

Upon registration, the name of the course to appear on the transcript will be changed to reflect the language studied, for example:

SILP 1301 Beginning Japanese I

None of these courses may count toward fulfillment of the university language requirement.

MODERN LANGUAGES AND LITERATURES:

Taught in English and works read are in English.

Plan of Lower Division Language Courses

1000-level courses are beginning courses. Emphasis is on the spoken language, with extensive use of dialogues and drills designed to illustrate the basic structural features of the language and to develop oral proficiency. 1301, 1401, and 1501 courses are normally offered only in the fall semester, 1302, 1402, and 1502 courses only in the spring. 1403 and 1600 courses may be offered in both semesters.

Courses numbered 1402 are a continuation of 1401 and will generally complete the study of the basic grammatical features of the language.

Courses numbered 2301 and 2302 consist of intermediate level language study, focusing on speaking, reading, grammar, writing, and comprehension. Except for SPAN 2301, courses numbered 2301 are normally offered only in the fall semester.

Language courses 1401, 1402, 1403, 1600, or 2301 may be taken pass/fail unless the student is using them to satisfy the skill requirement of the Common Curriculum.

No credit will be given for any prerequisite course in the four-semester lower-division sequence once a student has received credit for a more advanced course.

COURSES

MODERN LANGUAGES AND LITERATURES:

Taught in English and works read are in English.

ML&L-1303 Japanese Perspectives

This course introduces the student to Japanese culture in its religious, political, aesthetic, and social dimensions especially as each is affected by Western influences. (Also listed as GNED 1303.)

ML&L-2301 International Cinema

This course focuses on the cultural and critical analysis of international films as an expression of particular artistic genres and/or styles within specific historical, ideological, and cultural contexts. Films selected have achieved wide, critical acclaim; others reveal unique and important visions of human experience; while others are selected for their political, ideological, or sociological significance. Students should develop an awareness that the medium of film has a history and that its history is not confined to national boundaries. (Also listed as ARTH 2301, COMM 2301, ENGL 2301, and FILM 2301.)

ML&L-3310 French Literature in Translation

A study of major works of French literature in the context of Western literary, political, and cultural history, and literary criticism.

ML&L-3311 French Cinema

This course will examine a variety of French films from the 1930s to the present, focusing on developing an understanding of the aesthetic qualities of the individual films, while also examining the history of French cinema, how cinema conveys meaning, and how the specificity of French culture is depicted in the films.

Prerequisite: sophomore standing or above.

ML&L-3330 Japanese Literature in Translation

Japanese culture through the major works in Japanese literature and its major religions, Shinto and Buddhism. The interrelationship of the art/architecture is also highlighted. Readings include early poetry and novels, the rise of drama, haiku, and twentieth century novels.

ML&L-3340 Russian Literature in Translation I

A study of major works of Russian literature from the early 1900s. RUSS 3305 and ML&L 3340 cannot both be taken for credit.

ML&L-3341 Russian Literature in Translation II

A study of major works of Russian literature from the early 1900s to the present day. RUSS 3306 and ML&L 3341 cannot both be taken for credit.

ML&L-3342 The Peoples of Russia

An introduction to Russian culture from medieval through modern times, including not only the Russians, but also the peoples of southern and eastern Russia. The course will emphasize religion, folklore and art.

ML&L-3343 The Culture of Russia

“The Culture of Russia” will survey the religion, music, architecture, folklore, and fine arts in European Russia 988-1917 CE through lectures, discussions, and readings from primary sources.

ML&L-3344 Russian Cinema

A survey of Russian films from a variety of periods with an emphasis on how the films reflect Russian history and culture, and how they illustrate the development of Russian cinema.

ML&L-3-91 Selected Topics

Special study in fields not covered by other courses. May be repeated on different topics.

ARABIC

ARAB-1401 Beginning Modern Standard Arabic I

Beginning Modern Standard Arabic I. 4 class hours a week.

ARAB-1402 Beginning Modern Standard Arabic II Beginning Modern Standard Arabic II. 4 class hours a week.

Prerequisite: ARAB 1401 or the equivalent.

ARAB-2301 Intermediate Modern Standard Arabic I Intermediate Modern Standard Arabic I. 3 class hours a week.

Prerequisite: ARAB 1402 or the equivalent.

ARAB-2302 Intermediate Modern Standard Arabic II Intermediate Modern Standard Arabic II. 3 class hours a week.

Prerequisite: ARAB 2301 or the equivalent

CHINESE

LOWER DIVISION

CHIN-1100 Conversational Chinese I

A lower division course in conversational Chinese for students enrolled in the Shanghai Faculty-led Summer Program. 4 class hours a week for 6 weeks.

CHIN-1401 First Year Chinese I

Modern Standard Chinese (Mandarin). 4 class hours a week. (Not open to native speakers of Mandarin.)

CHIN-1402 First Year Chinese II

Modern Standard Chinese (Mandarin). 4 class hours a week. (Not open to native speakers of Mandarin.)

Prerequisite: CHIN 1401 or the equivalent.

CHIN-2401 Second-Year Chinese I Modern Standard Chinese (Mandarin).

Prerequisite: CHIN 1402 or the equivalent.

CHIN-2402 Second-Year Chinese II

Modern standard Chinese (Mandarin).

Prerequisite: CHIN 2401 or the equivalent.

CHIN-2311 Chinese Civilization

A topical approach to the study of both traditional and modern Chinese thought systems, with readings drawn mainly from original sources in translation. Course taught in English.

UPPER DIVISION

CHIN-3300 Advanced Placement Credit in Chinese

Credit for a 4 or 5 on the Chinese language AP exam.

CHIN-3100 Conversational Chinese II

An upper division course in conversational Chinese for students enrolled in the Shanghai Faculty-led Summer Program. 4 class hours a week for 6 weeks.

Prerequisite: CHIN 2402 or the equivalent, or consent of instructor.

CHIN-3301 Third-Year Chinese I

Continued study of Chinese grammar and colloquial speech patterns.

Prerequisite: CHIN 2402 or the equivalent, or consent of instructor.

CHIN-3302 Third-Year Chinese II

Continuation of CHIN 3301.

Prerequisite: CHIN 3301 or the equivalent, or consent of instructor.

CHIN-3304 Chinese Calligraphy

A survey of the major script styles in the Chinese writing system. While tracing the history of Chinese calligraphy, the class will also explore theoretical issues including representation, expression, formalism, and contemporary approaches relating to the practice of calligraphy. In-class work will give students hands-on experience using traditional Chinese. The course will be taught in English. (Also listed as ML&L 3304.)

Prerequisite: CHIN 2302 or consent of instructor.

CHIN-3305 The Culture of Taiwan

This course will focus on aspects of the culture of Taiwan from the prehistoric period down to the present. Lectures and discussion will address the important topics of colonial and post-colonial history and politics, but will also cover such aspects of Taiwanese culture as linguistic diversity, folk religion, architecture, art, and cuisine. Course taught in English.

CHIN-3312 Chinese Cinema: A Historical and Cultural Perspective

A study of Chinese culture and socio-political changes in the modern history of China, Taiwan and Hong Kong through viewing, discussing and analyzing contemporary films. Course taught in English.

Prerequisite: CHIN 2402 or the equivalent.

CHIN-3313 Cities of Strangers: Trans-Cultural Chinese Cinema

A cinema course with a focus on genres contributing to the popular imagination about cities such as Beijing, Shanghai, Hong Kong, and Taipei. Examples will be drawn from martial arts films, gangster films, ghost stories, and "exile" films. Major theoretical concerns are cultural stereotyping, politics of representation, and the appropriation of gender discourses. Courses taught in English.

CHIN-3320 The Rise of Modern China

Studies of modern Chinese history since 1800, with emphasis on the processes of modernization, the major phases of the Chinese revolution from the experience with Western imperialism through the Republican period and the emergence of the People's Republic of China. Class methods emphasize reading primary sources in translation and research and writing. Course taught in English. (Also listed as HIST 1320.)

Prerequisite: HIST 1320 or consent of instructor.

CHIN-3328 The Philosophies of China

A study of the three major indigenous philosophical movements in China: Confucianism, Taoism, and Neo-Confucianism. Special attention will be paid to themes and problems common to all three movements, including: the metaphysics of harmony and conflict, the individual and society, the cultivation of human virtues and human perfectibility, and humankind's relation to nature. Course taught in English. (Also listed as PHIL 3328.)

Prerequisite: PHIL 1301.

CHIN-3330 Global Business Culture

This course provides students with a critical and comprehensive understanding of culture-related theories and how they are applied in practice from the perspective of international managers. Emphasis is on the business culture in China in comparison to that in other countries, particularly to that in the United States. Course taught in English. (Also listed as BUSN 3330.)

Prerequisites: junior standing and 6 hours of Business Administration or 6 hours of Chinese or consent of instructor.

CHIN-3333 Chinese Religions

A study of the indigenous religious traditions of China in cultural and historical perspective, including Religious Taoism, Confucianism, and Yin-Yang cosmology. Topics for discussion will include cosmology, ritual and myth, religious self-cultivation, and the interaction between humankind and the sacred. Course taught in English. (Also listed as RELI 3333.)

Prerequisite: RELI 1330 or consent of instructor.

CHIN-3343 Chinese Foreign Policy

This course examines Chinese foreign policy by focusing on leadership, economic conditions, political settings, public opinion, and China's relations with other countries. It also briefly explores the historical role of China in international politics. (Offered every year.) (Also listed as PLSI 3343).

CHIN-3363 International Business Research

A systematic examination of business research as a science and the diverse research methods available to conduct international business research, including coverage of both qualitative and quantitative techniques. Emphasis is upon data collection and interpretation within the context of China and the United States. Course taught in English. (Also listed as BUSN 3363.)

Prerequisite: junior standing and consent of instructor.

CHIN-3366 Governance and Public Policy in Contemporary China

This course covers most significant issues of contemporary politics and public policy in China. It explores the forces changing the lives of nearly a fifth of humanity, the 1.1 billion people of China. This course is designed to be experimental in both subject and teaching methodology. In order to explore the political, economic, and social processes of liberalization that have created this new era of the increased circulation of people, ideas, commodities, and technologies across national boundaries, seminar participants must use materials and methods from many scholarly disciplines and traditions: urban studies, political science, sociology, history, anthropology, economics, and media/cultural studies. In order to study these increasingly mobile populations that often fall outside the boundaries of conventional area studies approaches, students must develop innovative comparative case study and survey methodologies. (Also listed as PLSI 3366 and URBS 3366.)

CHIN-3367 Comparative View of Modern China

This course represents an overview of the most important economic relationship of the twenty-first century: the USA and China. The rise of China has brought about a reorganization of the global economy and the international balance of power, creating a new world order carries challenges and opportunities. China remains a communist country with a significant legacy of a command economy, but it is also a market economy. Understanding this mixture, as it is seen through American and Chinese points of view, is the major aim of this course. (Also listed as BUSN 3367, ECON 3367, and URBS 3367.)

CHIN-4130 Quanqiu Shangwu Wenhua-Zhong-Mei Jiaodian (Global Business Culture)

A companion course to BUSN/CHIN 3330 which examines the diverse business culture in China in comparison to that in other countries, particularly in the United States. This course must be taken concurrently with BUSN/CHIN 3330 and will be taught entirely in Chinese. Students must have the ability to write and converse in Chinese. (Also listed as BUSN 4130 and LAC 4130.)

Prerequisites: senior standing, CHIN 3302 or the equivalent, and consent of instructor.

Corequisite: BUSN 3330 or CHIN 3330.

CHIN-4301 Fourth-Year Chinese I

Continued study of Chinese grammar and colloquial speech patterns.

Prerequisite: CHIN 3302 or the equivalent.

CHIN-4302 Fourth-Year Chinese II

Continuation of CHIN 4301.

Prerequisite: CHIN 4301 or the equivalent.

CHIN-4310 Advanced Conversation and Composition

An advanced course in Chinese conversation and composition using a variety of Internet media.

Prerequisite: CHIN 3302 or the equivalent.

CHIN-4321 Readings in Modern Chinese Literature

A study of selected works of modern Chinese literature. May be taken more than once, provided topics vary.

Prerequisite: CHIN 3302 or the equivalent.

CHIN-4322 Readings in Contemporary Chinese Cinema

This course provides a focused study of ten well-known films produced within recent decades by filmmakers from Mainland China and Taiwan. The films explore both urban and rural life, covering a wide range of topics such as education, family, revolution, modernization, and gender. Students will discuss, in both written and spoken Chinese, a variety of social topics central to studies of China. They will also complete an independent project and learn to appreciate films as historical and artistic constructs.

Prerequisite: CHIN 3302 or the equivalent, or consent of instructor.

CHIN-4351 Classical Chinese

A study of classical Chinese grammar with selected readings from classical Chinese literature.

Prerequisite: CHIN 2402 or the equivalent.

CHIN-4360 Senior Seminar

An in-depth study of selected themes or authors in modern or contemporary Chinese literature and culture.

Prerequisite: senior status.

CHIN-4362 International Branding

Strategic and critical examination of how brands, including corporate and product brands, are managed in a global environment from a multinational organization's viewpoint. Emphasis is placed on international brands in China and Chinese brands in other countries. Course taught in English. (Also listed as BUSN 4362.)

Prerequisites: senior standing and consent of instructor.

CHIN-4364 Internationalizing Intellectual Property

Examines theories and strategic significance of intellectual property within a global environment. Intellectual property such as patents, marks, industrial designs, and trade secrets are examined with an emphasis placed upon strategic and managerial intellectual property issues between the United States and China. Course taught in English. (Also listed as BUSN 4364.)

Prerequisites: senior standing and consent of instructor.

CHIN-4-90 Readings and Conference

Individual work under faculty supervision not covered by other courses.

Prerequisites: 6 upper division hours in Chinese and approval of Department Chair.

CHIN-4-91 Selected Topics

Special study in fields not covered by other courses. Variations in credit according to work performed, from 1-6 hours. May be taken more than once, provided topics vary.

CHIN-4-97 Chinese Internship

Supervised activities in Chinese appropriate to the students' abilities and interest. In the case of local internships, this will include periodic on campus meetings with the internship supervisor to integrate internship experience with study of Chinese language. Internships abroad will require periodic reports by email or facsimile. All internships must lead to the creation of a final product such as an oral or written report. Up to 3 credits. Pass/Fail.

Prerequisite: approval of internship supervisor.

FRENCH

LOWER DIVISION

FREN-1401 Elementary French I

4 class hours a week for one semester.

FREN-1402 Elementary French II

4 class hours a week for one semester.

FREN-2301 Intermediate French I

Prerequisite: FREN 1402 or the equivalent.

FREN-2302 Intermediate French II

Prerequisite: FREN 2301 or the equivalent.

UPPER DIVISION

FREN-3300 Advanced Placement Credit in French

Credit for a 4 or a 5 on the French language AP exam.

FREN-3301 Advanced Grammar

Intensive review of the rules of French grammar, as well as exceptions thereto; practical application through written and oral exercises and through reading of text materials suitable to the needs of the class.

Prerequisite: FREN 2302 or the equivalent.

FREN-3303 French Civilization

A study of contemporary France through a variety of perspectives, including historical background, cultural, intellectual, and political traditions, and the Francophone world.

Prerequisite: FREN 2302 or the equivalent, or consent of instructor.

FREN-3305 Introduction to French Literature I

A study of major works of French literature through the eighteenth century in the context of Western literary, political, and cultural history, and literary criticism.

Prerequisite: FREN 2302 or consent of instructor.

FREN-3306 Introduction to French Literature II

A study of major works of French literature from the nineteenth century to the present in the context of Western literary, political, and cultural history, and literary criticism.

Prerequisite: FREN 2302 or consent of instructor.

FREN-3371 Introduction to Romance Linguistics

A study of the science of language as it applies to those tongues having their origin in spoken Latin, principally French, Italian, Portuguese, Rumanian, and Spanish. Attention will be given both to historical developments and to the current situations of such languages. (Also listed as CLAS 3371, ITAL 3371, and SPAN 3371).

Prerequisite: two years or the equivalent of Latin, Ancient Greek, or a Romance language.

FREN-3-98 Honors Readings

Independent study in selected areas in preparation for Honors Thesis.

Prerequisite: admission to Honors Program.

FREN-4303 Topics in French Literature of the Seventeenth Century

May be taken more than once, provided topics vary.

Prerequisite: FREN 3305, 3306, or the equivalent, or consent of instructor.

FREN-4304 Topics in French Literature of the Eighteenth Century

May be taken more than once, provided topics vary.

Prerequisite: FREN 3305, 3306, or the equivalent, or consent of instructor.

FREN-4305 Topics in French Literature of the Nineteenth Century

May be taken more than once, provided topics vary.

Prerequisites: FREN 3305, 3306, or the equivalent, or consent of instructor.

FREN-4306 Topics in French Literature of the Twentieth Century

May be taken more than once, provided topics vary.

Prerequisites: FREN 3305, 3306, or the equivalent, or consent of instructor.

FREN-4307 French Cinema

This course will examine a variety of French films from the 1930s to the present, focusing on developing an understanding of the aesthetic qualities of the individual films, while also examining the history of French cinema, how cinema conveys meaning, and how the specificity of French culture is depicted in the films.

Prerequisites: 6 upper-division hours in French.

FREN-4-90 Reading and Conference

Individual work under faculty supervision in areas not covered by other courses.

Prerequisites: 6 upper-division hours in French and approval of Department Chair.

FREN-4-91 Selected Topics

Special study in fields not covered by other courses. Variations in credit according to work performed, from 1–6 hours.

Prerequisites: 6 upper-division hours in French.

FREN-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by Senior Honors students in both semesters of their senior year.

GERMAN**LOWER DIVISION****GERM-1401 Elementary German I**

4 class hours a week.

GERM-1402 Elementary German II

4 class hours a week.

Prerequisite: GERM 1401 or the equivalent.

GERM-2301 Intermediate German I

Prerequisite: GERM 1402 or the equivalent.

GERM-2302 Intermediate German II

Prerequisite: GERM 2301 or the equivalent.

UPPER DIVISION**GERM-3300 Advanced Placement Credit in German**

Credit for a 4 or a 5 on the German language AP exam.

GERM-3301 Advanced German I

Emphasis on conversation as well as composition and grammar. Text material may reflect either literary, scientific, or business German suitable to the need of the class.

Prerequisite: GERM 2302 or the equivalent.

GERM-3302 Advanced German II

Emphasis on conversation as well as composition and grammar. Text material may reflect either literary, scientific, or business German suitable to the needs of the class.

Prerequisite: GERM 3301 or the equivalent.

GERM-3305 Introduction to German Literature and Culture I

A study of exemplary works of German literature, theater, and art that illustrate major cultural changes in German history during the late 18th and early 19th centuries.

Prerequisite: GERM 2302.

GERM-3306 Introduction to German Literature and Culture II

A study of exemplary works of German literature, theater, and film that illustrate major cultural changes in German history during the late 18th and early 19th centuries.

Prerequisite: GERM 2302.

GERM-3398 Honors Readings

Independent study in selected areas in preparation for Honors Thesis.

Prerequisite: admission to Honors Program.

GERM-4301 Genre Studies in German Literature

The study of a major genre such as the novel, drama, poetry, or the short story. May be taken more than once, provided topics vary.

Prerequisite: GERM 3301 or the equivalent.

GERM-4310 Seminar in German Literature

The in-depth study of a single theme, movement, or author in German literature. May be taken more than once, provided topics vary.

Prerequisite: GERM 3301 or the equivalent.

GERM-4-90 Reading and Conference

Individual work under faculty supervision areas not covered by other courses.

Prerequisites: 6 upper-division hours in German and approval of Department Chair.

GERM-4-91 Selected Topics

Special study in fields not covered by other courses. Variations in credit according to work performed, from 1-6 hours. May be taken more than once, provided topics vary.

Prerequisites: 6 upper-division hours in German.

GERM-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis. To be taken only by Senior Honors student in both semesters of their senior year.

GERMAN STUDIES

GRST-1314 Art and Architecture of Medieval Europe

This course examines the art and architecture of the Middle Ages in Europe, from the earliest Christian imagery of the fourth century to late Gothic court art, produced around 1400. The geographical range

extends from the northern fringes of the British Isles to the borders of the Byzantine world, and a wide selection of buildings and objects will be considered in relation to their social, political, and historical contexts, with a particular focus on the development of the Christian tradition. (Also listed as ARTH 1314.)

GRST-2332 Play Structure and Analysis

This course will introduce students to multiple theatrical models and methods used to understand dramatic structure and to analyze specific plays. This course seeks answers to the question: How can we discover the ways in which plays work? (Also listed as THTR 2332.)

GRST-2352 Acting II: Scene Study

This course will focus on scene work from a variety of periods and playwrights, and in class exercises to further develop the acting student's ability. (Also listed as THTR 2352.)

Prerequisites: THTR 1350 or 1352, and at least sophomore standing or consent of instructor.

GRST-3307 Berlin: From Cabarets to Communists

This course examines Berlin's urban development and representation in art and literature from 1900 to the present. Students will explore how the city was made into a showpiece by governments with different ideologies and how writers and artists have represented it as a site of political and social struggle.

GRST-3310 German Cinema

This course will examine German films from the silent period in the early 1920s to the present. The course will introduce basic concepts of critical film analysis, while also examining the history of German cinema, how cinema conveys meaning, and how German culture and history are reflected in the films.

GRST-3311 Fairy Tales

This course studies German fairy tales within the broad context of tales from around the world. Taught in English.

GRST-3321 Northern Renaissance Art in the Fifteenth Century

The course examines the making and meaning of the visual arts in France, Germany, and the Netherlands, from c.1400 to c.1500. Objects in various media are considered in relation to their original contexts, from the lavish splendor of the courts to the burgeoning commercial art markets. Key themes, including the role of the altarpiece, technical innovations, devotional practices, and the shifting relationship of Northern art with Italy, will be explored through the work of Van Eyck, Van der Weyden, Schongauer, and their contemporaries. (Also listed as ARTH 3340.)

GRST-3332 History of Theatre: The Restoration to 1850

An examination of the history of theatre, from the Restoration period to the beginnings of realistic theatre in 1850, including African and Asian forms during these periods. The course will utilize historical and critical writings and iconography, as well as representative dramatic texts from each period. (Also listed as THTR 3332.)

GRST-3341 Music History I: Ancient Greece to Mozart

A survey of music in the Western art music tradition, beginning with ancient Greece and continuing through the music of the late eighteenth century. Important composers covered include Bach, Handel, Vivaldi, Monteverdi, Palestrina, Josquin, Haydn, and Mozart. Although designed as Part I of a two-

semester history sequence, this course may be taken independently. (Also listed as MUSC 3341.)

Prerequisite: MUSC 1204 or consent of instructor.

GRST-3342 Music History II: Beethoven to the Present

A survey of important figures and developments in Western art music from the late Classical era through the present, beginning with the music of the late eighteenth century, continuing with Beethoven, Berlioz, Schubert, and other nineteenth-century composers, and concluding with a sustained overview of the modern era from Mahler to Ligeti. Although designed as a continuation of Music History I, this course may be taken independently. (Also listed as MUSC 3342.)

Prerequisite: MUSC 1340 or consent of instructor.

GRST-3343 Mozart

Two centuries after his death, Wolfgang Amadeus Mozart remains one of the most compelling figures in music history due to the extraordinary quality of the music he wrote and to the numerous legends that swirled about him from childhood onward. This course is a critical examination of Mozart's life and work. Using biographies, Mozart's own letters, and evidence in the music itself, we will explore how the image of a divinely-inspired child genius arose during his lifetime, and how that image continued to shape his reputation for later generations of listeners, including our own. (Also listed as MUSC 3350.)

Prerequisite: MUSC 1204 or consent of instructor.

GRST-3360 Hegel and German Idealism

A study of important thinkers and movements at the beginning of the 19th century. We will focus initially on Kant, and investigate how German idealism and Romanticism developed in the aftermath of Kant's critical philosophy. After an extended treatment of Hegel, we will look at the Young Hegelians and Marx. The course will focus on issues in metaphysics, epistemology, the philosophy of history, and the problem of subjectivity. (Also listed as PHIL 3323.)

Prerequisite: PHIL 1301.

GRST-3361 Nietzsche and German Philosophy

A study of important thinkers and movements at the end of the 19th century. We will focus initially on Kant before seeing how Schopenhauer and finally Nietzsche developed on the basis of the Kantian philosophy. After an extended treatment of Nietzsche, we will look at how Freud and psychoanalysis grew out of this tradition. The course will focus on issues in epistemology, the philosophy of art, the philosophy of nature, and the development of the notion of the unconscious. (Also listed as PHIL 3326.)

Prerequisite: PHIL 1301.

GRST-3370 European Politics

A study of the successes and failures, strengths, and weaknesses of parliamentary democracy in various European countries. (Also listed as PLSI 3330.)

Prerequisites: PLSI 1331 and another three-hour lower division course in Political Science, or consent of instructor.

GRST-3371 Political Economy of the U.S., Europe, and Japan

A comparative study of the relationship between the public and private sectors in the three regions with special emphasis on the extent to which government intervenes in the economy. (Also listed as PLSI 3331.)

Prerequisite: ECON 1312 or consent of instructor.

GRST-3372 Masters of Suspicion

A study of many of the sharpest thinkers in the 20th century who have been opposed to democracy or pessimistic about its prospects. This course examines some of these thinkers and then takes up the work of other prominent contemporaries who have sought to defend democracy. (Also listed as PLSI 3363.)

Prerequisite: Junior or Senior standing.

ITALIAN**LOWER DIVISION****ITAL-1401 Elementary Italian I**

4 class hours a week.

ITAL-1402 Elementary Italian II

4 class hours a week.

Prerequisite: ITAL 1401 or the equivalent.

ITAL-2301 Intermediate Italian

Prerequisite: ITAL 1402 or the equivalent, or consent of instructor.

ITAL-2302 Reading and Composition

Prerequisite: ITAL 2301 or the equivalent, or consent of instructor.

UPPER DIVISION**ITAL-3371 Introduction to Romance Linguistics**

A study of the science of language as it applies to those tongues having their origin in spoken Latin, principally French, Italian, Portuguese, Rumanian, and Spanish. Attention will be given both to historical developments and to the current situations of such languages. (Also listed as CLAS 3371, FREN 3371, and SPAN 3371).

Prerequisite: two years or the equivalent of Latin, Ancient Greek, or a Romance language.

ITAL-4-90 Selected Topics

Special study in fields not covered by other courses. Variations in credit according to work performed, from 1-6 hours.

Prerequisite: ITAL 2302.

RUSSIAN**LOWER DIVISION****RUSS-1401 Elementary Russian I**

4 class hours a week.

RUSS-1402 Elementary Russian II

4 class hours a week.

Prerequisite: RUSS 1401 or the equivalent.

RUSS-2301 Intermediate Russian I

Prerequisite: RUSS 1402 or the equivalent.

RUSS-2302 Intermediate Russian II

Prerequisite: RUSS 2301 or the equivalent.

UPPER DIVISION

RUSS-3301 Advanced Russian I

An intensive review of Russian grammar, including grammatical exceptions and advanced material not covered in earlier courses. The course will consist of written and oral exercises and reading materials that illustrate the grammar.

Prerequisite: RUSS 2302 or the equivalent.

RUSS-3302 Advanced Russian II

A continuation of the intensive review of Russian grammar, including grammatical exceptions and advanced material not covered in earlier courses. The course will consist of written and oral exercises and reading materials that illustrate the grammar.

Prerequisite: RUSS 3301 or consent of instructor.

RUSS-3303 Russian Culture

A survey of the development of Russian culture from medieval through modern times. Art, architecture, music, and folklore will be emphasized.

Prerequisite: RUSS 2302 or the equivalent.

RUSS-3305 Introduction to Russian Literature I

A study of major works of Russian literature from its beginning through the early 1900s. RUSS 3305 and ML&L 3340 cannot both be taken for credit.

Prerequisite: RUSS 2302 or the equivalent.

RUSS-3306 Introduction to Russian Literature II

A study of major works of Russian literature from the early 1900s to the present day. RUSS 3306 and ML&L 3341 cannot both be taken for credit.

Prerequisite: RUSS 2302 or the equivalent.

RUSS-3398 Honors Reading

Independent study in selected areas in preparation for Honors Thesis.

Prerequisite: admission to Honors Program.

RUSS-4301 Genre Studies in Russian Literature

The study of a major genre such as the novel, drama, poetry, or the short story. May be taken more than once, provided topics vary.

Prerequisite: RUSS 2302 or the equivalent.

RUSS-4310 Seminar in Russian Literature

The in-depth study of a single theme, movement, or author in Russian literature. May be taken more than once, provided topics vary.

Prerequisite: RUSS 2302 or the equivalent.

RUSS-4-90 Readings and Conference

Individual work under faculty supervision in areas not covered by other courses.

Prerequisites: RUSS 2302 or the equivalent and approval of the Department Chair.

RUSS-4-91 Selected Topics

Special study in fields not covered by other courses. Variations in credit according to work performed, from 1-6 hours.

Prerequisites: RUSS 2302 or the equivalent.

RUSS-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honor Thesis. To be taken only by senior Honors students in both semesters of their senior year.

SPANISH

LOWER DIVISION

SPAN-1600 Intensive Beginning Spanish

6 class hours a week

SPAN-1403 Review of Elementary Spanish

A course designed for students who have had two to three years of high school Spanish but are not qualified for SPAN 2301. A review of the material covered normally in SPAN 1600. SPAN 1600 and 1403 cannot both be taken for credit.

Prerequisite: Two to three years of high school Spanish, or the equivalent.

SPAN-2301 Intermediate Spanish I

Prerequisite: SPAN 1600 or 1403, or the equivalent.

SPAN-2302 Intermediate Spanish II

Prerequisite: SPAN 2301 or the equivalent.

UPPER DIVISION**SPAN-3301 Advanced Grammar**

Intensive review of Spanish grammar, practical application through written and oral exercises, and through reading of appropriate text materials.

Prerequisite: SPAN 2302 or the equivalent.

SPAN-3302 Advanced Composition and Conversation

Emphasis on study of style and vocabulary. Written and oral reports in Spanish.

Prerequisite: SPAN 2302 or the equivalent.

SPAN-3303 Spanish Phonetics and Phonology

An introduction to Spanish phonetics and phonology involving both theoretical bases and practical applications.

Prerequisite: SPAN 3301 or the equivalent, or consent of instructor.

SPAN-3311 Spanish Civilization

A survey of the social, political, and culture history of Spain.

Prerequisite: SPAN 2302 or the equivalent, or consent of instructor.

SPAN-3312 Latin American Civilization

A topical approach to the study of the area of Latin America, with readings and lectures on people and landscape, races, revolution, and reform, and expression through art.

Prerequisite: SPAN 2303 or the equivalent, or consent of instructor.

SPAN-3321 Spanish Cinema

An examination of a variety of Spanish films from 1960 to the present with a focus on their artistic qualities, the history of Spanish cinema, and the depictions of Spanish culture and literature in the films.

Prerequisite: SPAN 2302 or the equivalent, or consent of instructor.

SPAN-3322 Spanish American Cinema

An examination of a variety of Spanish American films with a focus on their artistic qualities, the history of Spanish American cinema, and the depictions of Spanish American culture and literature in the films.

Prerequisite: SPAN 2302 or the equivalent, or consent of instructor.

SPAN-3330 Introduction to Spanish Literature to 1700

An examination of major literary movements, authors, and works of Spanish Peninsular literature from the Middle Ages to 1700.

Prerequisite: 3 upper-division hours in Spanish or consent of instructor.

SPAN-3331 Introduction to Spanish Literature since 1700

An examination of major literary movements, authors and works of Spanish Peninsular literature from 1700 to the present.

Prerequisite: 3 upper-division hours in Spanish or consent of instructor.

SPAN-3332 Introduction to Spanish American Literature

An examination of major literary movements, authors and works of Spanish American literature from 1492 to the present.

Prerequisite: SPAN 3301, 3302, or consent of instructor.

SPAN-3346 La economía española y la Unión Europea (The Spanish Economy and the European Union)

An examination of Spain's economic development and its position within the European Union. The business, economic, and political transformation of Spain from a struggling nation with an authoritarian regime to an economic power with an open and democratic society are studied. The course also examines the development of European Union, with a special focus on its influence on the Spanish business environment. The experiential component of the course includes visits to businesses, government agencies, and NGO's in Spain. (Also listed as BUSN 3346, ECON 3346, and LAC 3346.)

Prerequisites: ECON 1311, three additional hours in business or economics, SPAN 2302 or the equivalent, and consent of the instructor.

SPAN-3371 Introduction to Romance Linguistics

A study of the science of language as it applies to those tongues having their origin in spoken Latin, principally French, Italian, Portuguese, Rumanian, and Spanish. Attention will be given both to historical developments and to the current situations of such languages. (Also listed as CLAS 3371, FREN 3371, and ITAL 3371.)

Prerequisite: two years or the equivalent of Latin, Ancient Greek, or a Romance language.

SPAN-3372 Practica profesional en España (Internship in Spain)

A supervised summer internship in Spain. Students enrolled in SPAN 3372 will serve as interns with various firms, trade groups, governmental agencies, or public interest groups where they will work and gain experience related to the Spanish economy and business world. The nature of the student's responsibilities will vary with the internship involved and be subject to the approval of the supervising faculty member. (Also listed as BUSN 3372, ECON 3372, and LAC 3372).

Prerequisites: ECON 1311, three additional hours in business or economics, SPAN 2302 or the equivalent, and consent of instructor.

SPAN-3-91 Special Topics

Special study in fields not covered by other courses. Variations in credit according to work performed, from 1-6 hours. May be repeated, provided that topics vary.

Prerequisite: SPAN 2302 or the equivalent, or consent of instructor.

SPAN-3398 Honors Reading

Independent study in selected areas in preparation for Honors Thesis.

Prerequisite: admission to Honors Program.

SPAN-4331 Medieval Spanish Literature

A study of the masterpieces of medieval Spanish literature up to 1500.

Prerequisite: SPAN 3330 or SPAN 3331 or consent of instructor.

SPAN-4332 Spanish Golden Age Drama

A study of major works of Spanish Golden Age drama.

Prerequisite: SPAN 3330 or SPAN 3331 or consent of instructor.

SPAN-4333 Don Quijote

A study of Cervantes's *Don Quijote de la Mancha* in its literary and historical context from a variety of critical perspectives. In addition to the novel itself, the course will include considerable study of secondary sources.

Prerequisite: SPAN 3330 or SPAN 3331 or consent of instructor.

SPAN-4334 Nineteenth-Century Spanish Literature

A study of important works of Spanish Romanticism and Realism from a variety of perspectives. Authors studied include Espronceda, Zorrilla, Larra, Perez Galdos, Pardo Bazan, and Becquer.

Prerequisite: SPAN 3330 or SPAN 3331 or consent of instructor.

SPAN-4335 Hispanic Modernism

A study of major authors and works of hispanic modernism and the Generation of '98.

Prerequisite: SPAN 3330 or SPAN 3331 or consent of instructor.

SPAN-4336 Twentieth-Century Spanish Literature

A study of important works of Spanish literature of the twentieth century.

Prerequisite: SPAN 3331 or the equivalent, or consent of instructor.

SPAN-4338 Spanish Women Writers

A study of important works by Spanish women authors with emphasis on the place of these texts in the larger Spanish literary tradition.

Prerequisite: SPAN 3331 or the equivalent, or consent of instructor.

SPAN-4342 Spanish American Literature before Modernism

A study of works from the Colonial and Postcolonial period to Modernism from a literary, historical and cultural perspective. The focus of this course will be the transition from the colonial period to the formation of national identities.

Prerequisite: SPAN 3332 or the equivalent, or consent of instructor.

SPAN-4343 Twentieth-Century Spanish American Poetry

A study of important works of major poets of the twentieth century from Modernismo and Vanguardismo to the end of the century.

Prerequisite: SPAN 3332 or the equivalent, or consent of instructor.

SPAN-4344 Twentieth-Century Spanish American Novel

A study of important works of novelists of the latter half of the twentieth century.

Prerequisite: SPAN 3332 or the equivalent, or consent of instructor.

SPAN-4345 Twentieth-Century Spanish American Short Story

A study of the important works of major short story writers of the twentieth century.

Prerequisite: SPAN 3332 or the equivalent, or consent of instructor.

SPAN-4346 Twentieth-Century Spanish American Drama

A study of important works of Spanish American drama of the twentieth century.

Prerequisite: SPAN 3332 or the equivalent, or consent of instructor.

SPAN-4347 National and Regional Literature of Spanish America

A study of works from specific nations or regions of Spanish America.

SPAN-4348 Spanish American Women Writers

A study of important works by Spanish American women authors with emphasis on the place of these texts in the larger Spanish American literary tradition.

Prerequisite: SPAN 3332 or the equivalent, or consent of instructor.

SPAN-4349 Sexualities in Literature and Film

A study of contemporary literary and cinematographic works by authors focused on issues of gender and sexuality. This course will be taught in Spanish.

Prerequisites: SPAN 3331 and 3332 or the equivalent, or consent of instructor.

SPAN-4350 History of the Spanish Language

An examination of the development of modern Spanish out of spoken Latin. Emphasis will be placed both on external developments and their linguistic consequences, and on internal change affecting the tongue.

Prerequisite: SPAN 3301 or the equivalent, or consent of instructor.

SPAN-4351 Transnational Mexican Popular Culture

A study of important Mexican popular cultural productions (literature, film, music, television programs) from the 1930's (Post Revolutionary period) to the present through a transnational approach. This course is taught in Spanish.

Prerequisites: SPAN 3332 or the equivalent, or consent of instructor.

SPAN-4-90 Reading and Conference

Individual work under faculty supervision in areas not covered by other courses.

Prerequisites: 6 upper-division hours in Spanish and approval of Department Chair.

SPAN-4-91 Special Topics

Special study in fields not covered by other courses. Variations in credit according to work performed, from 1-6 hours.

Prerequisites: 6 upper-division hours in Spanish.

SPAN-4-97 Internship

Supervised off-campus experience in Spanish appropriate to the students' abilities and interests. Includes periodic on-campus meetings with instructor to integrate internship experience with study of Spanish

language and culture. Up to 3 hours credit. Pass/Fail.

Prerequisites: approval of instructor and major advisor.

SPAN-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors thesis. To be taken only by senior Honor students in both semesters of their Senior year.

Music

FACULTY

BRIAN BONDARI, D.M.A., Assistant Professor
KENNETH GREENE, D.M.A., Professor
DAVID A. HELLER, D.M.A., Professor; Chair
CARL LEAFSTEDT, Ph.D., Associate Professor
CHIA-WEI LEE, D.M.A., Associate Professor
LINDA McNEIL, D.M.A., Associate Professor
KIMBERLYN MONTFORD, Ph.D., Associate Professor
DIANE CUMMINGS PERSELLIN, Ed.D., Professor
GARY B. SEIGHMAN, D.M.A., Assistant Professor
CAROLYN E. TRUE, D.M.A., Professor
JAMES V. WORMAN, Ph.D., Associate Professor

OVERVIEW

DEGREE AND DEGREE PLANS

Two degrees are offered in the field of music: Bachelor of Arts and Bachelor of Music. The degree Bachelor of Arts offers a broad and comprehensive course of study in the liberal arts. The degree Bachelor of Music offers a plan of specialization and the opportunity of attaining a high level of accomplishment with majors in performance, composition, or a five-year music education program.

A student is admitted to candidacy for the degree of Bachelor of Music or Bachelor of Arts with a major in music only upon the approval of the Department of Music. Each student, with the aid of his/her adviser, will establish a degree plan best suited to his/her own abilities and ambitions in music. Each student's degree plan must be reviewed by his/her adviser and approved by the Department of Music and the registrar by the end of the sophomore year. At this time, the student must make formal application to continue studies toward a degree in music. The sophomore year performance jury will determine upper division status and eligibility for the Bachelor of Music degree.

Requirements for All-Level Music Teacher Certification include the Bachelor of Music degree in Choral, Elementary, or Instrumental Music, and a summer and fifth year internship program, culminating in the Master of Arts in Teaching degree. Music Education students must successfully complete proficiency examinations in keyboard, vocal, and secondary instruments before being assigned to internships.

REQUIREMENTS

THE DEGREE—BACHELOR OF ARTS

The requirements for the degree Bachelor of Arts with a major in music are as follows:

- I. The common curriculum
- II. Departmental requirements:

A minimum of 42 semester hours in music including: 1000 (7 semesters), 1103, 1104, 1113, 1114, 1203, 1204; 2103, 2104, 2113, 2114, 2203, 2204; 3223, 3341, 3342, 12 credits of Applied Music in one area (8 of which must be at the level of 32-- or above), and 6 credits of large ensemble.

- III. Electives sufficient to achieve 60 hours outside the Department (including the common

curriculum), and a total of 124 semester hours.

THE DEGREE—BACHELOR OF MUSIC, MAJOR IN PERFORMANCE

I. The common curriculum

II. Departmental requirements:

A minimum of 81 semester hours in music including: 1000 (7 semesters), 1103, 1104, 1113, 1114, 1203, 1204; 2103, 2104, 2113, 2114, 2203, 2204; 3121, 3223, 3301, 3302, 3341, 3342, 4221, 4301, 4321, 4322, 22 credits of applied music in one area (18 of which must be at the level of 33-- or above), 8 credits of large ensemble, and 9 semester hours electives from upper division music courses.

III. Electives sufficient to achieve 60 hours outside the Department (including the common curriculum) and a total of 141 semester hours.

THE DEGREE—BACHELOR OF MUSIC, MAJOR IN COMPOSITION

I. The common curriculum

II. Departmental requirements:

A minimum of 81 semester hours in music including: 1000 (7 semesters), 1103, 1104, 1113, 1114, 1203, 1204; 2103, 2104, 2113, 2114, 2203, 2204; 3121, 3223, 3301, 3302, 3303, 3304, 3305, 3341, 3342, 4301, 4302, 4303, 14 credits of applied music in one area (10 of which must be at the level of 32-- or above), 8 credits of large ensemble, and 10 semester hours elective from upper division music courses.

III. Electives sufficient to achieve 60 hours outside the Department (including the common curriculum) and a total of 141 semester hours.

THE DEGREE—BACHELOR OF MUSIC (PRE-CERTIFICATION), EMPHASIS ON EITHER CHORAL, INSTRUMENTAL, OR ELEMENTARY MUSIC

A four-year program leading to All-Level Teacher Certification upon completion of the degree, Master of Arts in Teaching (fifth year).

I. The common curriculum

II. Departmental requirements:

Choral emphasis:

A minimum of 72 semester hours in music including: 1000 (7 semesters), 1103, 1104, 1113, 1114, 1203, 1204; 2103, 2104, 2113, 2114, 2203, 2204; 3121, 3223, 3225, 3341, 3342, 4301, 18 credits of applied music in one area (14 of which must be at the level of 22-- or above) and 4 credits of applied music in a secondary area, 8 credits of large ensemble, 1161, 3162, 4321, 4361, 4363, and 1 credit of music electives. In addition, 7 semester hours in Education are required, consisting of EDUC 3320 and EDUC 2204 and 2205.

Instrumental emphasis:

A minimum of 72 semester hours in music including: 1000 (7 semesters), 1103, 1104, 1113, 1114, 1203, 1204; 2103, 2104, 2113, 2114, 2203, 2204; 3121, 3223, 3224, 3341, 3342, 4301, 18 credits of applied music in one area (14 of which must be at the level of 22-- or above), 1122 (or 1 credit of applied music in a secondary area), 8 credits of large ensemble, 1161, 2161, 2162, 2163, 2164, 4264, 4361, 4362, and 2 credits of music electives. In addition, 7 semester hours in Education are required, consisting of EDUC 3320 and EDUC 2204 and 2205.

Elementary emphasis:

A minimum of 72 semester hours in music including: 1000 (7 semesters), 1103, 1104, 1113, 1114, 1203, 1204; 2103, 2104, 2113, 2114, 2203, 2204; 3121, 3223, 3224 or 3225, 3341, 3342, 4301, 18 credits of applied music in one area (14 of which must be at the level of 22-- or above) and 4 credits of applied music in a secondary area, 8 credits of large ensemble, 1161, 3162, 4321, 4361, 4364, and 1 credit of music electives. In addition, 7 semester hours in Education are required, consisting of EDUC 3320 and EDUC 2204 and 2205.

- III. Electives sufficient to achieve 60 hours outside the Department (including the common curriculum and credits in Education) and a total of 132 semester hours. CSCI 1300 is also required.
- IV. All-Level Certification requirements may be met by completing a summer session and a fifth year program of studies leading to the Master of Arts in Teaching degree. A minimum of 30 semester hours in Education are required, including EDUC 5339, 5349, 5350, 5351, 5646, 5647, 5948.

MINOR IN MUSIC

This course of study is designed for the student who wishes to continue an emphasis in music to complement a major in another area. A minor in music requires a minimum of 26 hours including: 1000 (4 semesters), 1103, 1104, 1113, 1114, 1203, 1204; 3341, 3342, 8 credits of applied music in one area (4 of which must be at the level of 22-- or above), and 4 credits of large ensemble.

MUSIC INDIVIDUAL INSTRUCTION COURSES

Individual instruction is provided as follows:

- I. One half-hour lesson per week for a semester earns 1 credit hour.
- II. One three-quarter hour lesson per week for a semester earns 2 credit hours.
- III. One hour lesson per week for a semester earns 3 credit hours.

Piano and organ practice rooms are provided without additional charge to full-time students taking private lessons.

Individual instruction in voice, piano, organ, harpsichord, and orchestral instruments is required for all majors and minors in music, and is available as elective study for other students. Placement in individual instruction courses is determined by audition interview. Enrollment is subject to faculty availability, as determined by the Chair; preference is given to music majors and minors. All students who enroll for private instruction in music will pay a special applied music fee of \$400.00 per semester.

All individual instruction students will attend group performance classes as scheduled by the instructor, in addition to the individual lessons.

Individual instruction courses are designated with the prefix MUSI and a four-digit course number. As usual, the first digit indicates the level and the second digit indicates the credit hours for the course. The third and fourth digits indicate the instrument, as shown below, and also indicate whether the course is for majors and minors or for non-majors and non-minors. The first pair of numbers in each instrument sequence indicates courses for majors and minors, while the second pair in each sequence indicates courses for non-majors and non-minors. Thus, for example, MUSI 2200 indicates a second year level, two credit hour individual instruction course in voice for music majors/minors, while MUSI 2102 indicates a second year level, one credit hour individual instruction course in voice for non-majors/non-minors.

Voice	-00-03
Piano	-04-07
Guitar	-08-11
Organ	-12-15

Clarinet	-16-19
Saxophone	-20-23
Flute	-24-27
Oboe	-28-31
Bassoon	-32-35
Trumpet	-36-39
Trombone	-40-43
French Horn	-44-47
Euphonium	-48-51
Tuba	-52-55
Violin	-56-59
Viola	-60-63
Cello	-64-67
Double Bass	-68-71
Harpichord	-72-75
Harp	-76-79
Percussion	-80-83

DEPARTMENT OF MUSIC TUITION

Within the framework of a strong liberal arts curriculum, Trinity University provides an outstanding Department of Music. In addition to those students seeking a Bachelor of Music degree, many students apply offerings in the Department of Music toward the Bachelor of Arts degree.

Private instruction in piano, voice, organ, harpsichord, or orchestral instruments is required for all full-time students who major or minor in music and is available as elective study for all other students. Enrollment in applied music is contingent upon the availability of instructional time as determined by the chair. All students who enroll for private instruction in music will pay a special applied music fee of \$400.00 per semester.

Approval for private instruction will be given by the chair of the Department of Music when time is available and in the following order of preference:

COURSES

MUSIC ENSEMBLES

MUSE-1185 Trinity Choir

The Trinity Choir, a select group of singers, is open to all students by audition at the opening of each semester. In addition to an annual concert tour, the Choir performs in concerts on campus and in the San Antonio area. The music performed by the Choir includes the finest accompanied and a cappella choir music of all periods, both sacred and secular. Open to all students by audition.

MUSE-1186 Voix d'Esprit

Voix d'Esprit is Trinity's premiere all-female vocal ensemble. Open to all women by audition, this ensemble explores the vast breadth of music written to display the beauty and power of the female voice. They remain active in supporting a variety of women's issues on campus and throughout the San Antonio community through service learning. In addition, Voix d'Esprit performs at all of the main musical events on campus, including the fall and spring choral concerts, the highly popular Christmas concert and Vespers Service, and a major choral-orchestral masterwork with the Choral Union.

MUSE-1187 Chamber Singers

The Chamber Singers is a group that performs music of a more highly specialized nature than that performed by the other choral organizations. Frequent performances are given at campus and civic functions throughout the year. Open to all students by audition.

MUSE-1188 Men's Glee Club

The Men's Glee Club is the premiere male chorus at Trinity University. Open to all male students, this ensemble performs a wide variety of repertoire including classical, folksongs, spirituals, and popular arrangements. With a focus on camaraderie and musical excellence, the Men's Glee Club gives regular campus and community performances throughout the school year. They also perform annually with the combined choirs for the Christmas concert, Vespers Service, and Spring Choral Union Masterwork.

MUSE-1189 Trinity Symphony Orchestra

A full orchestra, open to all qualified string, wind, and percussion students by audition. Standard orchestral literature, guest soloists, accompaniment of choral and dramatic productions. Performs on and off campus. Open to all students by audition.

MUSE-1190 Symphonic Wind Ensemble

A select ensemble open by audition to all instrumental students at Trinity University. The Wind Symphony plays selected music from the band repertoire and a wide variety of music for various sizes of wind ensembles. The Wind Symphony performs both on and off campus. Open to all students by audition.

MUSE-1191 Jazz Ensemble

The Jazz Ensembles perform both contemporary and traditional jazz. The ensembles play both on and off campus. Open to all students by audition.

MUSE-1192 Trinity University Handbell Ensemble

The Trinity University Handbell Ensemble studies the technique of English handbell ringing and performs literature composed and arranged for this medium. Open to all students by audition.

MUSE-1193 Chamber Music Ensembles

Ensembles of string, wind, percussion, and/or keyboard instruments (with and without voices) meeting to read and rehearse, giving performances as accomplishment is attained. Open to all students by audition.

MUSE-1194 Piano Ensemble

The preparation and performance under piano faculty supervision of the music literature involving a pianist with another performer, e.g., music for one piano-four hands or for two or more pianos. Improvement of the pianist's sight reading skills is stressed.

MUSE-1195 Opera Workshop

A course in which the principles and techniques involved in musical stage production are applied and result in public performances. Open to all students by audition.

MUSE-1196 Collegium Musicum

A performance course in musics of all eras. Early musical instruments will be used when possible and investigations into the performance practices of the time will be undertaken. Open to all students by

audition.

MUSE-1197 Accompanying and Chamber Music for Pianists

The study of the skills of accompanying and chamber music. The preparation and performance under piano faculty supervision of the music literature involving a pianist with another performer, e.g., piano in combination with strings, wind, organ, percussion, and/or voice. Open to all students by audition. 1 hour credit.

Prerequisites: Consent of instructor

MUSIC COURSES

Theory/Composition

MUSC-1103 Aural Skills 1

This course will focus on developing aural recognition of the basic elements of music, e.g., intervals, chords, and rhythm, through a variety of exercises in music dictation and sight singing.

Prerequisite: MUSC 1301 or placement exam.

Corequisites: MUSC 1203 and 1113 or consent of Instructor.

MUSC-1104 Aural Skills II

A continuation of MUSC 1103. This course will continue to focus on developing aural recognition of the basic elements of diatonic music through a variety of exercises in music dictation and sight singing.

Prerequisite: MUSC 1103 or consent of instructor.

Corequisites: MUSC 1204 and 1114 or consent of instructor.

MUSC-1113 Keyboard Skills 1

This course will develop basic skills in playing the keyboard that reinforce the topic presented in MUSC 1203. A variety of exercises will cover scales, chords, and progressions.

Prerequisite: MUSC 1301 or placement exam.

Corequisites: MUSC 1203 and 1103 or consent of instructor.

MUSC-1114 Keyboard Skills II

A continuation of MUSC 1113. This course will develop basic skills in playing the keyboard that reinforce the topics presented in MUSC 1204. A variety of exercises will cover scales, chords, and progressions.

Prerequisite: MUSC 1113 or consent of instructor.

Corequisites: MUSC 1204 and 1104 or consent of instructor.

MUSC-1203 Music Theory I

Foundations for a study of music theory and Literature. This course will include a study of the elements and forms of music, e.g., melody, harmony, and rhythm, through a variety of analytical tools that include notation.

Prerequisite: MUSC 1301 or placement exam.

Corequisites: MUSC 1103 and MUSC 1113 or consent of instructor.

MUSC-1204 Music Theory II

A continuation of MUSC 1203. Foundations for a study of music theory and literature. This course will include a study of the elements and forms of music, e.g., melody, harmony, and rhythm, through a variety of analytical tools that include notation.

Prerequisite: MUSC 1203 or consent of instructor.

Corequisites: MUSC 1104 and MUSC 1114 or consent of instructor.

MUSC-1301 Foundations of Communication Through Music

Designed for students with little or no background in music theory, this course is an introduction to the rhythmic, melodic, and harmonic rudiments used for communication through music in Western Europe and the New World. Correlated materials in reading notation, ear-training, keyboard harmony, and original compositions are included.

MUSC-1302 Class Composition

An introduction to composition with emphasis on creativity and basic craftsmanship. The course will include studies of selected compositions and compositional problems, and the creation of individual short works.

Prerequisite: MUSC 1301 or consent of instructor.

MUSC-2103 Aural Skills III

A continuation of MUSC 1104. This course will focus on developing aural recognition of the elements of music in diatonic and chromatic harmony through a variety of exercises in music dictation and sight singing.

Prerequisite: MUSC 1104 or consent of instructor.

Corequisites: MUSC 2203 and 2113 or consent of instructor.

MUSC-2104 Aural Skills IV

A continuation of MUSC 2103. This course will focus on developing aural recognition of the elements of music in diatonic, chromatic, modal, and tonal harmony through a variety of exercises in music dictation and sight singing.

Prerequisite: MUSC 2103 or consent of instructor.

Corequisites: MUSC 2204 and 2114 or consent of instructor.

MUSC-2113 Keyboard Skills III

A continuation of MUSC 1114. This course will develop basic skills in playing the keyboard that reinforce the topics presented in MUSC 2203. A variety of exercises will cover scales, chords, progressions, and score reading.

Prerequisite: MUSC 1114 or consent of instructor.

Corequisites: MUSC 2203 and 2103 or consent of instructor.

MUSC-2114 Keyboard Skills IV

A continuation of MUSC 2113. This course will develop basic skills in playing the keyboard that reinforce the topics presented in MUSC 2204. A variety of exercises will cover scales, chords, progressions, and score reading.

Prerequisites: MUSC 2113 or consent of instructor.

Corequisites: MUSC 2204 and 2104 or consent of instructor.

MUSC-2203 Music Theory III

A continuation of MUSC 1204. This course will focus on the trends of chromaticism in the nineteenth century Western music. Continued study of melody, harmony, rhythm, and analysis.

Prerequisite: MUSC 1204 or consent of instructor.

Corequisites: MUSC 2103 and 2113 or consent of instructor.

MUSC-2204 Music Theory IV

A continuation of MUSC 2203. This course will focus on trends of chromaticism in the nineteenth century Western music and uses of tonal and atonal materials in the twentieth century. Continued study of melody, harmony, rhythm, and analysis.

Prerequisite: MUSC 2203 or consent of instructor.

Corequisite: MUSC 2104 and 2114 or consent of instructor.

MUSC-3301 Forms and Analysis

An in-depth study of structures and harmonic designs of various genres in Western music from the 17th through the 20th centuries. Emphasis will be placed on the development of analytical skills.

Prerequisite: MUSC 2204.

MUSC-3302 Counterpoint

A historical approach to contrapuntal techniques from Palestrina to the 20th century with special emphasis on the polyphonic works of J.S. Bach. Analysis based on an aural and visual acquaintance with contrapuntal music as well as practice in writing contrapuntal examples.

Prerequisite: MUSC 2204.

MUSC-3303, 3304 Composition

Composition in short forms for voice and solo instruments. 3 class hours a week for 2 semesters.

Prerequisites: MUSC 2204 and consent of instructor.

MUSC-3305 Electronic Music

Instruction in the principles of electro-acoustic music, including analog and digital synthesis, sound modulation, and sound reproduction; the production of individual and group compositions; discussion of related contextual problems and a survey of recent electronic music.

MUSC-4301 Orchestration and Arranging

A study of the families of instruments and voices, including their ranges, individual colors, special devices, and methods of scoring for small and large combinations. Also, an introduction to stylistic developments in large ensemble writing from Haydn to present. Activities include score analysis, listening, and scoring and arranging exercises using selected works as models.

Prerequisite: MUSC 2204.

MUSC-4302, 4203 Composition

A continuation of MUSC 3303, 3304. Composition in larger forms and for larger aggregations of voices and instruments. 3 class hours a week for 2 semesters.

Prerequisites: MUSC 3304 and consent of instructor.

MUSC-4-11, 4-12, 4-13, 4-14 Composition

Guidance in solution of creative and practical problems attending the composition of one or more vocal, instrumental, or music-dramatic works. Discussion of works in progress as related to classical principles and contemporary practices. 1 to 6 semester hours.

Prerequisite: consent of instructor.

Applied Music**MUSC-1000 Performance Laboratory**

Attendance at 10 designated musical events each semester is required of all students pursuing courses toward the completion of a major (7 semester) or minor (4 semesters) in music.

MUSC-1121 Beginning Class Voice I

A study of the fundamentals of vocal production with lessons including breath control, posture, diction, tonal concepts and phrasing. In addition, aspects of music notation and reading will be addressed. Techniques covered in class are applied to the performance of basic solos and vocal functions in choral situations. This course does not satisfy the Class Voice requirement as stated in the Instrumental Music Education (pre-certification) curriculum.

MUSC-1122 Beginning Class Voice II

This course is a continuation of MUSC 1121, with a particular emphasis on aspects of vocal production related to the preparation and performance of ensemble voices in an educational setting. This course satisfies the Class Voice requirement as stated in the Instructional Music Education (pre-certification) curriculum.

Prerequisite: MUSC 1121 or consent of instructor.

MUSC-1123 Beginning Class Piano I

A study of the rudiments of piano performance designed for elementary education majors and other students who have had no previous piano study. Competency in reading music, ensemble playing, and solo repertory are stressed.

MUSC-1124 Beginning Class Piano II

A continuation of the studies initiated in 1123 along with the introduction of harmonization of short melodies and transpositions. Spring.

Prerequisite: MUSC 1123 or consent of instructor.

MUSC-1125 Beginning Class Guitar I

A study of the rudiments of guitar performance designed for education majors and other students who have no previous guitar study. Competency in reading music, ensemble playing, and solo repertory is stressed.

MUSC-1126 Beginning Class Guitar II

A continuation of the studies initiated in 1125. The rudiments of reading, ensemble playing, and solo repertory in guitar performance are presented in greater depth.

Prerequisite: MUSC 1125 or consent of instructor.

MUSC-2221 Repertoire Development

The selection, study, and performance of music appropriate to the student's voice or instrument in preparation for recital and public performance. May be repeated up to a total of four hours credit.

Prerequisite: consent of instructor.

MUSC-3121 Half Recital

One half of a shared program presented in public usually during the junior or senior year. Required of all Bachelor of Music candidates. Composition students will present original works but not necessarily perform them.

Prerequisite: applied music level of 33--.

MUSC-3221 Diction for Singers I

A study of Italian, German, French, and English diction as used in vocal performance, emphasizing preparation of selected literature.

Prerequisite: MUSC 1201.

MUSC-3222 Diction for Singers II

A study of Italian, German, French, and English dictation as used in vocal performance, emphasizing preparation of selected literature.

Prerequisites: MUSC 3221.

MUSC-3223 Basic Conducting

Fundamentals of score reading, baton technique and expressive gestures, and principles of score interpretation applied to selected examples of instrumental and choral literature.

Prerequisite: MUSC 2204 or consent of instructor.

MUSC-3224 Advanced Instrumental Conducting

As a continuation of MUSC 3223, areas of score study, form and analysis asymmetric meters, expressive interpretation, and advanced conducting gestures will be explored in the context of the instrumental music repertoire.

Prerequisite: MUSC 3223.

MUSC-3225 Advanced Choral Conducting

As a continuation of MUSC 3223, areas of score study, form and analysis, asymmetric meters, expressive interpretation, and advanced conducting gestures will be explored in the context of the choral music repertoire.

Prerequisite: MUSC 3223.

MUSC-4221 Full Recital

A full program presented in public usually during the senior year. Required for all Bachelor of Music students in performance.

Prerequisite: applied music level of 43--.

MUSC-4321 Applied Music Pedagogy

Theories and techniques of individual music instruction applied to the teaching of performance skills on voice, keyboard or orchestral instruments. Student teaching is supervised by the instructor. May be repeated for credit in applied fields.

Prerequisite: consent of instructor.

MUSC-4322 Applied Music Literature

Principal composers, styles and types of performance skills on voice, keyboard or orchestral instruments. May be repeated for credit in different applied fields.

Prerequisite: consent of instructor.

History/Literature**MUSC-1340 Introduction to Music History**

An introduction to the history, styles, genres, and forms of the Western art music tradition from the Middle Ages to the twentieth century. Important composers discussed include Bach, Beethoven, Stravinsky, and Tchaikovsky. Topics include the symphony, opera, sacred music, and the avant garde. Previous musical experience is not necessary, but students will be expected to develop discriminating listening skills to enhance their understanding and appreciation of the material.

MUSC-1341 Operas of Verdi and Wagner

A study of the life and works of two composers whose works epitomize the stylistic trends of the nineteenth-century opera. Introduces basic concepts and conventions of the art form, while exploring and contrasting their unique contributions to the genre and their influence on succeeding generations of operatic composers. Examines the dramatic experience as a result of the nationalist, philosophical, and cultural traditions from which each composer took inspiration, through such works as *Otello*, *La Traviata*, *Tristan and Isolde*, and *Die Walkure*. Previous musical experience is not necessary, but students will be expected to develop discriminating listening skills to enhance their understanding and appreciation of the material.

MUSC-1343 Introduction to Opera

A study of opera through an examination of selected works, beginning in the seventeenth century and continuing through the present. Introduces the basic concepts and conventions of the art form, while investigating the dramatic, musical, and literary qualities that make opera such an emotionally powerful theatrical experience. Explores such operas as *The Magic Flute*, *Carmen*, and *Wozzeck*, as well as stagecraft, musical symbolism, and the production design. Previous musical experience is not necessary, but students will be expected to develop discriminating listening skills to enhance their understanding and appreciation of the material.

MUSC-1345 Women and Music

A historical, sociological, and artistic study of the contributions of women to the history of music in the western world from the ninth century to the present. Ability to read music is helpful.

Prerequisite: MUSC 1301, 1340, or consent of instructor.

MUSC-1346 Jazz History and Styles

A study of the origins, evolution, and emergence of jazz as one of America's significant contributions to world music. The course will emphasize studies of representative works illustrating principal styles in the

development of jazz as an accepted form of musical expression in American culture.

MUSC-1349 African American Music

A survey of the African American influences on the musical heritage of the United States. Emphasis will be given to the relation of musical style and performance to changing cultural, philosophical, and technological conditions. Popular music styles as well as art music by African American composers will be discussed. Previous musical experience is not necessary, but students will be expected to develop discriminating listening skills to enhance their understanding and appreciation of the material.

MUSC-1351 Music Cultures of the World

This course explores the music of various cultures around the world. Using the case study approach, students will learn about the music and sociology of selected regions that may include West Africa, Asia, India, and the American Southwest. Students will undertake fieldwork in San Antonio to gain practical experience in ethnomusicological fieldwork. This is an introductory course appropriate for non-majors as well as music students. No prior musical experience is required, but students without musical backgrounds must learn a vocabulary of terms for describing musical sound.

MUSC-2301 American Musical Theater

Studies of the source materials, stage and film adaptations, and integration of musical and dramatic elements that led to the development of the Broadway musical as an American tradition.

MUSC-2340 Creative Thinking and the Artistic Process

This course encourages students to synthesize a theoretical and experimental approach to the creative process as studied through the visual arts, music, creative writing, and theatre. Students enter into the creative process as a means to develop creative self-expression, aesthetic sensibility, and an understanding of the arts. The nature and drive of artistic endeavor is explored through studies of the lives of significant thinkers and artists, examinations of art works, guest lectures, and projects. Students will engage in activities and projects that will enable them to access and develop their own creative thinking skills in concert with traditional, analytic modes. (Also listed as ART 2314, ENGL 2340, GNED 2340, and THTR 2340.)

MUSC-3341 Music History I: Ancient Greece to Mozart

A survey of music in the Western art music tradition, beginning with ancient Greece and continuing through the music of the late eighteenth century. Important composers covered include Bach, Handel, Vivaldi, Monteverdi, Palestrina, Josquin, Haydn, and Mozart. Although designed as Part I of a two-semester history sequence, this course may be taken independently. (Also listed as GRST 3350.)

Prerequisite: MUSC 1204 or consent of instructor.

MUSC-3342 Music History II: Beethoven to the Present

A survey of important figures and developments in Western art music from the late Classical era through the present, beginning with the music of the late eighteenth century, continuing with Beethoven, Berlioz, Schubert, and other nineteenth-century composers, and concluding with a sustained overview of the modern era from Mahler to Ligeti. Although designed as a continuation of Music History I, this course may be taken independently. (Also listed as GRST 3342.)

Prerequisite: MUSC 1204 or consent of instructor.

MUSC-3344 Twentieth-Century Music

A stylistic study of major composers and compositional trends in music of the Twentieth Century.

Prerequisite: MUSC 1340 or consent of instructor.

MUSC-3346 Survey of Symphonic Literature

Study of symphonic literature of 18th-20th centuries with reference to style, structure and instrumental techniques involved in representative compositions of major composers.

Prerequisite: Consent of instructor.

MUSC-3347 The Art Song

A historical survey of the development of the Art Song by nationality as well as stylistic periods from the 17th century to the present. Ability to read music helpful.

Prerequisite: MUSC 1301, 1340, or consent of instructor.

MUSC-3349 Music and Religion

An examination of the role of music in the worship practices of the major denominations of Judaism, Islam, and Christianity. Particular emphasis will be given to the historical development within each group of liturgical forms, important religious festivals, liturgical books and materials, and doctrinal issues related to gender, propriety of musical styles and practices, texts, and the use of instruments. The contributions of leading composers will be discussed.

Prerequisite: MUSC 1301 or 1203, or consent of instructor.

MUSC-3350 Mozart

Two centuries after his death, Wolfgang Amadeus Mozart remains one of the most compelling figures in the music history due to the extraordinary quality of the music he wrote and to the numerous legends which swirled about him from childhood onward. This course is a critical examination of Mozart's life and works. Using biographies, Mozart's own letters, and evidence in the music itself, we will explore how the image of a divinely-inspired child genius arose during his lifetime, and how that image continued to shape his reputation for later generations of listeners, including our own. (Also listed as GRST 3343.)

Prerequisite: MUSC 1204 or consent of instructor.

MUSC-3-90 Directed Studies

Individual study and research in areas not covered by other courses. 1 to 4 semester hours.

Prerequisites: 12 semester hours of music and approval of the Department Chair.

MUSC-3-91 Special Topics in Music

Special studies in areas not covered by other courses. May be taken more than once provided the topics vary. Maximum credit six hours.

Prerequisite: consent of instructor.

MUSC-3398 Honors Readings

Independent study in selected areas in preparation for Honors Thesis. May be taken for up to three hours of credit.

MUSC-4-90 Directed Studies

Individual study and research in areas not covered by other courses. 1 to 6 semester hours.

Prerequisites: 6 upper-division hours of Music and approval of the Department Chair.

MUSC-4391, 4394 Workshop or Seminar

Topics will vary depending on student interest. Titles that may recur are:

- A. Organ Literature
- B. Studies in Ornamentation.
- C. Performance Practice.
- D. Medieval and Renaissance Music.
- E. Curricular Developments in Secondary School Music.
- F. Piano Music of the Classical Period.
- G. Piano Music of the Romantic Period.
- H. 20th century Piano Music.
- I. Advanced Applied Music Pedagogy.

Prerequisites: consent of instructor and Department Chair.

MUSC-4398, 4399 Honors Thesis

Individual research and scholarly investigation under faculty supervision leading to the preparation of an Honors Thesis.

Prerequisite: senior standing.

Music Education**MUSC-1161 Introduction to Music in American Schools**

Objectives and procedures in learning and teaching music in the elementary and secondary schools through presentations and in school observations.

Prerequisites: MUSC 1301, 1203, or consent of instructor

MUSC-2161 Instrumental Fundamentals—Brass

A study of methods of teaching brass instruments. Through direct hands-on playing of instruments and a study of applicable method books, students will develop a fundamental knowledge and basic technique of each instrument in the brass section.

MUSC-2162 Instrumental Fundamentals-Percussion

A study of methods of teaching percussion instruments. Through direct hands-on playing of instruments and a study of applicable method books, students will develop a fundamental knowledge and basic technique of each instrument in the percussion section.

MUSC-2163 Instrumental Fundamentals-Strings

A study of methods of teaching string instruments. Through direct hands-on playing of instruments and a study of applicable method books, students will develop a fundamental knowledge and basic technique of each instrument in the string section.

MUSC-2164 Instrumental Fundamentals—Woodwinds

A study of methods of teaching woodwind instruments. Through direct hands-on playing of instruments and a study of applicable method books, students will develop a fundamental knowledge and basic technique of each instrument in the woodwind section.

MUSC-2361 Music in Childhood

A study of the instructional approaches suited to the cognitive, physical, and affective development of children in early and middle childhood. Students will acquire basic music skills and understandings in order to provide music experiences in the classroom.

MUSC-2362 Music in Early Childhood

Identifying, understanding, and guiding musical needs of young children. Methods and materials for program development for students seeking kindergarten endorsement or interested in teaching primary grades.

MUSC-3162 Instrumental Music Techniques

An overview of beginning orchestral and band experiences. Students will be introduced to the four families of instruments and will observe these instruments being taught in the middle schools.

Prerequisite: MUSC 1161.

MUSC-4264 Marching Band and Jazz Instrumental Practices

A study of the unique stylistic, pedagogical, and organizational demands relative to marching bands and jazz ensembles in the middle and secondary school setting. Students will develop an understanding of and personal approach to teaching and rehearsing these unique groups in the context of a music education philosophy.

Prerequisite: MUSC 2204.

MUSC-4361 Elementary Music Instructional Practices

Music programming, instruction, and organization of music in general music classes, kindergarten through eighth grade.

Prerequisite: MUSC 1161.

MUSC-4362 Secondary Instrumental Music Instructional Practices

A study of the organization, functions, materials, and instructional practices relative to instrumental music ensembles in the middle and secondary school setting. Students will develop an understanding of and personal approach to teaching and rehearsing music in the context of a music educational philosophy.

Prerequisites: MUSC 1161, 3223, and senior standing.

MUSC-4363 Secondary Choral Music Instructional Practices

A study of the organization, functions, materials, and instructional practices relative to choral music ensembles in the middle and secondary school setting. Students will develop an understanding of and personal approach to teaching and rehearsing music in the context of a music educational philosophy.

Prerequisites: MUSC 1161, 3223, and senior standing.

MUSC-4364 Elementary Music Methods and Materials

This course will deal with the European and American music education methods such as Orff Schulwerk, Kodaly, Dalcroze Eurhythmics, Comprehensive Musicianship, and Gordon. Music education technology, global music for children, and early childhood music education will also be addressed.

Prerequisite: MUSC 4361 and senior standing.

Neuroscience

FACULTY ADVISORY COMMITTEE

KWAN HON KELVIN CHENG, Ph.D., Williams Endowed Professor in Interdisciplinary Physics, Physics and Astronomy

LAURA HUNSINGER-WANG, Ph.D., Associate Professor, Chemistry

KIMBERLEY A. PHILLIPS, Ph.D., Professor, Psychology; Co-Director

JAMES L. ROBERTS, Ph.D., Ruth C. and Andrew G. Cowles Endowed Professor of Life Sciences, Biology; Co-Director

TYISHA WILLIAMS, Ph.D., Assistant Professor, Biology

CAROL YODER, Ph.D., Professor, Psychology

OVERVIEW

The Bachelor of Science in Neuroscience is a multi-disciplinary program designed to provide an understanding of the nature and functioning of the nervous system from the molecular to the behavioral level. Courses, taught by faculty from the Biology, Psychology, Chemistry, and Physics and Astronomy departments, offer a broad spectrum of topics and approaches to the study of neural systems, structure and function. The major offers an opportunity for students to engage in supervised research in neuroscience and related areas and provides valuable experience to students interested in pursuing careers in the health professions or graduate study. Double majors in neuroscience and biology are not permitted.

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Science with a major in neuroscience are as follows:

- I. The common curriculum
- II. Specific degree requirements (52-57 semester hours)
 - A. Core curriculum in neuroscience (8 hours):

NEUR 2310	Introduction to Neuroscience
NEUR 2110	Neuroscience Laboratory
NEUR 3457	Neurobiology
NEUR 4000	Neuroscience Seminar (four semesters)
 - B. Supporting courses in biology (9 hours):

BIOL 1311	Integrative Biology I
BIOL 1111	Introductory Biology Laboratory
BIOL 1312	Integrative Biology II
BIOL 1212	Methods for Biological Problem Solving
 - C. Supporting courses in chemistry (8 hours):

CHEM 1318	Chemistry in the Modern World
CHEM 1118	Introduction to Analytical Methods
CHEM 2319	Organic Chemistry
CHEM 2119	Laboratory Methods in Organic Chemistry

D. Supporting courses in psychology (11 hours):

PSYC 1300	Principles of Psychology
PSYC 2401	Statistics and Methods I
PSYC 2402	Statistics and Methods II

E. Four elective courses from the following set, two from each discipline* (13-14 hours):

BIOL 3420	Animal Behavior
BIOL 3451	Vertebrate Physiology
BIOL 3453	Developmental Biology
BIOL 3456	Cell Biology
BIOL -91	Selected Topics (3 hours, advisory approval required)
PSYC 3311	Sensation and Perception
PSYC 3331	Memory and Cognition
PSYC 3340	Psychopathology
PSYC 3360	Special Topics in Psychology (advisory approval required)
PSYC 4390	Senior Seminar in Psychology (advisory approval required)

F. Neuroscience Integrative Experience (3-6 hours). One course from the following:

NEUR 3360	Special Topics in Neuroscience
NEUR 4-90	Research in Neuroscience
PHYS 2311	An Introduction to Biophysics

III. Electives sufficient to total 124 semester hours.

GUIDELINES FOR ACCEPTANCE OF MAJORS

Full acceptance in the major is granted if the following requirements are met at the time of application:

- I. Completion of NEUR 2310/2110, BIOL 1311/1111, CHEM 1318/1118, and PSYC 2401 with a grade of C or better.
- II. An overall grade point average of at least 2.0.

HONORS PROGRAM

To be eligible for graduation with Honors in Neuroscience, students must earn a grade point average of at least 3.33 in all courses taken prior to the semester before graduation, a grade point average in neuroscience courses (core and supporting) of at least 3.50, and "A" in BIOL 4398 and 4399 or PSYC 4395 and 4396 (thesis research in Biology or Psychology).

To apply for graduation with Honors in Neuroscience, students should address a written request for consideration to the Faculty Advisory Committee. The request must be received no later than the first full week of the student's final semester before graduation. The decision to confer or not to confer Honors will be made by the Faculty Advisory Committee and the Research Supervisor and will be based on the quality of the written thesis and its oral presentation in a colloquium.

COURSES

NEUR-2310 Introduction to Neuroscience

A survey of basic neuroscience, starting with fundamentals of neuronal structures and ending with higher brain functions and their relations to mind and behavior. (Also listed as PSYC 2310).

Prerequisite: PSYC 1300.

NEUR-2110 Neuroscience Laboratory

The neuroscience laboratory provides students with a hands-on approach to understanding the scientific method through neuroscientific techniques and data analysis, including anatomical electrophysiological, and computer simulations. Students will engage in laboratory exercises as well as in solving problem sets. This course is appropriate for both non-majors and science majors Spring semester only. (Also listed as PSYC 2110.)

Prerequisite or corequisite: NEUR/PSYC 2310.

NEUR-3360 Special Topics in Neuroscience

A specialized course periodically offered in Neuroscience Program and participating departments (Biology, Chemistry, Physics and Astronomy, and Psychology). May be repeated for up to 6 hours of credit when topics vary.

Prerequisite: Consent of instructor.

NEUR-3457 Neurobiology

Neurobiology focuses on the organization and function of nervous tissues and systems. The course begins with an anatomical overview, followed by an examination of neural system function at the level of signaling and synaptic transmission, sensory systems, and central system integration and control. With this foundation, the course explores brain development and plasticity. 3 class hours and 3 laboratory hours a week for one semester. Additional hours are required to monitor experiments. (Also listed as BIOL 3457.)

Prerequisites: BIOL 1312, 1212, CHEM 2319, 2119, NEUR 2310, or consent of instructor.

Prerequisites or corequisites: NEUR 2110, PSYC 2402 or consent of instructor.

NEUR-4000 Neuroscience Seminar

This course is built around student presentations of independent research in neuroscience (NEUR 4390) and seminars from occasional external speakers. Neuroscience majors are required to register for this course each semester of their junior and senior years. The course is also open to other students interested in neuroscience.

NEUR-4-90 Research in Neuroscience

Independent empirical research arranged with a faculty member on problems in neuroscience. Results of the project are presented in written and oral form. A maximum of 6 semester hours is allowed. The research topic must be approved by the Faculty Advisory Committee.

Prerequisite: Consent of instructor.

New Media

FACULTY ADVISORY COMMITTEE

WILLIAM G. CHRIST, Ph.D., Professor, Communication
AARON DELWICHE, Ph.D., Associate Professor, Communication; Chair
ROBERT HUESCA, Ph.D., Professor, Communication
MARK B. GARRISON, Ph.D., Alice P. Brown Professor of Art and Art History
J. PAUL MYERS, JR., Ph.D., Professor, Computer Science
PATRICIA SIMONITE, M.F.A., Professor, Art and Art History

OVERVIEW

Trinity's interdisciplinary minor in New Media is designed to prepare students to function professionally, academically, and personally in diverse new media environments. The required courses provide a foundation upon which students build an understanding of New Media in relation to art, communication, computer science, art history, English, engineering, philosophy, psychology, and/or music. The minor promotes new media research, development, and design while preparing students for careers in new media and other fields being transformed by evolving communication technologies. Students interested in declaring a minor in New Media should contact Professor Aaron Delwiche; each student will then be assigned to a minor adviser.

REQUIREMENTS

THE MINOR

The requirements for a minor in New Media are:

21 semester hours, with no more than 9 hours in any one subject area, and at least 9 upper division hours.

Required courses: 12 hours

ART 2380 Digital Art
ARTH 1308 Art History II: Renaissance to Modern Art
COMM 3344* Interactive Multimedia Communication [one of three topics: 1) Web Design; 2) Interactive Narratives; 3) Games for the Web]
CSCI 1304 Computers and Society (or higher level CSCI course)

Elective courses: 9 hours with 6 hours in "Application" and 3 hours in "Context"

Application: 6 hours

ART 3380 Advanced Digital Art
*COMM 3340 Media Writing: Reporting on/for the Internet
*COMM 3344 Interactive Multimedia Communication) [one of three topics not already taken: 1) Web Design; 2) Interactive Narratives; 3) Games for the Web]
CSCI 3353 Graphics
ENGR 1381 Engineering Analysis and Design I
MUSC 3305 Electronic Music

Context: 3 hours

ART 3314 Issues in Contemporary Art
ARTH 3360 Twentieth-Century Art
ART 3365 Contemporary Architecture

CLAS 1306	Ancient Science and Technology
COM 3328	Media, Culture, and Technology
ENGL 3330	Literature and the Visual Arts
PHIL 3331	Philosophy of Mind
PHIL 3350	Philosophy of Culture
PHIL 3355	Aesthetics
PSYC 2330	Fundamentals of Cognition
PSYC 3341	Social Psychology
THTR 2310	Principles of Design

* Note: Courses are approved by the New Media minor committee only for the specific topic listed.

Philosophy

FACULTY

CURTIS BROWN, Ph.D., Professor
DAMIAN CALUORI, D.Phil., Assistant Professor
RACHEL JOHNSON, Ph.D., Assistant Professor
ANDREW KANIA, Ph.D., Associate Professor
STEVEN LUPER, Ph.D., Murchison Term Professor of Philosophy; Chair
JUDITH R. NORMAN, Ph.D., Professor

REQUIREMENTS

THE MAJOR

To be accepted as a major in philosophy, students must have taken Introduction to Philosophy (PHIL 1301) or Ethics (PHIL 1354). The requirements for the degree of Bachelor of Arts with a major in philosophy are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. 33 hours in philosophy, at least 24 of which must be upper division.
 - B. All of the following four courses:

PHIL 1301	Introduction to Philosophy
PHIL 2340	Symbolic Logic I
PHIL 3320	Classical Greek Philosophy
PHIL 3322	Early Modern Philosophy
 - C. One of the following two courses:

PHIL 3323	German Idealism
PHIL 3339	Nietzsche and German Philosophy
 - D. One of the following two courses:

PHIL 3330	Metaphysics
PHIL 3339	Epistemology
 - E. One of the following four courses:

PHIL 4391	Seminar on a Philosophical Problem
PHIL 4392	Seminar on a Philosopher
PHIL 4393	Seminar on a Philosophical Movement
PHIL 4395	Senior Thesis
- III. Electives sufficient to total 124 hours.

THE MINORS

Students may choose from the following four minors in philosophy:

I. MINOR IN PHILOSOPHY

The requirements for a minor in philosophy are as follows:

- A. 18 hours in philosophy, 15 of which must be upper division.

- B. PHIL 1301—Introduction to Philosophy
- C. One of the following two courses:
 - PHIL 3320 Classical Greek Philosophy
 - PHIL 3322 Early Modern Philosophy

II. MINOR IN ETHICS

The requirements for a minor in ethics are as follows:

- A. 18 hours in philosophy, of which at least 9 must be upper division.
- B. Three of the following courses:
 - PHIL 2350 Environmental Ethics
 - PHIL 2357 Meaning of Life
 - PHIL 3351 Social and Political Philosophy
 - PHIL 3352 Ethical Theory
 - PHIL 3353 Philosophy of Law
 - PHIL 3354 Philosophy of Gender
 - PHIL 3359 Biomedical Ethics

III. MINOR IN PHILOSOPHY OF ART

The requirements for a minor in philosophy of art are as follows:

- A. 18 hours in philosophy, of which at least 9 must be upper division.
- B. One of the following courses:
 - PHIL 1301 Introduction to Philosophy
 - PHIL 1354 Ethics
- C. Three of the following courses:
 - PHIL 3355 Aesthetics
 - PHIL 3357 Philosophy of Film
 - PHIL 3358 Philosophy of Music
 - PHIL 3360 Philosophy of Literature

IV. MINOR IN LOGIC AND THE PHILOSOPHY OF COGNITION

The requirements for the minor in logic and the philosophy of cognition are as follows:

- A. 18 hours in philosophy, of which at least 9 must be upper division.
- B. PHIL 2340—Symbolic Logic I
- C. Three of the following courses:
 - PHIL 1341 Tools for Reasoning
 - PHIL 3331 Philosophy of Mind
 - PHIL 3332 Philosophy of Science
 - PHIL 3339 Epistemology
 - PHIL 3340 Symbolic Logic II
 - PHIL 3343 Non-Classical Logics

V. MINOR IN THE HISTORY OF PHILOSOPHY

The requirements for a minor in the history of philosophy are as follows:

- A. 18 hours in philosophy, of which at least 12 must be upper division.
- B. PHIL 3310—Classical Greek Philosophy

C. PHIL 3322—Early Modern Philosophy

D. At least 2 of the following courses:

PHIL 3311	Hellenistic Philosophy
PHIL 3312	Late Ancient and Medieval Philosophy
PHIL 3323	German Idealism
PHIL 3325	Existentialism
PHIL 3326	Nietzsche and German Philosophy
PHIL 3329	Continental Philosophy
PHIL 3350	Philosophy of Culture

DEPARTMENTAL HONORS PROGRAM

I. To be accepted into the Department Honors Program, students must be philosophy majors who have a cumulative grade-point average of 3.33, and a grade-point average of 3.75 within the department, at the end of the Fall semester of the Junior year. Such students may request admission to the Honors Program. The request should be in writing and should be submitted to the chair of the department at the end of the Fall semester of the Junior year. The request should be accompanied by a report from the Registrar's Office, showing their grade-point averages. The members of the philosophy department will decide which students are accepted.

II. To receive Departmental Honors, majors in philosophy must have a grade-point average of 3.75 within the department, and a cumulative grade-point average of 3.33, at graduation. They must complete the requirements for the major. They must also complete the following courses:

A. PHIL 3339—Epistemology

B. PHIL 3330—Metaphysics

C. PHIL 3352—Ethical Theory or PHIL 3351—Social and Political Philosophy

D. At least one of the following:

PHIL 3329	Continental Philosophy
PHIL 3331	Philosophy of Mind
PHIL 3333	Philosophy of Language

E. At least one of the following (preferably all three):

1. An intermediate-level course in German, French, or Greek

2. PHIL 3340—Symbolic Logic II

3. A course in mathematics at the level of MATH 1311 (Calculus I) or higher

F. PHIL 4396—Thesis I

G. PHIL 4397—Thesis II

COURSES

LOWER DIVISION

PHIL-1301 Introduction to Philosophy

An introduction to Philosophy emphasizing central issues in epistemology, metaphysics, and ethics. The course will focus on major philosophical figures (such as Plato, Aristotle, Descartes, Locke, Hume, Kant, Hegel, and Marx).

PHIL-1302 Introduction to Asian Philosophy

An introduction to the classical philosophical traditions of Asia—Hinduism, Buddhism, Confucianism, and Taoism—with an emphasis on their approach to major philosophical questions.

PHIL-1341 Tools for Reasoning

Reasoning is the process of using the evidence available to us in order to make informed decisions about what to believe and do. Good reasoning requires the ability to identify and assess deductive arguments; to formulate hypotheses, test them, and choose those that are best supported by the evidence; and to assess which courses of action are most reasonable given our beliefs and values. This class will introduce a number of tools that are useful for reasoning, including deductive logic, probability and statistics, and decision theory. The course will also consider problem-solving techniques and ways of evaluating the credibility of sources.

PHIL-1354 Ethics

An introduction to traditional and contemporary problems and theories in ethics.

PHIL-2340 Symbolic Logic I

An introduction to formal deductive logic, covering propositional logic (truth-functional logic) and first-order predicate logic (quantification theory). Typical topics covered include: techniques of symbolization, truth tables, validity and soundness, and techniques of natural deduction. Symbolic notation is used extensively. Does not require 1341 as a prerequisite.

PHIL-2350 Environmental Ethics

A study of the moral status of the things and creatures that make up the environment, and their moral relationship to people. Particular attention will be given to the responsibilities of people to protect and preserve the environment, and to conserve resources for future generations.

PHIL-2356 Applied Ethics

An application of ethical theory to a particular moral issue. Each offering will focus on a specific issue or a set of closely related issues; topics will vary from one offering to the next. Examples of topics which may be covered include: abortion; genetic engineering; environmental justice; urban issues such as group discrimination, housing restrictions, regulation of vice, and city planning; and truth in advertising and whistle blowing.

PHIL-2357 The Meaning of Life

A critical examination of a wide range of approaches to the question, "Does life have meaning?" Among the philosophers to be covered are Aristotle, Tolstoy, Kant, Schopenhauer, Nietzsche, Camus, Miguel de Unamuno, and Thomas Nagel.

PHIL-2359 Professional Ethics

A critical examination of ethics and ethical issues involved in professional life. Typical topics will include the following: ethical theory, theory of justice, professional codes of conduct, corporate responsibility, harassment policy, affirmative action, the moral status of animals, experimentation using animal and human subjects, the physician-patient relationship, reproductive ethics, and health care policy. (Also listed as BUSN 2359.) PHIL 1354 and PHIL 2359 may not both be taken for credit.

UPPER DIVISION***History of Philosophy*****PHIL-3310 Classical Greek Philosophy**

A study of the major figures in ancient Greek philosophy from Thales to Aristotle, with a special focus on thinkers of the high classical period: Socrates, Plato, and Aristotle.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3311 Hellenistic Philosophy

A study of the dominant philosophical schools after the death of Aristotle—Stoics, Epicureans, and Skeptics—with a particular emphasis on ethics (virtue ethics, hedonism) and epistemology.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3312 Late Ancient and Medieval Philosophy

A study of philosophical problems that arose in the historical and intellectual context of Late Antiquity and the Middle Ages. The course will include topics in metaphysics, philosophy of religion, ethics, and mysticism. It will emphasize the ancient origins of Medieval thought, and clarify the intellectual roots of Christianity by discussion of the key notions, ideas, and figures that crucially contributed to shaping Western culture.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3322 Early Modern Philosophy

A study of the classical modern philosophers, including the Rationalists: Descartes, Leibniz, and Spinoza; the Empiricists: Locke, Berkeley, and Hume; and the attempted synthesis of Kant.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3323 German Idealism

A study of important thinkers and movements at the beginning of the 19th century. We will focus initially on Kant, and investigate how German Idealism and Romanticism developed in the aftermath of Kant's critical philosophy. After an extended treatment of Hegel, we will look at the young Hegelians and Marx. The course will focus on issues in metaphysics, epistemology, the philosophy of history and the problem of subjectivity. (Also listed as GRST 3360.)

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3324 Pragmatism

A study of American pragmatic philosophy. The emphasis will be on Peirce, James, and Dewey; some attention will be paid to such contemporary figures as Quine and Rorty.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3325 Existentialism

The development of existential thought from the writings of Kierkegaard and Nietzsche to more recent work by Heidegger, Sartre, and Camus.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3326 Nietzsche and German Philosophy

A study of the important thinkers and movements at the end of the 19th century. We will focus initially on Kant before seeing how Schopenhauer and finally Nietzsche developed on the basis of the Kantian philosophy. After an extended treatment of Nietzsche, we will look at how Freud and psychoanalysis grew out of this tradition. The course will focus on issues in epistemology, the philosophy of art, the philosophy of nature, and the development of the notion of the unconscious. (Also listed as GRST 3361.)

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3327 The Philosophies of India

A study of the classical traditions of Buddhist and Indian (Hindu) philosophies. The emphasis will be on issues of perennial philosophical concern to both Eastern and Western thought such as: the nature of the self and the problem of personal identity, monism and pluralism, immortality and reincarnation, knowledge and illusion.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3328 The Philosophies of China

A study of the three major indigenous philosophical movements in China: Confucianism, Taoism, and Neo-Confucianism. Special attention will be paid to themes and problems common to all three movements, including: the metaphysics of harmony and conflict, the individual and society the cultivation of human virtues and human perfectibility, and humankind's relation to nature. Course taught in English. (Also listed as CHIN 3328.)

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3329 Continental Philosophy

A close reading of some of the major texts of twentieth-century French and German philosophy, with some attention to their roots in nineteenth-century philosophy.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

Metaphysics**PHIL-3330 Metaphysics**

A survey of traditional and contemporary philosophical issues about the nature of reality. Typical topics covered include some of the following: the mind-body problem, personal identity, free will and determinism, causation, time, fatalism, universals and particulars, essentialism, possible worlds.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3331 Philosophy of Mind

A critical study of contemporary approaches to the mind-body problem, including dualism, behaviorism, the identity theory, and functionalism. Also addressed will be such other issues as the nature of mental representation, the possibility of artificial intelligence, and the sources of intentionality.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3332 Philosophy of Science

A study of philosophical views about the sciences. Topics may include: explanation, confirmation, the historical development of science, realism vs. anti-realism, the relation between the natural sciences, and the difference between science and pseudo-science.

Prerequisites: Either both PHIL 2340 and an additional three-hour course in philosophy; or 9 hours in any one of the natural or social sciences.

PHIL-3333 Philosophy of Language

A critical study of contemporary issues about language, meaning, reference, translation, and interpretation.

Prerequisites: Both PHIL 2340 and an additional three-hour course in philosophy or consent of instructor.

PHIL-3338 Philosophy of Religion

A critical discussion of philosophical issues arising in religion and theology. Typical topics covered include: religious language, arguments for God's existence, religious experience, miracles and revelation, the relationship of faith and reason, the nature of God, the problem of evil, death and immortality. (Also listed as RELI 3360.)

Prerequisite: Any three-hour course in philosophy or 1 three-hour course in Religion or consent of instructor.

PHIL-3339 Epistemology

A critical study of problems in the theory of knowledge, such as: the difference between knowledge and belief; the possibility of knowledge; the conditions under which a belief is rational.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

Advanced Logic

PHIL-3340 Symbolic Logic II

Topics include: Review of first-order logic from a more abstract perspective than that taken in PHIL 2340; introduction to set theory; basic metalogical results including soundness, completeness, compactness, the Lowenheim-Skolem theorem, and Godel's incompleteness theorems; connections with issues in computability theory and the foundations of mathematics.

Prerequisite: PHIL 2340 or consent of instructor, or CSCI 1323.

PHIL-3343 Non-Classical Logic

Extensions of, and alternatives to, classical logic. Possible topics include modal logic, intuitionist logic, many-valued logic, and fuzzy logic. Some attention to connections between these logics and topics in philosophy, computer science, and other areas.

Prerequisite: PHIL 2340 or consent of instructor.

Value Theory

PHIL-3350 Philosophy of Culture

Inquiry into the different forms and forces which shape contemporary life. The value and impact of art, science, and social, economic, and political technology as determinants of an emerging culture in the 21st century.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3351 Social and Political Philosophy

A critical study of philosophical views about society and politics, with particular attention to the concepts of sovereignty, obligation, rights, justice, equality, and liberty.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3352 Ethical Theory

A discussion of issues in normative ethics and metaethics. Typical topics covered include some of the following: the meaning of ethical terms, the justification of moral principles and judgments, intrinsic and extrinsic value, consequentialism and deontology, moral relativism, natural rights, theories of justice.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3353 Philosophy of Law

A critical study of legal theory, legal reasoning, and the role of law in contemporary society.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3354 Philosophy of Gender

A study of issues in the philosophy of gender, through the reading the work of historical and contemporary theorists. Topics may include the ontology of sex, gender, and sexuality; the nature and goals of feminism; homosexual rights; the ethics of consent; pornography; and prostitution; and gendered language.

Prerequisites: Any three-hour course in philosophy or WAGS 2350 or WAGS 2351 or WAGS 2352 or consent of instructor.

PHIL-3355 Aesthetics

A study of issues in the philosophy of the arts, through the examination of works of art and the reading of historical and contemporary philosophers and critics. Topics to be discussed include: what makes something a work of art, the nature of artistic representation, the evaluation of works of art, and problems peculiar to such specific art forms as literature, painting, music, and film.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3356 Marx and Marxism

In this class, students will study the ideas of Karl Marx and the impact they have had on 20th century thought. The class will have two components: the philosophy of Marx and the contemporary application of Marxist principles to various problems and disciplines.

Prerequisite: Any three-hour course in philosophy or consent of instructor.

PHIL-3357 Philosophy of Film

A study of issues in the philosophy of film, through reading the work of historical and contemporary philosophers and critics, and studying films. Topics may include: the nature of film, its status amongst the arts, issues of authorship and narrativity, issues of interpretation, and the nature and ethics of documentary.

Prerequisite: Any three-hour course in philosophy or FILM 1301 or FILM 2301 or consent of instructor.

PHIL-3358 Philosophy of Music

In this course we will investigate several philosophical issues raised by music, from the question of what exactly music is, through the nature of various musical objects (works, performances, recordings), to how we should approach music, and what its value is. Throughout we will question how far the theories we discuss can be applied beyond their (typical) application to Western classical music. Students will be expected to bring their experience -- as composers, performers, and listeners -- to bear on the issues we discuss. (Also listed as MUSC 3358.)

Prerequisite: Any three-hour course in philosophy or MUSC 1301 or MUSC 1203 or consent of instructor.

PHIL-3359 Biomedical Ethics

A study of ethical issues associated with the practice of medicine and the pursuit of biomedical research. Topics may include: physicians' obligations and patients' rights; experimentation on humans and animals; assisted suicide; euthanasia; abortion and parental rights; genetic engineering; and social justice and the right to health care.

PHIL-3360 Philosophy of Literature

In this course we will investigate several philosophical issues raised by literature, such as what exactly literature is, the nature of literary authorship and interpretation, why it is we respond emotionally to fictional characters, and what the value of engaging with literature is. (Also listed as ENGL 3339.)

Prerequisite: Any three-hour course in philosophy or six hours of English or consent of instructor.

PHIL-3361 Theorizing Myth

A survey of theoretical approaches to myth from the eighteenth century to the present. This survey begins with the transition from renaissance belief that myth is a form of moral instruction conveyed by allegory to the romantic belief that myth is a symbolic mode of discourse offering insight into transcendental reality. We will then chart the evolution of this approach, beginning with its inspiration in Kantian metaphysics and earliest formulations by German romantics such as Schiller and proceeding on to Freud and Ricoeur. A second strand begins with Hegel's theories of "false consciousness" that would in time develop into interpretations of myth as ideology, under the influence of Marx, Adorno, and Althusser. A final strand begins with the early folklorists, the brothers Grimm, and would in time develop into functionalist approaches to myth by anthropologists such as Malinowski, Boas, and Levi-Strauss. The resulting big picture is as much an intellectual history of modernity as a history of theorizing myth. (Also listed as CLAS 3350.)

Prerequisite: sophomore standing or consent of instructor.

Seminars and Special Courses

Successful completion of 6 upper-division hours in philosophy is a prerequisite for all courses in this category.

PHIL-3-90 Directed Studies

Individual work under faculty supervision. 1 to 3 semester hours.

Prerequisite: consent of instructor.

PHIL-3-91 Internship in Law and Philosophy

Students taking this class will work for various law or government offices as interns whose responsibilities will be determined by those offices and by supervising faculty. They will then complete a writing assignment in which they relate their experience in the internship to issues in ethics, social and political philosophy, and/or the philosophy of law. Pass/Fail only.

Prerequisite: consent of instructor.

PHIL-4-90 Directed Studies

Individual work under faculty supervision. 1 to 3 semester hours.

Prerequisite: consent of instructor.

PHIL-4391 Seminar on a Philosophical Problem

An in-depth study of a contemporary problem in philosophy. Prerequisites: 6 upper-division hours or consent of instructor.

PHIL-4392 Seminar on a Philosopher

A careful analysis of the work of a particular philosopher. Topics may vary but include: A. Aristotle; B. Austin; D. Descartes; E. Hegel F. Locke; K. Kant; M. Marx; P. Plato; W. Wittgenstein; Z. other figures.

Prerequisites: 6 upper-division hours of Philosophy.

PHIL-4393 Seminar on a Philosophical Movement

An intensive study of works of the philosophers in a particular philosophical school or movement. The seminar may take a chronological approach or it may be topical in structure.

Prerequisites: 6 upper-division hours of Philosophy.

PHIL-4395 Senior Thesis

Research and classroom discussion culminating, for each student, in a thesis to be defended before Philosophy Department faculty. Supervision for thesis provided by course instructor and a second faculty member with expertise in student's area of research.

Prerequisites: senior standing and consent of the department chair.

PHIL-4396 Thesis I

Taken during the Spring semester of the Junior year. Students draft a thesis under the supervision of a faculty member. The completed draft will be defended before the members of the department, who will decide whether it should be developed further. Students who do outstanding work in Thesis I will be invited to enroll in Thesis II. Students who take Thesis II are not eligible to enroll in PHIL 4395 (Senior Thesis). Requires consent of chair and instructor.

PHIL-4397 Thesis II

Taken during the Fall semester of the Senior Year. In thesis II students will complete the theses that they drafted in Thesis I. The completed essay will be defended before the members of the department, who will decide whether to confer Departmental Honors. Requires consent of Department Chair and Instructor, and completion of PHIL 4396.

Physical Education

FACULTY

PATRICK J. CUNNINGHAM, M.S., Instructor; Coach

CAMERON HILL, Instructor; Coach

JULIE B. JENKINS, M.S., Instructor; Coach

LANCE KEY, B.A., Instructor; Coach

DERICK LAWRENCE, Instructor; Coach

RUSSELL McMINDES, B.S., Instructor; Coach

JOHN RYAN, M.A., Instructor; Coach

TIM SCANNELL, B.S., Instructor; Coach

JACOB K. TINGLE, Ed.D., Associate Professor of the Practice of Business Administration; Coordinator of Physical Education Activities

JERHEME URBAN, Instructor; Coach

REQUIREMENTS

FITNESS EDUCATION REQUIREMENT

The fitness education requirement can be fulfilled by completing one of the activity courses that are labeled PHED 11xx. In addition, PHED 1301—Concepts of Lifetime Fitness, PHED 1106—Sport Officiating Laboratory, and DRAM 1154—Dance for Theatre may be used to fulfill the requirement. See the “Degree Requirements” section of the *Courses of Study Bulletin* for a full description of the requirement.

COURSES

PHED-1301 Concepts of Lifetime Fitness

An analysis of the basic components of physical fitness including scientific information pertinent to the development of individualized exercise programs. Course content addresses cardiovascular endurance, muscular endurance, strength, flexibility, and weight control.

PHED-1303 Nutrition

Comprehensive study of dietary requirements, sources of various nutrients and the relationship of food to health. The role of diet and exercise in relation to obesity, weight control and degenerative disease.

PHED-1304 Prevention, Care, and Rehabilitation of Athletic Injuries

Paramedical training for the recognition, prevention and treatment of sport injuries. Includes preventive and rehabilitative exercise, emergency procedure, therapeutic modalities, and taping mechanics.

PHED-2101 Apprentice Teaching

Provides the student with an opportunity to assist in teaching an activity course for one semester. Prerequisite: Consent of instructor. (Note: This course may be taken three times in different activities.)

PHED-3302 Motor Learning

A study of the motor and cognitive characteristics involved in learning and performing motor skills.

PHED-3304 Physiology of Exercise

The effects of exercise and the adaptation of the body to physiological stress. Includes physiology of training and conditioning, metabolism and work capacity, the cardiovascular system during exercise and metabolism and weight control.

PHED-3306 Kinesiology

Functional application of the laws and principles of movement in sports performance and daily living. Includes material relevant to movement description, mechanics, force and leverage, translatory and rotary motion, strength measurement, and exercise analysis.

PHED-3310 Adapted and Developmental Physical Education

Adapted Physical Education develops beginning level knowledge and skills to meet individual needs in physical education, recreation, sport, fitness, and rehabilitation settings.

PHED-3311 Essentials of Strength Training and Conditioning

This course will focus on the basic principles underlying strength training and conditioning with particular emphasis on the physiological adaptations that take place in the body as a result of this training.

PHED-3-90 Directed Study in Physical Education

Independent study or research, or advanced selected topics in physical education that are not covered in other classes. Variations in credit according to the work performed, 1 to 3 hours. Class may be repeated for a maximum of 6 credit hours, provided the topic varies.

ACTIVITY COURSES**PHED-1101 Aerobic Dance**

The use of dance steps and combinations to achieve aerobic fitness. Flexibility and muscular endurance are also included.

PHED-1102 Aerobic Fitness

Evaluation, development and implementation of a personal fitness program with emphasis on circulatory fitness.

PHED-1103 Weight Training

Resistive training principles and methods. Isometric, isotonic and isokinetic procedures. Individual appraisal and practice.

PHED-1104 Weight Management and Exercise

A course designed to help each student understand the basic information relative to weight management and exercise. Based on an evaluation, each student will design and implement an exercise and nutrition program designed to lose weight.

PHED-1105 Rape Aggression Defense

A basic self-defense course for women that provides them with the information, tactics, and skills that they can use to protect them from aggressive acts that they may encounter.

PHED-1111 Introduction to Swimming

Fundamentals of swimming including front crawl, back crawl, elementary backstroke, breast and side strokes. Diving, treading, floating and elementary life-saving techniques are introduced.

PHED-1112 Fitness Swimming

Advanced swimming for cardiovascular endurance.

Prerequisite: PHED 1111 or consent of instructor.

PHED-1113 Life Guard Training

A course designed to teach the skills, techniques, and responsibilities of lifeguarding which fulfills the American Red Cross Lifeguard certification requirements.

PHED-1114 Water Polo

Fundamentals of the sport of water polo including dribbling, passing, shooting, defense, etc., will be emphasized. Participation will require intermediate to advanced swimming skills.

PHED-1121 Badminton

Fundamentals of badminton including overhead and underhand strokes, short and long serves, around the head strokes, and service returns. Rules and strategies for singles and doubles play.

PHED-1122 Fencing I

Fundamentals of fencing including the lunge, advance and retreat, balestra, offensive and defensive positions and strategies. Rules, officiating and scoring.

PHED-1123 Fencing II

Review of fencing, advanced fencing techniques and introduction of epee and saber. (Offered every Spring.)

Prerequisite: PHED 1122 or consent of instructor.

PHED-1124 Golf I

Fundamentals of the grip, stance, swing, putting, and sand shots. Club selection, rules, scoring, and etiquette.

PHED-1125 Golf II

Review of fundamentals of golf. Participation at pitch and putt and local golf courses.

PHED-1126 Racquetball I

Basic skills of racquetball including the forehand, backhand, drive serve, lob serve, ceiling, sidewall, and backwall shots. Rules and strategies of singles and doubles play.

PHED-1127 Racquetball II

Advanced skill development and playing strategies.

PHED-1128 Tennis I

Fundamentals of tennis including forehand, backhand, volley, serve, and overhead. Rules and strategies for singles and doubles play.

PHED-1129 Tennis II

Review of the basic strokes in beginning tennis and the addition of dropshot, approach shot, spins and serve variations. Singles and doubles strategies for the intermediate player.

PHED-1130 Tennis III

Skills, strategies and drills for qualified students who wish to play at a competitive level. (Students are responsible for entry fees for playing local tournaments.)

Prerequisite: organized competitive experience.

PHED-1131 Trap and Skeet I

Fundamental skills of skeet and trap shooting including position, tracking, aiming, leading, and firing. Firearms safety will be covered in relation to all firearm sports.

PHED-1132 Trap and Skeet II

Advanced techniques of trap and skeet shooting including the mental aspects of competition, advanced skills, equipment care, and safety factors.

Prerequisite: PHED 1131 or consent of instructor.

PHED-1133 Triathlon Training

A course designed to teach the skills, techniques, and training principles necessary to prepare for participation in the sport of triathlon: swimming/cycling/running.

PHED-1134 Conditioning and Weight Training

A course designed to teach students how to develop and implement a comprehensive exercise program that includes both aerobic fitness and weight training.

PHED-1135 Cardio Kickboxing

This course is designed to use intermediate techniques of cardio kickboxing skills to improve cardio respiratory endurance, muscular strength and endurance, anaerobic threshold, and body composition. Training will consist of intermediate to advanced techniques in cardio kickboxing and contact strikes using gloves and punching bags. Traditional activities such as calisthenics, resistance training, jump rope training, and core muscle training will be included. Principles of interval training will be taught as well as theories of weight management, chronic and acute disease prevention, stress management, and basic anatomy and kinesiology.

PHED-1136 Introduction to Hatha Yoga

This course teaches the basics of Hatha Yoga. Students learn techniques for developing strength flexibility, and control through the use of basic postures, combinations and relaxation.

PHED-1138 Continuing Studies in Hatha Yoga

This course continues the study of Hatha yoga. The more intense practice will help each student increase strength, flexibility and endurance. Students will gain a greater understanding of how to incorporate yoga

into their lives. New concepts, including strategies for a healthy lifestyle, will also be explored.

Prerequisite: PHED 1136.

PHED-1139 Training for Speed, Power, and Agility

This course is designed to teach students how to develop and implement a comprehensive training program designed specifically for development of speed, agility and power where the emphasis is on Plyometrics and other high-intensity activities.

PHED-1141 Basketball

Fundamentals of basketball including passing, dribbling, shooting and rebounding. Offensive and defensive drills, team play, rules and strategies.

PHED-1142 Soccer I

Beginning fundamentals of soccer including soccer techniques, soccer tactics, soccer fitness, soccer psychology, rules and history.

PHED-1143 Soccer II

An advanced approach to the game of soccer including techniques, systems of play, and conditional fitness as it relates to the physical demands of the game. All students will also be required to run a themed session for the class.

Prerequisite: PHED 1142 or consent of instructor.

PHED-1144 Volleyball I

Power volleyball: the skills of the pass, serve, set, attack, block and floor defense. Rules and strategies for team play.

PHED-1145 Volleyball II

Review of basic skills of volleyball. Introduction to advanced skills and strategies.

PHED-1146 Roller Skating I

This course is designed to teach students the basic skills they need to participate in Roller Skating as part of a healthy active lifestyle.

PHED-1147 Roller Skating II

Introduction to advanced quad-roller skating techniques.

PHED-1151 Ballet I

History of ballet, basic technique, vocabulary, combinations and style. Local concerts and critiques.

PHED-1152 Ballet II

Advanced ballet technique, center combinations and variations. Comparison of major companies and performers.

PHED-1153 Ballroom Dance I

Basic steps and variations for the following dances: fox trot, waltz, swing, polka, rhumba, cha cha, samba

tango, mambo and merengue. Rhythmical analysis, music recognition and techniques of leading and following.

PHED-1154 Ballroom Dance II

Review of ballroom dance, advanced techniques and variations for American and Latin dances.

PHED-1155 Country/Western Dance I

Basic steps and variations for the following dances: cotton eyed joe, schottische, western two step, western waltz, Texas two step, Texas two step swing, western swing, western polka, put your little foot and 10-step polka. Rhythmical analysis and techniques of leading and following.

PHED-1156 Country/Western Dance II

A continuation of Country/Western Dance I. Includes advanced variations and sequenced combinations.

PHED-1157 Country/Western Dance III

Performance level of country/western dance. Audition required.

PHED-1158 Jazz

Beginning elements of technique, vocabulary and style. History of jazz, differing styles of technique and study of performers who have influenced jazz.

PHED-1159 Modern Dance I

Beginning techniques and composition of modern dance.

PHED-1160 Introduction to Running

Introduces the basic running principles of running and prepares students to complete a 5 kilo- meter race by the end of the course.

PHED-1161 Half Marathon Challenge

Introduces the advanced training principles of running and prepares the student to complete a Half Marathon by the end of the course.

PHED-1162 Cardio Tennis

In this course, students will improve their physical fitness as well as their tennis skills by engaging in dynamic, high energy tennis drills in a group environment.

PHED-1163 Baseball

An introduction to the fundamentals of baseball including the history, rules, regulations, techniques, and mechanics.

PHED-1164 Springboard Diving

An introduction to the fundamentals of springboard and dry-land diving.

PHED-1165 Intramural Programming

In this course, students will plan and participate in new recreational opportunities. Students will create an event and teach their classmates the rules, regulations, and policies for that particular sport or recreation activity and then participate in that event as a group.

PHED-1166 Body Pump

This course combines strength training and aerobic conditioning in one class through the use of dumbbells, weight bars, and a step platform. This course will be taught in a high-energy environment.

PHED-1167 Cardio Bootcamp

This course is an intermediate form of physical conditioning which combines high energy cardio-respiratory activity with military-style physical training to improve muscular endurance, cardio-respiratory endurance, flexibility, and body composition.

PHED-1168 Pilates

This class focuses on physical conditioning based on the theories and principles of Joseph H. Pilates. Mat-work principles incorporate exercises that increase muscular strength, muscular endurance, flexibility, balance, and coordination.

PHED-1169 Tap Dance

This course is designed for the beginning or intermediate tap dancer to learn or perfect tap dance technique.

Physics and Astronomy

FACULTY

KWAN HON KELVIN CHENG, Ph.D., Williams Endowed Professor in Interdisciplinary Physics

NIRAV P. MEHTA, Ph.D., Assistant Professor

DANIEL R. SPIEGEL, Ph.D., Professor

JENNIFER M. STEELE, Ph.D., Associate Professor

NIESCJA E. TURNER, Ph.D., Charles A. Zilker Professor of Physics and Astronomy

DENNIS W. UGOLINI, Ph.D., Associate Professor; Chair

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in Physics are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. The major: 30 semester hours in Physics, including the following or equivalent courses: PHYS 1111, 1112, 1311 (or 1309), 1312 (or 1310), 2094 (four semesters), 2131, 2132, 3321, 3322, 3323, 3335, 4121 or 4131, and at least two of the following five courses: 3325, 3333, 4122, 4132, 4395.
 - B. Additional requirements: MATH 1311, 1312, 2321, 3316, CSCI 1320.
 - C. Completion of Wagner Senior Assessment Exam in fall of the senior year.
- III. Electives sufficient to total 124 hours.

The above are minimal requirements allowing students to supplement their programs with those courses best suited to fulfill their particular needs and to further their professional growth.

The requirements for the degree of Bachelor of Science with a major in Physics are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. At least 38 semester hours in Physics, including the following or equivalent courses: PHYS 1111, 1112, 1311 (or 1309), 1312 (or 1310), 2094 (four semesters), 2131, 2132, 3321, 3322, 3323, 3325, 3333, 3335, 3336, 4121, 4122, 4131, 4132, 4395. (Honors students will take 3398, 4398, 4399 in place of 4395; these students are required to take 44 hours of Physics.)
 - B. MATH 1311, 1312, 2321, 3316, 3357, CSCI 1320.
 - C. Completion of Wagner Senior Assessment Exam in fall of the senior year.
- III. Electives sufficient to total 124 hours.

The Bachelor of Science Program is designed to prepare students for graduate work in Physics. The above are minimal requirements allowing students to supplement their programs with those courses best suited to fulfill their particular needs and to further their professional growth.

TEACHER CERTIFICATION IN PHYSICS

Students completing either the B.A. or B.S. physics major have two options to receive certification to teach physics in grades 8-12 in Texas through Trinity's Master of Arts in Teaching (MAT) program. Students can pursue (1) the Grades 8-12 Physics/Mathematics certification, which would enable a graduate to teach physics and mathematics or (2) the Grades 8-12 Physical Science certification, which would enable a graduate to teach physics as well as chemistry and 8th grade general science (this would require coursework in chemistry and geosciences in addition to the physics major). Both options require undergraduate education coursework as preparation for entry into the MAT program and to fulfill state requirements. Students who complete Trinity's 5-year Teacher Education Program will earn both a Bachelor's degree in Physics and Master of Arts in Teaching as well as teacher certification. For more information and specific requirements, including middle school and elementary science teaching opportunities as well, see the Education Department's program description in the course catalog.

GUIDELINES FOR ACCEPTANCE OF MAJORS

Full acceptance in the major is granted if the following requirements are met at the time of application:

- I. Completion of PHYS 1111, 1112, 1311 (or 1309), 1312 (or 1310), 3323 with grades of C or better;
- II. Completion of MATH 1311, 1312 with grades of C or better; and
- III. A grade point average of at least 2.0 on all university work.

Provisional acceptance in the major is granted if it is apparent that the applicant can meet the requirements for full acceptance by the end of the semester in which the application is made.

Transfer students will be accepted provisionally pending completion at Trinity of at least one upper division course with a grade of C or better.

HONORS IN PHYSICS

A student in Physics may work toward Honors in Physics under the Bachelor of Science Degree program. The requirement for Honors in Physics is the successful completion of the Bachelor of Science program except that an honors student will take PHYS 3398, 4398, 4399 in place of 4395 and will be required to take a total of 44 hours of physics. During the junior year, a student who is eligible for honors will, after consultation with the chair of the Physics and Astronomy Department, enroll in 3398; part of the requirement of this course will be to prepare a thesis proposal. In the second semester of the junior year, an honors student will present a thesis proposal and credentials to the department faculty. Upon approval of the proposal, a student may enroll in PHYS 4398, 4399 during the senior year. By the end of the senior year, the thesis must be presented and defended before the Physics and Astronomy Department Faculty.

THE MINOR IN PHYSICS

A minor in Physics will consist of 18 semester hours of Physics. At least 9 semester hours must be at the upper division level. The minor will normally include the following or equivalent courses: PHYS 1111, 1112, 1311 (or 1309), 1312 (or 1310), 2094 (1 semester), 3323, plus seven additional hours of physics, six of which must be upper division.

THE MINOR IN ASTRONOMY

The minor in astronomy will consist of 19 semester hours of the following Physics courses:

PHYS 1305 Stellar and Extragalactic Astronomy

OR

PHYS 1304 Solar System Astronomy

PHYS 1103	Observational Astronomy
PHYS 1311	Introduction to Mechanics
OR	
PHYS 1309	General Physics I
PHYS 1312	Introduction to Electricity, Magnetism and Waves
OR	
PHYS 1310	General Physics II
PHYS 3350	Astrophysics

Plus six hours selected from the following:

PHYS 3321	Statistical Physics and Thermodynamics
PHYS 3322	Classical Mechanics and Nonlinear Dynamics
PHYS 3323	Introduction to Modern Physics
PHYS 3325	Optical Physics
PHYS 3348	Atmospheric Physics
PHYS 3129	Research Participation II
PHYS 3-90	Directed Studies – Junior Level
PHYS 3-92	Directed Studies for Secondary School Science Teachers – Junior Level

One 3-hour upper division course from a relevant department, as approved by Chair.

The combined total of hours for 3129, 3-90, or 3-92 may not exceed 3 hours. Any of these three research-directed studies courses may be repeated for additional credit with different content. The Chair of the Department of Physics and Astronomy must approve the selected content of 3129, 3-90, or 3-92 as relevant to the minor in astronomy.

COURSES

PHYS-1103 Observational Astronomy

A laboratory course to accompany either PHYS 1304 or 1305. Basic use of a telescope, including celestial coordinates and time systems. Visual observations of the Sun, Moon, planets and their satellites, stars, star clusters, nebulae, galaxies. Further possible topics include photometry, spectroscopy, electronic imaging. One field trip to a dark observing site may be required. May be taken only once for credit.

Either PHYS 1304 or 1305 is a prerequisite or a corequisite.

PHYS-1111 Introductory Physics Laboratory

Laboratory to accompany PHYS 1309 or 1311. Topics include: one-dimensional kinematics, elastic and frictional forces, Kepler's Laws, collisions, rotational motion, oscillatory motion.

Corequisite: PHYS 1309 or 1311 must be taken concurrently.

PHYS-1112 Intermediate Physics Laboratory

Laboratory to accompany PHYS 1310 and 1312. Topics include: DC, AC, and transient circuits, magnetism, geometric optics, interference and diffraction, blackbody radiation, spectroscopy, gamma ray absorption.

Prerequisite: PHYS 1111.

Corequisite: PHYS 1310 or 1312 must be taken concurrently.

PHYS-1194 Physics and Society Seminar

Discussion of the historical, sociological, philosophical implications and cultural context in which physics research is done and the implications of that research.

Prerequisite: PHYS 3323.

PHYS-1302 Frontiers of Physics

An introduction to the methods and results and philosophical implications of modern physics. Topics include: special and general relativity; the wave-particle theory of light and matter; atomic, nuclear and particle physics; future explorations.

PHYS-1303 Energy and Earth's Changing Environment

An introduction to understanding energy production, consumption, and resources (e.g., fossil fuels, nuclear, solar, wind, water, geothermal, biofuels, and hydrogen). Topics for discussion include: environmental, political, economic, biologic, and humanitarian consequences of energy production or use. Students will become more aware of the causes and consequences of climate change and of ways for mitigating the negative effects.

PHYS-1304 Solar System Astronomy

A survey of the nature of the solar system. Topics include: gravity, orbital motion of planets and moons, time and calendars, lunar and solar eclipses, the solar wind and planetary magnetospheres, planetary atmospheres and comparative planetary climatology, evolution of planetary surfaces, asteroids, comets and meteors. May be taken without enrolling in PHYS 1103.

PHYS-1305 Stellar and Extragalactic Astronomy

A survey of the property of stars and of galaxies and modern theories of cosmology. Topics include: distances, masses, sizes, motions, magnitudes and spectra of stars; stellar structure and evolution; pulsars and black holes; star clusters, nebulae, interstellar gas and dust; galactic structure; quasars, active galaxies, clusters of galaxies, large-scale structure in the universe; extra-galactic distance scale, big bang theory, inflationary model, convergence of particle physics and cosmology; the nature of light and astronomical instruments. PHYS 1304 is not a prerequisite for PHYS 1305. May be taken without enrolling in PHYS 1103.

PHYS-1307 Introduction to Nanotechnology

An introduction to current nanotechnology fabrication methods and applications aimed at non-science majors. This course will explore how material properties change at the nanoscale and how these properties can be utilized in technological applications and consumer products. Topics include scientific concepts behind nanotechnology, microscopy at the nanoscale, medical applications, consumer applications, ethical concerns, and the environmental impact of nanotechnology.

PHYS-1309 General Physics I

A calculus-level introduction to classical mechanics and its applications. Topics include: particle kinematics, Newton's laws of motion, kinetic and potential energy, work, linear and angular momentum, torque, statics, simple harmonic motion, mechanical waves, sound, fluids, thermal physics, and applications in biology, medicine, and geology. This course is appropriate for biology, chemistry, and geosciences majors. Only one of PHYS 1309 or 1311 may be taken for credit.

Prerequisite: MATH 1311 or 1307 (either may be taken concurrently).

Corequisite: PHYS 1111 must be taken concurrently, unless an exception is granted by the Department Chair.

PHYS-1310 General Physics II

A calculus-level introduction to electric fields, magnetic fields, light waves, and modern physics. Topics include: electric fields, electric current, electric circuits, magnetic fields, electromagnetic induction, electromagnetic waves, geometrical optics, physical optics, quantum physics, atomic physics, lasers, nuclear physics and applications in biology, medicine, and geology. This course is appropriate for biology, chemistry, and geosciences majors. Only one of PHYS 1310 or 1312 may be taken for credit.

Prerequisite: PHYS 1309 or 1311; PHYS 1112 is normally taken concurrently but is not required.

PHYS-1311 Introduction to Mechanics

A calculus-level introduction to classical mechanics. Topics include: particle kinematics, Newton's laws of motion, kinetic and potential energy, linear and angular momentum, torque, statics, simple harmonic motion, mechanical waves, and sound. This course is appropriate for physics and engineering science majors. Only one of PHYS 1309 or 1311 may be taken for credit.

Prerequisite: MATH 1311 or 1307 (either may be taken concurrently).

Corequisite: PHYS 1111 must be taken concurrently, unless an exception is granted by the Department Chair.

PHYS-1312 Introduction to Electricity, Magnetism And Waves

A calculus-level introduction to electric fields, magnetic fields, and light waves. Topics include: electric fields, Gauss's Law, electric potential, magnetism, Ampere's Law, electromagnetic induction, Lenz's Law, Maxwell's Equations, geometrical and physical optics. This course is appropriate for physics and engineering science majors. Only one of PHYS 1310 or 1312 may be taken for credit.

Prerequisites: PHYS 1311 (or 1309) and MATH 1312 (may be taken concurrently).

Corequisite: PHYS 1112 must be taken concurrently, unless an exception is granted by the Department Chair.

PHYS-2-90 Directed Studies—Sophomore Level

Individual research under faculty supervision or independent study under faculty supervision in fields not covered by other courses. Credit may vary from 1 to 3 hours. This course may be repeated for additional credit; however, no more than 3 total hours may be counted toward a major in physics.

Prerequisite: consent of the Department Chair.

PHYS-2094 Physics Seminar

Attendance at departmental seminars. Grade is based on attendance.

PHYS-2128 Research Participation I

Individual research participation under faculty supervision.

Prerequisite: consent of the Department Chair.

PHYS-2131 Sophomore Experimental Physics I

Rigorous experimental work, including data handling and scientific writing. Experiments are drawn from the areas of mechanics, electricity and magnetism, optics, and nuclear physics. Meets 3 hours per week.

Prerequisites: PHYS 1111, 1112, 1312 (or 1310).

PHYS-2132 Sophomore Experimental Physics II

Continued instruction in experimentation, data analysis and scientific writing. Experiments are drawn from the areas of mechanics, electricity and magnetism, optics, and nuclear physics. Meet 3 hours per week.

Prerequisite: PHYS 2131.

PHYS-2311 An Introduction to Biophysics

A basic introduction to the application of physical principles to biological systems on nanometer- to-micrometer length scales. Questions addressed include: What are the forces that hold a cell together? How can a cell exert forces resulting in cell motion? What are the forces and energies involved in DNA functioning, protein folding, and nerve-signal transmission? How do the forces and energies at the molecular level ultimately generate the forces and energies required for macroscopic motion?

Prerequisites: MATH 1307 or 1311 and any one of the following four courses: BIOL 1311, CHEM 1318, PHYS 1309, or PHYS 1311.

PHYS-3129 Research Participation II

Individual research participation under faculty supervision.

Prerequisites: PHYS 2128 and consent of the Department Chair.

PHYS-3321 Statistical Physics and Thermodynamics

An introduction to the subjects of statistical mechanics, kinetic theory, thermodynamics and heat.

Prerequisites: PHYS 3323 and MATH 2321 (may be taken concurrently).

PHYS-3322 Classical Mechanics and Nonlinear Dynamics

Newtonian dynamics and kinematics utilizing the vector calculus. Topics include momentum, work and potential energy, angular momentum, rigid body dynamics, harmonic oscillators, central force motion, non-inertial systems, chaotic kinematics, and non-linear systems.

Prerequisites: PHYS 1312 (or 1310), MATH 2321 (may be taken concurrently).

PHYS-3323 Introduction to Modern Physics

A quantitative survey of modern physics. Topics include: special relativity, waveparticle duality, and Schroedinger equation, identical particles, solid state, and high energy physics.

Prerequisites: PHYS 1312 (or 1310), MATH 2321 (may be taken concurrently).

PHYS-3325 Optical Physics

The nature and propagation of electromagnetic waves and their interaction with matter. Topics from geometrical optics include reflection, refraction, mirrors and lenses. Topics from physical optics include polarization, interference, and Fraunhofer and Fresnel diffraction.

Prerequisites: PHYS 1312 (or 1310) and MATH 1312.

PHYS-3333 Quantum Physics I

Introduction to the theory of quantum mechanics. Stationary states and time evolution of solutions to the Schroedinger equation. Observables, operators and eigenvalues. The harmonic oscillator, angular momentum, central potentials, and perturbation theory.

Prerequisites: MATH 2321, PHYS 3323.

PHYS-3335 Electromagnetic Fields

An intermediate course on electromagnetic theory. Electrostatic field and potential, Gauss's law, conductors, electric dipole and multipoles, solutions to Laplace's equation, method of images, dielectric media, electrostatic energy, electric current. Magnetic field of steady currents, including the law of Biot and Savart, Ampere's law, magnetic vector potential. Electromagnetic induction. Introduction to Maxwell's equations.

Prerequisites: PHYS 3322, MATH 3316 (may be taken concurrently).

PHYS-3336 Advanced Theoretical Physics

An advanced course on electromagnetic theory and classical mechanics. Magnetic materials, inductance, magnetic energy, transient and steady-state behavior in circuits with time variable currents, full development of Maxwell's equations, propagation of electromagnetic waves, waves in bounded regions, radiation emission. Lagrangian and Hamiltonian dynamics, rigid body motion. Further possible topics include special relativity, plasma physics, fluid mechanics, and coupled oscillations.

Prerequisites: PHYS 3335, MATH 3316.

PHYS-3348 Atmospheric Physics

The physics of planetary atmospheres and the role of the atmosphere in determining climate. Topics include: global radiative equilibrium, radiative transfer, thermodynamic processes in the atmosphere, the general circulation, cloud formation, the ozone layer, instrumentation and data bases.

Prerequisite: PHYS 1310 or 1312.

PHYS-3350 Astrophysics

The application of physics to understanding stars and systems of stars. Topics include: cosmic distance scale, gravitational dynamics, statistical mechanics, electromagnetic processes, quantum effects, stars, cosmic gas and dust, quasars, cosmology.

Prerequisite: PHYS 1310 or 1312.

PHYS-3-90 Directed Studies—Junior Level

Individual research under faculty supervision or independent study under faculty supervision in fields not covered by other courses. Credit may vary from 1 to 3 hours. This course may be repeated for additional credit; however, no more than 3 total hours may be counted toward a major in physics.

Prerequisite: consent of the Department Chair.

PHYS-3-92 Directed Studies for Secondary School Science Teachers—Junior Level

Students work under supervision of a faculty member on a project that will be applicable to their future careers in teaching secondary school science. Oral and written communication of results are required. May be taken or 1 or 2 hours per semester with no more than 4 cumulative credit hours possible.

Prerequisites: Junior standing and completion of at least six science and mathematics courses and consent of instructor.

PHYS-3398 Honors Reading

Individual research and study under faculty supervision in preparation for Honors Thesis work.

Prerequisite: consent of the Department Chair.

PHYS-3412 Environmental and Exploration Geophysics

An introduction to the use of physical principles and measurements in the study of the Earth's subsurface, with an emphasis on applications in environmental science, engineering, mineral exploration, and archaeology. Topics include Fourier analysis, seismic waves in elastic media, refraction tomography, reflection seismology, multichannel analysis of surface waves, gravity, electrical resistivity, and ground-penetrating radar. (Also listed as GEOS 3312.) Field trips are required; field trip expenses must be paid by each student.

Prerequisite: PHYS 1310 or 1312 (may be taken concurrently).

PHYS-4121 Photonics and Electronics Laboratory I

An introduction to the use of lasers, fiber optics, and semiconductor-based electronics in modern technology and physics research. Laboratory projects include digital and analog integrated circuits, electronic and optical-based signal processing and communication devices. Meets 3 hours per week.

Prerequisites: PHYS 2132, 3323 (may be taken concurrently), or consent of instructor.

PHYS-4122 Photonics and Electronics Lab II

Continued hands-on instruction in the use of lasers, fiber optics and semiconductor-based electronics in modern technology and physics research. Laboratory projects include fiber-optic sensors and Michelson interferometry. Meets 3 hours per week.

Prerequisite: PHYS 4121.

PHYS-4131 Advanced Experimental Physics I

Experimental methods of modern physics. Topics include: atomic physics, radioactivity, interference, diffraction and electronics.

Prerequisites: PHYS 2132, 3323 (may be taken concurrently), or consent of instructor.

PHYS-4132 Advanced Experimental Physics II

Advanced experimental techniques in modern physics. Rigorous analysis of experimental data and competent scientific writing form an integral part of the course. Topics include: atomic physics, advanced optics, laser physics, transport phenomena, and reduced temperature measurements.

Prerequisite: PHYS 4131.

PHYS-4328 High-Frequency Electromagnetics

The fundamental theory of electromagnetic waves is developed and applied to the design of high-frequency electrical circuits. Topics include: how electromagnetic waves travel and are usefully directed; how to design signal transmission lines, filters and couplers; analysis of high-frequency circuit networks, and high-frequency circuit concepts such as distributed impedance. Students will also prepare an individually researched assignment on a subject of their choice exploring an emerging technology in the electrical engineering area. (Also listed as ENGR 4328.)

Prerequisites: MATH 2321 and either ENGR 2320 or PHYS 2131.

PHYS-4343 Quantum Physics II

A formal treatment of quantum mechanics emphasizing Dirac notation and matrix methods. Topics include: three dimensional systems, angular momentum, multiparticle systems, identical particles, spin perturbation theory, scattering, and an introduction to high-energy and particle physics.

Prerequisites: PHYS 3333, 3335.

PHYS-4346 Condensed Matter Physics

An advanced treatment of quantum theories of atoms and solids. Physics of solids and solutions, reciprocal lattices and crystallography, thermodynamic properties of condensed systems. Properties of atoms and photons. Laser cooling, coherent excitation, and atom optics.

Prerequisite: PHYS 3333.

PHYS-4-90 Directed Studies—Senior Level

Individual research under faculty supervision or independent study under faculty supervision in fields not covered by other courses. Credit may vary from 1 to 3 hours. This course may be repeated for additional credit; however, no more than 3 total hours may be counted toward a major in physics.

Prerequisite: consent of the Department Chair.

PHYS-4395 Senior Project

Individual research and scholarly investigation under faculty supervision. Presentation of results at a department seminar is required. Required of all B.S. Physics majors.

Prerequisite: senior standing.

PHYS-4396 Senior Thesis

Continuation of PHYS 4395 including written preparation of a thesis and oral presentation of results at a department seminar. Not required of but highly recommended for B.S. Physics majors.

Prerequisite: PHYS 4395.

PHYS-4398 Honors Project

Individual research and scholarly investigation under faculty supervision. Presentation of results at a department seminar is required. Required for honors in physics.

Prerequisite: PHYS 3398.

PHYS-4399 Honors Thesis

Continuation of PHYS 4398 including written preparation of a thesis and oral presentation of results at a department seminar. Required for honors in physics.

Prerequisite: PHYS 4398.

Political Science

FACULTY

ROSA ALOISI, Ph.D., Assistant Professor
DAVID A. CROCKETT, Ph.D., Professor; Chair
JOHN R. HERMANN, Ph.D., Associate Professor
KEESHA MIDDLEMASS, Ph.D., Assistant Professor
KATSUO NISHIKAWA, Ph.D., Assistant Professor
PETER O'BRIEN, Ph.D., Professor
SUSSAN SIAVOSHI, Ph.D., Una Chapman Cox Distinguished Professor of International Affairs
HYON JOO YOO, Ph.D., Assistant Professor

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in Political Science are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. Lower division requirements: 9 hours
One course from three of the following fields:
 1. American Politics (PLSI 1301)
 2. Comparative Politics (PLSI 1331, 1332)
 3. International Politics (PLSI 1342)
 4. Political Theory (PLSI 1361)
 - B. Political Science majors may choose among five separate curricula.

1. **General Political Science**

Students who have a general interest in Political Science may choose to major in the discipline without selecting a concentration. Majors who choose this option must meet the following requirements:

- a. Satisfaction of the lower division requirement (9 hours).
- b. Distribution of courses in five subfields: The student is required to take at least one course in each of the discipline's five major fields (American Politics, Comparative Politics, International Politics, Public Law, and Political Theory. Judicial Process can be used to satisfy the Public Law requirement). Lower division courses may be used to satisfy this distribution requirement.
- c. Eight upper division courses (24 hours).

2. **Comparative/International Politics**

This concentration is designed for majors who have a primary interest in international relations and/or comparative politics. In addition to preparing students for graduate work in these subfields of the discipline or related disciplines, this concentration is designed for students interested in international affairs.

- a. Satisfaction of the lower division requirement (9 hours).
- b. One upper division course in American Politics or Public Law (3 hours).
- c. One upper division course in Political Theory (3 hours).
- d. Five upper division courses in International Politics or Comparative Politics (15 hours).
- e. One course from the following disciplines outside the Department of Political Science (3 hours):
 - i. Modern Languages and Literatures: ML&L 3301 and higher.
 - ii. Economics: ECON 3318—Global Economy.
 - iii. History: Any upper division course with a focus on Latin American, sub-Saharan Africa, East Asia, the Middle East, or Europe (to be approved by the adviser).

3. American Politics

This concentration is designed for students who anticipate graduate studies in American politics or related fields. This concentration is also designed for students interested in political campaigns or public affairs.

- a. Lower division requirements (9 hours).
- b. Distribution of courses in five subfields:

The student is required to take at least one course in each of the discipline's five major fields (American Politics, Comparative Politics, International Politics, Public Law, and Political Theory. Judicial Process can be used to satisfy the Public Law requirement). Lower division courses may be used to satisfy this distribution requirement.
- c. Five upper division courses in American Politics and/or Constitutional Law (15 hours).
- d. One additional upper division course in any subfield of Political Science (3 hours).
- e. ECON 1311, 1312 (6 hours).
- f. PLSI 3372—Research Methods in Political Science or a research methods course offered by another department that is approved by the adviser (3 hours).

4. American Politics and Law

This concentration is designed for students who plan to attend law school. In addition to courses in political science, this concentration requires students to take courses that are designed to help develop analytical skills required for legal studies.

- a. Lower division requirements (9 hours).
- b. Distribution of courses in five subfields:

The student is required to take at least one course in each of the discipline's five major fields (American Politics, Comparative Politics, International Politics, Public Law, and Political Theory. Judicial Process can be used to satisfy the Public Law requirement). Lower division courses may be used to satisfy this distribution requirement.
- c. Five upper division courses in American Politics/Constitutional Law (15 hours).
- d. One additional upper division course in any subfield of Political Science (3 hours).

- e. ECON 1311, 1312 (6 hours).
- f. One course, approved by the adviser, in each of the following areas (6 hours):
 - 1. Logic, writing, or speech communication
 - ENGL 3314 Advanced Exposition and Argument
 - HCOM 1333 Public Speaking
 - HCOM 3330 Argumentation
 - HCOM 3334 Persuasion
 - PHIL 1341 Tools for Reasoning
 - PHIL 2340 Symbolic Logic I
 - 2. A course that views the law from a perspective other than that of Political Science
 - BUSN 3302 Legal Concepts of Business I
 - BUSN 3341 Legal Concepts of Business II
 - BUSN 3361 International Business law
 - COMM 3362 Media Law and Policy
 - ECON 3339 Economic Analysis of Law
 - PHIL 3353 Philosophy of Law
 - SOCI 3350 Sociology of Law

5. American Public Policy

This concentration is designed for students who are interested in public policy and policy analysis.

- a. Lower division requirements (9 hours).
- b. Distribution of courses in five subfields:

The student is required to take at least one course in each of the discipline's five major fields (American Politics, Comparative Politics, International Politics, Public Law, and Political Theory. Judicial Process can be used to satisfy the Public Law requirement). Lower division courses may be used to satisfy this distribution requirement.
- c. Five upper division courses in American Politics to include PLSI 3313 (Policy Analysis and the Policymaking Process) (15 hours).
- d. PLSI 3372—Research Methods in Political Science or a research methods course offered by another department that is approved by the adviser (3 hours).
- e. ECON 1311, 1312 (6 hours).
- f. Two courses that examine policy making and implementation from the perspective of another discipline (6 hours):
 - ECON 3323 The Economics of Government
 - ECON 3330 Economics and the Environment
 - ECON 3334 Urban Economics
 - ECON 3338 Government Regulation of Business
 - SOCI 3324 Crime and Delinquency
 - SOCI 3339 The Welfare State

III. Electives sufficient to total 124 semester hours.

GUIDELINES FOR ACCEPTANCE OF MAJORS

- I. Completion of two lower division courses with grades of C or better.
- II. An overall grade point average of at least 2.0.

THE MINOR

The requirements for the Minor:

A minimum of 18 semester hours of political science. Six hours shall be lower division; the remaining 12 shall be upper division. All courses shall be selected under the supervision of a departmental adviser.

INTERNSHIPS

The department encourages majors and minors to actively pursue internship opportunities that are available locally or through a variety of study abroad or Washington, DC programs. Students are encouraged to pursue such opportunities with or without credit. PLSI 3-97 Internship in Politics, Administration, and Law can only be taken Pass/Fail.

COURSES FOR TEACHER CERTIFICATION

The American national government requirement can be met through PLSI 1301.

COURSES

LOWER DIVISION

PLSI-1301 American Politics

A study of the institutions and processes of American government, with an emphasis on how changing social and economic conditions impact on contemporary structures and functions. This is the basic introductory course in American government.

PLSI-1331 Comparing Countries

An introduction to the ideologies, governments, and politics of the world's countries, focusing on the industrialized democracies, the transitional or Communist countries, and the poor countries of the Third World.

PLSI-1332 Film, Literature, and Politics of the Third World

An examination of political issues and challenges facing Third World societies as expressed through literature and film. Relying primarily on the works of Third World artists and writers, the course will explore issues such as the status of women, poverty, the plight of ethnic minorities, and the legacy of colonialism.

PLSI-1342 International Politics

An introductory course to understand interaction among state and non-state actors in the international arena. This course reviews international theory and examines important historical and contemporary issues in international relations. Why do states go to war? Under what conditions do states cooperate? Are democratic states more peaceful? This course provides answers to these questions and also examines core concepts on international political economy and international security, such as globalization, weapons of mass destruction proliferation, terrorism, etc.

PLSI-1361 Politics and Morality

An introduction to some of the most important moral issues persons confront as citizens of a given polity, for instance: When should one (dis)obey a law? Is the community's interest greater than the individual's? Students read selected prominent thinkers who have taken positions on such questions and then formulate their own positions in the context of their own political situation.

UPPER DIVISION

Unless otherwise stated, the student shall be expected to have completed six hours of Political Science before enrolling in an upper division course. With permission of the instructor, students can be admitted with only three hours.

AMERICAN POLITICS**PLSI-3301 Political Parties and Interest Groups**

An analysis of the development, structure, functions, and activities of political parties and interest groups in the American political system. In addition to an analysis of the interaction of these institutions, attention is given to the role of parties and interest groups in organizing mass political behavior in the electoral and policy making processes.

Prerequisite: PLSI 1301 or consent of instructor.

PLSI-3303 Elections and Campaigns

A study of the recruitment, nomination, and election of public officials in the United States with an emphasis on election theory, the legal framework of elections, campaign strategy and tactics, voting behavior, political advertising, and campaign finance.

PLSI-3304 Political Communication

Studies communication aspects of the political processes in a democratic society with an emphasis on contemporary political campaigns; presidential and congressional rhetoric; and less public forms of communication in the policy-making process. (Also listed as HCOM 4350.)

Prerequisites: 6 hours of Political Science or consent of instructor.

PLSI-3305 Legislatures in the United States

An analysis of American legislative institutions with an emphasis on the theories of representation, the development of legislative institutions, the structure and organization of legislatures, legislative parities, legislative behavior, executive-legislative relationships, and interest groups.

Prerequisite: PLSI 1301 or consent of instructor.

PLSI-3306 The American Presidency

An examination of the Presidency including recruitment, powers, and responsibilities and its relationship to the other major agencies of the state.

PLSI-3313 Policy Analysis and the Policymaking Process

An examination of the basic approaches and models used by policy analysts to explain governmental decision-making and public policy. Course selects contemporary public policy issues to demonstrate the

utility of specific approaches including: process theories, group theory, public choice theory, incrementalism, and game theory.

Prerequisite: PLSI 1301.

PLSI-3316 Urban Government and Politics

An introductory course in urban government, politics, and public policy. Emphasis is given to the varied forms of urban governments, including special districts and counties; local governments within the framework of the federal system; demographic changes in urban America; election systems; urban electoral politics; issues of community power and decision-making; public finance; and selected public policy issues. (Also listed as URBS 3336.)

Prerequisite: PLSI 1301 or consent of instructor.

PLSI-3329 Special Topics in American Politics

Occasionally courses will be offered on such special topics as Religion and Politics and Presidential Elections. Students are encouraged to bring to the attention of the Department Chair topics they wish to have offered. Students may take this course more than once provided the topics vary.

Prerequisites: 6 hours of Political Science or consent of instructor.

COMPARATIVE POLITICS

PLSI-3330 European Politics

A study of the successes and failures, strengths, and weakness of parliamentary democracy in various European countries. (Also listed as GRST 3370.)

Prerequisites: PLSI 1331 and another three-hour lower division course in Political Science, or consent of instructor.

PLSI-3331 Comparative Political Economy of North America, Europe, and East Asia

A comparative study of the relationship between the public and private sectors in the three regions with special emphasis on the extent to which government intervenes in the economy. (Also listed as GRST 3371.)

Prerequisite: ECON 1312 or consent of instructor.

PLSI-3333 Latin American Politics

An interdisciplinary survey of government and politics in Latin America, focusing on democratization, authoritarianism, and revolution in several major countries.

Prerequisite: PLSI 1331 or consent of instructor.

PLSI-3334 State, Society, and Change in the Middle East

A comparison of major Middle Eastern political systems, emphasizing the socio-economic and cultural characteristics of selected countries.

Prerequisite: junior standing or consent of instructor.

PLSI-3339 Special Topics in Comparative Politics

Occasionally courses will be offered on such special topics as The European Community. Students are encouraged to bring to the attention of the Department Chair topics they wish to have offered. Students may take this course more than once provided the topics are varied.

INTERNATIONAL POLITICS**PLSI-3341 East Asian Security**

This course examines core debates and arguments with respect to international security in East Asia. It explores important cases in past and current dynamics in East Asia, such as Chinese hierarchy, Japan's political role in Asia, the Korean Peninsula, growing interactions in Southeast Asia, and the U.S foreign policy in East Asia.

Prerequisite: One lower division course in Political Science or consent of instructor.

PLSI-3342 International Law

An introductory survey of public international law as practiced by states and international organizations, with an emphasis on jurisdiction, treaties, territory, law of the sea, human rights, economy, wars, and disputes as well as other topics.

Prerequisite: PLSI 1342 or consent of instructor.

PLSI-3343 Chinese Foreign Policy

This course examines Chinese foreign policy by focusing on leadership, economic conditions, political settings, public opinion, and China's relations with other countries. It also briefly explores the historical role of China in international politics. (Offered every year.) (Also listed as CHIN 3343).

PLSI-3344 The Middle East and the World

An examination of international relations and major foreign policy issues among the nations of the Middle East and between these nations and the rest of the world.

Prerequisite: PLSI 1342 or 1331 or 1332, or HIST 3361 or 3354.

PLSI-3345 The United States and World Order

An examination of US foreign policy and actions in a globalizing world.

Prerequisite: PLSI 1342 or consent of instructor.

PLSI-3346 War and Alliance

This course reviews theoretical and empirical studies on the nature of international conflicts and alliance. It explores the causes of war, crisis management, escalation of conflicts and termination of war. The course associates the role of alliance with war and peace by examining core concepts, formation of management of alliance.

Prerequisite: One lower division course in Political Science or consent of instructor.

PLSI-3349 Special Topics in International Politics

Occasionally courses will be offered on special topics. Students are encouraged to bring to the attention of the Department Chair topics they wish to have offered. Students may take this course more than once provided the topics are varied.

PLSI-3366 Governance and Public Policy in Contemporary China

This course covers most significant issues of contemporary politics and public policy in China. It explores the forces changing the lives of nearly a fifth of humanity, the 1.1 billion people of China. This course is designed to be experimental in both subject and teaching methodology. In order to explore the political,

economic, and social processes of liberalization that have created this new era of the increased circulation of people, ideas, commodities, and technologies across national boundaries, seminar participants must use materials and methods from many scholarly disciplines and traditions: urban studies, political science, sociology, history, anthropology, economics, and media/cultural studies. In order to study these increasingly mobile populations that often fall outside the boundaries of conventional area studies approaches, students must develop innovative comparative case study and survey methodologies. (Also listed as CHIN 3366 and URBS 3366.)

PLSI-4341 International Political Economy

An examination of the development and operation of the modern international political economy, with an emphasis on the politics of international investment, finance, trade, and aid.

Prerequisite: PLSI 1342 or ECON 1312.

PUBLIC LAW

PLSI-3351 Constitutional Law

Case law analysis and examination of the U.S. Supreme Court's role in defining the evolving nature and scope of national judicial, executive, and legislative authority. Topics addressed include the nature of judicial review, separation of powers and foreign policy authority, and the nature of federal and state commerce and taxation power. Additional emphasis on the development of basic legal research skills.

PLSI-3352 Civil Rights and Liberties

Case law analysis and examination of the U.S. Supreme Court's role in defining the meaning of the Bill of Rights as a limitation upon both state and federal power. Topics addressed include discrimination law, freedom of speech and religion, and criminal due process. Additional emphasis upon the development of basic legal research skills.

PLSI-3354 Judicial Process

Judicial Process examines the functions and roles of courts in the American political and legal universe. Additionally, the legal profession, group litigation strategies, methods of judicial selection, theories of judicial decision-making, judicial philosophy, judicial implementation, and alternative forms of dispute resolution are surveyed.

PLSI-3359 Special Topics in Public Law

Occasionally courses will be offered on special topics. Students are encouraged to bring to the attention of the Department Chair topics they wish to have offered. Students may take this course more than once provided the topics vary.

POLITICAL THEORY

PLSI-3361 Classical Political Thought

An examination of the nature of politics, justice, and civic virtue in ancient Greek, Roman, Christian, and Renaissance thought. Plato, Aristotle, Augustine, Aquinas, and Machiavelli.

PLSI-3362 Modern Political Thought

What are the enduring questions of modern politics? An examination of freedom, authority, and democracy through the writings of the great political thinkers of the modern age. Hobbes, Locke,

Rousseau, Burke, Marx, Mill, and de Tocqueville.

Prerequisite: junior or senior standing or consent of instructor.

PLSI-3363 Masters of Suspicion: Contemporary Political Thought

A study of many of the sharpest thinkers in the 20th century who have been opposed to democracy or pessimistic about its prospects. This course examines some of these thinkers and then takes up the work of other prominent contemporaries who have sought to defend democracy. (Also listed as GRST 3372.)

Prerequisite: Junior or Senior standing.

PLSI-3369 Special Topics in Political Theory

Occasionally courses will be offered on special topics. Students are encouraged to bring to the attention of the Department Chair topics they wish to have offered. Students may take this course more than once provided the topics vary.

SPECIAL COURSES

PLSI-3-90 Reading and Conference

Individual work under supervision. Varies in credit from one to six credit hours.

Prerequisites: junior standing with 6 hours upper division credit and consent of instructor.

PLSI-3-97 Internship in Politics, Administration, and Law

Students enrolled in PLSI 3-97 will be assigned to various party, governmental, or law offices on the basis of individual preferences and the availability of the assignments. The nature of the student's responsibilities will vary with the assignment involved and subject to the approval of the supervising faculty. Must be taken Pass/Fail. Permission from the instructor required.

PLSI-3372 Research Methods in Political Science

An introduction to basic techniques used in contemporary political science with emphasis on research design, data collection and analysis, and the use of the computer in analyzing data. Attention will be given to survey research and survey data, election data, census data, governmental data and statistics, and budget data.

PLSI-4390 Senior Seminar in Political Science

An in-depth study of selected themes in the discipline of political science. Second semester juniors who are studying off-campus in the first semester of their senior year may enroll in this course with the consent of the instructor. Consent of the instructor is required for non-majors.

Psychology

FACULTY

CAROLYN B. BECKER, Ph.D., Professor
JANE B. CHILDERS, Ph.D., Professor; Chair
PAULA T. HERTEL, Ph.D., Murchison Term Professor of Psychology
KEVIN P. McINTYRE, Ph.D., Assistant Professor
GLENN E. MEYER, Ph.D., Professor
KIMBERLEY A. PHILLIPS, Ph.D., Professor
HARRY M. WALLACE, Ph.D., Associate Professor
CHARLES B. WHITE, Ph.D., Professor; Vice President for Information Resources, Communications, and Marketing
CAROL Y. YODER, Ph.D., Professor

OVERVIEW

The curriculum in psychology reflects both the diversity of its subdisciplines and the universality of their reliance on methodological sophistication. All students who major in psychology are required to take courses that represent the main topical areas within the psychological sciences, plus a year-long methods sequence (preferably in the sophomore year). Through a rigorous advising program, students are encouraged to choose electives to develop their particular interests. Students who intend graduate study are encouraged to choose research experiences, as well as seminars related to their interests.

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in psychology are as follows:

- I. The common curriculum
- II. Departmental requirements: 38 hours in psychology, including:
 - A. PSYC 1300 (with a minimum grade of C).
 - B. PSYC 2401 (with a minimum grade of C) and 2402.
 - C. One course in each of the following clusters:
 1. Basic Physiological and Perceptual Processes: 2310, 3311.
 2. Development: 2320, 3321, 3322.
 3. Learning, Memory & Cognition: 2312, 2330, 3331, 3333.
 4. Social and Individual Differences: 2341, 3340, 3342.
 - D. At least 18 semester hours must be at the upper-division level.
 - E. Electives sufficient to total 38 hours in psychology (other cluster courses, companion courses, and individual experiences).
- III. Electives sufficient to total 124 semester hours.

Majors are encouraged to take courses from other disciplines that can serve to broaden their understanding of specific areas within psychology (e.g., mathematics, biology, computer science, and anthropology/sociology).

THE MINOR

A minor in psychology may be obtained by successful completion of at least 18 semester hours. At least nine of these hours must be at the upper-division level.

COURSES

INTRODUCTION AND METHODS

PSYC-1300 Principles of Psychology

An introduction to the major domains of psychological knowledge, informed by biological, cognitive, environmental and motivation perspectives. Emphasizes scientific theory and methods supplemented by applications to everyday experience.

PSYC-2401 Statistics and Methods I

Instruction in measurement processes, descriptive statistics, correlation and inferential reasoning and basic statistical procedures. Students become acquainted with major procedures and issues involved in the framing of psychological research. Instruction includes the use of computer-implemented statistical packages and the method and style of writing about psychological research.

PSYC-2402 Statistics and Methods II

Instruction in additional techniques in inferential reasoning, including analysis of variance, and major nonparametric statistics. All topics are presented within the context of research design and methodology. Related statistical packages for computer-assisted analysis and further instruction in writing are included. Prerequisite: PSYC 2401 or consent of instructor.

CLUSTER 1: BASIC PHYSIOLOGICAL AND PERCEPTUAL PROCESSES

PSYC-2310 Introduction to Neuroscience

A survey of basic neuroscience, starting with fundamentals of neuronal structures and ending with higher brain functions and their relations to mind and behavior. (Also listed as NEUR 2310.)

Prerequisite: PSYC 1300.

PSYC-2110 Neuroscience Laboratory

The neuroscience laboratory provides students with a hands-on approach to understanding the scientific method through neuroscientific technique and data analysis, including anatomical, electrophysiological and computer simulations. Students will engage in laboratory exercises as well as in solving problem sets. This course is appropriate for both non-science majors and science majors. Spring semester only. (Also listed as NEUR 2110.)

Prerequisite or corequisite: PSYC 2310 or NEUR 2310.

PSYC-3311 Sensation and Perception

Study of sensory and perceptual systems. Emphasis is on the relationship of neurophysiological and cognitive principles. Major focus is on vision (visual neurophysiology, spatial vision, form, color, depth and motion) with some discussion of psychophysical methods, audition, speech perception and the chemical senses. Demonstrations and conducting experiments are part of course.

Prerequisites: PSYC 1300, 2402.

CLUSTER 2: DEVELOPMENT

PSYC-2320 Lifespan Development

Overview of contemporary theoretical and empirical approaches to lifespan development. Biological, social, and psychological dimensions of behavior will be examined from conception and infancy through late life.

PSYC-3321 Cognitive Development

Examination of contemporary theoretical and empirical approaches to cognitive development from birth to adolescence. Major areas of cognition (e.g. perception, categorization, memory, language) are studied from a developmental perspective.

Prerequisite: PSYC 1300.

PSYC-3322 Social Development

Investigation of social development from infancy through adolescence. The course focuses on topics including infant attachment, gender development, the understanding of race/ethnicity, the development of morality, and the influence of peers, parents and the media on social development

Prerequisite: PSYC 1300.

CLUSTER 3: LEARNING, MEMORY & COGNITION

PSYC-2312 Principles of Learning

Major principles of learning, derived from empirical research with a variety of organisms. Historically important and contemporary theories of learning are introduced. Topics also include application to child rearing, education, and psychotherapy and implications for issues concerning freedom and responsibility.

Prerequisite: PSYC 1300.

PSYC-2330 Fundamentals of Cognition

An introduction to the principles of cognitive psychology. Topics include the development of the cognitive paradigm, attention, higher order processes in perception, language, memory, problem- solving and human-computer interaction. Application to other domains in Psychology and disciplines will be discussed.

Prerequisite: PSYC 1300.

PSYC-3331 Memory and Cognition

Examination of the fundamental principles of memory and thought, the experimental evidence to support these principles, and the theoretical perspectives used to understand them.

Prerequisites: PSYC 1300 and 2424 or consent of instructor.

PSYC-3333 Simulation of Neural and Cognitive Processes

The interrelations among the study of the mind, the elaboration of brain mechanism, and studies in artificial intelligence. Discussion of modern computers as a model of brain functioning with emphasis on the question of parallel versus serial processing and contemporary approaches to information processing in the nervous system. Students will gain experience in modeling these processes on computers.

Prerequisites: PSYC 1300 and 2330.

CLUSTER 4: SOCIAL AND INDIVIDUAL DIFFERENCES

PSYC-2341 Social Psychology

Examination of how individuals think, feel, and behave in different social contexts. Explores the basic and applied research on topics such as aggression, attitudes, attribution, prejudice, relationships, self-perception, and social influence.

Prerequisite: PSYC 1300.

PSYC-3340 Psychopathology

Examination of current theory and research findings concerning major psychological disorders. Causes, treatment, and phenomenology of psychopathology are explored, with emphasis on relevant social, intrapsychic, and physiological factors. Includes a critique of approaches to differentiating pathological and adaptive behavior.

Prerequisite: PSYC 1300.

PSYC-3342 Personality and Individual Differences

Examination of the following perspectives on personality process: psychoanalytic, trait, genetic, behavioral, cognitive, and humanistic. Major research methods and issues of each perspective are stressed.

Prerequisites: PSYC 1300 and 2401.

COMPANION COURSES

PSYC-2323 Psychology of Gender

Biological, social, and culture contributions to gender role development. Specific topics to be discussed will include psychological theories of gender role development (biological and social), gender differences in cognition, the neurobiological models of gender differences, masculinity and femininity, representation of masculinity and femininity in literature and the media, gender-based sexuality, peer relationships, and gender-based development of identity and self.

PSYC-3338 Comparative Psychology

An examination of the theories used to interpret animal behaviors such as communication, territoriality, and aggression. Research and observation pertinent to differences among these major theories are stressed.

Prerequisite: PSYC 1300.

PSYC-3351 Clinical Psychology

Exploration of the field of clinical psychology, with a focus on theories and practices of intervention. The major approaches to intervention, including psychodynamic, behavioral, cognitive, humanistic, and systems, are examined. These approaches are critically evaluated with attention to relevant research issues.

Prerequisites: PSYC 1300 and 3340.

PSYC-3353 Psychological Assessment

The history, principles, purposes, and problems of psychological assessment. Recent interest in gender, age and cultural differences is integrated with the examination of major assessment techniques.

Prerequisites: PSYC 1300 and 2401.

PSYC-3355 Behavioral Medicine

Examination of the basic psychological processes that influence health and illness. Specific behaviors, illnesses, and physical conditions such as smoking, obesity, cancer, HIV, and hypertension are explored with a focus on theoretical models and psychological interventions.

Prerequisite: PSYC 3340 or consent of instructor.

PSYC-3360 Special Topics in Psychology

In depth study of theory and research within a particular domain of psychology. May be repeated on different topics.

Prerequisite: consent of instructor.

PSYC-4370 History and Systems

Survey of the scientific and philosophical concepts that served as the precursors to contemporary psychology. Emphasis on the historical development of psychological theories in America.

Prerequisite: senior status.

PSYC-4390 Senior Seminar in Psychology

In-depth study of theory and research on a topic that spans subdisciplines within psychology or relates psychology to cross-disciplinary interests.

Prerequisite: senior status with a major in Psychology or consent of instructor.

INDIVIDUAL EXPERIENCE**PSYC-3357 Directed Field Practicum**

Field work conducted as part of the academic curriculum. May be repeated once for credit on a different topic. Pass/Fail basis only. (Does not count toward the major.)

Prerequisites: PSYC 3340 and consent of instructor.

PSYC-3-61 Reading and Research

Independent study under supervision; three hours per week per credit is assumed, on average; credit may be taken for 1 or 2 semester hours. This course may be repeated twice.

Prerequisite: consent of instructor.

PSYC-3368 Supervised Research

Independent research using empirical methods. May be repeated once. Nine hours per week will be distributed across research activities, colloquia attendance, and student presentations.

Prerequisites: PSYC 2401.

PSYC-4395 Thesis I

Independent research and scholarly investigation conducted with faculty supervision and culminating (with

PSYC 4396) in the preparation of a written thesis.

Prerequisites: PSYC 2401, 2402, and consent of instructor.

PSYC-4396 Thesis II

Completion of research initiated in PSYC 4395 and the presentation of the written thesis according to departmental guidelines.

Prerequisites: PSYC 4395 and consent of instructor.

Religion

FACULTY

C. MACKENZIE BROWN, Ph.D., Professor
RUBEN R. DUPERTUIS, Ph.D., Associate Professor
RANDALL L. NADEAU, Ph.D., Jennie Farris Railey King Professor of Religion
SARAH K. PINNOCK, Ph.D., Professor; Chair
CHAD SPIGEL, Ph.D., Associate Professor
ANGELA TARANGO, Ph.D., Assistant Professor

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in religion are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. 30 semester hours in religion including at least one course from each of the following five groups:
 1. The Traditions
 - RELI 3331 Hindu Tradition
 - RELI 3332 Buddhist Tradition
 - RELI 3341 Jewish Tradition
 - RELI 3342 Christian Tradition
 - RELI 3343 Islamic Tradition
 2. Modern and Contemporary
 - RELI 1320 Ethical Issues in Religious Perspective
 - RELI 3301 Gender and Religion
 - RELI 3303 Death and Beyond
 - RELI 3312 Religion and Science in the West
 - RELI 3318 Religion and Film
 - RELI 3346 Islamic Literatures
 - RELI 3356 Digging for the Truth: Archaeology, Bibles, and the Popular Media
 - RELI 3380 U.S. Latino Religious Practices and Traditions
 - RELI 3382 African American Religions
 3. Textual and Literary
 - RELI 2354 The Hebrew Bible/Old Testament
 - RELI 2355 The New Testament
 - RELI 2356 The Qur'an
 - RELI 3350 Dead Sea Scrolls
 - RELI 3353 The Gospels, Jesus, and Christian Origins
 - RELI 3354 The Letters of Paul
 - RELI 3355 Non-Canonical Early Christian Literature
 4. Regional
 - RELI 1330 Asian Religions
 - RELI 1360 Religion in the United States

RELI 3313	Religion and Science in Asia
RELI 3333	Chinese Religions
RELI 3334	Japanese Religions
RELI 3381	Native American Religions

5. Theoretical

RELI 4394	Approaches to the Study of Religion
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B. At least 15 of the semester hours in religion to be upper-division courses selected in consultation with a faculty adviser in the Department of Religion.

C. A total of no more than 12 semester hours from RELI 3-90 and 3-91 to be counted toward the major without approval of the adviser and the Department.

III. Electives sufficient to total 124 semester hours.

THE MINOR

The requirements for a minor in religion are as follows:

- I. 18 semester hours in religion.
- II. At least 9 of the semester hours in religion to be upper-division courses selected in consultation with a faculty adviser in the Department of Religion.
- III. A total of no more than 6 semester hours from RELI 3-90 and 3-91 to be counted toward the minor without approval of the adviser and the Department.

COURSES

LOWER DIVISION COURSES AT THE 1000 LEVEL

Lower division courses at the 1000-level carry no prerequisites.

RELI-1320 Ethical Issues in Religious Perspective

Inquiry into the religious dimension of issues such as environmental pollution, violence, capital punishment, economic injustice, hunger, homosexuality, feminism, pornography, abortion, and euthanasia.

RELI-1330 Asian Religions

A study of Hindu, Buddhist, and East Asian religious traditions in theory and practice; attention to such topics as reincarnation, yoga and meditation, shamanism, ritual, salvation, personal religious experience, gender roles, spiritual ideals of art, and the relation of humankind to nature and the cosmos.

RELI-1340 Islam, Judaism, and Christianity

A comparative study of three interrelated Abrahamic religions. Attention to such topics as founders, scriptures, worship and ritual, mysticism, material culture, identity and gender roles.

RELI-1360 Religion in the United States

A study of religious diversity in the United States with emphasis on the Protestant, Catholic, Jewish and Islamic traditions. Attention may be given to such topics as Native American religion, civil religion, new religious movements, women in religion, and televangelism.

LOWER DIVISION COURSES AT THE 2000 LEVEL

Lower division courses at the 2000 level carry no prerequisites but presuppose of the student either (a) a particular interest in the subject matter of the course, (b) a certain familiarity with the specific subject matter of the course, or (c) a certain familiarity with Religion as an academic discipline.

RELI-2101 Biblical Hebrew

The primary goal of this course is to introduce students to ancient Hebrew so they will be able to read parts of the Hebrew Bible in the original language. This course begins with an introduction to the Hebrew alphabet and vowel system and therefore requires no prior knowledge of Hebrew. (Also listed as LAC 2101).

RELI-2354 The Hebrew Bible/Old Testament

A study of the books of the Old Testament/Hebrew Scriptures in English translation. Some of the books will be read in their entirety, and substantial excerpts of most of the others will also be read so that all of the major types of literature present in the Old Testament/Hebrew Scriptures will be represented. The course will approach its subject matter primarily as literature, but attention will be given to the historical, cultural, and religious aspects of its production. The course will also consider the trajectory of its subject matter in Jewish and Christian thought, and in Western Culture.

RELI-2355 The New Testament

A study of the writings that comprise the New Testament, with attention also to certain other early Christian documents not included in the New Testament. Most of the writings are read in their entirety, and they are examined with reference to their historical, cultural, religious, and literary contexts; their use as historical sources for the reconstruction of Christian origins; their role as a basis for Christian belief and practice; and their wider influence in Western and world cultures.

RELI-2356 The Qur'an

Islam and Muslims have been embroiled in some of the most searing controversies of our age, and the Islamic scripture, the Qur'an, has been at the center of a number of these controversies. This course introduces students to the Qur'an, and how it is perceived by Muslims themselves. Religion 2356 deals with the importance of this sacred text for the religion of Islam, including its beliefs, rituals, and rites. The course also covers the history of the Qur'an and engages with key themes of the scripture. Students will be introduced to the content of the primary text and a selection of accessible secondary readings. Current hot-button questions such as "What does the Qur'an say about women?" or "Does the Qur'an legitimate violence?" will also be addressed.

UPPER DIVISION COURSES AT THE 3000 LEVEL**RELI-3301 Gender and Religion**

An examination and discussion of issues relevant to the study of religion and ethics raised by contemporary feminists; offered from the perspective of gender and religion; the roles played by religious traditions in relation to cultural expectations placed upon women and men; implicit and explicit values reflected in religious traditions regarding women; and the diversity of women's responses to cultural expectations in a religious context.

Prerequisite: 1 course in Religion or consent of instructor.

RELI-3303 Death and Beyond

A comparative study of the perspectives and attitudes within various world religious traditions regarding the significance of death for human existence and self-understanding; attention to contemporary accounts of near-death experiences compared to traditional religious accounts of other world journeys; special emphasis on the concepts of heaven, hell, reincarnation, universal salvation, and divine justice, and the relation of such notions to moral, philosophical, and theological ideals pertaining to life.

Prerequisite: 1 course in Religion or consent of instructor.

RELI-3312 Religion and Science in the West

An examination and discussion of issues in the history of the relation of religion and science in the Western world, with emphasis on developments from the Renaissance to the present. The course focuses on significant religion-science debates, such as those surrounding evolution and the mind/soul/body relation, and on methods and models in religion and science. Attention will be given to ways religion has influenced science, and science religion.

Prerequisite: 1 course in Religion or consent of instructor

RELI-3313 Religion and Science in Asia

An examination and discussion of issues in the history of the relation of religion and science in Chinese, Hindu, and Islamic Cultures. Topics will include cosmology, astronomy, and astrology, on one hand, and biology and traditional systems of medicine on the other. Major theoretical issues will include the colonized discourse on religion and science in the Asian context, the variety of traditional Asian responses to modern science and the impact of cultural perspectives on the scientific enterprise.

Prerequisite: 1 Course in Religion or consent of instructor

RELI-3318 Religion and Film

This course introduces some of the many issues and theoretical perspectives in the study of religion and film. We explore images of religion and religious people in film and trace a number of recurring religious themes in recent popular films. We also examine popular films that do not have explicit religious themes through the lenses of theories of religion, myth, and ritual.

Prerequisite: 1 course in Religion or consent of instructor

RELI-3331 The Hindu Tradition

A study of the major developments and schools within the tradition, from ancient times to the present; attention to mythological/theological perceptions and interpretations of the world, as well as to meditational, devotional, and ritual practices. Field trips and/or interviews are an integral part of the course.

Prerequisite: RELI 1330 or consent of instructor.

RELI-3332 The Buddhist Tradition

An inquiry into the meaning of the Buddha's life, and an examination of his teachings and their expression in the Buddhist community; attention to meditational practices, ritual, ethics, and major religious-philosophical issues within the various schools of South and East Asian Buddhism.

Prerequisite: RELI 1330 or consent of instructor.

RELI-3333 Chinese Religions

A study of the indigenous religious traditions of China in cultural and historical perspective, including Religious Taoism, Confucianism, and Yin-Yang cosmology. Topics for discussion will include cosmology,

ritual and myth, religious self-cultivation, and the interaction between humankind and the sacred. Course taught in English. (Also listed as CHIN 3333.)

Prerequisite: RELI 1330 or consent of instructor.

RELI-3334 Japanese Religions

A study of the Japanese religious experience in cultural and historical perspective, including indigenous traditions (Shinto) and Japanese appropriation of religions imported from China and the West. Traditions to be examined will include village and state Shinto; Esoteric Buddhism, Zen, and Pure Land sectarianism; Shinto-Buddhist interaction; and new religious movements.

Prerequisite: RELI 1330 or consent of instructor.

RELI-3338 Greek Religious Experience

A study of Greek religious festivals designed to produce a coherent image of a year in the religious life of the ancient Greeks. Through a combination of archaeological and literary evidence, we will attempt to reconstruct the rituals performed at the various festivals and explore the ways in which they organized and articulated the community through shared religious experience. We shall also consider the ways in which religion organized civic space and gave it meaning. (Also listed as CLAS 3338.)

RELI-3341 The Jewish Tradition

A study of the major religious developments and issues within Judaism, as reflected in selected literature drawn from the biblical, rabbinic, medieval, and early modern periods.

Prerequisite: RELI 2354 or consent of instructor

RELI-3342 Christian Tradition

A study of historical development of Christian doctrine and practice as reflected in selected scriptures, creeds, and theological works from the early church to modern times. Attention to Catholicism, Orthodoxy, and Protestantism.

Prerequisite: RELI 2355 or consent of instructor.

RELI-3343 The Islamic Tradition

An examination of Islam as a diverse, living tradition practiced by hundreds of millions of people around the world. Will include discussion of the foundations of Islamic religion and of issues such as women and Islam, the jihad, and Islamic fundamentalism.

Prerequisite: RELI 2356 or consent of instructor.

RELI-3346 Islamic Literatures

The course will examine a range of literary writings from the early and modern Islamic worlds with a view to gaining insights into the prevailing themes of these literary works and their relevance for understanding the historically changing interconnections between self, society, and religion. Students will read an array of literary genres from two broad successive epochs of Islamic history: the Age of Empires (9th to late 18th centuries, C.E.) and the Post-Colonial Age (19th to 21st Centuries, C.E.). The course also lays stress upon exposure to the cultural and regional diversity of Islamic civilization, and hence, students will be exposed to literary works in translation from the Arabic, Persian, Turkish, and Urdu languages.

Prerequisite: RELI 2356 or consent of instructor.

RELI-3350 The Dead Sea Scrolls

In 1947 hundreds of ancient scrolls—including biblical texts and sectarian documents—were discovered

in caves overlooking the Dead Sea. In this course we will examine the scrolls in an effort to learn more about the world of Second Temple Judaism, the history of the biblical texts, and the lifestyle and religious ideas of a small sectarian community; studying the scrolls will also provide a context for the emergence of rabbinic Judaism and early Christianity. In addition to learning about the scrolls and their contents, this course will also look at the archaeological remains of the ancient village of Qumran, where the scrolls were found.

Prerequisite: RELI 2354 or consent of instructor.

RELI-3353 The Gospels, Jesus, and Christian Origins

A study of the earliest extant literary portrayals of Jesus, with attention to what can be known about his life, message, activity, and fate as well as his significance for the origins of Christianity.

Prerequisite: RELI 2355 or consent of instructor.

RELI-3354 The Letters of Paul

A study of the extant writings attributed to Paul and included in the New Testament, with attention to the historical, cultural, religious, and literary context of these writings and to Paul's influence in early Christianity and in the history of Christian thought.

Prerequisite: RELI 2355 or consent of instructor.

RELI-3355 Non-Canonical Early Christian Literature

This course examines the wide range of early Christian experience by examining a number of Christian writings from the first few centuries of the movement. We will focus on non-canonical early Christian literature, the social and historical contexts of a number of expressions of Christianity as well as the process of the formation of the early Christian canon.

Prerequisites: RELI 2354, RELI 2355, or consent of instructor.

RELI-3356 Digging for the Truth: Archaeology, Bibles, and Popular Media

This course explores the intersection of archaeology, the bibles, and popular media. More specifically, it explores how the popular media uses archaeology and the bibles to create history, and how their process differs from an academic approach. Some questions that will be addressed include: What is archaeology and how is it done? What can archaeology teach us? What can't archaeology teach us? What role should the biblical literature play in writing history? How does popular media's use of archaeology and the bibles differ from the historian's use of archaeology and the bibles? What kinds of motives—political, economic and religious—factor into the equation?

Prerequisite: RELI 2354, RELI 2355, or consent of instructor.

RELI-3360 Philosophy of Religion

A critical discussion of philosophical issues arising in religion and theology. Typical topics covered include: religious language, arguments for God's existence, religious experience, miracles and revelation, the relationship of faith and reason, the nature of God, the problem of evil, death and immortality. (Also listed as PHIL 3338.)

Prerequisite: PHIL 1301 or 1 course in Religion.

RELI-3370 Sociology of Religion

A study of institutionalized and non-institutionalized forms of religious expression. Various forms of religious expression, their social sources, and their societal consequences will be examined. The relation between religion and secular institutions (the economy, polity, education, etc.) will be investigated.

Particular attention will be focused on emerging forms of religious expression in modern urban-industrialized society. (Also listed as SOCI 3333.)

Prerequisite: 3 hours in Sociology.

RELI-3380 United State Latino Religious Practices And Traditions

This course examines the beliefs, theologies, and practices of diverse U.S. Latino communities. In addition to Catholicism and Protestantism, the course will review the impact of African and Native American religious traditions. The course critically examines how U.S. Latino religious experiences impact race, class, gender, and sexuality with a particular emphasis on examining the Latino community in San Antonio.

Prerequisite: RELI 1360 or consent of instructor.

RELI-3381 Native American Religions

This course is an overview of Native American religious traditions in the United States. Topics covered may include Native revitalization movements, traditional Pueblo and Sioux dances, Native Christianity, modern Native religious thought, Peyote religion, issues of gender in Native American religion, boarding schools and Americanization, the role of white Christian missionaries, and the modern Native American evangelical movement.

Prerequisite: RELI 1360 or HIST 1360 or consent of instructor.

RELI-3382 African Religions in the Americas

This course will focus on the African religious traditions that developed into new expressions of faith in the United States, Caribbean, and Latin America. In this course we will cover a variety of religious traditions, including African-American Christianity, Santeria, Candomblé, Vodou, Rastafarianism, Islam, and folk practices such as the "conjuring" tradition. This course will also explore the role of gender within African/African-American traditions and issues of religion and social change such as the Civil Rights movement and Liberation Theology.

Prerequisite: RELI 1360 or consent of instructor.

RELI-3-90 Reading and Conference

Individual work under supervision in areas not covered by other courses.

Prerequisites: 12 hours in religion and approval of the department chair and instructor.

RELI-3-91 Special Topics in Religion

From time to time, the department will offer special topic courses not described in the Bulletin. The topics may be in any area and may be offered at the initiative of departmental faculty or upon petition of interested students. Announcements of such courses will be by special prospectus. May be repeated on different topics.

Prerequisite: consent of instructor.

UPPER DIVISION COURSES AT THE 4000 LEVEL

Junior standing and completion of 9 semester hours in the academic study of Religion or consent of instructor is prerequisite to taking 4000-level courses.

RELI-4394 Approaches to Studies of Religion

An inquiry into the nature of religion and ways in which it is studied and described; topics may include self and other within religious traditions religious pluralism, comparative studies of religion, sociological and psychological functions of religion, and the relation between religion and culture.

Prerequisite: 3 courses in Religion. This course is normally taken in the Junior or Senior year.

Scientific Computing

FACULTY ADVISORY COMMITTEE

FARZAN AMINIAN, Ph.D., Professor, Engineering Science
SABER ELAYDI, Ph.D., Professor, Mathematics; Chair
JULIO ROBERTO HASFURA-BUENAGA, Ph.D., Associate Professor, Mathematics
MARK LEWIS, Ph.D., Professor, Computer Science
KEVIN D. LIVINGSTONE, Ph.D., Associate Professor, Biology
NATASA MACURA, Ph.D., Associate Professor, Mathematics
DAVID O. RIBBLE, Ph.D., Murchison Term Professor of Biology, Biology
DENNIS W. UGOLINI, Ph.D., Associate Professor, Physics and Astronomy
ADAM URBACH, Ph.D., Professor, Chemistry

OVERVIEW

Scientific Computing is a multi-disciplinary program designed for science majors who wish to explore the application of computing within the natural sciences. It is intended primarily for students majoring in one of the natural sciences or engineering. The program of study brings together courses from Computer Science, Mathematics, and disciplines in the natural sciences. Each student takes the required core courses in computer science and calculus. After the core, two advanced-level courses selected from five options further hone quantitative skills needed for scientific computing. Students should work with their advisers to identify courses that are most appropriate for their backgrounds and goals. Finally, students bring their computation skills to their major by selecting one upper-level course from a list of approved disciplinary courses that make use of computation. Concurrent with this course, students enroll in SCOM 3199—Scientific Computing Project. Note: These disciplinary courses have several prerequisites that are not listed among the requirements for a minor in Scientific Computing—students majoring in a discipline among the natural sciences will have already fulfilled these prerequisites as part of their major.

Students interested in a Scientific Computing minor will submit an application to the chair of the Committee, who will assign a faculty adviser to the student. Completion of this program will be indicated on the student's transcript with the notation "Minor in Scientific Computing."

REQUIREMENTS

A minor in Scientific Computing will consist of a total of 19 to 20 semester hours, depending on the upper-level course selected in the major. The minor must include at least nine hours of upper-division courses in mathematics or science. The requirements for a minor in Scientific Computing are as follows:

The Core (9 hours)

I. Computation

CSCI 1320	Principles of Algorithm Design
CSCI 2323	Scientific Computing

II. Calculus

MATH 1307	Calculus A
OR	OR
MATH 1311	Calculus I

III. **Advanced Quantitative Skills** (6 hours) Take two of the following five courses:

CSCI 3352	Simulation Theory
MATH 3311	Probabilistic Models in Life Sciences
MATH 3320	Probability and Statistics for Engineers and Scientists
MATH 3328	Mathematical Models in Life Sciences
MATH 3338	Mathematical Modeling

IV. **Disciplinary Practice** (4-5 hours depending on the chosen elective)

A. SCOM 3199—Scientific Computing Project
[Must be taken in conjunction with one of the courses listed below.]

B. And **one** of the following courses:

BIOL 3420	Animal Behavior
BIOL 3434	Ecology
BIOL 3464	Molecular Biology
CHEM 3334	Physical Chemistry (includes lab CHEM 3135)
MATH 4394*	Senior Project
PHYS 3321	Statistical Physics and Thermodynamics
PHYS 3322	Classical Mechanics and Nonlinear Dynamics
PHYS 3325	Optical Physics
PHYS 3336	Advanced Theoretical Physics
PHYS 4343	Quantum Physics II
PHYS 4346	Advanced Modern Physics
PSYC 3311	Sensation and Perception
PSYC 3331	Memory and Cognition
PSYC 3333	Simulation of Neural and Cognitive Processes

* This course requires completion of a 3000-level course in Biology or Psychology.

COURSES

SCOM-3199 Scientific Computing Project

The course involves undertaking a project that expands one of the laboratory or classroom exercises to make significant use of computers as a research tool. Students must work with a faculty mentor to develop an appropriate project (usually the instructor in the course).

Corequisite: concurrent enrollment in one of the disciplinary practice courses approved for Section C of the requirements for this minor.

Sociology and Anthropology

FACULTY

CHRISTINE DRENNON, Ph.D., Associate Professor
SARAH BETH KAUFMAN, Ph.D., Assistant Professor
MICHAEL C. KEARL, Ph.D., Professor
JENNIFER P. MATHEWS, Ph.D., Professor
ALFRED MONTOYA, Ph.D., Assistant Professor
TAHIR H. NAQVI, Ph.D., Assistant Professor
RICHARD K. REED, Ph.D., Professor
DAVID SPENER, Ph.D., Professor; Chair
AMY L. STONE, Ph.D., Associate Professor
SHERYL R. TYNES, Ph.D., Professor; Associate Vice President for Academic Affairs

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in sociology or anthropology are as follows:

- I. The common curriculum
- II. Departmental requirements:
 - A. The Sociology major consists of 30 semester hours to be taken as follows:
 1. At least one of the following courses: SOCI 1301, 1316, 2306, 2311, or 2312.
 2. Required courses: SOCI 2335 and 3359.
 3. At least one of the following courses: SOCI 3360, 3361, or 3365.
 4. At least 21 hours must be in upper division courses.
 - B. The Anthropology major consists of 30 semester hours to be taken as follows:
 1. At least one of the following courses: ANTH 1301, 1305, or 2310.
 2. Required courses: ANTH 2301 and 3359.
 3. At least one of the following courses: ANTH 3360, 3361, or 3365.
 4. One additional course in Archaeology or Physical Anthropology; and at least one of the following courses: ANTH 2357, 3327, 3329, 3330, 3331, 3343, 3348, 3367, 3368, 3464, 4361, and 4362. ANTH 3394 and 4394 may also fulfill this requirement if approved by the department chair.
 5. At least 21 hours must be in upper division courses chosen in consultation with the adviser.
- III. Electives sufficient to total 124 semester hours.

THE MINOR

Two minors are offered in the Department of Sociology and Anthropology. The department requirements are as follows:

- I. The Sociology minor consists of 18 semester hours to be taken as follows:
 - A. Completion of at least one of the following courses: SOCI 1301, 1316, 2306, 2311, 2312, or 2314.
 - B. At least 12 hours must be in upper division courses.
- II. The Anthropology minor consists of 18 semester hours to be taken as follows:
 - A. Completion of at least two of the following courses: ANTH 1301, 1305, or 2310.
 - B. At least 12 hours must be in upper division courses.

Students in one of the two disciplines who choose to double major in the other may have no more than nine hours of overlap between the two disciplines.

COURSES

SOCIOLOGY COURSES

LOWER DIVISION (NO PREREQUISITES)

SOCI-1301 Introduction to Sociology

A study of the nature of human society. Special attention will be given to the nature of culture, social organization, personality development, institutions, and social stratification.

SOCI-1310 The Urban Experience

An introduction to the city, its origins, contemporary form, and likely future. The course will present the city and urban phenomena in both the American context and other national environments. The major emphasis will be placed on understanding the physical, social, economic and political systems that create and sustain urban areas. (Also listed as URBS 1310.)

SOCI-1316 People and Places in Global Context

A study of the complex ways in which modern social organization materializes geographically. Topics include the distribution and movement of human populations, characteristics and distribution of cultural mosaics, patterns of economic interdependence, and the forces of cooperation and conflict among peoples from both global and local perspectives. (Also listed as URBS 1316.)

SOCI-2306 Introduction to Social Psychology

This course examines the effects of culture and social structure upon the thoughts, emotions, identities, and behaviors of individuals – how the individual exists within society and how society exists within the individual. Topics include how language and stereotypes shape perception, prejudice, how birth order and family dynamics shape personality, television's impacts upon sexuality and aggression, the historical evolution of individualism, urban psychology, and how group dynamics influence the success of sports teams and the creativity of think tanks.

SOCI-2311 Sociology of Sex Roles

An analysis of social, psychological, and physiological approaches to the development of sex identity and sex roles. Differential socialization methods from infancy through adolescence will be examined along with the impact on both men and women of contemporary changes in sex roles.

SOCI-2312 Sociology of Marriage and the Family Experience

An examination of the various structures and functions of the family as the basic social institution of society. Special attention will be given to conflict and change as it has occurred in modern industrial America resulting in a diversification of family types and mores.

SOCI-2314 Social Problems and Human Values

A documented and critical analysis of major social problems in the United States, in a global as well as national context. This course aims at providing an understanding of the structure of society and of the underlying causes and conditions that maintain social problems. Special attention will be given to how we think about social problems: the social definitions of problems, the role of ideologies, the role of mass media, and the impact of these social processes on social policy formation. Students will explore their personal values in response to social issues in such areas as health, work, children's welfare, and the environment.

SOCI-2323 Deviance: Social and Personal

An analysis of the current theoretical perspectives on deviant behavior and an examination of deviance in the context of the social-political conditions of contemporary society. Selected empirical studies will be used to examine specific problems, theory, and societal definitions and responses to deviance.

SOCI-2328 Social Inequality

A study of the stratification of American society in terms of the unequal distribution of wealth, status, and power. Theories on the origin and development of social classes as well as of the functional necessity of social inequality will be examined along with empirical works dealing with inequality. (Also listed as URBS 2328.)

SOCI-2332 Sociology of Health and Illness

A study of the social and cultural definitions of health and illness, social patterns of morbidity and mortality, social and environmental sources of illness, social roles of the "sick," the nature of the illness experience, and the structure of health professions and the societal institutions that deal with health and illness. (Also listed as URBS 2332.)

SOCI-2335 The Sociological Imagination

A critical survey of classical social theory of the 19th and 20th centuries. The course will also examine the subsequent emergence of theories regarding other dimensions of social life—such as race, gender sexuality, generational phenomena, and modern communication technologies—that classical theory did not adequately address.

UPPER DIVISION

(Any one lower-division course satisfies the prerequisite for upper-division courses unless otherwise noted.)

SOCI-3159 Social Research Skills Workshop

A hands-on workshop integrating new research methods with emerging social scientific software. Attention will be given to the analysis of qualitative, quantitative and spatial data using computer software, along with developing research skills in interviewing, survey collection, and creating databases. Must be taken concurrently with SOCI 3359. (Also listed as ANTH 3159.)

SOCI-3313 Social Movements

This course is an introduction to the theory and research on social movements with a focus on contemporary American movements. The sociological study of social movements emphasizes how political, organizational, and cultural factors shape social movement emergence and development. Movements studied in this class may include the women's movements, gay/lesbian activism, environmental movement, the civil rights movement, and disability activism.

SOCI-3324 Crime and Delinquency

An examination of the causes, treatment, and prevention of delinquent and criminal behavior, including political, corporate, and governmental criminal behavior.

SOCI-3325 Drugs and Society

A sociological overview of policies regarding and use of a range of licit and illicit drugs, examining drugs over time and across social groups with a focus on the importance of politics, culture, power, and economics. Sociological theories will be introduced to explain the conceptualization of drug use and abuse.

SOCI-3327 Race in America

A study of relations between dominant and subaltern racial groups in the United States and other American republics. Special attention will be paid to the social construction of racial categories and the ways in which societies are stratified on the basis of nationality and racial group membership. The evolving dynamics of race relations will be considered with regard to matters of power, prestige, immigration, citizenship, and identity-formation. Various forms of contemporary racism and means of combatting them will also be examined. (Also listed as ANTH 3327.)

SOCI-3329 Sexuality and Society

An investigation of the social construction and regulation of sexuality across cultures and through time. This perspective on sexuality looks at social, rather than biological or personal, explanations for how human sexuality is practiced. Specific topics may include queer studies, queer communities and HIV/AIDS in society. (Also listed as ANTH 3329.)

SOCI-3330 Sociolinguistics

An introduction to linguistic theories of change. Emphasis on linguistic analysis of languages in change. (Also listed as ANTH 3330.)

SOCI-3331 Language, Culture, and Society

Student will analyze the functions of language in everyday life in various cultures, including the role of language in the social production and reproduction of power relations, stratification, gender roles, the formation of racial and ethnic identities, and in the process of social change. (Also listed as ANTH 3331.)

SOCI-3333 Sociology of Religion

A study of institutionalized and non-institutionalized forms of religious expression. Various forms of religious expression, their social sources, and their societal consequences will be examined. The relation between religion and secular institutions (the economy, polity, education, etc.) will be investigated. Particular attention will be focused on emerging forms of religious expression in modern, urban-industrialized society. (Also listed as RELI 3370.)

SOCI-3337 Organizations: Private, Public, and Popular

Business, government, and social movement organizations in their historic, economic, and political contexts; how organizational structures constrain individuals, and how individuals reform, subvert, and/or rebel against those structures. Applying theories to our own organizational environments (present and future), we will focus on characteristics of organizations and the interrelationships of organizational actors.

SOCI-3338 Work and Professions

This course analyzes the social structure of people's work in the context of the global economy. Topics include the relation between work and stratification (e.g., by social class, age, gender, race and ethnicity), worker socialization and networks, occupational health and illness, unemployment, underemployment and retirement, the formal organizational contexts of work, the process of professionalization credentialing, and de-skilling, the impact of social and technological changes on the nature of work and the workplace. One special focus will be on women's work, including comparisons between industrialized and non-industrialized economies and various economic systems. Students will also examine the nature of work in the San Antonio and South Texas economy.

SOCI-3339 The Welfare State

This course systematically focuses on the complex organizations comprising and spawned by the welfare state. The general purpose of the course is two-fold. First, the historical, demographic, economic, and political macrodynamics of welfare state evolution are addressed. Second, the complex interrelationships between the broader social environment, organizations that comprise the welfare state, and individuals, are utilized to illustrate the linkages among them.

Prerequisite: SOCI 1301 or consent of instructor.

SOCI-3340 Urban Geography

This course examines the history and contemporary processes of urbanization, primarily in the North American context. In particular, we are concerned with the geography of these processes, resulting in differentiation of space and the creation of distinct places. We will examine the geography of urbanization at several scales, ranging from the development of the North American urban system to the experiences of neighborhoods within cities. (Also listed as URBS 3340.)

Prerequisite: SOCI 1316.

SOCI-3343 Relaciones fronteras Mexico-Estados Unidos (bilingüe)

In this seminar we will examine a variety of social, cultural, political, and economic phenomena that characterize the Mexico-US border region. Includes an optional overnight excursion to communities located on the international boundary itself. This course is part of the Spanish across the Curriculum component of Trinity University's International Studies Program. It is conducted bilingually in Spanish and English, i.e., in both languages of the Mexico-U.S. border region. Competence in speaking, reading, writing and listening in both Spanish and English is a requirement for participation in the course. (Also listed as ANTH 3343 and LAC 3343.)

Prerequisites: SPAN 2302 or equivalent Spanish competence and consent of instructor.

SOCI-3345 International Issues in Health and the Environment

This course explores social factors, such as inequality and power, in creating environmental conditions that affect global health, focusing on marginalized regions and peoples. Case studies will explore historical colonization and urbanization and control of natural resources, in their degradation of the

environment, effects of climate change, and risks to human and environmental health. (Also listed as ANTH 3345.)

SOCI-3346 Childhood and Youth

Social factors surrounding childhood, and children's perceptions of social life, reveal a great deal about society in general. The purpose of this course is to provide a sociological frame work for understanding the roles of childhood and youth in society. This framework will involve historical, cross-cultural, economic, and political considerations of childhood and young adulthood. Using comparative and historical methods we will examine the changing social status of children. Various social institutions (such as families, education, and the media) will be studied. Finally, we will study how contemporary American children and young adults fare, and why this is so.

Prerequisite: SOCI 1301 or consent of instructor.

SOCI-3347 The Aging Revolution

With an estimated 20 percent of everyone who has reached the age of 65 being now alive, it is not surprising that the United Nations proclaimed 1999 to be the International Year of Older Persons. Contemporary generations, particularly those in developing nations, are among the first in history to be raised with the expectation of old age, forerunners of a longevity revolution that will be felt for centuries to come. Using the theoretical and methodological tools of the social sciences, this course investigates both the personal and social ramifications of this great demographic event, developing the interrelationships between the biological, psychological, social, and cultural aspects of old age.

SOCI-3348 Death and Dying

A critical overview of the social and cultural sources of humanity's outlooks and practices toward dying and the dead. Beginning with historical and cross-cultural analyses of death systems, the course proceeds to develop sociologically the roles of religion, philosophy, psychology, science, politics and medicine in shaping orientations toward war, abortion, suicide, environmental destruction, organ transplants, euthanasia, funerary ritual and capital punishment. It concludes with analyses of the experiences of those who die and those who survive. (Also listed as SOCI 3348.)

SOCI-3349 Globalization and Social Change

Study of the relationship between economic development and social change at the international level. Examines the rise of capitalism as a global mode of production and its impact on local cultures in the contemporary period. Special attention paid to the rise of transnational communities and grassroots movements for social justice. (Also listed as ANTH 3349.)

SOCI-3350 Sociology of Law

The content and form of legal systems provide a framework for the examination of two key sociological concepts: social organization and social control. This course will focus on sociological theories of law as developed by Durkheim, Weber, and Marx. The course will also examine modern perspectives with a focus on sociological jurisprudence and criminal law. Course materials will be supplemented with an examination of current issues in the development and application of law.

SOCI-3351 Sociology of Knowledge

A study of the social structural factors which influence the nature and development of knowledge systems. The reciprocal relation between the social structure and various elements of knowledge (ideas, ideologies, science, and technology, for instance) will constitute a major focal point of the course. Ideology and science as social products will be important topics of study. The contributions of Marx,

Durkheim, Mannheim, Scheler, Merton, Berger, and Luckmann, among others, will be considered.

SOCI-3359 Social Research Design

An introduction to the basic research techniques used in the social sciences with an emphasis on research design, data collection and analysis. This course will include an overview of common methods within the social sciences, including ethnography, qualitative interviews, focus groups, historical comparative methods, experiments, and survey methods. SOCI 3159 or ANTH 3159 must be taken concurrently. (Also listed as ANTH 3359.)

SOCI-3360 Research Methods: Applied Social Statistics

This course provides a hands-on approach for learning how to undertake quantitative social research focused on the design and completion of a semester-long research project. A variety of statistical tools are addressed, including descriptive statistics, tests of significance, and linear regression and correlation. The course goals emphasize writing and rewriting, learning how to formulate and test research hypotheses, and understanding how to present results in an accurate and effective manner. (Also listed as ANTH 3360 and URBS 3360.)

Prerequisite: ANTH 3359 or SOCI 3359 or consent of instructor.

SOCI-3361 Research Methods: Fieldwork

This course provides a hands-on approach for learning how to undertake qualitative research through fieldwork, focused on the design and completion of a semester long research project. The course goals emphasize survey and interview techniques, writing and rewriting, and understanding how to present results in an accurate and effective manner. (Also listed as ANTH 3361.)

Prerequisite: ANTH 3359 or SOCI 3359 or consent of instructor.

SOCI-3365 Research Methods: GIS

This course provides a hands-on approach for learning how to undertake spatial social research focused on the design and completion of a semester-long research project. Spatial tools introduced emphasize geographic information systems. The course goals include map making and the integration of information technology and cartography. (Also listed as ANTH 3356 and URBS 3365.)

Prerequisite: SOCI 3359 or ANTH 3359.

SOCI-3445 Understanding Refugees

An interdisciplinary study of the refugee experience from global and local perspectives. The course will examine how the human rights of refugees are understood from the points of view of international law, humanitarian institutions, and of refugees themselves. The ways in which refugees negotiate the trauma of the past and the demands of everyday life in cities in their host countries will also be examined. Includes a directed field research experience. (Also listed as ANTH 3445 and URBS 3445.)

Prerequisites: Any one lower-division course in Sociology; or ANTH 1301, 1305, 2301, or 2310.

SOCI-4361 Social Theory

A critical survey of the foremost paradigms in contemporary sociological and anthropological theory. The course emphasizes the historical intellectual location of major theoretical traditions, especially the works of Durkheim, Marx and Weber. Contemporary schools of thought include functionalism, cultural ecology, conflict and rational choice theories, symbolic interactionism and dramaturgical analysis, phenomenology and ethnomethodology, structuralism, feminist theories, world systems analysis and structuration theory. For each, special attention is given to how to evaluate theories and how theoretical paradigms are linked to empirical research. (Also listed as ANTH 4361.)

Prerequisite: five Sociology courses or consent of instructor.

SOCI-3-91 Special Topics in Sociology

Occasional courses will be offered on current events or desired topics that students bring to the attention of the Department Chair. A student may repeat this course if the topics are different. A maximum of nine semester hours can be taken in SOCI 3-91 or 3-94.

SOCI-3-94 Seminar

Topics will vary as necessitated by student interest. A student may repeat the course if the topics are different. A maximum of nine hours can be taken in SOCI 3-91 or 3-94.

SOCI-4394 Seminar

Topics will vary as necessitated by student interest. A student may repeat the course if the topics are different for a maximum of nine semester hours.

Courses arranged on an independent study basis with the guidance and consent of the instructor.

SOCI-3-71, 4-71 Sociology Internship

Field work experience in a setting arranged and approved by the student, professor, and agency selected. Supervision and guidance must be provided in the field and contact with the professor must be maintained. A student may repeat the course for a maximum of six semester hours. This course is taken Pass/Fail.

SOCI-3-90 Sociology Independent Study

Individual research in selected areas. A student may repeat the course for a maximum of six semester hours. A project proposal must be submitted to and approved by the professor supervising the research prior to registration.

Prerequisite: consent of instructor.

SOCI-4395 Senior Thesis

Students will produce a written thesis on a topic of their choice during the course of one semester. The Sociology faculty will consider and review theses nominated by the advising instructor. Students must have their thesis proposal approved by the Sociology faculty in the semester prior to registering for the course.

Prerequisites: permission of advising instructor and senior standing.

ANTHROPOLOGY COURSES

LOWER DIVISION (NO PREREQUISITES)

ANTH-1301 Introduction to Anthropology

Variation in human thought and behavior is viewed in diverse cultural settings. The anthropological perspective on sociocultural processes at work in contemporary societies is presented.

ANTH-1304 Introduction to Classical Archaeology

An introduction to the history of archaeological activity in the Mediterranean, and archaeological theory and field techniques. Course will also examine major sites and monuments of ancient Greece and Rome. (Also listed as CLAS 1304.)

ANTH-1305 Introduction to Prehistoric Archaeology

Introduction to the methods and theories of prehistoric archaeology and the study of the origin and development of culture beginning with the earliest evidence and including the rise of complex societies known as civilizations in the Old and New Worlds.

ANTH-1309 Pirates, Merchants, and Marines: Seafaring in the Ancient Mediterranean

This course explores how human relations with the sea affected the social, economic, military, political, and technological aspects of life in the ancient Mediterranean littoral. Evidence includes hulls and cargoes of shipwrecks, harbor-works, inscriptions, graffiti, wall paintings and mosaics, literary texts, and gravestones. A central focus will be an introduction to the methodology and technologies of archaeology, but the subject matter of this course and the nature of the discipline of maritime archaeology incorporate methodologies and substance also from the fields of Anthropology, Ethnography, Physical Sciences, Engineering, Art History, History, and Geography. (Also listed as CLAS 1309.)

ANTH-2301 The Anthropological Imagination

This course provides potential anthropology majors a comprehensive understanding of anthropology as an academic discipline, focusing on anthropologists and what they do. Rather than read a text or abstract debates, the class studies specific anthropologists and the classic ethnographies they wrote concerning non-Western cultures, looking at how each work was shaped by the particular life and time of the author. Classic studies will be chosen from each of the major periods in anthropology's history: from functionalism and structuralism to more recent work in Marxist, feminist, and interpretive anthropology. (Offered every Spring.)

ANTH-2310 Human Evolution

Human evolution studied through fossil and archaeological evidence; description and explanation of modern human biological variation; and the study of non-human primates in order to develop perspectives on the human capacity for culture.

ANTH-2357 Humans and the Environment

The seminar will analyze humans' relationship with the natural environment. It will first focus on cultural adaptation to natural resources, with case studies drawn from African foragers, South American gardeners, and Asian farmers. The course will also analyze the effects of contemporary development, focusing on the destruction of the rainforest. The class will try to create new models for development from indigenous peoples' use of tropical resources.

UPPER DIVISION

(ANTH 1301, 1305, 2301, or 2310 is a prerequisite for all upper-division courses unless special permission is granted.)

ANTH-3159 Social Research Skills Workshop

A hands-on workshop integrating new research methods with emerging social scientific software. Attention will be given to the analysis of qualitative, quantitative and spatial data using computer software,

along with developing research skills in interviewing, survey collection, and creating databases. Must be taken concurrently with ANTH 3359. (Also listed as SOCI 3159.)

ANTH-3327 Race in America

A study of relations between dominant and subaltern racial groups in the United States and other American republics. Special attention will be paid to the social construction of racial categories and the ways in which societies are stratified on the basis of nationality and racial group membership. The evolving dynamics of race relations will be considered with regard to matters of power, prestige, immigration, citizenship, and identity-formation. Various forms of contemporary racism and means of combatting them will also be examined. (Also listed as SOCI 3327.)

ANTH-3329 Sexuality and Society

An investigation of the social construction and regulation of sexuality across cultures and through time. This perspective on sexuality looks at social, rather than biological or personal, explanations for how human sexuality is practiced. Specific topics may include queer studies, queer communities and HIV/AIDS in society. (Also listed as SOCI 3329.)

ANTH-3330 Sociolinguistics

An introduction to linguistic theories of change. Emphasis on linguistic analysis of languages in change. (Also listed as SOCI 3330.)

ANTH-3331 Language, Culture, and Society

Students will analyze the functions of language in everyday life in various cultures, including the role of language in the social production and reproduction of power relations, stratification, gender roles, the formation of racial and ethnic identities, and in the process of social change. (Also listed as SOCI 3331.)

ANTH-3343 Relaciones Fronterizas Mexico—Estados Unidos (bilingüe)

In this seminar we will examine a variety of social, cultural, political, and economic phenomena that characterize the Mexico-United States border region. Includes an optional overnight excursion to communities located on the international boundary itself. This course is part of Spanish across the Curriculum component of Trinity University's International Studies Program. It is conducted bilingually in Spanish and English, i.e. in both languages of the Mexico-U.S. border region. Competence in speaking, reading, writing, and listening in both Spanish and English is a requirement for participation in the course. (Also listed as LAC 3343 and SOCI 3343.)

Prerequisites: SPAN 2302 or equivalent Spanish competence and consent of instructor.

ANTH-3345 International Issues in Health and the Environment

This course explores social factors, such as inequality and power, in creating environmental conditions that affect global health, focusing on marginalized regions and peoples. Case studies will explore historical colonization and urbanization and control of natural resources, in their degradation of the environment, effects of climate change, and risks to human and environmental health. (Also listed as SOCI 3345.)

ANTH-3348 Death and Dying

A critical overview of the social and cultural sources of humanity's outlooks and practices toward dying and the dead. Beginning with historical and cross-cultural analyses of death systems, the course proceeds to develop sociologically the roles of religion, philosophy, psychology, science, politics and medicine in shaping orientations toward war, abortion, suicide, environmental destruction, organ

transplants, euthanasia, funerary ritual and capital punishment. It concludes with analyses of the experiences of those who die and those who survive. (Also listed as SOCI 3348.)

ANTH-3349 Globalization and Social Change

Study of the relationship between economic development and social change at the international level. Examines the rise of capitalism as a global mode of production and its impact on local cultures in the contemporary period. Special attention paid to the rise of transnational communities and grassroots movements for social justice. (Also listed as SOCI 3349.)

ANTH-3356 Seminar on the Ancient Maya

This course surveys the culture of ancient Maya, including material culture, as well as mythology, calendrics, art and writing. It will cover several ancient Maya sites in depth, as well as the contact period and the contemporary Maya.

ANTH-3357 Pre-Columbian Art of Mesoamerica

This course is a survey of the art of Mesoamerica and will examine the art of the Olmec, Western Mexico, Gulf Coast, Teotihuacan, Maya, Toltecs, Zapotecs, Mixtecs, and the Aztecs. Art mediums will include architecture, sculpture, ceramics and other portable art, murals, ancient manuscripts such as codices, jewelry, and even graffiti. Students will have an opportunity to work with materials on and off-exhibit in the Pre-Columbian collection at the San Antonio Museum of Art for their research papers. (Also listed as ARTH 3335.)

ANTH-3359 Social Research Design

An introduction to the basic research techniques used in the social sciences with an emphasis on research design, data collection and analysis. This course will include an overview of common methods within the social sciences, including ethnography, qualitative interviews, secondary data analysis, content analysis, and survey methods. ANTH 3159 must be taken concurrently. (Also listed as SOCI 3359.)

ANTH-3360 Research Methods: Applied Social Statistics

This course provides a hands-on approach for learning how to undertake quantitative social research focused on the design and completion of a semester-long research project. A variety of statistical tools are addressed, including descriptive statistics, tests of significance, and linear regression and correlation. The course goals emphasize writing and rewriting, learning how to formulate and test research hypotheses, and understanding how to present results in an accurate and effective manner. (Also listed as SOCI 3360 and URBS 3360.)

Prerequisite: ANTH 3369 or SOCI 3359 or consent of instructor.

ANTH-3361 Research Methods: Fieldwork

This course provides a hands-on approach for learning how to undertake qualitative research through fieldwork, focused on the design and completion of a semester-long research project. The course goals emphasize survey and interview techniques, writing and rewriting, and understanding how to present results in an accurate and effective manner. (Also listed as SOCI 3361.)

Prerequisite: ANTH 3359 or SOCI 3359 or consent of instructor.

ANTH-3365 Research Methods: GIS

This course provides a hands-on approach for learning how to undertake spatial social research focused on the design and completion of a semester-long research project. Spatial tools introduced emphasize geographic information systems. The course goals include map making and the integration of information

technology and cartography. (Also listed as SOCI 3365 and URBS 3365.)

ANTH-3367 South American Indigenous Peoples: Conquest and Development

The impact of colonialism and development on tropical forest and Andean Indian societies in South America with emphasis of the influence of native social and cultural systems in these groups' relations with national societies and international economies.

ANTH-3368 Anthropological Ethics

This course will analyze ethical case studies and their ramifications in socio-cultural anthropology, physical anthropology and archeology. Case studies will range from historical incidents that shaped the ethics of current anthropology, as well as ethical dilemmas of practitioners in the field today.

ANTH-3445 Understanding Refugees

An interdisciplinary study of the refugee experience from global and local perspectives. The course will examine how the human rights of refugees are understood from the points of view of international law, humanitarian institutions, and of refugees themselves. The ways in which refugees negotiate the trauma of the past and the demands of everyday life in cities in their host countries will also be examined. Includes a directed field research experience. (Also listed as SOCI 3445 and URBS 3445.)

Prerequisites: Any one lower-division course in Sociology; or ANTH 1301, 1305, 2301, or 2310.

ANTH-3464 Morality in the Marketplace

The course explores rationality and morality in economic relations from a cross-cultural perspective. Lectures and readings will draw on neoclassical, Marxist and cultural ecological models and case studies in Southeast Asia and Latin America. In addition to analyzing tribal and peasant economies, this course will study theories of global economic development. In addition to 3 credit hours of lecture and discussion, this course will include a 1 credit hour tutorial in anthropological research and writing.

ANTH-3466 Anthropological Forensics

This course is a broad overview of anthropological forensics, and will include laboratory projects in which students catalogue human remains, determining age, sex, ancestry and stature of a laboratory collection of human bones. Specific attention is paid to forensics and human rights, forensic case studies, and techniques such as forensic entomology and dental ontology. Students should be prepared for a strenuous work load, including extensive readings, oral presentations, a major research paper, laboratory reports, and a significant amount of independent lab work. Meets 4 hours per week.

Prerequisite: ANTH 2310 or consent of instructor.

ANTH-3-91 Anthropology Special Topics

Occasional courses will be offered on current events or desired topics that students bring to the attention of the Department Chair. A student may repeat this course if the topics are different. A maximum of nine semester hours can be taken in 3-91 and 3394.

ANTH-4354 Seminar on Primatology

Advanced study of human evolution, ecological conservation, and culture and behavior by investigation of humans' closest living relatives, the non-human primates. Includes completion of a research project involving primate observation and original data collection about primate behavior.

Prerequisite: ANTH 2310.

ANTH-4361 Social Theory

A critical survey of the foremost paradigms in contemporary sociological and anthropological theory. The course emphasizes the historical intellectual location of major theoretical traditions, especially the works of Durkheim, Marx and Weber. Contemporary schools of thought include functionalism, cultural ecology, conflict and rational choice theories, symbolic interactionism and dramaturgical analysis, phenomenology and ethnomethodology, structuralism, feminist theories, world systems analysis, and structuration theory. For each, special attention is given to how to evaluate theories and how theoretical paradigms are linked to empirical research. (Also listed as SOCI 4361.)

Prerequisite: Five Sociology (Anthropology) courses or consent of instructor.

ANTH-3394, 4394 Seminar

Topics will vary as necessitated by student interest. A student may repeat the course if the topics are different for a maximum of nine semester hours.

ANTH-3-71, 4-71 Anthropology Internship

Field work experience in a setting arranged and approved by the student, professor, and agency selected. Supervision and guidance must be provided in the field and contact with the professor must be maintained. A student may repeat the course for a maximum of six semester hours. This course is taken Pass/Fail.

Prerequisite: consent of instructor.

ANTH-3-72, 4-72 Archaeological Practicum

Participation in an approved excavation in the Mediterranean world, Western Europe, or the Near East. Student will be expected to receive instruction in excavation techniques and in the recording and study of the site and the material. Two weeks' work will normally be counted as equivalent to 1 credit, up to a maximum of 3 credits. (Also listed as CLAS 4-72.)

Prerequisite: consent of instructor.

ANTH-3-73 Archaeological Fieldwork

Field work experience in a setting arranged and approved by the student, professor, and agency selected. Supervision and guidance must be provided in the field.

Prerequisite: consent of instructor.

ANTH-3-90 Anthropology Independent Study

Individual research in selected areas. A student may repeat the course for a maximum of six semester hours. A project proposal must be submitted to and approved by the professor supervising the research prior to registration.

Prerequisite: consent of instructor.

ANTH-4395 Senior Thesis

Students will produce a written thesis on a topic of their choice during the course of one semester. The Anthropology faculty will consider and review theses considered outstanding by the advising instructor. Students must have their thesis proposal approved by the Anthropology faculty in the semester prior to registering for the course.

Prerequisites: permission of advising instructor and senior standing.

Sport Management

FACULTY ADVISORY COMMITTEE

CAROLYN BECKER, Ph.D., Professor, Psychology

JENNIFER J. HENDERSON, Ph.D., Professor, Communication

RITA D. KOSNIK, Ph.D., Professor, Business Administration

DAVID W. LESCH, Ph.D., Professor, History

JOHN M. McGRATH, Ph.D., Professor, Human Communication and Theatre

JACOB K. TINGLE, Ed.D., Assistant Professor of the Practice of Business Administration; Chair

DARRYL G. WALDRON, Ph.D., Professor, Business Administration

REQUIREMENTS

THE MINOR

The minor in Sport Management is an interdisciplinary program that studies various aspects of administering a sports organization or program, including: legal issues, sociological concerns, and a variety of management functions. Students contemplating graduate school in Sport Management or a career in athletic management would be well suited for this program.

Completion of the program will be indicated on the student's transcript with the notation, "Minor in Sport Management."

Students interested in the minor should contact the Chair of the Committee.

The requirement for the minor in Sports Management is the completion of 24 semester hours as follows (15 of which must be upper division):

I. *Required courses :*

MGMT 2301	Management of Organizations
SPMT 1312	Sport in Society
SPMT 3308	Sport Management
SPMT 3309	Legal Issues in Sport

II. *Six hours in elective Sport Management courses (to include no more than three hours in SPMT 3-90 or SPMT 3-99):*

COMM 3357	Sport Media (also listed as SPMT 3317)
SPMT 1106	Sport Officiating Laboratory* (also listed as PHED 1106)
SPMT 1165	Intramural Programming (also listed as PHED1165)
SPMT 1306	Sport Officiating
SPMT 3312	Ethics in Sport Management
SPMT 3314	History of American Sport*
SPMT 3315	Financial Aspects of Sport Management*
SPMT 3316	Leadership for Sport Professionals
SPMT 3317	Sport Media (also listed as COMM 3357)
SPMT 3-90	Directed Study in Sport Management
SPMT 3-99	Sport Management Internship*
SPMT 4301	Organizational Theory in Sport Management*
SPMT 4302	Seminar in Contemporary American Sport*

III. *Six elective hours from the following courses:*

A. **Communication and Marketing**

COMM 3360	Principles of Public Relations*
COMM 3361	Principles of Advertising*
HCOM 1333	Public Speaking
MKTG 3381	Consumer Behavior*
MKTG 3382	Promotion Management*

B. Finance

ACCT 1302	Fundamentals of Managerial Accounting*
FNCE 3301	Financial Administration of Business Firms*
FNCE 4351	Financial Management and Policy

C. Management

BUSN 3311	Organizational Communication (also listed as HCOM 3362)
ECON 3329	Labor Economics and Labor Relations* (also listed as MGMT 3311)
HCOM 3360	Communicating in Small Groups and Teams
HCOM 3362	Organizational Communication (also listed as BUSN 3311)
MGMT 3311	Labor Economics and Labor Relations* (also listed as ECON 3329)
MGMT 3371	Human Resource Management
MGMT 3372	Organizational Behavior*

COURSES**SPMT-1106 Sport Officiating Laboratory**

This laboratory is designed to provide students an opportunity for practical implementation of the practices and skills learned in SPMT 1306. (Also listed as PHED 1106.)

Prerequisite: SPMT 1306 or consent of instructor.

SPMT-1165 Intramural Programming

In this course, students will plan and participate in new recreational opportunities. Students will create an event and teach their classmates the rules, regulations, and policies for that particular sport or recreational activity and then participate in that event as a group. (Also listed as PHED 1165.)

SPMT-1306 Sport Officiating

The purpose of this class is to provide students a meaningful educational experience of both a practical and theoretical nature in the area of sports officiating.

SPMT-1312 Sport in Society

A study of contemporary issues in sport and the impact sport has on society. Topics that will be critically analyzed included children and sport, sport and education, gender and racial issues, and deviance in sports.

SPMT-1314 Athletic Facility and Event Management

This course explores the basic concepts pertaining to the planning, organizing, and conducting of sporting events, both amateur and professional. Additionally, the course will address the planning, development, and maintenance of sport and leisure facilities.

SPMT-3308 Sport Management

Studies the foundation and application of sport management as it applies to athletics, business, and

physical education. Includes organizational theory, leadership, sport law, ethical concerns, budgeting, and marketing.

Prerequisite: MGMT 2301.

SPMT-3309 Legal Issues in Sport

This course provides an understanding of the legal system, its terminology, and legal principles applied to professional and amateur sports. Emphasis is on identifying and analyzing legal issues affecting the sports environment, such as contracts, tort law, regulation of sports agents, labor management relations, civil rights legislations including Title IX, discrimination issues, and antitrust arbitration decisions.

SPMT-3312 Ethics in Sport Management

This course will focus on the exploration of contemporary values, issues, and controversies associated with sport and sport management. It is designed to provide students with a fundamental, theoretical and practical knowledge of various ethical issues that may arise in sport. Students will become familiar with ethical decision-making methods and potential solutions to ethical issues they may encounter as sport professionals. Ethical concepts and issues will be examined through lectures, class discussions, presentations and group assignments.

Prerequisite: SPMT 3309.

SPMT-3314 History of American Sport

This course explores the historical evolution of American sports from colonization to globalization. The course examines sport experiences in colonial America, the antebellum health reform movement, sport and social changes during the progressive era, and the rise of modern sport. Emphasis will be given to the place of sport in the university and the development of the National Collegiate Athletic Association.

Prerequisite: SPMT 1312.

SPMT-3315 Financial Aspects of Sport Management

An Analysis of financial and economic aspects of professional and collegiate sports. This course will cover such issues as forms of ownership, formulation, and development of operating budgets, financial forecasting, taxation, revenue production, risk, economic impact studies, financial planning for sports organizations and professional athletes and the economic impact of unions in professional sports.

Prerequisites: ACCT 1302 and SPMT 3308.

SPMT-3316 Leadership for Sport Professionals

This course explores the development of personal leadership skills for athletic directors, coaches, managers, and others in the sport industry. An emphasis will be placed upon the relationship between goal development and organizational culture as each relates to key approaches, models, and theories in the leadership field.

SPMT-3317 Sport Media

This course will critically examine the relationship between sport media issues such as race, gender, sexuality, nationalism, capitalism/consumerism, violence, and civic life. Ethical implications and the impact of social media will also be explored. (Also listed as COMM 3357.)

Prerequisite: COMM 1301 or SPMT 1312 or consent of instructor.

SPMT-3-90 Directed Study in Sport Management

Independent study or research, or advanced selected topics in sport management that are not covered in

other classes. Variations in credit according to the work performed, from 1–3 hours. Class may be repeated once, provided the topic varies.

Prerequisite: Consent of instructor.

SPMT-3-99 Sport Management Internship

The internship is to be a structured and supervised professional work experience with an accepted employer in the private, public, or non-profit sector. To be recognized, the experience must be pre-approved and must include specific learning objectives. An internship is typically done by a student who has attained sufficient preparation in an academic field. The experience may be paid or unpaid. Variations in credit according to the work performed, from 0 to 6 hours. Must be taken on a Pass/Fail basis.

Prerequisite: Consent of instructor.

SPMT-4301 Organizational Theory in Sport Management

Designed for those students who desire to study Sports Management in graduate school. The course examines the structure and design of sport organizations. Special emphasis will be placed on organizational decision making, power, and culture. Additionally, students will be introduced to research methods used in sport management and required to develop a small scale research or assessment project.

Prerequisite: SPMT 1312, 3308, and consent of instructor.

SPMT-4302 Seminar in Contemporary American Sport

Discussion-oriented course focusing on the connection between sports, culture, and selected contemporary American institutions. Using theoretical frameworks such as cultural hegemony, social capital, and new institutionalism, students will explore the place of sports in educational institutions, the intersection of sports and politics, the symbiotic relationship between sport and media, and the economic realities of modern sport.

Prerequisite: SPMT 3314 or consent of instructor.

Urban Studies

FACULTY

RICHARD V. BUTLER, Ph.D., Professor, Economics

CHRISTINE DRENNON, Ph.D., Associate Professor, Sociology and Anthropology; Director

KEESHA MIDDLEMASS, Ph.D., Assistant Professor, Political Science

TAHIR H. NAQVI, Ph.D., Assistant Professor, Sociology and Anthropology

KATHRYN O'ROURKE, Ph.D., Assistant Professor, Art and Art History

OVERVIEW

Urban Studies is an interdisciplinary field that focuses on the global phenomenon of urbanization. The program incorporates a wide variety of disciplinary approaches to the study of urbanization and urban processes. Students may choose an Urban Studies major to explore the city from a diversity of perspectives, or to prepare for a career in one of the many fields that touch on urban life. Urban Studies majors have extensive interaction with the city in research, class projects, and internships.

REQUIREMENTS

THE MAJOR

The requirements for the degree of Bachelor of Arts with a major in Urban Studies are as follows:

- I. The common curriculum
- II. Specific degree requirements (34 semester hours total):
 - A. The Core Curriculum (6 semester hours)
 - B. Methods Requirement (3 semester hours):

All urban studies majors must take **one** "methods" class from the following list. With the approval of their advisers, students will choose the course most appropriate to their own interests in the field.

BUSN 2301/	Statistics for Management and Economics
ECON 2320	
URBS/SOCI 3365	Research Methods: GIS
URBS/SOCI 3360	Research Methods: Social Statistics
SOCI 3353	Research Methods: Fieldwork
HIST 3381	Historians and Their Craft
GEOS 3308	GIS and Remote Sensing

- C. Concentration Requirement (15 semester hours):

Students must complete 15 semester hours from one of the following concentrations:

The **Urban Design** concentration prepares students for graduate programs in urban planning, architecture and landscape architecture, and for careers in planning, building, and design.

The **Urban Environment** concentration is intended for students seeking an interdisciplinary approach to the environmental issues that arise in urban areas. It leads to graduate programs in environmental studies and public policy, and to careers in environmental

analysis and policy.

The **Urban Issues and Policy** concentration prepares students for graduate programs in public policy, social work, and many of the social sciences, and for careers in non-profit organizations, education, government, and consulting.

The **Urban Management** concentration is intended for students who wish to pursue graduate study in public administration and careers in city governance and management.

Concentration Lists:

1. Urban Design:

a. Two of

ARTH 3352	19 th Century Architecture and Urbanism
ARTH 3354	Mexico City
ARTH 3364	20 th Century Architecture and Urbanism
ARTH 3365	Contemporary Architecture
GEOS 1304	Environmental Geology

b. Three of

ECON/URBS 3340	Economics and the Environment
ECON/URBS 3334	Urban Economics
HIST 3382/	The City in History
SOCI/URBS 3340	Urban Geography

2. Urban Environment:

a. Two of

ECON 3323	The Economics of Government
ECON/URBS 3330	Economics and the Environment
PLSI 3313	Policy Analysis and the Policymaking Process

b. Two of

BIOL 3434	Ecology
ENVI 4394	Environmental Studies Capstone Experience
GEOS 1304	Environmental Geology
GEO 2304	Earth Surfaces Processes

c. One of

ANTH 2357	Humans and the Environment
CMLT 2301	World Literature and the Environment
HIST 3382/	The City in History
URBS 3305	
HIST 4360	Environmental History

3. Urban Issues and Policy:

a. Two of

HCAD 3350	The U.S. Healthcare System
SOCI 2314	Social Problems and Human Values
SOCI 3324	Crime and Delinquency
SOCI/URBS 3340	Urban Geography

b. Two of

ECON 3323	The Economics of Government
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ECON/URBS 3330 Economics and the Environment
 ECON/URBS 3334 Urban Economics
 PLSI 3313 Policy Analysis and Policymaking
 PLSI 3316/ Comparative Urban Governance
 URBS 3336

c. The fifth course may be chosen from either list.

4. Urban Management:

a. All of

ACCT 1301 Financial Accounting
 ACCT 1302 Managerial Accounting
 MGMT 2301 Management of Organizations

b. One of

ECON/URBS 3334 Urban Economics
 PLSI 3316/ Comparative Urban Governance
 URBS 3336

c. One of

FNCE 3301 Financial Administration of Business Firms
 HCAD 3383 Management of Health Care Organizations
 MGMT 3371 Human Resources Management

D. Elective Requirement (6 semester hours):

In addition to the concentration requirements, urban studies majors must complete an additional 6 hours of courses chosen from any of the concentration or methods lists, or from the additional courses listed below.

ARTH 1312 Art and Architecture of Latin America since the 16th Century
 FNCE 3351 Financial Institutions and Markets
 GEOS 3411 Hydrology
 HCOM 3350 Rhetorical Criticism
 PLSI 3314 Bureaucratic Politics
 SOCI/URBS 1316 Places and Regions in Global Context
 SOCI/URBS 2328 Social Inequality
 SOCI/ANTH 3327 Contemporary Minorities
 SOCI/URBS 2332 Sociology of Health and Illness
 SOCI 3337 Organizations: Private, Public and Popular
 SOCI 3339 The Welfare State
 URBS 3-88 Urban Studies Internship
 URBS 3-89 Urban Studies Practicum
 URBS 3-90 Independent Study
 URBS 4391 Special Topics in Urban Studies

A GIS course is strongly recommended for those intending to pursue graduate studies. Alternative courses may be substituted for the courses on the concentration, methods, and elective lists with the consent of the adviser.

E. Distribution Requirement:

No more than 12 of the hours used to satisfy the major requirements (including cross-listed courses) may come from any one department. No more than 12 credit hours may be from lower-division courses.

F. The Senior Experience (4 semester hours)

URBS 4494—Senior Seminar

III. Electives sufficient to total 124 semester hours.

THE MINOR

Students may complete a minor in Urban Studies by meeting the following requirements:

- I. Completion of 18 semester hours of Urban Studies courses, including:
 - A. URBS/SOCI 1310—The Urban Experience
 - B. Urban Studies electives (15 semester hours) chosen from the Concentration, Methods, and Electives lists above.
 - C. Additional Requirements:
 1. At least 9 hours of the total must be in upper-division courses.
 2. No more than 12 of the hours used to satisfy the minor requirements (including cross-listed courses) may come from any one department.
 3. At least 9 hours of the total must come from URBS courses (including cross-listed courses).
 4. No more than 3 hours of URBS 3-88/3-89 may be used to meet the minor requirements.

COURSES**URBS-1310 The Urban Experience**

An introduction to the city, its origins, contemporary form, and likely future. The course will present the city and urban phenomena in both the American context and other national environments. The major emphasis will be placed on understanding the physical, social, economic, and political systems which create and sustain urban areas.

URBS-1316 People and Places in Global Context

A study of the complex ways in which modern social organization materializes geographically. Topics include the distribution and movement of human populations, characteristics and distribution of cultural mosaics, patterns of economic interdependence, and the forces of cooperation and conflict among peoples from both global and local perspectives. (Also listed as SOCI 1316.)

URBS-2328 Social Inequality

A study of the stratification of American society in terms of the unequal distribution of wealth, status and power. Theories on the origin and development of social classes as well as the functional necessity of social inequality will be examined along with empirical works dealing with inequality. (Also listed as SOCI 2328.)

URBS-2332 Sociology of Health and Illness

A study of the social and cultural definitions of health and illness, social patterns of morbidity and morality, social and environmental sources of illness, social roles of the "sick," the nature of the illness experience, and the structure of health professions and the societal institutions that deal with health and illness. (Also listed as SOCI 2332.)

URBS-3305 The City in History

Cross-cultural examination of urban life in the pre-industrial and industrial cities of Asia, Europe and the Americas from a historical perspective with special emphasis on the U.S. urban experience. Lecture and discussion format. (Also listed as HIST 3382.)

URBS-3330 Economics and the Environment

The economic problem of coping with a finite environment. Study of the interrelationships among economic growth, environmental quality, urban concentration and resource constraints. Economic analysis of pollution control and other environmental policy problems. (Also listed as ECON 3330.)

Prerequisite: ECON 1311.

URBS-3334 Urban Economics

Analytical study of the reasons for cities to exist, the location of economic activity, the economic base of urban areas and the functioning of urban land markets. Economic analysis of selected urban policy issues such as local economic development, zoning and growth controls, housing, transportation, poverty, crime, and the provision of local public services. Attention is paid to the urban experience outside as well as within the U.S. (Also listed as ECON 3334.)

Prerequisites: ECON 1311, and three hours of upper-division credit in either Economics or Urban Studies.

URBS-3336 Urban Government and Politics

An introductory course in urban government, politics and public policy. Emphasis is given to the varied forms of urban governments, including special districts and counties; local governments within the framework of the federal system; demographic changes in urban America; election systems; urban electoral politics; issues of community power and decision-making; public finance; and selected public policy issues. (Also listed as URBS 3336.)

Prerequisite: PLSI 1301 or consent of instructor.

URBS-3340 Urban Geography

This course examines the history and contemporary processes of urbanization, primarily in the North American context. In particular, we are concerned with the geography of these processes, resulting in differentiation of space and the creation of distinct places. We will examine the geography of urbanization at several scales, ranging from development of the North American urban system to the experiences of neighborhoods within cities. (Also listed as SOCI 3340.)

Prerequisite: URBS 1316.

URBS-3360 Research Methods: Applied Social Statistics

This course provides hands-on approach for learning how to undertake quantitative social research focused on the design and completion of a semester long research project. A variety of statistical tools are addressed, including descriptive statistics, tests of significance, and linear regression and correlation. The course goals emphasize writing and rewriting, learning how to formulate and test research hypotheses, and understanding how to present results in an accurate and effective manner. (Also listed as SOCI 3360 and ANTH 3360.)

Prerequisite: ANTH or SOCI 3359 or consent of instructor.

URBS-3365 Research Methods: GIS

This course provides a hands-on approach for learning how to undertake spatial social research focused on the design and completion of a semester long research project. Spatial tools introduced emphasize

geographic information systems. The course goals include map making and the integration of information technology and cartography. (Also listed as SOCI/ANTH 3365.)

URBS-3366 Governance and Public Policy in Contemporary China

This course covers most significant issues of contemporary politics and public policy in China. It explores the forces changing the lives of nearly a fifth of humanity, the 1.1 billion people of China. This course is designed to be experimental in both subject and teaching methodology. In order to explore the political, economic, and social processes of liberalization that have created this new era of the increased circulation of people, ideas, commodities, and technologies across national boundaries, seminar participants must use materials and methods from many scholarly disciplines and traditions: urban studies, political science, sociology, history, anthropology, economics, and media/cultural studies. In order to study these increasingly mobile populations that often fall outside the boundaries of conventional area studies approaches, students must develop innovative comparative case study and survey methodologies. (Also listed as PLSI 3366 and URBS 3366.)

URBS-3367 Comparative Views of Modern China

This course represents an overview of the most important economic relationship of the twenty-first century: the USA and China. The rise of China has brought about a reorganization of the global economy and the international balance of power, creating a new world order carries challenges and opportunities. China remains a communist country with a significant legacy of a command economy, but it is also a market economy. Understanding this mixture, as it is seen through American and Chinese points of view, is the major aim of this course. (Also listed as BUSN 3367, CHIN 3367, and ECON 3367.)

URBS-3370 Applied Urban Studies

This course combines the academic study of Urban Studies with a service learning component; classroom work will be integrated with off-campus internships.

Prerequisites: URBS 1310 and Urban Studies Major, or consent of instructor.

URBS-3445 Understanding Refugees

An interdisciplinary study of the refugee experience from global and local perspectives. The course will examine how the human rights of refugees are understood from the points of view of international law, humanitarian institutions, and of refugees themselves. The ways in which refugees negotiate the trauma of the past and the demands of everyday life in cities in their host countries will also be examined. Includes a directed field research experience. (Also listed as ANTH 3445 and SOCI 3445.)

Prerequisites: Any one lower-division course in Sociology; or ANTH 1301, 1305, 2301, or 2310.

URBS-3-88 Urban Studies Internship

Field-work experience in a setting approved by the student, professor, and the organization selected. Supervision and guidance will be provided by the host organization and the professor. The course must be taken on a graded basis.

Prerequisite: consent of instructor.

URBS-3-89 Urban Studies Practicum

Field-work experience in a setting approved by the student, professor, and the organization selected. Supervision and guidance will be provided by the host organization and the professor. This course must be taken on a Pass/Fail basis. Prerequisite: consent of instructor.

URBS-3-90 Independent Study

Independent study in selected areas. 1 to 6 hours.

Prerequisites: 6 advanced hours in Urban Studies or consent of instructor.

URBS-4391 Special Topics in Urban Studies

Announcement of each course will be by prospectus. May be repeated when topics vary.

URBS-4494 Senior Seminar

The Senior Seminar in Urban Studies is the capstone experience for the Urban Studies Major. It serves as a synthesis course for the wide variety of courses taken in this interdisciplinary program. In it, students undertake either a traditional research project, or community-based research project, for which they are responsible for primary data collection, analysis, and presentation. Projects are true synthesis of the various discipline perspectives of the city and urban issues.

Women's and Gender Studies

FACULTY ADVISORY COMMITTEE

DANIA ABREU-TORRES, Ph.D., Assistant Professor, Modern Languages and Literatures
ROSANA BLANCO-CANO, Ph.D., Associate Professor, Modern Languages and Literatures
JENNY BROWNE, M.F.A., Associate Professor, English
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OVERVIEW

The minor in Women's and Gender Studies is an interdisciplinary program that explores the cultural construction of gender and sexuality from a variety of academic perspectives. Classes investigate gender in relation to such topics as race and class; women's history and power; men's studies; and queer studies and theory.

Students interested in declaring a Women's and Gender Studies minor should contact the co- chairs of the Women's and Gender Studies Committee.

REQUIREMENTS

THE MINOR

The requirements for a minor in Women's and Gender Studies are as follows:

- I. 19 semester hours consisting of at least one core course and courses from **at least two** of the categories listed under Supporting Courses: Humanities, Social Sciences, and Natural Sciences. Students may take up to three hours of Women's and Gender Studies Colloquia.
- II. No more than 6 hours can overlap with a student's primary major.
- III. No more than 6 hours can be taken from a single department listed below under Supporting Courses.
- IV. At least 9 hours must be upper-division courses.

WAGS 3122—Women's and Gender Studies Internship is strongly recommended for all WAGS minors.

CORE COURSES

WAGS 2310 Introduction to Women's Studies
WAGS 2350 Introduction to Feminist Theory
WAGS 2351 Introduction to Queer Studies
WAGS 2352 Introduction to Gender Studies

SUPPORTING COURSES

Humanities

ARTH 3341 Early Renaissance Art in Italy
ARTH 3351 Nineteenth-Century Art: Romanticism and Impressionism (c. 1800-1900)
ARTH 3392 Women's Studies in Art History
CHIN 3312 Chinese Cinema: A Historical and Cultural Perspective

CLAS 1307	Gender and Identity in the Ancient World (also listed as HIST 1311)
CLAS 3303	Greek and Roman Drama (also listed as DRAM 3325 and ENGL 3322)
CLAS 3304	The Ancient Romance and Novel
COMM 3325	Special Topics in Communication Media: Women Journalists in Film
COMM 3325	Special Topics in Communication Media: Queer Theory and Mass Media
ENGL 3322	Greek and Roman Drama (also listed as CLAS 3303 and THTR 3325)
ENGL 3327	Contemporary Literature
ENGL 3337	Literary Theory
ENGL 3366	19th-Century British Fiction: The Marriage Market and the Money Market
ENGL 3371	Studies in American Literature: American Women Writers of the Nineteenth Century
ENGL 3375	Postmodern Literature
ENGL 4320	Studies in Early Modern British Literature: Shakespeare's Sonnets and the Subject of Sexuality
ENGL 4320	Studies in Early Modern British Literature: The Performance of Gender, Wyatt to Shakespeare
ENGL 4322	Studies in 19th-Century British Literature: Aesthete to Decadent: Literature of the 1890s
ENGL 4323	Studies in American Literature: The Harlem Renaissance
ENGL 4323	Studies in American Literature: Literature and Culture on the Latino/a Borderlands
ENGL 4323	Studies in American Literature: Sentimentalism: Nineteenth Century Literature and American Femininity
ENGL 4323	Studies in American Literature: The New Woman
ENGL 4323	Studies in American Literature: Queering the Nineteenth Century
ENGL 4325	Seminars in Literary Periods: The Woman Question in Victorian England
ENGL 4325	Seminars in Literary Periods: Modernism and Woman
ENGL 4326	Seminars on Individual Authors: George Eliot and Virginia Woolf
ENGL 4326	Seminars on Individual Authors: Jane Austen
ENGL 4326	Seminars on Individual Authors: Virginia Woolf
GERM 4301	Genre Studies in German Literature: Gender in the German Novella
GERM 4310	Seminar in German Literature: Frauenliteratur
GERM 4310	Seminar in German Literature: Women and War
HIST 1311	Gender and Identity in the Ancient World (also listed as CLAS 1307)
HIST 3300	Gender Matters in African History
HIST 3332	Culture and Society in Early Modern Europe
HIST 3363	Early American Social History
HIST 4400	Seminar in African History: Life Histories of African Women
HCOM 4391	Special Topics in Public Communication: Rhetoric of the Women's Movement
ML&L 3310	French Literature in Translation: Versions of Feminism
ML&L 3310	French Literature in Translation: The French Novel
MUSC 1345	Women and Music
PHIL 3354	Philosophy of Gender
PLSI 1332	Film, Literature, and Politics of the Third World
RELI 3301	Gender and Religion
SPAN 4338	Spanish Women Writers
SPAN 4348	Spanish American Women Writers
SPAN 4348	Sexualities in Hispanic Literatures and Films
SPAN 4391	Special Topics: Genero y memoria en el Cono Sur
SPAN 4391	Special topics: Chicana Feminisms
THTR 3325	Greek and Roman Drama (also listed as CLAS 3303 and ENGL 3322)

Social Sciences

ANTH 3329	Sexuality and Society (also listed as SOCI 3329)
ANTH 3331	Language, Culture, and Society (also listed as SOCI 3331)

ANTH 3358	The Anthropology of International Relations
COMM 3325	Special Topics in Communication Media: Gays and Lesbians in Popular Culture
COMM 3325	Special Topics in Communication Media: Popular Culture, Gender, and Communication
PLSI 3349	Special Topics in International Politics: Women in Islam
PSYC 2323	Psychology of Gender
PSYC 3322	Social Development
SOCI 2311	Sociology of Sex Roles
SOCI 2312	Sociology of Marriage and the Family Experience
SOCI 2313	Social Movements
SOCI 3329	Sexuality and Society (also listed as ANTH 3329)
SOCI 3331	Language, Culture, and Society (also listed as ANTH 3331)
SOCI 3332	Sociology of Health and Illness (also listed as URBS 3332)
URBS 3332	Sociology of Health and Illness (also listed as SOCI 3332)

Colloquia

WAGS 3-17	Gender Studies Colloquium
WAGS 3-18	Women's Studies Colloquium
WAGS 3-19	Queer Studies Colloquium

Note: Special topics courses are approved by the advisory committee only for the specific topic listed.

COURSES

WAGS-2310 Introduction to Women's Studies

A feminist perspective on work, family, sexuality, identity formation, class stratification, racial and cultural diversity, and cultural representations of gender. Overview of the history of the women's movement and historical and contemporary debate among feminists.

WAGS-2350 Introduction to Feminist Theory

An introduction survey of feminist theory, both as an intellectual, philosophical tradition and as a program of political activism. At the discretion of the instructor, this course may entail a history of feminist theory; an engagement in specific debates or school of criticism; and/or involvement in community activism.

WAGS-2351 Intro to Queer Studies

An introduction to the interdisciplinary field of Queer Studies. Topics may include a historical survey of homosexuality and the Gay Rights movement; queer theory; psychoanalysis and psychology of sexuality; film and media studies; discussion of current events.

WAGS-2352 Introduction to Gender Studies

An introductory survey of the interdisciplinary field of gender studies. Topics may include masculinity and men's studies; feminism and the construction of femininity; sexuality and queer theory.

WAGS-3-17 Gender Studies Colloquium

This course analyzes gender and sexuality by addressing topics organized under themes selected by participating faculty through class discussions, lectures, student presentations, and visiting speakers. Students may enroll in the colloquium no more than three times.

WAGS-3-18 Women's Studies Colloquium

The colloquium meets under direction of faculty of the Women's and Gender Studies Advisory Committee. Session topic are organized around themes selected by the Advisory Committee, to be

explored through class discussions, faculty research, student presentations, and visiting lecturers. Students may enroll in the colloquium no more than three times.

WAGS-3-19 Queer Studies Colloquium

The Queer Studies Colloquium analyzes the variety of gender identities and representations, including lesbian, gay, bisexual, transgender and transsexual topics. In addition, this course help understand conventional heterosexuality within a broader context. Session topics are organized around themes selected by University faculty, to be explored through class discussions, lectures, student presentations, and visiting speakers. Students may enroll in the colloquium no more than three times.

WAGS-3122 Women's and Gender Studies Internship

Entails work experience with issues pertaining to women, gender, or sexuality. Students are expected to select a suitable forum for such work, whether on or off-campus, and to arrange for their own employment. Students may also apply to intern with the Women's History Month Planning Committee.

Prerequisite: consent of Women's and Gender Studies program co-chairs.

WAGS-3-75 Science, Gender, and Sexuality Colloquium

This team-taught course investigates scientific approaches to sexuality and gender. To be taught by faculty from various scientific disciplines.

Prerequisite: WAGS 2350, 2351, or 2352, or consent of instructor.

Trinity University Faculty

This faculty listing includes full-time continuing faculty members officially employed or on approved leaves of absence during the academic year 2014–2015. The dates in parentheses indicate the year the individual joined the faculty of Trinity University, followed by, when applicable, the year of the individual's most recent promotion. An asterisk denotes that the faculty member is a candidate for the degree marked.

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