

Texas Christian University



2018-19
Academic Graduate Catalog

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Academic Calendar

Fall Semester 2018

Registration	Friday, August 17
First classes meet, 8 a.m.	Monday, August 20
Last day for late registration, changing or adding courses	Friday, August 24
Last day for semester-fee students (only) to drop below 12 hours and receive partial-tuition refund	Friday, August 24
Labor Day Recess	Monday, September 3
Last day to withdraw from class and receive:	
100% tuition refund	Friday, August 24
75% tuition refund	Friday, August 31
50% tuition refund	Monday, September 10
25% tuition refund (no refunds after this date)	Monday, September 17
Mid-semester reports of unsatisfactory work due in the Office of the Registrar, 9 a.m.	Wednesday, October 10
Fall Recess	
Classes recess, 10 p.m.	Friday, October 12
Classes resume, 8 a.m.	Wednesday, October 17
<i>*Fall Recess (Neeley Graduate Programs do not recognize Fall Recess)</i>	
Last day to remove "I" grade from prior long semester	Thursday, October 18
Last day students may withdraw from a class	Friday, November 9
Last day for electing Pass/No-Credit grading option	Monday, November 12
Schedule advising for spring semester	Monday-Friday, October 22- November 9
Advance registration for spring semester	Monday-Friday, November 5-9
	Monday-Friday, November 12-16
	Monday-Tuesday, November 19-20
Thanksgiving Recess	
Classes recess, 5 p.m.	Tuesday, November 20
Classes resume, 8 a.m.	Monday, November 26
Last day of classes	Wednesday, December 5
Study days	Thursday-Friday, December 6-7
Final examinations	Monday-Friday, December 10-14
Baccalaureate and Commencement	Saturday, December 15
Residence halls close	Saturday, December 15

Spring Semester 2019

Registration	Friday, January 11
First classes meet, 8 a.m.	Monday, January 14
Last day for late registration, changing or adding courses	Friday, January 18
Last day for semester-fee students (only) to drop below 12 hours and receive partial-tuition refund	Friday, January 18
Martin Luther King Jr., holiday	Monday, January 21
Last day to withdraw from class and receive:	
100% tuition refund	Friday, January 18
75% tuition refund	Monday, January 28
50% tuition refund	Monday, February 4
25% tuition refund (No refunds after this date)	Monday, February 11
Mid-semester reports of unsatisfactory work due in the Office of the Registrar, 9 a.m.	Wednesday, March 6
Spring Recess	
Classes recess, 10 p.m.	Friday, March 8
Classes resume, 8 a.m.	Monday, March 18
Last day to remove "I" grade from prior long semester	Thursday, March 14
Good Friday Recess	
Classes recess, 10 p.m.	Thursday, April 18
Classes resume, 8 a.m.	Monday, April 22
Schedule advising for summer session and fall semester	Monday-Friday, March 25-April 5
Advance registration for fall semester	Monday-Friday, April 1-April 12
Last day students may withdraw from a class	Monday, April 1
Last day for electing Pass/No-Credit grading option	Tuesday, April 2
Last day of classes	Wednesday, May 1
Study days	Thursday-Friday, May 2-3
Final examinations	Monday-Friday, May 6-10
Baccalaureate and Commencement	Saturday, May 11
Residence halls close	Saturday, May 11

Summer Semester 2019

May (three week) and eight week sessions begin	Monday, May 13
Memorial Day holiday	Monday, May 27
May (three week) session ends	Friday, May 31
June (five-week) session begins	Monday, June 3
Independence Day holiday	Thursday, July 4
June (five-week) session ends	Friday, July 5
July (four-week) session begins	Monday, July 8
July (four-week) session ends	Friday, August 2

Please Note: Because Neeley Graduate Programs offer modules, the add/drop and refund dates provided above may not apply. Please confirm all drop/add periods for module format classes on the Registrar's Office Academic Calendar.

About TCU

Texas Christian University offers graduate education in numerous fields, ranging from the highly abstract to the applied and professional. Because graduate education should be a broadening experience as well as a deepening of knowledge gained from undergraduate programs, the University offers students many options for their graduate studies. But there is a common thread running through all programs—a commitment to excellence, to the highest standards of scholarship in the disciplines and professions represented in the University.

TCU affords its graduate students many advantages: an excellent library; many outstanding research facilities and laboratories; broad-based computer services; an excellent atmosphere for learning; and, most importantly, the opportunity to study with an outstanding and dedicated faculty, many of whom are scholars of national and international reputation. In all of its graduate programs, TCU seeks to foster teaching, learning and research of the highest quality.

For applications and online information about graduate programs at TCU, see www.graduate.tcu.edu.

Accreditation and Affiliations

Texas Christian University is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097; telephone number: 404.679.4501) to award bachelor, master and doctoral degrees.

Other memberships and accreditation directly related to graduate study include:

- Southern University Conference
- Association of American Colleges
- National Association of Schools of Art and Design
- National Association of Schools of Dance
- National Association of Schools of Music
- American Chemical Society
- Texas Education Agency
- International Association for Management Education
- American Speech-Language-Hearing Association
- Graduate Management Admissions Council
- The Association of Texas Graduate Schools
- Texas Board of Nurse Examiners
- Council of Graduate Schools
- Conference of Southern Graduate Schools
- Association of Texas Graduate Schools
- Commission on Collegiate Nursing Education
- Association to Advance Collegiate Schools of Business
- Accrediting Council on Education in Journalism and Mass Communication
- Association of Graduate Liberal Studies Programs

Oak Ridge Associated Universities

Since 1962, students and faculty of Texas Christian University have benefited from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 98 colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, post-graduates and faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines, including business, earth sciences, epidemiology, engineering, physics,

geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of under-represented minority students pursuing degrees in science and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the *ORISE Catalog of Education and Training Programs*, which is available at www.oraugov/orise/educ.htm, or by calling either of the contacts below.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research and support programs, as well as services to chief research officers.

For more information about ORAU and its programs, contact:

Rachel Lokitz

ORAU Corporate Secretary

Tim Barth

Interim Associate Provost

ORAU Councilor for TCU

865.576.3306 or visit www.oraugov

Nondiscriminatory Policy

TCU is committed to providing a positive learning and working environment free from discrimination and harassment. In support of this commitment, TCU prohibits discrimination and harassment on the basis of age, race, color, religion, sex, sexual orientation, gender, gender identity, gender expression, national origin, ethnic origin, disability, genetic information, covered veteran status, and any other basis protected by law. **Inquiries about TCU's policies and compliance with Title IX, The Age Discrimination Act of 1975, or the aspects of TCU's equal opportunity or affirmative action programs should be directed to:**

Dr. Darron Turner

Associate Vice Chancellor, Student Affairs

TCU Box 297090

Jarvis Hall 228

Fort Worth, TX 76129

817/257-5557

d.turner@tcu.edu

Notice: This catalog is for academic planning purposes and does not constitute a contract between any applicant, student or faculty member and Texas Christian University. Requirements for graduation, as stated in this catalog, will remain in effect for six years from the date of first enrollment.

The University reserves the right to change programs of study, academic requirements, assignment of lecturers, student charges, teaching staffs or the announced academic calendar without prior notice, in accordance with established procedures.

Matriculation is a privilege not a right. The University reserves the right to control enrollment in specific programs by limiting admission of new students, denying requests to change majors, or establishing other requirements specifically to limit the number of students in that degree program.

With the exception of Requirements for Graduation, other policies and procedures may change annually. Those delineated in the current catalog shall be considered in effect at the time.

Graduate Programs

Graduate degrees are administered by the following schools/colleges after graduate programs:

- M.J. Neeley School of Business
- Bob Schieffer College of Communication
- College of Education
- College of Fine Arts
- AddRan College of Liberal Arts
- Harris College of Nursing & Health Sciences
- College of Science & Engineering
- University Programs (Master of Liberal Arts)

The policies for graduate study are determined cooperatively by the administration, the Graduate Council, and the vice chancellor for academic affairs. The implementation of these policies is the responsibility of the vice chancellor.

Graduate Degree Programs

Master of Accounting

Master of Arts

Art History

Biology

Chemistry

English

Environmental Science

History

Physics

Psychology

Master of Arts in Teaching

Mathematics

Middle/Secondary Education

Master of Business Administration

Master of Education

Counseling

– *Clinical Mental Health Counseling*

– *School Counseling*

– *Student Affairs*

Curriculum and Instruction

– *Curriculum Studies*

– *Language and Literacy*

– *Math Education*

– *Science Education*

Educational Leadership

Special Education

Special Education with Educational Diagnostician Certification

Master of Environmental Management

Master of Fine Arts

Studio Art

– *Painting*

– *Photography*

– *Printmaking*

– *Sculpture*

Master of Health Science

Master of Liberal Arts

Master of Music

Collaborative Piano

Conducting

– *Band*

– *Choral*

– *Orchestral*

Music Composition

Music Theory

Musicology

Performance

– *Band/Orchestral Instruments*

– *Piano*

Piano Pedagogy

Vocal Pedagogy

Vocal Performance

Master of Music Education

Piano Pedagogy

Master of Science

Biology

Chemistry

Communication Studies

Criminal Justice

Deaf and Hard of Hearing Studies (Fall 2019)

Developmental Trauma

Dietetics (Fall 2020)

Environmental Science

Geology

Kinesiology

Mathematics

Nursing

– *Clinical Nurse Specialist (CNS) Adult/Gerontology*

– *Clinical Nurse Specialist (CNS) Pediatric*

– *Clinical Nurse Leader (CNL)*

– *Nursing Administration and Leadership*

– *Nursing Education*

Physics

Psychology

Speech-Language Pathology

Strategic Communication

Supply Chain Management

Master of Social Work

Doctor of Education

Educational Leadership

Higher Education Leadership

Doctor of Musical Arts

Composition

– *Cognate in Music History*

– *Cognate in Performance*

Conducting

– *Cognate in Music History or Theory*

– *Cognate in Performance*

Performance

– *Cognate in Composition*

–Cognate in Music Theory or History

–Cognate in Voice Pedagogy

Piano Performance

–Cognate in Piano Pedagogy

Piano Pedagogy

Doctor of Nursing Practice

-Acute Care Nurse Practitioner

-Advance Practice Registered Nurse

-Clinical Nurse Specialist

-Family Nurse Practitioner

-Nurse Administrator

-Nurse Anesthesia

Doctor of Philosophy

Biology

Chemistry

Educational Studies

–Counseling and Counselor Education

–Curriculum Studies

–Science Education

English

Health Sciences

History

Mathematics

Physics

–Astrophysics

–Biophysics

Business

Psychology

Rhetoric and Composition

Graduate Certificates

Comparative Race and Ethnic Studies

Criminal Justice

Education

Energy Management

Nursing

Ranch Management

Supply Chain Management

Women and Gender Studies

Degree Requirements

Master's Degree Requirements

In addition to the general academic regulations, the particular requirements of the master's degree are provided below and in the separate listings for departments and programs.

Residence Requirement, Master's

There is no general residency requirement. See specific degree listings for program requirements.

Transfer Credit

Limited graduate credit earned from another accredited college or university will be considered for transfer to a TCU master's program. Written request for transfer credit, with appropriate transcripts, should be made at the time of application for admission. Such credit must be applicable to the student's program as determined by his/her adviser; carry at least a "B" grade (3.0 on a 4.0 scale); and be residence credit, not extension or correspondence. Six semester hours of transfer credit usually is all that will be accepted, but under special circumstances additional hours may be considered, subject to approval by the chair of the major department and the dean of the school/college.

Additional Master's Degree

TCU graduate students who either are currently enrolled in a master's degree program or who have already earned a master's degree from TCU or from an approved program outside of TCU may apply for an additional master's degree from TCU.

Approval of an additional master's degree from TCU must satisfy the following conditions as determined by the academic dean governing the additional master's degree.

- All requirements relevant to the additional master's degree must be satisfied.
- No more than nine hours of approved coursework for the prior (or concurrent) master's degree may be applied.
- Petition for applied course credit must be submitted in writing.
- Applied course(s) must carry at least a "B" grade (3.0 on a 4.0 scale) and must be verified by accompanying official transcripts.
- Only non-thesis credits will be considered.
- All credits applicable to the additional master's degree must be earned within five calendar years following matriculation.

Advisory Committee, Master's

*Not applicable to the MBA or MLA program.

An advisory committee of three faculty members is appointed by the dean for each graduate student after completion of the equivalent of a full semester of graduate work, usually 12 hours.

Until the student receives notice of the appointment of an advisory committee, he/she should consider the chair of the major department as the adviser, unless the department otherwise makes provision.

Accelerated and 4-1 Programs

Students pursuing a bachelor's and master's degree concurrently as part of an accelerated or 4-1 program may count some graduate course credits toward both degrees. Up to 12 credit hours at the 55000 and 60000 level may be used in this way. Students must be officially accepted into these special programs and must enroll in the courses as graduate level students.

Admission to Candidacy, Master's

*Not applicable to the MBA or MLA program.

A student pursuing a master's degree will have a petition to candidacy prepared by the dean's office after nine or more hours of coursework have been completed and after all conditions to admission have been met, including the pertinent aptitude test records, departmental or other required examinations, and foreign language requirements, if any. The student does not need to make a formal request for candidacy.

Registration for the second half of the thesis will not be accepted until all requirements for candidacy have been fulfilled. Until that time the student is not considered a candidate for a degree.

Intent to Graduate, Master's

At the beginning of the semester in which the student plans to graduate, the Intent to Graduate form should be filed with the appropriate dean's office. In the event that graduation cannot be completed, a cancellation form must be filed in the dean's office. The Intent to Graduate form must be refiled in case of postponement. A non-refundable graduation fee is charged when the intent is filed.

Thesis Preparation

The thesis required in many of the master's degree programs represents the climax of a student's program and is expected to demonstrate thoroughness of research, keenness of analysis and effectiveness of expression.

A student is required to register for at least six hours of thesis and must register for at least one hour during any fall or spring semester in which the student is working with committee members or using University facilities. Check specific department listings for further restrictions. During the summer, the student must enroll for at least one thesis hour in at least one of the summer sessions. In addition, the student must enroll for at least one hour of thesis in the semester in which he/she plans to complete the thesis and take the final oral examination.

General instructions for preparing and presenting theses should be obtained from the appropriate dean's office well in advance of the actual thesis writing. The form presented should be followed in all cases unless a recognized professional variation is authorized by the major department under agreement with the dean.

The thesis subject must be approved by the advisory committee, which should be consulted frequently in the progress of the thesis so that proper guidance may be given. All members of the committee should approve the thesis draft before the final version is posted. Students should particularly note the special deadlines for thesis preparation and distribution. These deadlines may be obtained each semester from the dean's office. The usual process requires electronic submission of a PDF file according to the instructions posted at lib.tcu.edu/NDLTD. Copyright and bound copies may be obtained; fees for these optional services are paid by the student.

Oral Examinations, Master's

Where master's degrees require a final oral examination the exam will cover all work taken for the degree, including the thesis, if any. The examining committee will be composed of the candidate's advisory committee, and others as may be designated by the major department. The examination may not take place later than the date listed in the deadlines for graduate students each semester.

The candidate must show satisfactory completion of all courses in the degree program, except those in progress, before the oral examination may be given. Only one re-examination on a failed oral will be permitted, the date to be set at the discretion of the examining committee. In addition to the final oral examination, written examinations may be required at the discretion of the major department.

A student must be enrolled for a minimum of one hour of credit during any term (fall, spring or any one of the three summer sessions) in which the student is using University facilities, working with faculty or taking the final oral examination.

Summer Completion of Degree Programs

A student planning to complete the thesis and/or oral examinations during the summer, particularly during the second five-week term, should check with advisory committee members prior to the end of the spring semester to affirm that their schedules will make them available during that period.

Time Limit, Master's

The student is expected to complete work, including thesis if required, within a period of five years from the date of the earliest credit to be counted on the degree (including transfer credit, if any). See M.J. Neeley School of Business Program Length for its requirement.

Extension of time must be applied for in writing through the chair of the major department, who will then make a recommendation to the dean of the school/college. The letter should explain why the degree was not completed

within the time limit and should present a schedule for completing the program. Additional courses may be assigned to students who do not complete the degree within the time limit.

Doctoral and Ph.D. Degree Requirements

The Ph.D. degree is essentially a research degree. Although coursework is a necessary part of the program, the mere accumulation of course credits is not sufficient for attaining this degree.

The Ph.D. degree may be completed in three years at the minimum. Under the minimum program, the first two years will be given to coursework, seminars and related research. The third year primarily will encompass dissertation research. Students whose preparation is incomplete or who will be engaged in part-time teaching or paid research will extend their programs accordingly. In such cases, a four- or five-year program is not unusual.

A master's degree is not necessarily prerequisite to candidacy for the Ph.D. degree. A student entering a doctoral program after obtaining a master's degree would normally be classified as being in the second year of graduate study, as defined below.

Departments may, at their discretion, require that a formal minor be included in the total program. A formal minor requires at least six hours credit beyond the master's or 12 hours beyond the bachelor's degree.

All students in the doctoral programs are required to do a certain amount of teaching or research, appropriate to the goals of the student, as part of their training for the advanced degree.

Students must register for coursework or dissertation in each semester or summer session during which they utilize University research facilities or occupy a library carrel.

Residence Requirement, Doctoral

There is no general residency requirement. See specific degree listings for program requirements.

Transfer Credit, Doctoral

Limited non-research graduate credit earned from another accredited college or university will be considered for transfer to a doctoral program. Written request for transfer credit, with appropriate transcripts, should be made at the time of application for admission. Such credit must be applicable to the student's program as determined by his/her adviser; carry at least a "B" grade (3.0 on a 4.0 scale); and be residence credit, not extension or correspondence. Regardless of the level of entry for the doctoral program (**pre or post master's degree**), at least one-third of the credits toward a doctoral degree must be earned at TCU.

Permission to interrupt residence to earn graduate credit elsewhere for use on a TCU degree must be approved in advance with a formal request addressed to the dean and conferral with the department involved.

Foreign Language Requirement

Individual departments specify the conditions and policies for meeting foreign language requirements and conditions and policies for meeting these requirements. Consult the departmental graduate adviser for this information.

All foreign language requirements must be satisfied prior to admission to candidacy. International students may request their native language be accepted, but it must be one that is needed for research at TCU. They must demonstrate ability to translate this language into English and, if no examiner is available in the foreign languages department, pay any required fee for employment of an approved interpreter. The substitution must have the approval of the chairman of the major department and the dean of the school/college.

Advisory Committee, Ph.D.

An advisory committee of at least four persons will be assigned to the doctoral student by the dean on the recommendation of the major department. The committee will be appointed early during the second year and should consist of those persons under whom the student will take his/her qualifying examinations, including at least one person from the minor field, if any. This committee, with the student's dissertation director as chair, formulates the remainder of the student's program of study and submits it to the dean for approval.

Qualifying or Preliminary Examinations

All doctoral programs require some form of qualifying or preliminary examinations. It is the purpose of these examinations to evaluate the student's capability for advanced creative analysis and synthesis in the major

specialization and related disciplines. The qualifying examination may not be taken earlier than the second semester of the second year of the student's graduate program. If language requirements exist, at least one language requirement must be completed prior to taking the qualifying examination. This examination will cover the major field, designated sub-fields and minor, if any. It must be written, or written and oral.

Only one re-examination will be permitted, and this only after such time interval and under such conditions of additional study as the advisory committee may decide. Each student should consult the departmental requirements provided in the course listings section for specific information regarding the type of examination, the fields to be covered and the expected completion date.

Admission to Candidacy, Ph.D.

A student becomes a candidate for the Ph.D. degree upon passing the qualifying or preliminary examinations and meeting the foreign language requirements of the department, provided he/she has also made up any course deficiencies and GRE scores have been recorded. The student does not need to make a formal request for candidacy.

Intent to Graduate, Ph.D.

At the beginning of the semester in which the student plans to graduate, the Intent to Graduate form should be filed with the appropriate dean's office. In the event that graduation cannot be completed, a cancellation form must be filed in the dean's office. The Intent to Graduate form must be refilled in case of postponement. A non-refundable graduation fee is charged when the intent is filed.

Dissertation Preparation

A dissertation is required in all doctoral programs. It must demonstrate superior research abilities, capacity for sound independent analysis and judgment, and effectiveness of expression. A student is required to register for at least 12 semester hours of dissertation and must register for at least one hour during any fall or spring semester in which the student is working with committee members or using University facilities. Check specific department listings for further restrictions. During the summer, the student must enroll for at least one dissertation hour during at least one of the summer sessions. In addition, the student must enroll for at least one hour during any fall or spring semester in which he/she plans to complete the dissertation and take the final oral examination.

Registration for the first half of the dissertation will not be accepted until the major department notifies the dean's office in writing that the student is eligible for dissertation registration. Registration for the second half will not be accepted until the student has been admitted to candidacy, and until that time the student is not considered a candidate for a degree.

Instructions for preparing and presenting dissertations should be obtained from the appropriate dean's office well in advance of actual dissertation writing. The form given should be followed in all cases unless a recognized professional variation is authorized by the major department under agreement with the dean.

As early as possible, each student should initiate a program of individual reading and study leading to the selection and development of the dissertation research. This program should proceed under the supervision of the chair and other members of the advisory committee. At least three, and preferably all, members of the committee should approve the draft of the dissertation before the final version is posted.

The student should note the special deadlines for dissertation preparation and distribution available each semester. The usual process requires electronic submission of a PDF file, according to the instructions posted at lib.tcu.edu/NDLTD. Copyright and bound copies may be obtained; fees for these optional services are paid by the student.

Oral Examination, Ph.D.

Each candidate for a doctoral degree must take a final examination covering the dissertation and related fields. The examining committee will be composed of the candidate's advisory committee and others, as may be designated by the major department. The final oral examination will be announced and open for audit to the graduate faculty and to others invited by the advisory committee. The examination may not take place later than the date listed in the Special Deadlines for Graduate Students.

Only one re-examination on a failed oral examination will be permitted, the date to be set at the discretion of the examining committee.

A student must be enrolled for a minimum of one hour of credit during any term (fall, spring, or any one of the three summer sessions) in which the student is using University facilities, working with faculty or taking the final oral examination.

Time Limit, Ph.D.

The work for the Ph.D. degree must be completed within six years after the student has been admitted to candidacy. Extension of time must be applied for in writing through the chair of the major department who will then make a recommendation to the appropriate dean. The letter should explain why the degree was not completed within the time limit and should present a schedule for completing the program.

Admission

Texas Christian University will admit qualified students without regard to race, color, religion, gender, national origin, age and veteran or handicapped status, in accordance with Title IX and other governmental regulations.

Admission Requirements

For admission, an applicant must possess a bachelor's degree from an institution regarded as standard by the University and a regional accrediting agency.

For unconditional admission, the student must have satisfactory undergraduate preparation for the particular degree sought. This is determined by the chair of the major department and the dean of the appropriate school/college, and includes a "B" average in either the last 60 hours of undergraduate work or in all undergraduate work; a "B" average in the major field and satisfactory scores on the appropriate tests required by the school/college.

Individual departments or schools/colleges may set higher standards and require other tests. Specific departmental admission requirements are provided at the beginning of the list of departmental course offerings.

A satisfactory application does not guarantee acceptance. An application may be rejected if there are more applicants than openings in the intended major area or if the program TCU provides is not suitable to the applicant's vocational goals, for example.

Complete and certified transcripts (mailed from the registrar's office directly to TCU) from all colleges attended; an application form with application fee (see department website); and a Report of Health History, including documentation of the required immunizations, are required. These forms may be obtained from the TCU Health Center website, <http://www.healthcenter.tcu.edu/forms.asp>. International students must also submit the International and Student Scholar form found on the TCU Graduate Studies website under Admissions, <http://www.graduate.tcu.edu/default.asp?d=page&pid=sp124&parent=57>.

Graduate Entrance Examinations

Official Scores on the Graduate Record Examination (GRE), Graduate Management Admission Test (GMAT) or other appropriate professional tests must be submitted if required by the major department. The examinations are administered through the Educational Testing Service (ETS). Official scores must be sent to TCU by ETS. See School/College/department listings for required tests and other admission requirements.

Information and registration bulletins for the GRE are available from ETS; GMAT applications are available from ETS and in the MBA Office, M. J. Neeley School of Business.

Undergraduate Prerequisites

In most departments, a minimum prerequisite of 24 semester hours is required in the major field.

Deficiencies in Preparation

A student who lacks certain courses prerequisite to full standing for graduate study must enroll in these as soon as possible by arrangement with the major department. ("Enrolled in" refers to a valid registration for an academic course at TCU.)

Types of Admission

TCU provides six types of admission:

Unconditional Admission

Unconditional admission may be granted to applicants who have met all of the general requirements for admission as well as the particular admission requirements of the department and school/college, and who have completed all admission formalities.

Conditional Admission

Conditional admission may be granted to applicants who have been unable to complete all admission requirements by the application deadline. In each such case, an appropriate, specific deadline for satisfying the explicit conditions is given to the student, not to exceed one semester, and may include restriction of hours to be taken as a conditionally admitted student. Special permission to extend the deadline by at most one semester may be requested in writing from the school/college dean. Students who have not removed the conditions by the extended deadline will not be permitted to register for classes. Schools and colleges may have more stringent policies regarding conditional admission.

Non-Degree Graduate Admission

Non-degree graduate admission may be given to an applicant who:

1. Meets the general requirements for admission;
2. Is not an applicant for a degree program; and
3. Wishes to enroll for graduate work for credit.

Non-degree admission requires completion of the appropriate application form, a letter stating why the student is requesting non-degree admission, \$60 application fee and submission of one official transcript mailed to TCU from the registrar's office of each college attended showing all work the student has previously completed. Applications for non-degree admission require the approval of the department concerned and the appropriate dean's office. A maximum of nine hours of graduate study is permitted under non-degree admission. Submit applications to the appropriate department/School/College (see Application Procedures Contact Information below).

Courses taken under this status are not credited toward requirements for a degree. If, at some later date, degree admission is desired, the student must complete all regular admission formalities. At the time of application for degree admission, courses previously taken as a non-degree student may be evaluated for possible degree credit. Upon recommendation of the department to which the student is admitted and with approval of the appropriate dean's office, a maximum of nine hours taken in non-degree graduate status may be credited toward degree requirements.

Visiting Graduate Student Admission

Visiting graduate student admission may be granted to students enrolled in graduate programs at other universities, but who desire to take courses from TCU for transfer. Students should get prior approval for this work from their graduate school since the receiving institution has the right to accept or reject transfer courses.

Requirements for visiting graduate student admission are a completed application form, including \$60 application fee, and a letter of good standing mailed to TCU from the registrar's office of the student's institution.

Admission for TCU Seniors

Admission for TCU seniors is sometimes permitted. A qualified TCU senior may begin graduate work during the final bachelor's semester. The student must be within nine hours of completing all requirements for the bachelor's degree and enrolled for the courses that will fulfill those requirements.

In addition to other application materials a statement of standing indicating that the student is within the nine-hour limit of completing the degree requirements from the registrar or the academic dean is required. These materials must be submitted prior to the registration period. This admission is limited to TCU seniors only and may be for degree admission or for non-degree student admission.

Workshop Admission

Workshop admission is a simplified admission procedure for students who wish to attend a special graduate seminar or workshop offered by TCU. Admission will be granted to applicants who hold at least a bachelor's degree from an accredited institution in the United States or proof of equivalent training at a non-U.S. institution and are in good standing at all colleges and/or universities previously attended. Graduate credit will be given for grades of "B" or better. Such a student is not regarded as an applicant for a degree program.

TCU Faculty Admission

TCU faculty members with the rank of instructor or above who meet the regular requirements for admission are eligible to register for individual graduate courses or for graduate work leading to an advanced degree. However, they are not eligible to become candidates for a doctoral degree in the academic unit in which they are employed at TCU.

International Student Admission

Admission standards are the same for all students, regardless of country of origin or residency. However, students on F or J visas are required to show English proficiency.

TCU's Intensive English Program staff conducts interviews and exams where necessary in support of TOEFL and TWE requirements and University graduate study expectations. Extra support/needs are reported to the graduate director, and the student will be notified as to courses needed during the students' first term and any subsequent terms of study.

Transfer students within the United States may submit evidence of one year of successful study (within the last two years) in order to have evidence of English requirements waived.

Financial Capability and Affidavits

F and J Visa students are required by U.S. law to provide evidence of sufficient funding to live and study in the United States prior to issuance of any immigration documents. A sufficient financial packet must include:

1. The TCU Financial Statement accompanied by an original bank statement indicating sufficient funding for ALL expenses. This may be completed by student, family, friend or organization, but must include specific financial data on official financial institution letterhead.
2. An Affidavit of Support from persons named in sponsorship records, verifying willingness to sponsor student. Students should submit any financial award from TCU as part of their financial portfolio.

All international graduate students must pay a non-refundable \$50 orientation fee, due at the time of application submission. There is an additional application fee for students applying to the Neeley School of Business. Further information and necessary forms can be found at wholeworld.tcu.edu.

Medical Insurance Coverage and University Health Record Requirements

All students on student visas must have insurance coverage during their entire time at TCU. The Brown-Lupton Health Center provides coverage for international students; enrollment is mandatory and automatic for all students, with the exception of those students in sponsored (J Visa) programs requiring purchase prior to arrival. Students with dependents (F-2/J-2) may request waiver under specific circumstances, but national coverage in home country does not merit waiver and will not be considered.

A medical history form with a record of all immunizations is required prior to registration and is included in the pre-arrival packet for international students.

Pre-Arrival Information

Mandatory orientation for international students occurs several days before other graduate student orientations. New students should plan their arrival accordingly.

Wholeworld.tcu.edu contains information on the above requirements and answers many other questions students may have about coming to TCU. Included are Web applications to request a roommate prior to arrival; what students can expect upon arriving in Texas; and useful information that has been selected based upon student input on needed information before, during and after initial arrival in the United States.

Application Procedures Contact Information

In most cases, application may be made online. Visit the appropriate school/college website for specific information.

Paper applications, along with a \$60 application fee, should be sent to the following offices at Texas Christian University, Fort Worth, Texas 76129, depending on the desired field of study:

M.J. Neeley School of Business

TCU Box 298540

Bob Schieffer College of Communication

TCU Box 298040

College of Education

TCU Box 297900

College of Fine Arts

TCU Box 298000

AddRan College of Liberal Arts

TCU Box 297200

Harris College of Nursing & Health Sciences

TCU Box 298625

College of Science & Engineering

TCU Box 298960

Graduate Studies

TCU Box 297024

In addition to the application for admission, prospective students must have two official transcripts mailed from the registrar's office, for all previous colleges attended, to the appropriate office. If the last school attended was TCU, the appropriate office will obtain the necessary records.

Notices of admission to graduate study are not held for release on any particular date but are sent as soon as action is taken. Successful applicants are notified of the date for which acceptance has been granted.

Financial Information

Tuition and Fees

Tuition and fees at TCU are usually set in the spring to be effective with the following fall semester. Current tuition and fee schedules are available from:

Office of Graduate Studies

TCU Box 297024

Fort Worth, TX 76129

(817) 257-7515

Financial Services

TCU Box 297011

Fort Worth, TX 76129

(817) 257-7834

or any dean's office.

Payment

Texas Christian University has a monthly billing cycle. Payment of a minimum 20 percent of total basic charges (tuition, fees, room, meal plan and student health insurance less approved financial aid) is required by the due date of the month that classes begin (August for the fall semester and January for the spring semester). The remaining net basic charges must be paid in full by the due date of the following month (September for the fall semester and February for the spring semester). Students who do not pay the net basic charges in full by the September due date for the fall semester and by the February due date for the spring semester will be automatically enrolled in the payment plan. Students in the payment plan will be billed for the remaining net basic charges in three monthly installments over the remainder of the semester. A payment plan enrollment fee will be assessed on the September bill for the fall semester and the February bill for the spring semester. To avoid automatic enrollment in the payment plan and the resulting enrollment fee, net basic charges must be paid by the September due date for the fall semester and by the February due date for the spring semester.

The payment plan is an extension of credit by TCU. Each payment plan will not exceed three months. Students enrolled in the payment plan receive a disclosure statement as required by the federal Truth in Lending Act. Disclosure statements are provided in September for the fall semester and in February for the spring semester. The disclosure statement shows the amount included in the payment plan and the enrollment fee required for participation in the payment plan, which will be added to the other charges **due on the student's account**. Students may review the disclosure statement upon receipt and may cancel the payment plan within 10 days of receipt by submitting written notice to the TCU Student Financial Services office ("Cancellation Period") if not satisfied with the proposed terms. If the **payment plan is cancelled during the cancellation period, the student's account will be credited for the enrollment fee**. After 10 days of receipt of the disclosure statement, students may cancel the payment plan by submitting **written notice to the TCU Student Financial Services Office, but the student's account will not be credited for the enrollment fee**. If the payment plan is not cancelled, the student is committed to pay the total of payments shown on the disclosure statement according to the payment schedule shown on the disclosure statement. Cancellation of the payment plan will not release the student from financial obligation to TCU. If the payment plan is cancelled either within the cancellation period or after the cancellation period, payment in full of the unpaid basic charges for the semester will be due immediately.

More detailed information about the payment plan option is available from the director of student financial services. The payment plan option is not available for summer sessions. All summer registration charges (tuition, fees and housing) are due and payable by the due date specified on the first bill received after summer registration occurs.

Late fees will be assessed for payments not received within 10 days of the stated due date.

Students receiving financial aid may participate in the payment plan option. The minimum amount due on the statement should be the total semester amount due less any financial aid awarded (except work study, which is paid directly to the student during the semester).

Payment deadlines must be met or the student may be denied advance or current registration. The ability to register in subsequent semesters may be denied if the student account is in arrears. Transcripts will not be released, nor will a degree be awarded, unless the student has satisfied all financial obligations to the University, including loans made through the University. Student accounts must be current to be eligible to make residential housing reservations and to make charges to student accounts using the student's University identification card.

Miscellaneous Charges

University Store purchases, library and parking fines, health insurance, health center services and medications, parking permits, copying charges, dining add-on charges and other miscellaneous charges are billed monthly and must be paid in full each month. Late fees will be assessed for payments not received within 10 days of the stated due date.

Refunds

For a fall or spring semester, a student who withdraws from a course or from the University on or before the fifth class day may receive a 100 percent tuition refund. If withdrawal occurs on or before the 10th class day, a 75 percent tuition refund is made. A 50 percent tuition refund is made upon withdrawal on or before the 15th class day, and a 25 percent tuition refund is made if withdrawal is made on or before the 20th class day.

Financial Aid

Graduate assistantships are opportunities for TCU graduate students to advance their studies and careers through meaningful contributions to the **academic mission of the University**. Graduate assistants participate in TCU's Teacher-Scholar Model by working closely with faculty and staff while supporting the administrative infrastructure; generating new knowledge, creative activities and artifacts through scholarly endeavors; and teaching undergraduate students, either as teaching assistants or instructors of record. Assistantships provide financial aid to graduate students while fostering mentorships between students and committed TCU faculty and staff, who benefit from student involvement in their own teaching, research and creative activities.

TCU's Academic Engagement points are centered on the Teacher-Scholar and Student-Scholar models. As graduate students are in transition between these models, it is expected that students may hold various assistantships during their graduate career. If a student is awarded an assistantship, hiring for additional, concurrent positions such as a TA/RA assignment must be approved through the Office of Graduate Studies and will be added onto the current assistantship. This ensures students are committed to no more than the maximum allowed 27 hours per week without special permission from the dean of graduate studies. During the academic year, international students may work no more than 20 hours per week in assistantship duties, per visa requirements. Awards and assignments will be determined by each graduate program, and the awarding unit may require that awardees maintain full-time status.

Outside employment, including work for hire at TCU, for students holding financial aid carrying stipends is usually not allowed. The University assumes **that the student's primary obligation is toward graduate study**. The program director and the dean of the appropriate graduate program reserve the right to review any outside employment and require the student to modify the outside commitment or relinquish the financial aid appointment.

The University recognizes six types of graduate financial awards. The following categories provide partial or whole tuition awards and often include a stipend that will be divided over the length of the appointment, usually nine or 12 months. Stipend amounts are determined by the head of the graduate program or other awarding unit.

Fellowships

Fellowship recipients are not required to support the academic missions of the University through duties. Fellowship awards provide financial assistance through tuition awards and/or a stipend. Fellowships are awarded by the head of each graduate unit and may be dispersed at the beginning of each semester or divided over the appointment (usually nine or 12 months). Graduate Fellows may be encouraged to take additional semester hours and/or participate in professional development and leadership roles based

on the needs and expectations of the graduate program.

Stipends to Attract Remarkable Students (STARS) are special fellowship awards added onto regular assistantship or fellowship awards as a recruitment enticement for exceptional applicants. No additional duties are associated with the STARS stipend regardless of the initial regular award. STARS stipends are provided for three years for doctoral student awardees and for two years for master's-level students.

Graduate Assistantships

Graduate Assistants (GAs) help with program-related work for a graduate or other awarding unit. GAs are assigned to departments or graduate colleges and directors of academic programs rather than to assist individual faculty or staff members with research or teaching duties.

Since primary GA duties are neither research or teaching, timesheets must be completed, reviewed by the supervisor and submitted to Human Resources for each pay period.

Graduate Instructorships

The opportunity to teach an independent section of a lecture or lab course is vital for the development of graduate students as well as for their careers. Graduate Instructors (GIs) usually teach sections of undergraduate classes. They are recommended by the director of their graduate program and appointed by the dean or dean's representative of the course program. GIs must hold at least 18 earned credit hours of graduate work in the discipline of the course. **Doctoral students who have completed a master's degree may teach master's-level courses**, depending on the discipline and determined by the head of the graduate program. Maximum teaching assignment for a GI is one writing-intensive course; two lecture courses; or three labs each semester. These assignments carry a workload of no more than 20 hours per week.

Graduate Instructors are instructors of record for lecture courses or supervisors of complete lab courses and are responsible for all course preparation and research and for supervising Teaching Assistants assigned to their courses/labs. GIs hold ultimate responsibility for grading, equipment care, ordering textbooks and holding office hours. GIs are not adjunct faculty.

Merited Tuition

Some awards of tuition only (no stipends) are made without the expectation or requirement of duties performed by the awardee. These are usually one- or two-semester awards of less than 6 tuition hours each semester.

Research Assistantships

Demonstrating the Student-Scholar Model by offering students the opportunity to participate in faculty-led research projects allows Research Assistants (RAs) to experience the various stages of completing a focused research project. RAs provide research support to designated faculty members through experiment design; data collection; proofreading or copyediting written materials; managing correspondence related to the research project; and/or scheduling, organizing or completing library, online or field research. These appointments are typically funded by grants.

Though they may have the opportunity to participate in courses related to faculty research projects, RAs are not considered teaching support; their duties are primarily research functions.

Teaching Assistantships

Teaching Assistants (TAs) perform work relating to the Teacher-Scholar Model, blending experiences of teaching and scholarship as they assist a faculty member or GI. TAs support core teaching duties within each graduate program such as by monitoring undergraduate laboratories and supporting large lecture sections through attending class, taking attendance, calculating averages, grading exams, monitoring online discussions and providing occasional lectures. TAs may also assist a professor through data collection; proofreading or copyediting written materials; managing correspondence; and/or library, online or field research. These assignments carry a workload of no more than 20 hours per week.

TA duties are primarily related to teaching. TAs are not, however, instructors of record or adjunct faculty and do not carry full responsibility for the courses they assist.

Appointment Terms

1. An appointee must enroll as a full-time graduate student each semester and summer session during which a stipend or tuition grant is drawn. In exceptional circumstances, provisions might be made for part-time students. Otherwise, if the appointee drops courses that cause the enrollment to fall below the minimum full-time academic load, he/she will be requested to vacate the appointment.

2. Students enrolled in a 4-1 program must have completed all requirements for the undergraduate degree in order to receive graduate financial aid.
3. If a student's graduate work is not satisfactory, the appointment may be terminated.
4. Recipients of awards are required to pay the fees required of all other students and any tuition not covered by the award.
5. Assistantship duties are restricted to a maximum of 20 hours per week.
6. Outside employment for students holding financial aid carrying stipends is discouraged. The University assumes that the student's primary obligation is toward graduate study. The program director and the dean of the appropriate school/college reserve the right to review any outside employment and require that the student modify the commitment to the outside employment or relinquish the financial aid appointment.
7. The tuition remission grant is to be used during the duration of the appointment and may not be carried over for another term or semester.
8. The tuition remission grant covers courses that will be credited toward the student's degree. This may include prerequisites set by the department.

Note: In general, any payment to a student in return for providing services to TCU that are not directly related to the student's overall educational progress, is considered compensation for employment and is, therefore, taxable.

The paragraph above is a statement of general applicability. It is not to be construed as legal advice. Students seeking particular advice should consult with the appropriate University officials and/or seek competent professional assistance.

Application Procedures

Some departments require a special application form for financial aid in addition to the regular application for admission. This form, available from the appropriate dean's office and/or on the website, may be submitted at the same time as the application for admission.

Fellowship and assistantship applications for the fall semester are due between February 1 and March 15, depending on the department. Contact the appropriate dean's office for deadlines. Appointments are announced by April 15. Initial appointments are not usually available for the spring and summer semesters.

TCU adheres to the following Resolution of the Council of Graduate Schools in the United States:

"Students are under no obligation to respond to offers of financial support prior to April 15; earlier deadlines for acceptance of such offers violate the intent of this Resolution. In those instances in which a student accepts an offer before April 15, and subsequently desires to withdraw that acceptance, the student may submit in writing a resignation of the appointment at any time through April 15. However, an acceptance given or left in force after April 15 commits the student not to accept another offer without first obtaining a written release from the institution to which a commitment has been made. Similarly, an offer by an institution after April 15 is conditional on presentation by the student of the written release from any previously accepted offer."

Ex-Service Men and Women Graduate Education

The benefits available to undergraduate veterans are also available for graduate students. These matters are cleared through the Veterans Certification Officer, Room 1006, Sadler Hall.

Federal and State Student Financial Aid

Financial aid, including student loans and grants are available for full and part-time students. Many of these awards are available to U.S. citizens or permanent residents only.

Applicants can file the FAFSA (Free Application for Federal Student Aid) after October 1 of every year. Priority for some grants is given to students who complete the financial aid application process by May 1. Applying after that date will not affect the applicant's loan eligibility.

In addition to the Federal Stafford Loan Program, graduate students may be eligible for the Federal Graduate PLUS Loan, state loan or private education loans. Further information is available at www.financialaid.tcu.edu. Students are encouraged to borrow no more than is absolutely necessary to cover their educational costs.

Citizens of other countries with a qualified U.S. co-signer may be eligible for private student loans. For information on private educational loans go to www.financialaid.tcu.edu – Education Loans – Private Education Loans.

All individuals whose FAFSA is selected for verification will be required to submit appropriate tax information and other documentation as needed to confirm the accuracy of the application. Contact the graduate financial aid adviser in the Office of Scholarships and Student Financial Aid for additional information.

The following Financial Aid Satisfactory Academic Policy (SAP) applies to graduate students receiving state or federal aid (including loans):

- Graduate students are subject to the academic performance standards established within each academic department. Both qualitative and **quantitative measurements are reviewed by the student's academic adviser** when certifying continued eligibility in the program.
- **The student is expected to complete master's degree requirements**, including thesis if required, within a period of five years from the date of the earliest credit to be counted on the degree (including transfer credit, if any). The student can contact their individual department for exceptions to this requirement. Work for the Ph.D. must be completed within six years after the student has been admitted to candidacy and within seven years of the start of the program. Extension of time must be applied for in writing through the chair of the major department.

Students who fail to meet these standards, due to significant extenuating circumstances may appeal for reinstatement of aid eligibility by submitting a request to the financial aid office.

TCU's SAP policy for graduate students who receive Title IV aid is at least as strict as the standards for students enrolled in the same educational program who are not receiving Title IV aid. See <https://financialaid.tcu.edu/satisfactory-academic-progress-policy-for-graduate-and-professional-students/>.

All students are required to maintain certain requirements to receive federal or state financial aid. Credit hours attempted, credit hours completed and TCU GPAs are reviewed, in consultation with the appropriate academic dean, to determine whether satisfactory progress is being maintained.

Return of Federal Financial Aid

A student who withdraws from the University before the 60 percent point in the enrollment period (summer, fall or spring) may have to return a pro-rated portion of the financial aid he/she received or that TCU received on his/her behalf. Detailed information about the federal policy on the Return of Title IV Funds is available at <https://financialaid.tcu.edu/withdrawals-and-return-of-funds-policy/>.

Special Grants

Personal/Professional Development Grant

Eligibility: Year-round part-time students (enrolled for eight hours or less) who are at least 22 years of age by the final day of late registration may apply. Student must not exceed income limitations stated on the application. Grant may not be combined with other TCU administered aid. Good academic and financial standing at all colleges and universities attended is required. Students receiving this award must maintain satisfactory academic progress.

Tandy Grant

Eligibility: Tandy Corporation employees and their lineal descendants are eligible to be considered. Employees may be part-time students. However, descendants must be full-time students.

Policies and Procedures

Registration

Students must be enrolled as graduate students to be eligible to receive graduate credit. Graduate students planning to enroll for courses offered outside the unit in which they will receive their degree must receive written permission to enroll from a representative of the unit offering the course. Permission to enroll must be obtained prior to enrollment. Failure to receive prior written permission may result in cancelled enrollment because of space or program requirements.

All students and prospective students are responsible for consulting and following the academic calendar, which includes dates for the registration periods.

Adding Courses/Schedule Changes

The academic calendar specifies the last day for adding or changing courses each semester and each summer session. Any changes in schedule after the posted deadlines, including section changes, require permission from the student's dean.

Withdrawal from Class

The purpose of student-initiated withdrawal from courses is to enhance the learning opportunity in a program of study. On recognition that a student may lack the background needed for the mastery of course content, the subject matter in a course does not match student need or interest as anticipated, or that course requirements will limit effective appropriation of learning in a semester's overall program of study, a student may officially withdraw from a course.

Mere absence from a class does not constitute withdrawal. In order to withdraw from a course, a student must go through official established procedure.

Students may withdraw from classes with no academic penalty through 70 percent of class days. The last day to declare P/NC will be the day following the last day to withdraw. (Exam days are considered class days. The last day to withdraw will be the last whole day not to exceed 70 percent.) Consult the official academic calendar for withdraw dates during summer terms. The date of withdrawal for all purposes, including tuition adjustment, shall be the date of official withdrawal. No withdrawals are allowed after this date during the fall and spring semesters, or a comparable period during a shorter term.

There will be no withdrawals after this date during the fall and spring semesters, or a comparable period during a shorter term.

Any student who experiences unusual hardship may seek special consideration through a written petition to the dean of the school/college of his/her major. Petitions should, where possible, be documented with supporting statements from a doctor, counselor or family member. That a student is doing unsatisfactory work in a course will not be taken as sufficient reason for special consideration. If, in the opinion of the dean, the request is justified, a grade of "Q" (dropped by the dean's permission) may be assigned by the dean after consultation with the instructor of the course, the chair of the department and the dean of the school/college in which the course is offered. Any dean assigning a "Q" will notify the Office of the Registrar.

Academic Load

A student must be enrolled for a minimum of six hours of graduate courses to be considered a full-time student. However, 12 or more hours are required in some programs to meet the special regulations under which some students attend: these cases will be considered individually by the department chair and the appropriate dean. A graduate student registering for a total of six semester hours during the three summer terms will be considered a full-time graduate student.

If a student has successfully completed all coursework, including thesis and dissertation hours and lacks only the thesis or dissertation completion, the student must be engaged in full-time research and enrolled for a minimum of one hour of thesis or dissertation credit during any fall or spring semester in which the student is working with his/her committee or using University facilities. A student working with the committee or using University facilities during the summer must enroll for at least one thesis or dissertation hour during one summer session. In addition, students must enroll for at least one hour of thesis or dissertation in the semester during which he/she plans to complete the thesis or dissertation and take the final oral examination.

A student holding a full-time teaching assistantship or a fellowship may have additional enrollment restrictions and requirements. A combination of coursework, research and/or teaching may be part of the assistantship/fellowship requirement. Approval by the department chair and the appropriate dean are needed in these special cases, and the student should consult with the chair and dean to be sure their academic load meets the requirements.

A graduate student doing no outside work may carry a maximum of 15 semester hours during each of the fall and spring semesters.

The University reserves the right to suspend or restrict the re-enrollment of any student who demonstrates that he/she is suffering an emotional, nervous or mental disorder or impairment that renders the student unable to profit from or contribute to the educational program of the University or that is harmful or disruptive to others.

Determining Full and Part Time Enrollment Graduate Students

Full-time enrollment for graduate students is 6 hours.

4.50-5.99 hours is 3/4 time

3.00-4.49 hours is 1/2 time

.50-2.99 hours is 1/4 time

Round down to nearest cutoff.

- Graduate students enrolled in the last semester necessary for graduation may be considered full time if their enrollment is less than 6 hours except for purposes of federal financial aid.

Audit Enrollment

Occasional visitation of classes by students is allowed with the consent of the instructor. Any extended attendance requires enrollment as an audit.

Auditors are admitted to classes on a space-available basis only. A non-refundable audit fee is charged. Students wishing to audit graduate courses must be admitted for graduate study in the appropriate program and have written approval of the instructor of the course for which they wish to register. Non-degree graduate students wanting to audit graduate courses must be admitted to graduate study through the dean of the appropriate school/college and have written approval of the instructor of the course prior to registration. Students wishing to audit MLA courses must be admitted to the MLA Program and have written permission from the instructor of the course prior to registration. The following regulations are applicable:

1. Certain classes - Laboratory and clinical classes; day ranch management classes; laboratory sections of lecture classes; activity and performance classes, such as in studio art, music and ballet classes - may not be audited.
2. Registration to audit or change a credit class to audit is from the second day of late registration to the last day of late registration as published in the University's academic calendar.
3. Classroom recitation and participation may be restricted at the discretion of the instructor; no grade is assigned and no credit is awarded.
4. If credit is desired, the student must register for and repeat the regular course after paying regular tuition.
5. The student's name will appear on the instructor's class roll. In order for "AU" to appear on the transcript, however, the instructor must certify at the end of the semester that the student has attended as an auditor. Audits not certified by the instructor as a final grade will be omitted from the student record.

Part-Time Attendance

Although the University encourages full-time graduate study, registration for part-time study is appropriate in several degree programs, including business, education, MLA and others.

Evening Classes

In some fields, graduate work is offered in evening classes; in others, the work is given in day classes only. Prospective students should consult the schedule of classes for graduate courses offered during the evening. To

receive graduate credit for such courses, students must register through the appropriate school/college and not the Office of Extended Education.

Summer Enrollment

A student may not enroll in more than three hours in the mini-term or more than six hours during either a five-week term or eight-week term. When enrollment includes both an eight-week term and either a mini- or five-week term, the student's enrollment may not exceed a total of nine hours.

Graduate Credit

Each course is assigned a five-digit number. The first digit indicates the level at which the course is offered (5 for senior and graduate; 6, 7, 8 and 9 for graduate only). The second, third, and fourth digits distinguish one course from another within the same department. The fifth digit indicates semester hour credit: when the fifth digit is zero, it is either variable credit, non-credit or the credit includes a fraction. Thus Biology 50113 is a senior and graduate-level course (first digit) for three semester hours credit (fifth digit). The three middle digits identify it as Cellular Physiology.

All credits applied to a graduate degree must be of graduate level (50000 and above); at least half of all coursework, inclusive of thesis or dissertation, must be courses with a first digit of "6" or higher.

Graduate students taking courses of "50000" rank will be evaluated differently than undergraduates, according to the course syllabus. Students in 4-1 or Accelerated Programs must enroll in the "55000" courses in order to receive graduate credit toward the master's.

In departments listing 50000-, 60000- and/or 70000-level courses, no more than 15 hours may be accrued toward the master's degree at the 50000 level. Ph.D. students must have departmental approval for 50000-level coursework. No 50000-level course may be taken for credit at TCU by an MBA student unless approved on an exception basis by the MBA academic program director.

No graduate credit is given for courses of less than 50000 rank taken at TCU. No graduate credit is given for undergraduate courses taken at TCU or elsewhere.

Academic Rating System

The definition of grades and grade points is as follows:

Grade	Grade Points	Grade Descriptions
A	4.00	Excellent
A-	3.67	Good
B+	3.33	
B	3.00	
B-	2.67	Marginal
C+	2.33	Unsatisfactory
C	2.00	
C-	1.67	
F	0.00	Failing
I		Incomplete
P		Pass
NC		No Credit
W		Withdrew
Q		Dropped by permission of the Dean
AU		Audit

Graduate students must maintain a GPA of at least 2.75 in accordance with the provisions described under Academic Warning. All grades will be included in the computation of the GPA, but no more than two grades of "C+" or lower may be utilized in satisfying degree requirements. Schools/colleges may have more restrictive policies regarding marginal and failing grades. Students are advised to consult the policies of their specific programs.

An "I" (Incomplete) grade is recorded when the student and instructor have determined that the work required for a course cannot be completed within

the term of enrollment due to circumstances beyond the control of the student. Under no circumstances will a grade of "I" be given to avoid earning a grade of "F" for the course.

The "I" grade must be removed within the first 60 days of the regular semester immediately following or it is changed to an "F." Any extension of this time must have the written approval of the instructor and dean. This policy does not apply to graduate thesis, thesis-recital and dissertation hours.

"I" grades on theses and dissertations are removed by special reporting forms when the student completes the work.

Grade Point Average

Two GPAs are maintained by TCU:

1. A semester average based on courses taken at TCU during a particular term, and
2. A cumulative average based on all work attempted at TCU.

A student's GPA is computed by dividing the number of grade points (grade points earned per semester hour for the successful completion of academic work) by the number of hours (total credit hours attempted at TCU, excluding those attempted on a pass/no-credit basis). Grade replacement is not allowed for repeated courses. All grades will be included in the calculation of the graduate cumulative GPA.

Transfer Credit Hours

Transfer credit is added to the total number of cumulative earned hours. Transfer credit hours may satisfy degree requirements but are not used in the calculation of the cumulative GPA.

Pass/No-Credit

Pass/no-credit courses are disregarded in the calculation of the student's GPA.

Academic Warning

See specific school/college and program sections for further information regarding grade point requirements.

Full-Time Students

A graduate student who achieves a GPA of less than 2.75 in any semester or term will be placed on academic warning. A student can be removed from that status by achieving a 2.75 cumulative average by the end of the next nine hours of enrollment. If the student should fail to do so, further enrollment will be granted only by the special recommendation of the chair of the department concerned and with the permission of the dean of the school/college in which the student is enrolled.

Part-Time Students

Graduate students enrolled for less than a full load will be placed on academic warning when their accumulated part-time course load totals at least nine hours and falls below a 2.75 cumulative GPA. A student can be removed from that status by achieving a 2.75 cumulative average by the end of the next nine hours of enrollment. If the student should fail to do so, further enrollment will be granted only by the special recommendation of the chair of the department concerned and with the permission of the dean of the school/college in which the student is enrolled.

Dismissal, Suspension or Expulsion

Students may be dismissed from individual courses with a grade of "F" for lack of academic progress or for conduct deemed to be contrary to the professional or ethical standards of a field upon the recommendation of the responsible faculty member and the approval of the appropriate academic dean.

At such times as the student fails to meet acceptable standards of academic performance or has engaged in professional misconduct, at the discretion of the dean of the school/college in which the student is enrolled, the student may be

1. Dismissed or suspended from a program of study, and/or
2. Expelled from the University.

If a student is dismissed, suspended or expelled from the University, an appropriate grade or designation will be recorded for each course in progress as determined by the dean with oversight for the course in consultation with the dean of the school/college in which the student is enrolled.

Foreign Language Examination

Each student must check on foreign language requirements for their major and any special deadlines for their completion. The language examination, when required, is administered by the student's major department. The student is responsible for scheduling the time of the examination with the department.

Conferring of Degrees

Degrees are conferred by TCU at the close of the fall and spring semesters and at the conclusion of the summer term. Commencement exercises take place only at the conclusion of the fall and spring semesters. Students graduating in May or December must make arrangements to have examinations completed 72 hours prior to commencement exercises. Degrees will not be released unless the student has satisfied all financial obligations to the University.

Transcripts of Academic Records

Students and former students may request official transcripts of their TCU academic record from the Office of the Registrar for a transcript processing fee. All transcript requests must be made by the student. Adequate notice, normally one week, is required for transcript processing. Transcripts will not be released unless the student has satisfied all financial obligations to the University. Disciplinary actions do not appear on the official transcript, but students who leave the university after disciplinary action or when disciplinary action is pending may at the discretion of the Dean of Campus Life have a letter attached to the official transcript describing their disciplinary problem or suggesting that the recipient contact an appropriate person in the Office of Campus Life.

Disabilities Policy and Procedures

Texas Christian University complies with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 regarding students with disabilities. No otherwise qualified individual shall be denied access to or participation in the services, programs and activities of TCU solely on the basis of a disability. The University shall provide reasonable accommodations for each eligible student who has a physical or mental impairment that substantially limits a major life activity, a record or history of such an impairment, or is regarded as having such an impairment.

Each eligible student is responsible for presenting relevant, verifiable, professional documentation and/or assessment reports to the Coordinator of Student Disabilities Services. Information concerning a student's disability is treated in a confidential manner in accordance with University policies as well as applicable federal and state laws. Documentation presented to the coordinator shall be reviewed by the appropriate University professional(s) to verify the existence of a disability. Further documentation may be required from the student to substantiate the claim of a disability or to assist the University in determining appropriate accommodations.

Eligible students seeking accommodations should contact the coordinator as soon as possible in the academic term for which they are seeking accommodations. The coordinator will prepare letters to appropriate faculty members concerning specific, reasonable academic adjustments for the student. The student is responsible for delivering accommodations letters, conferring with faculty members and returning validation of the receipt of information to the coordinator. The coordinator consults with the student and with University faculty and staff to ensure delivery of appropriate support services, and serves as liaison between the student and the faculty member as needed.

Students who wish to appeal a decision regarding appropriate accommodations may do so in writing to the affirmative action officer, who shall decide the appeal, at TCU Box 297090, Fort Worth, TX 76129. The affirmative action officer's decision may be appealed within seven calendar days in writing to the provost, whose decision may be appealed in writing to the chancellor within seven calendar days. At any step during such an appeal, the person requesting the appeal may confidentially consult with appropriate professionals/advisers within or outside the University.

The Coordinator, Student Disabilities Services, may be contacted in the Center for Academic Services, Sadler Hall Room 1010 or 817.257.6567.

Family Educational Rights and Privacy Act

This Federal law states that a written institutional policy must be established and that a statement of adopted procedures covering the privacy rights of students be made available. The law provides that the institution maintain the confidentiality of student education records.

The University accords all the rights under the law to its students. Students wishing access to a complete copy of the regulation and the University policy governing their educational records may do so at the offices of the Provost/Vice Chancellor for Academic Affairs, Sadler Hall Room 4022; Vice Chancellor for Student Affairs, Sadler Hall Room 4017; Dean of Campus Life, Sadler Hall Room 2006; Registrar, Sadler Hall Room 1006; or Scholarships and Financial Aid, Sadler Hall Room 2008.

There are six rights, which are summarized here:

1. *The Right to be Informed.* The University will give students an annual notice of their rights and where copies of the policy may be reviewed.
2. *The Right to Inspect.* Students may inspect information contained in their educational record provided they make a written request to the custodian of the records. The request must be granted no later than 45 days from the receipt of the request.
3. *Right to Limited Control of Release.* No one outside the institution shall have access to, nor will the University disclose identifiable information from the educational records without written consent of the students, except directory information or other exceptions permitted by the act, which the student has not refused to permit the University to disclose.
4. *Right to Request a Change.* Students may request that the record be amended if they feel the information is inaccurate, misleading or in violation of the rights of privacy. The University will decide whether to change the record. The student may place a rebuttal in the record.
5. *Right to a Hearing.* If the University chooses not to amend the record, the student may request a hearing. The request must be in writing to the vice chancellor for student affairs or the vice chancellor for academic affairs. The student will be notified of the time, date and place of the hearing.
6. *Right to Report Alleged Violations.* Students who feel their rights have been abridged may file complaints with the Family Educational Rights and Privacy Act Office, Department of Education, Washington, D.C. 20201.

At its discretion, TCU may provide directory information in accordance with the provisions of the act to include student name, address, telephone number, email address, image, name of parents of dependent students, date and place of birth, major field of study, dates of attendance, degrees and awards received, the most recent previous educational agency or institution attended by the student, participation in officially recognized activities and sports, and weight and height of members of athletic teams. It is also permissible for the University to release information from a student's educational record to a parent, provided the student is a "dependent" as defined in Section 152 of the Internal Revenue Code of 1954. Students may withhold directory information by notifying the registrar in writing. Requests for nondisclosure will be honored for only one academic year; therefore, authorization to withhold directory information must be filed annually in the Office of the Registrar.

Drug Abuse Policy

Students enrolled in TCU are subject to disciplinary action for the possession, manufacture, use, sale or distribution (by either sale or gift) of any quantity of any prescription drug or controlled substance, or for being under the influence of any prescription drug or controlled substance, except for the use of an over-the-counter medication or for the prescribed use of medication in accordance with the instructions of a licensed physician. Controlled substances include, but are not limited to, marijuana; cocaine; cocaine derivatives; heroin; amphetamines; barbiturates; LSD; PCP; and substances typically known as "designer drugs," such as "ecstasy" or "eve." Possession of paraphernalia associated with the use, possession or manufacture of a prescription drug or controlled substance is also prohibited.

The minimum penalty for a first-time violation of the Drug Abuse Policy for use or possession of a prescription drug or controlled substance will be disciplinary probation for a full year and a requirement for participation in a drug abuse education and/or treatment program. Any student who violates the Drug Abuse Policy for use or possession of a prescription drug or controlled substance for a second time will be suspended from the

University for at least one year. Possession of drug paraphernalia will subject a student to the same penalties as those imposed for use and possession of a prescription drug or controlled substance.

The penalty for a violation of the Drug Abuse Policy for sale, distribution or manufacture of a prescription drug or controlled substance will be permanent expulsion from the University.

Adults and minors who give alcohol to minors or buy alcohol for minors also face stiff penalties. The punishment for making alcoholic beverages available to a minor has been increased from a Class C misdemeanor (fine only) to a Class B misdemeanor (fine and/or jail).

A student who voluntarily seeks help for drug or alcohol abuse is not subject to disciplinary action; in fact, University officials will do everything they can to assist the student in obtaining appropriate treatment. If the student continues to use drugs, then he/she does become subject to disciplinary action.

Professional Behavior Standards

Graduate students at TCU occupy a unique position in the student body. They are more mature individuals with a defined perspective for the future and a high degree of both motivation and ability. In some instances, they are both seeking advanced knowledge and transmitting knowledge through their assignments as teaching or research assistants. While preparing for the professional models characteristic of their chosen discipline, they also serve as models to others in the graduate student role. All of this brings a special obligation to evidence a level of conduct that is compatible with the University's goals to offer programs of excellence and to enrich both the community and humankind.

Graduate students are expected to be familiar with and adhere to the published academic policies, rules, regulations and procedures of the University, as well as appropriate local, state and federal laws. The guiding principle is to conduct oneself in a manner that reflects well on the individual, the University and the academic process. The student is also expected to be responsible for his/her invited guests.

Violations of conduct relative to expected standards of professional behavior will be subject to disciplinary action up to and including expulsion from the University. Violations are to be reported to the dean of the school/college in which he/she is enrolled, who will be responsible for investigating all allegations and recommending appropriate disciplinary actions.

Disruptive Classroom Behavior and Lack of Academic Progress

Disruptive behavior is prohibited. Disruptive behavior includes, but is not limited to, conduct that substantially interferes with or obstructs the teaching or learning process. Civil expression of disagreement with the course instructor, during times when the instructor permits discussion, is not itself disruptive behavior and is not prohibited.

When any student, acting individually or in concert with others, obstructs or disrupts, or attempts to obstruct or disrupt any teaching, research, administrative, disciplinary or public service activity, or any other activity authorized to be discharged on behalf of the University or held on the University's premises, the student may be asked to stop the disruptive behavior by an instructor or staff of the University. If the student continues, an instructor/staff member is authorized to tell the student to leave the area or classroom and, if the student will not leave, to call campus police.

The instructor/staff may immediately call campus police, without prior request to the student, if presented with an unsafe situation, threatening behavior, violence or in other appropriate circumstances.

1. *Withdrawal of Student From Class or Other Educational Experience.* When a student disrupts a class or other educational experience, acts in a threatening manner, is not making acceptable academic progress, or if the student's behavior or lack of preparation is detrimental to the educational experience of others or could create an unsafe condition, or if the student is compromising the learning environment, the instructor may take action to withdraw the student from the class or educational experience.

To do this, the instructor shall provide the student written notice of intent to withdraw the student from the class or educational experience, with an explanation of the instructor's reason(s), and with a copy to the instructor's department chair (or, when there is no department chair, to the associate dean of the instructor's school/college). The notice should schedule a meeting with the student and the department chair (or, when there is no department chair, with the associate dean or dean of the instructor's school/college) to occur within seven days of the notice.

The instructor may bar the student from the class or educational experience pending the result of the meeting, and the written notice should advise the student if there is such a bar. At the meeting, the student may have one adviser. Following the meeting, the instructor shall decide whether to withdraw the student from the class or educational experience. If a student is withdrawn, his/her grade will be recommended by the instructor to the dean of the instructor's school/college as either a "O" or an "F." The student may appeal this decision within seven days in writing to the academic dean or designee. During the student's appeal, the student remains withdrawn from and is barred from attending the class. The academic dean or his/ her designee's decision on this appeal is final.

2. *Denying Enrollment, Suspension, Expulsion, and Other Appropriate Action.* When a student disrupts a class or other educational experience, acts in a threatening manner, is not making acceptable academic progress, or if the student's behavior or lack of preparation is detrimental to the educational experience of others or could create an unsafe condition, or if the student is compromising the learning environment, or if the student has acted contrary to the professional or ethical standards of the University, a department thereof, or a particular field, an academic dean, or the dean's designee, may additionally:
 - a. Deny class enrollment to the student; or
 - b. Suspend or expel the student from the University or from one or more of its programs; or
 - c. Take other appropriate action.

The student affected by such a decision by an academic dean, or the dean's designee, may appeal in writing within seven days to the Academic Appeals Committee. The decision of the academic dean (or designee) remains in place during the pendency of the appeal. The Academic Appeals Committee's decision on the matter is final.

A student so suspended or expelled shall have a grade of "O" or "F" recorded for each course in progress as determined appropriate by the academic dean. The transcript will not record suspension or expulsion.

3. *Non-students and Non-Enrolled Students.* Non-students and students not enrolled in class may be permanently removed by an instructor of the class, without formal review. Non-students who disrupt University activities may be removed from campus and banned from returning.
4. *Other.* Although some disruptive behavior may be due to a mental or physical disorder, as it relates to violence, disruptive or threatening behavior, students with such disorders will be held to the same standards as others.

Nothing in this policy limits a person, including, but not limited to, an instructor, academic dean, associate dean or department chair from referring a matter to the Office of the Dean of Campus Life or pursuing disciplinary action against a student or person through a complaint filed in the Office of the Dean of Campus Life.

This policy is not intended to limit any authorized University employee, staff member, official, vice chancellor, chancellor, members of the Board of Trustees or a member of the Office of Dean of Campus Life, from appropriately addressing behaviors covered by the policy.

Firearms and Deadly Weapons Policy

Texas Christian University is committed to providing a safe environment for employees, students and campus visitors. Therefore, the University, in accordance with the Texas Penal Code, prohibits the possession of any firearm or deadly weapon on University property or at University-sponsored events, even if an individual has been issued a license by the state. Violation of this policy will result in disciplinary action.

Medical History/Immunizations

Students attending TCU for the first time must complete a Medical History Form, including a record of immunizations before registration can be completed. All entering students born after 1957 are required to have had two doses of measles (Rubeola) vaccine after 12 months of age or provide proper verification that they have had the disease. The immunization must have been received after January 1, 1968, to be effective. In addition, within the 12 months prior to entering TCU, a Mantoux/TB Skin Test is required of all entering students.

All incoming students under the age of 22 must submit proof of having received a bacterial meningitis vaccine within the past 5 years. Students will not be allowed to enroll in classes until they have submitted proof of the

vaccination to the Health Center. Immunization proof should be submitted via one of the following required forms: For students living in the United States: [US1107Compliance.pdf](#) OR for Students currently/recently living outside of the United States [International1107Compliance.pdf](#). For more information visit the TCU Health Center's [website](#) www.healthcenter.tcu.edu or email healthinfo@tcu.edu.

Academic Conduct

An academic community requires the highest standards of honor and integrity in all of its participants if it is to fulfill its mission. In such a community, faculty, students and staff are expected to maintain high standards of academic conduct. The purpose of this policy is to make all aware of these expectations. Additionally, the policy outlines some, but not all, of the situations that can arise that violate these standards. Further, the policy sets forth a set of procedures, characterized by a "sense of fair play," which is used when these standards are violated. In this spirit, definitions of academic misconduct are listed below. These are not meant to be exhaustive.

1. Academic Misconduct

Any act that violates the spirit of the academic conduct policy is considered academic misconduct. Specific examples include, but are not limited to:

- a. Cheating. Includes, but is not limited to:
 - i. Copying from another student's test paper, laboratory report, other report, or computer files and listings.
 - ii. Using in any academic exercise or academic setting, material and/or devices not authorized by the person in charge of the test.
 - iii. Collaborating with or seeking aid from another student during an academic exercise without the permission of the person in charge of the exercise.
 - iiii. Knowingly using, buying, selling, stealing, transporting or soliciting in its entirety or in part, the contents of a test or other assignment unauthorized for release.
 - iiiii. Substituting for another student, or permitting another student to substitute for oneself, in a manner that leads to **misrepresentation of either or both students' work.**
- b. Plagiarism. The appropriation, theft, purchase or obtaining by any means another's work, and the unacknowledged submission or incorporation of that work as one's own offered for credit. Appropriation includes the quoting or paraphrasing of another's work without giving credit therefore.
- c. Collusion. The unauthorized collaboration with another in preparing work offered for credit.
- d. Abuse of resource materials. Mutilating, destroying, concealing or stealing such materials.
- e. Computer misuse. Unauthorized or illegal use of computer software or hardware through the TCU Computer Center or through any programs; terminals; or freestanding computers owned, leased or operated by TCU or any of its academic units for the purpose of affecting the academic standing of a student.
- f. Fabrication and falsification. Unauthorized alteration or invention of any information or citation in an academic exercise. Falsification involves altering information for use in any academic exercise. Fabrication involves inventing or counterfeiting information for use in any academic exercise.
- g. Multiple submission. The submission by the same individual of substantial portions of the same academic work (including oral reports) for credit more than once in the same or another class without authorization.
- h. Complicity in academic misconduct. Helping another to commit an act of academic misconduct.
- i. Bearing false witness. Knowingly and falsely accusing another student of academic misconduct.

2. Procedures for Dealing with Academic Misconduct

a. Definitions

- i. Day refers to a school day on which classes are meeting.
- ii. Academic dean refers to the dean of the college or school offering the course in which the academic misconduct is alleged to have taken place.

- iii. Department chair refers to the academic administrator responsible for the unit providing the instruction in which the alleged academic misconduct occurred.
- iiii. Faculty refers to the instructor of the course in which the suspected academic misconduct occurred.
- iiiii. Adviser refers to any person selected by the student who accompanies the student during formal hearings. The adviser may speak with the student but may not actively participate in the hearings.
- iiiii. The Academic Appeals Committee is a standing University committee. The charge and membership of the committee may be found in the current Handbook for Faculty and University Staff.

b. Investigation and Initiation

- i. Students who know of an act of academic misconduct should report the incident to the faculty member teaching the course. The faculty member will obtain the basic facts of the allegation and ask the student reporting the misconduct to write and sign a statement of facts. The name(s) of the student(s) reporting suspected academic misconduct will remain confidential during the informal faculty/student meeting, but must be revealed to the accused student if the resolution proceeds beyond the faculty member and the accused student.
- ii. Faculty who suspect academic misconduct or who have academic misconduct reported to them must initiate an investigation and meet with the accused student within five days of becoming aware of the incident. A faculty member who is made aware by another person of an act of academic misconduct has the responsibility to investigate the allegation, and, if warranted, pursue the issue as outlined below (C.1).
- iii. In instances where the suspected academic misconduct is discovered during an academic exercise, the faculty member has the right to suspend immediately the student involved in the alleged activity from further work on the academic exercise.
- iiii. A student, once accused of academic misconduct, will proceed in the course without restriction until resolution of the issue or until the academic dean has taken an action (as specified in III.B) that removes the student from the course.
- iiiii. An "I" grade should be given by the instructor if the alleged misconduct occurs near the end of a semester (e.g., during finals), and a sanction outlined in Section III has not been applied by the instructor or the dean.
- iiiii. If more than one student is accused of the same act of misconduct (e.g., giving and receiving aid), each individual student is guaranteed the right to have the cases heard **separately. With each student's permission, the cases can be combined.** The faculty/student conference (C.1) is expected from this requirement.

c. Resolution

- i. Meeting Between Faculty Member and Student. This is the first step to be taken in resolving an incident of suspected academic misconduct.
 1. Within five days of suspecting misconduct, the faculty member will hold a meeting with the student. At this meeting, the faculty member will inform the student of all allegations against him or her and present any information supporting the allegations.
 2. The student will be given the opportunity to respond to the allegations. The student has the right not to respond.
 3. The faculty member will decide whether or not academic misconduct has occurred, and, if warranted, apply any combination of sanctions in III.A below, or refer the matter to the dean for more severe sanctions (probation, suspension or expulsion). Findings of academic misconduct are based on the preponderance of the evidence.

4. The faculty member will notify the student in writing of his or her decision and may send copies to the academic dean, the dean of the college in which the student is enrolled, the department chair and the dean of campus life. Any such copies of the findings will be kept on file in the college and department offices and in the student discipline files maintained by the dean of campus life.
- ii. Meeting with Department Chair. This meeting takes place when the student wishes to appeal either the findings of the faculty member or the severity of the sanction(s).
 1. Within five days of being notified by the faculty member of the disposition of the incident of academic misconduct, the student may request a meeting with the department chair.
 2. The department chair will become acquainted with the facts and meet with the parties involved in the case. The student has the right to meet with the department chair without the faculty member being present.
 3. The department chair may either support or reverse the findings of the faculty member, and may lessen the sanctions imposed by the faculty member even while supporting its findings. The chair may not increase the severity of the sanction(s).
 4. The department chair will notify the student and faculty member of his or her decision in writing and may send copies to the faculty member, the academic dean and the dean of campus life. Any such copies of the findings will be kept on file in the college and department offices and in the student discipline files maintained by the dean of campus life.
- iii. Meeting with Academic Dean. This meeting takes place if the student wishes to appeal either the findings of the department chair or the severity of the sanction(s), if the faculty member recommends sanctions in addition to those listed in III.A.3 and 4, or if the student has been found guilty of academic misconduct previously.
 1. Within five days of being notified by the chair of the disposition of the incident of academic misconduct, the student may request a meeting with the academic dean.
 2. The academic dean will hear the facts of the case and make a decision about the alleged act of academic misconduct or the appropriateness of the sanctions administered by the faculty member. The academic dean can issue any combination of sanctions listed in Section III.
 3. The academic dean will notify the student of his or her decision in writing with copies to the department chair and the faculty member. Copies of the findings will be kept on file in the college office and may be sent to the dean of campus life.
- iiii. Academic Appeals Committee. Should the student wish to appeal the decision of the academic dean, he or she has the right to request a hearing before the Academic Appeals Committee.
 1. The student must request this hearing by submitting an appeal letter to the chair of the University Academic Appeals Committee no later than five days from the date of receiving written notification of the dean's findings.
 2. Upon receipt of the appeal letter, the chair of the Academic Appeals Committee may request materials from the student, the faculty member, the department chair and/or the dean.
 3. The appealing student has the right to appear before the Academic Appeals Committee. The student may bring one person with him or her as an adviser. The adviser may not speak for the student or to the committee. The adviser may only speak with the student. The student must inform the University five class days in advance if his or her adviser is an attorney in order for the University to also have an attorney present. Each party shall bear the expense of his/her legal counsel. Legal counsel is to provide counsel only and may not participate directly in the meeting. The meeting is an administrative hearing, not a court proceeding, and is not subject to the procedures or practices of a court of law.

3. Sanctions
 - a. By the Faculty Member
 - i. Grant no credit for the examination or assignment in question (treat as a missed assignment).
 - ii. Assign a grade of "F" (or a zero) for the examination or assignment in question.
 - iii. Recommend to the academic dean that the student be dropped immediately from the course with a grade of "F."
 - iiii. Recommend to the academic dean that the student be placed on probation, suspended or expelled from the University.
 - b. By the Academic Dean or Academic Appeals Committee

(Previous academic misconduct will be taken into account when either the academic dean or the Academic Appeals Committee considers sanctions for academic misconduct.)

- i. Apply sanctions in III.A.
- ii. Drop student from the course with a grade of "F." This grade cannot be changed by student-initiated withdrawal, and the grade will be included in GPA computation even if the course is repeated.
- iii. Place the student on disciplinary probation at the University for a specified period of time.
- iiii. Place the student on suspension from the University for a specified period of time.
- iiiii. Expel the student from the University.
- iiiiii. In a case where the academic dean as defined above is not the dean of the school/college in which the student is enrolled, he/she shall recommend to the vice chancellor for academic affairs that the student be placed on probation, suspended or expelled.

Grade Appeals

In the event a student questions the appropriateness of a grade assigned for a course or the results of another critical component of a degree requirement (e.g., oral exam, juried exhibition, thesis, etc.), the student must first discuss the matter with the faculty member(s). These discussions between the faculty member and student should be initiated by the student as soon as possible after the grade is assigned, but no later than five academic days into the next long semester. The faculty member is expected to respond within five academic days of the initiation. If there is no response from the faculty member, the student may present the issue directly to the department chair. In the event that the faculty member(s) agrees to change the grade/decision, the normal process for changing a grade shall be followed. If the student wishes to appeal the faculty's decision after these discussions, he/she must follow the formal grade appeals process outlined below.

Note: An academic day is defined as a school day on which TCU classes are meeting. Initiation of the discussion is any attempt to contact the faculty of record, or chair of examination committee in the case of a candidacy exam or thesis/dissertation defense, about the grade. This includes email or other written correspondence (recommended), personal meeting, and telephone call or message.

Formal Grade Appeal

Appeal to the Department Chair or Appropriate Administrator

The student may appeal the faculty decision in writing to the department chair/appropriate administrator within 15 academic days of the first day of the next long semester if a satisfactory resolution is not reached in the initial discussion with the faculty (see exceptions in this appeal level). Exceptions to deadlines set forth herein for students in unusual circumstances (e.g., studying abroad) may be granted in writing by the dean of the college/school in which the course (or critical component) was offered. An exception may also be granted by the provost/vice chancellor for academic affairs.

The department chair/appropriate administrator will become familiar with the facts of the case by communicating with the student and the faculty member(s). The parties have a right to meet with the chair without the other

party present. The faculty member or examination committee chair will respond in writing to the department chair concerning the student's appeal.

The department chair/appropriate administrator may either accept or deny the student's appeal. The chair will notify the student and faculty member(s) of his/her decision in writing within 10 academic days of receiving the appeal. In the event that the department chair accepts the student's appeal and no further appeals occur, he/she will initiate a grade change through the dean of the college.

Exceptions: If the department chair is involved in the appeal as the faculty member (one of the faculty members), the chair of the department advisory committee will assume the department's role in the appeal process. If the department does not have a department advisory committee, the chair of the school/college advisory committee will assume the department chair's role in the appeal process.

Appeal to the Academic Dean

The chair's position may be appealed in writing by the student or faculty member(s) to the appropriate dean within 10 academic days of the department chair's decision (see exceptions in this appeal level).

The dean will become familiar with the facts of the case by reading the prior appeal documents and communicating with the student, faculty member(s) and department chair. The parties have the right to meet with the dean without the other party present.

The academic dean will notify the student, faculty member(s) and department chair of his/her decision in writing within 10 academic days of receiving the appeal. In the event the dean upholds the student's appeal and no further appeals occur, the change of grade shall be reported by the dean to the registrar's office.

Exceptions: If the dean of the college/school is involved in the appeal as the faculty member, the appropriate associate dean will assume the dean's role in the appeal process.

Appeal to the Academic Appeals Committee

The dean's decision may be appealed in writing by the student, faculty member(s) or department chair to the Academic Appeals Committee within 10 academic days of the dean's decision.

The appeal by the student, faculty member(s) or department chair will be sent to the Academic Appeals Committee chair in writing. The material corresponding to the appeal should include a letter to the committee discussing the reason for the appeal and all pertinent documents that support the appeal. When the appeal is received, the committee chair will ask the appropriate dean for all written documents pertaining to the appeal. Once the chair receives the documents, they will be distributed to the appropriate committee members for review. During the review of the material, the chair may request other documents pertaining to the appeal. The chair will set a date for a hearing that will include the appropriate committee members, the student and faculty member(s). The chair will request that the dean or a designee be present to represent the college/school.

At the scheduled hearing, all parties will have an opportunity to discuss their case, and committee members will ask questions to better understand the appeal.

The committee will confer and come to a decision on whether to support the appeal or not. All parties will be notified in writing of the committee's decision within 10 academic days of the hearing. In the event the committee upholds the student's appeal and no further appeals occur, the chair will advise the appropriate dean to report the change of grade to the registrar's office.

The student, faculty member(s) or department chair may appeal the committee's decision to the University provost in writing within 10 academic days of the committee's decision.

All questions pertaining to the appeals policy and procedures should be addressed to the chair of the Academic Appeals Committee or the Office of the Provost.

Student Grievance Procedure

The University has established both informal and formal procedures that a student may follow when presenting grievances. A grievance is defined as any dispute or difference concerning the interpretation or enforcement of any provision of University regulations, policies or procedures or state or federal laws applicable on the campus. Administrators, faculty and students are encouraged in all instances to resolve grievances informally and as

promptly as possible. However, formal procedures may be followed when needed.

Detailed information about the University Judicial System is given in the Student Handbook, available at the beginning of each fall semester. Individuals who have additional questions about how to gain access to the system may contact the office of the dean of campus life.

Academic Services

Mary Couets Burnett Library

The Mary Couets Burnett Library provides intellectual tools, innovative technology and an inspiring physical and virtual space, all supported by approachable and resourceful staff, to serve TCU's diverse community of learners. Students and faculty have access to more than 95,000 unique journal titles and more than 1.9 million books, CDs, DVDs, videos and other items housed in the Library and the Library Annex off-site in addition to a wealth of online works available through the Library's website, <http://library.tcu.edu>.

Materials are arranged by the Library of Congress system in open stacks for convenient access. Librarians and staff select, maintain and interpret the collections for library users. A music/media library and the Brite Divinity School library are also located in the Mary Couets Burnett Library, as are particular collections, including U.S. documents; the archives of the Van Cliburn International Piano Competition; the papers of former Speaker of the House Jim Wright; the papers of Amon G. Carter, Sr.; the Luxembourg collection; the University's historical collection and digital archives; and special collections of rare books and manuscripts, such as the William Luther Lewis Collection of English and American Literature.

Research librarians can be contacted in person, by phone, by email or by text messaging as outlined at <https://library.tcu.edu/askalibrarian.asp>. The research librarians regularly conduct instruction on the library's resources and will schedule individual consultation for more in-depth assistance.

A TCU student may borrow up to 50 books or government documents for 28 days and renew them for two additional 28-day periods. Up to 10 DVD and VHS items may be checked out for seven days. Up to 10 CDs may be checked out for 14 days. Audio and video listening and viewing stations are available, and a 14-seat screening room may be reserved through the Library's website, <http://library.tcu.edu>.

Library materials that show up in the Library's online catalog as held at the Library Annex can be requested for retrieval. If these items are requested Sunday through Thursday they will be available within 24 hours. Items requested Friday and Saturday are made available on Monday. Upon return, an email notification is sent indicating the items are available at Library Services and will be held 10 days for pick-up. After 10 days the items go back to the Library Annex.

The library is open around the clock five days a week and provides different environments for studying, including group study rooms and quiet zones. The Library and Rees-Jones Hall offer group study rooms of various sizes that may be reserved for up to three hours through <http://library.tcu.edu>. The rooms have large wall monitors that can be controlled wirelessly from laptop computers and other portable devices.

Through active membership in local, regional and national library consortia, the library offers the advantages that come with resource sharing. The University's membership in TexShare enables TCU faculty and students to obtain borrowing privileges from more than 150 academic libraries throughout Texas.

A computer lab in the library features both Windows and Macintosh machines, some equipped with scanners and software for multimedia projects. Several high-speed black-and-white and color laser printers also are available. Wireless laptops can be checked out for three hours. The fall 2015 renovation includes a small high-performance computing lab, audio-video editing rooms, and a fabrication lab with a plotter and 3D printers.

Center for Instructional Services (Instructional Technology)

The successful integration of instructional technology into the teaching and learning environment is essential in today's classroom. The mission of the Center for Instructional Services is to provide Texas Christian University with a variety of cost-effective solutions in the appropriate integration and utilization of instructional technologies in a diverse academic environment.

- Classroom Instructional Technology Services provides assistance to faculty in the operation of classroom technology. Our focus includes the design, installation and maintenance of classroom technology equipment as well as providing equipment for checkout. Training and

orientation in the proper utilization of classroom technology systems is available.

- Media Production Services provides a diverse range of services in video, audio, graphic, photographic and digital production formats to facilitate the effective use of multimedia. Assistance is provided in the planning, design and production of professional presentation materials for academic use.

The Center for Instructional Services is located between the Tucker Technology Center and Annie Richardson Bass Building on Bowie Street. For more information, refer to the center's website, www.cis.tcu.edu, or call 817.257.7121.

Information Technology

The central computing facility, located on the ground floor of the Sid W. Richardson Sciences Building, provides network connectivity throughout the campus and computer services and support for all levels of the University.

Using various client servers, Information Technology provides support for all programs used by campus departments and supplies direct access to the Internet, the library and specialized databases, as required.

The Information Technology staff is available through the TCU Information Commons Desk (817.257.5855). Services provided include consultation and assistance with computer problems. A newsletter (TCUSER) providing information about new services, products and support activities is published each semester. In addition, a wide selection of training materials for campus-supported software also is available. The Information Services administrative office is located in SWR Room 175, 817.257.7682.

The William L. Adams Center for Writing

The Center for Writing offers assistance with writing projects and assignments to all TCU students. Staffed by professional writing instructors and peer consultants, the Center for Writing provides students with one-on-one tutorials free of charge. Conferences usually focus on a particular project or assignment but may also include general writing instruction.

The 10 PCs in the center's computer lab are available for the use of any TCU student during normal office hours and provide email and Internet access.

Located in Suite 419 of Reed Hall, the Center for Writing is open Monday-Friday, 8 a.m.-5 p.m. Students may make an appointment by accessing an online scheduling service through the center's website, www.wrt.tcu.edu, or by calling 817.257.7221. Those who wish to submit a paper online may do so via the center's website. A consultant will read the paper and offer feedback within two working days.

William H. Koehler Center for Instruction, Innovation, and Engagement

Mission Statement

The Koehler Center is dedicated to facilitating ongoing, reflective discourse regarding teaching and learning, including working with faculty and teaching staff to help them design and implement meaningful learning opportunities for their students.

Vision

The William H. Koehler Center for Instruction, Innovation, and Engagement supports teaching and learning at Texas Christian University. The resources and activities of the Koehler Center are focused on responding to the present needs of instructors, as well as on keeping the TCU community informed of new educational possibilities created by the continuing development of pedagogical theories, teaching practices, and technologies.

Confidentiality Statement

The Koehler Center maintains the confidentiality of the individual faculty or groups of faculty with whom we work, mindful that our faculty voluntarily engage our services in order to enhance and enrich teaching and learning at TCU.

The Koehler Center for Instruction, Innovation, and Engagement is located in the Sid Richardson Building, Suite 501, located between Tucker Technology Center and Winton Scott Building on Bowie Street. For more information, refer to the center's website at www.cte.tcu.edu or call 817.257.7434.

Research Support

TCU is committed to creating a campus environment that supports and promotes superior research, premier creative activities and innovative scholarly pursuits.

The associate provost for academic affairs and the Office of Sponsored Programs are dedicated to helping University faculty, staff and students continue building TCU's reputation as a nationally recognized scholarly institution.

The Graduate Student Travel Grant Program supports travel of graduate students related to research. Funds may be used by graduate students to make presentations at professional meetings or to conduct research related to their field of study. Grants are not made for attendance at a conference where the student is not presenting scholarly results. Information and application are available at www.research.tcu.edu.

Student Services

Brown-Lupton University Union

The Brown-Lupton University Union (BLUU) is at the heart of the Campus Commons. Entertainment, educational and conference events take place in the Union throughout the year. The BLUU is home to 14 meeting rooms, the Horned Frog Ballroom, a 300-seat auditorium, the TCU Post Office, the Spirit Store and food service venues-Market Square, Chick-Fil-A @ 1873 and Union Grounds Coffee Shop. The Union also houses the Heritage Center, a student activities area, and the Governance Chamber. The Information Desk, located within the Heritage Center, offers notary service, a lost and found and a variety of ticket discounts to many Fort Worth/Dallas-area attractions. For more information, call 817.257.7927.

Campus Recreation

The Department of Campus Recreation promotes lifelong wellness through quality recreation programs, services and facilities that enhance the university experience through participation and leadership. It is the vision of the department to be a cornerstone of the University experience that positively engages every member of the TCU community in promoting healthy lifestyles.

The 232,000 square-foot facility provides for a variety of recreational opportunities, including swimming, basketball, volleyball, badminton, weightlifting, an indoor track for walking and jogging, cardiovascular training equipment, a games area, a climbing wall, computer access and food service.

The Aquatics Program offers instructional and fitness activities in the water, in addition to recreational swimming. Three pools grace the University Recreation Center: a 25-yard lap pool, a 22-foot-deep diving well and an outdoor leisure pool and patio.

Structured, competitive and recreational sporting events are scheduled throughout the academic year in the Intramural Sports Program. Activities involve team sports, individual or dual events and special events. Only currently enrolled TCU students and faculty/staff may participate in the Intramural Sports Program.

In addition to the Group Exercise Program, the Fitness Program offers personal training, massage therapy and fitness assessments. Group exercise classes are designed for beginner, intermediate and advanced levels.

The Climbing Wall is sure to provide an exciting outlet, whether you are entirely new to climbing, have been climbing for years, or are just looking for a challenging addition to your workout regime. We offer instruction and supervision on the 30-foot wall, with more than 20 top rope routes and a variety of bouldering routes. All climbing equipment, including shoes, harnesses, ATCs and carabiners, are available at the wall for free.

The Sport Clubs Program is designed to serve individual interests in different sport and recreational activities. Membership is open to all students and the club must be a recognized student organization. These interests can be competitive, recreational or instructional in nature, as clubs may represent TCU in intercollegiate competition or conduct intra-club activities, such as practice, instruction, social activities and tournament play.

Counseling Center

The Counseling & Mental Center supports the mental health needs and personal and academic success of TCU students. Through high-quality clinical care, innovative groups and outreach programs, and campus consultation, we help students fully engage in their education, find their confidence and realize their potential.

Whether working on self-discovery or struggling with stress, anxiety, relationship concerns or psychiatric issues, students can expect confidential and expert care from compassionate, respectful, licensed mental health professionals. The staff include psychologists, licensed professional counselors, licensed clinical social workers and a board-certified psychiatrist, all of whom value human diversity and are committed to culturally competent and inclusive care.

Some services we provide:

- Walk-in counseling (same-day)
- Short-term individual and couples counseling
- Graduate Student Support Group
- Meditation Group for Stress, Sleep and Anxiety
- 24/7 Counseling Helpline (817-257-SAFE)
- Psychiatric consultation (for students in counseling at this center only)
- Referral assistance (for longer-term care or specialized needs)
- Suicide awareness and prevention training
- Other mental health programs on request

The Counseling & Mental Health Center is located on the ground floor of Samuelson Hall (near the TCU Post Office). Our regular semester hours are Monday-Wednesday 8 a.m.–8 p.m. Thursday and Friday 8 a.m.–5 p.m.; phone: 817-257-7863.

Website: <http://counseling.tcu.edu>

Health Services

The Brown-Lupton Health Center houses the Medical Clinic and is located immediately north of the University Union on Stadium Drive. The Medical Clinic outpatient facility provides ambulatory care for the various needs of TCU students and is staffed by board-certified physicians, a physician assistant, a nurse practitioner who specializes in women's healthcare, and a professional nursing staff comprising RN's and LVN's. During the regular academic year, the clinic hours are 9 a.m. to 5 p.m., Monday through Friday.

An independent pharmacy conveniently located within the Health Center offers competitively priced prescriptions and over-the-counter medications. The pharmacy accepts most insurance plans. Co-pays and medication costs can be billed to the student's University account or paid for by cash or check at the time the prescription is filled.

Although not required for graduate students, the TCU Student Health Insurance Plan is available for students attending credit courses who specifically elect the plan. Internet and television (TV) courses do not fulfill the eligibility requirements. After registering for classes, a student can elect the University-offered plan online at www.healthcenter.tcu.edu prior to the semester's elect/waive deadline.

International students, regardless of classification, are required to carry the University-offered student health insurance as a minimum standard of coverage and are not eligible for a waiver of the insurance.

The Office of Religious and Spiritual Life

The Office of Religious and Spiritual Life (RSL) offers resources, programs and staff dedicated to supporting faith communities, religious expression and spiritual exploration throughout TCU. The University is affiliated with the Christian Church (Disciples of Christ), a denomination that values dialogue, freedom of thought and a mutual concern for all people. To that end, RSL is committed to respecting the dignity and beliefs of every individual, celebrating our rich diversity and welcoming all of God's people.

Through RSL, students can connect with student religious organizations or a campus ministry; find opportunities for worship, study and fellowship; explore commonalities across traditions through interfaith dialogue; and **engage in meaningful conversations about life's big questions.** The work of the office includes supporting a vibrant religious life; creating dialogue and learning across traditions; meeting student's spiritual needs; and engaging in social justice, community activism and relief work.

Located on the first floor of Jarvis Hall, The Office of Religious and Spiritual Life is home to staff offices, a multi-faith prayer room and the RSL Library and Resource Center. A long-standing part of TCU, Robert Carr Chapel is open daily for prayer and personal reflection, and is available by reservation for **worship, weddings and other sacred occasions.** In addition to TCU's religious life staff, students will also find more than 12 full- or part-time campus ministers and religious life partners who offer support, connection and pastoral care.

Career Services

Career Exploration and Job Search Advising

From exploring possible fields to preparing for interviews, landing internships or launching a career, Career Services is the TCU student's partner in today's competitive job market. The following are just a few of the services available at no charge to students and alumni.

- Career assessments
- Career advising
- Resume and cover letter assistance
- Digitally recorded mock interviews
- Job search assistance
- Job listings on FrogJobs
- On-campus interviewing
- Professional events and career fairs
- Resource Center located in Jarvis Hall
- Career Services website, www.careers.tcu.edu, including a key resource, Optimal Resume.

Career Services is in the BNSF Railway Career Center in Jarvis Hall and is open 8 a.m. - 5 p.m. Monday-Friday. The Alcon Career Center, for Neeley School of Business students, is in Dan Rogers Hall, Room 140, same hours.

For additional information or to schedule an appointment to meet with an adviser, call 817.257.2222 or email careers@tcu.edu.

International Student Services

TCU has a comprehensive program to help international students adjust to a new living environment and to share their backgrounds with U.S. students and the local community. The Office of International Services provides advice and support regarding immigration matters, academic, financial issues and cultural matters related to the experience of studying in the United States.

The Office of International Services promotes various cultural programs, from student clubs such as the International Student Association (ISA), to global programs such as Questa Terra to educational events working with faculty and local community to promote cultural awareness and TCU's global identity.

The Office of International Services works with graduate programs providing immigration support and information for students, faculty and staff, the latter in a support role to the Office of the Provost. Graduate students are required by law to purchase the institutional insurance policy, and the Office of International Services also helps spouses and families with program and community support.

Information about admissions is found in each department within the graduate program of interest. Admitted students are expected to attend by law the International Orientation for graduate students, either in the fall or spring, depending on the semester they begin classes. The Office of International Services is located in Jarvis Hall.

Campus ID Card

The TCU ID card is a student's access key to many University resources. It is permanent and may be used as long as the student is enrolled at TCU. The card is the property of TCU and is non-transferable. If at any time students have questions or problems with their ID card, visit www.idcenter.tcu.edu, contact the ID Card Center in Brown-Lupton University Union at 817.257.7856 or email IDCenter@tcu.edu.

The TCU ID card is a computerized plastic card, bearing a student's photo and TCU ID number, with a magnetic stripe on the back. Each time the card is inserted in a card reader, the data encoded in the magnetic stripe is electronically scanned and sent back to a central computer for verification. The system then transmits whether the card is valid and the transaction accepted. Students use their ID cards to access dining funds, residence halls and athletic events. ID cards may also be used to charge concessions at athletic events, items from vending machines, purchases at the bookstore, photocopies in the library and Frog Prints Printing Services, computer printouts from the Information Commons and other public computers across campus. It is also used to verify identity if requested by a TCU official.

Card owners are responsible for reporting lost or stolen cards promptly to ensure that no one else uses your card. Card owners can deactivate a lost or stolen card online. Simply log into my.tcu.edu, click on "Helpful Links" click on "Frog Bucks" accept and submit and then "Report A Card Lost." Students can reactivate a found card at the same location. Lost or stolen cards may also be reported to the ID Card Center in the Brown-Lupton University Union, Room 2033, 817.257.7856, or TCU Police 817.257.7777. Until a card is reported lost or stolen you are responsible for any card purchases. There is a replacement charge of \$20 for a lost or stolen card.

The ID card remains the property of TCU at all times, and any misuse of the card could result in loss of privileges or disciplinary action. ID cards should be in a student's possession at all times and must be surrendered upon the request of any University official.

TCU Police

TCU police officers are commissioned by authority of the Board of Trustees of TCU and are certified as peace officers by the State of Texas to provide police services for the campus. The TCU Police are in service 24 hours a day, seven days a week, and the TCU Police dispatcher can be contacted at 817.257.7777. The office is located at 3025 Lubbock Ave.

The TCU Police Department posts a daily crime log and produces an Annual Security and Fire Safety Report, both of which may be found on the TCU Police website (www.police.tcu.edu). These reports are also available at the TCU Police Department.

Texas Christian University is committed to providing a safe environment for employees, students and campus visitors. All guns and dangerous weapons are prohibited on the Texas Christian University campus. The only exceptions are that students, faculty and staff may bring unloaded hunting rifles, other weapons, and ammunition directly to the TCU Police Department to be checked in and stored in a locked gun vault or under Texas law, a person who holds a valid concealed handgun license may store a concealed firearm in a locked, privately owned or leased motor vehicle parked on a street or driveway or in a TCU parking lot or parking garage.

Texas Christian University has complied with the statutory requirements of Section 411.2031 of the Texas Government Code and the Texas Christian University Board of Trustees voted to prohibiting license holders from carrying concealed handguns on the campus of Texas Christian University, any grounds or building on which an activity sponsored by Texas Christian University is being conducted, and any passenger transportation vehicle owned by Texas Christian University.

Police Programs

Froggie Five-O Student Escort Program

The TCU Police Department administers a student escort program, Froggie Five-O. Froggie Five-O operates between the hours of 8 p.m. - 1 a.m. during the fall and spring semesters. Froggie Five-O provides safety escorts and uses student employees who escort students on foot or by golf carts to all areas of the campus. After 1 a.m., TCU police officers or security guards are available to escort students. Students may request an escort by using any of the 118 emergency telephones located on campus or by calling the TCU Police at 817.257.7777.

Crime Prevention

Crime prevention and other services are offered by the TCU Police Department and the Fort Worth Police Department's Community Service Office and include Sexual Assault/Acquaintance Rape Prevention, Personal Awareness/Campus Alcohol Police Information, Campus Crime Watch Meetings, Crime Prevention Surveys for Home and Business, Operation ID: Property Identification System, Auto Theft Prevention (Window Etching) and Vehicle Jump Starts. (Due to possible problems with electric locks, TCU Police Department is unable to provide vehicle unlocking services.) The crime prevention office is located in the Rickel Building Room 155B. The phone number is 817.257.7276.

RAD Systems

Rape Aggression Defense (for women) and Resisting Aggression (for men) are offered on the TCU campus. RAD teaches women defensive concepts and techniques against various types of assault by utilizing easy, effective and proven self-defense/martial arts tactics. RAD provides effective options by teaching women to take an active role in their own self-defense and psychological well-being.

Lost and Found

The TCU Police Department is the official lost and found office. Articles lost or found should be reported as soon as possible to help the office in returning property to the rightful owner.

Automobile Regulations

All students, faculty and staff who operate a motor vehicle on University property must register that vehicle with the TCU Police Department and comply with the rules and regulations set forth. The annual registration fees and the TCU Campus Parking Rules and Regulations can be found at www.cap.tcu.edu.

Purchasing a parking permit does not guarantee a parking place nor does the lack of a parking space justify violation of any parking regulation. The fact that a citation is not issued when a vehicle is illegally parked does not mean or imply that the regulation or rule is no longer in effect.

Illegally parked vehicles may be ticketed, immobilized or towed by the TCU Police Department. The payment of traffic fines, of immobilization or towing charges does not entitle the violator to accrue an indefinite number of citations. Continued parking offenses may lead to a suspension of campus driving and parking privileges, and may also result in disciplinary action by the University. Whenever it is necessary to move an illegally parked vehicle, an independent wrecker operator will tow the vehicle to the wrecker's storage area. The owner of the vehicle will be responsible for the wrecker fee and storage, plus the fine for the traffic violation.

The University does not assume any liability concerning the protection of the motor vehicle or any responsibility for providing special parking places near a building in which an employee works or a student's residence hall or class.

Bicycle Regulations

Bicycle registration forms are online at www.police.tcu.edu. Print the form and bring to the TCU Police Department to receive a bicycle permit. Forms may also be obtained at the TCU Police Department 3025 Lubbock Avenue.

Bicycle riders must adhere to all state and local laws. Pedestrians have the right of way.

University Programs

The Master of Liberal Arts degree (administered by the Office of Graduate Studies) and the graduate certificates in Energy Management (administered by the Ralph Lowe Energy Management Program), Ranch Management (administered by the Ranch Management Program) and Women and Gender Studies (administered by the Department of Women and Gender Studies) are offered.

Master of Liberal Arts

The Master of Liberal Arts program is designed to offer graduate-level education in the broad areas of liberal studies. It is a multidisciplinary, non-career oriented program that seeks to offer a wide range of educational opportunities to students of diverse educational backgrounds. The intent of the program is to make available to all college graduates an opportunity to satisfy their intellectual curiosity and to broaden their knowledge.

Application Procedures

A bachelor's degree from a regionally accredited college or university is required for admission. Applications for admission are available online at www.mla.tcu.edu.

- The application is considered complete when the following are received
- Completed application form
- One certified transcript mailed directly from the applicant's degree granting university to the Office of Graduate Studies, TCU Box 297024, Fort Worth, TX 76129
- A \$60 application fee

MLA Degree Requirements

The MLA degree requires successful completion of 30 hours of coursework. Only MLA courses will fulfill the requirements for the MLA degree. Twelve of the 30 hours must be in MLA courses designated as "Perspectives on Society." Courses so designated will relate a liberal arts discipline to a) issues of contemporary American society, b) issues of culture or cultural diversity in America, c) other world cultures and societies. No thesis is required. An average GPA of 2.75 is required for graduation. Graduate students pursuing their MLA degree are expected to complete all requirements within a period of five years from the date of the earliest credit to be counted toward that degree including transfer credit.

Online Program

The MLA Program offers courses that can be taken completely online. These courses are open to all MLA students. If students wish, they can complete the entire MLA Program exclusively online. No distinction is made between regular courses and online courses in terms of degree requirements or in the actual granting of the degree.

Pass/No-Credit

At the election of the student, MLA courses can be taken on a pass/no-credit basis; however, no more than nine hours taken on a pass/no-credit basis will count toward the MLA degree. No more than six of the first nine hours in the program can be taken on a pass/no-credit basis.

Independent Study

Students may pursue travel/study courses by taking an independent study course under the supervision of an MLA instructor. In order to take an independent study course, a student must follow certain guidelines, which are available from the Office of Graduate Studies. No more than six hours of independent study may count toward the degree.

Transfer Credit

Any request for transfer credit must be made on the appropriate form available in the Office of Graduate Studies. An official transcript of the graduate work must be mailed from the registrar's office directly to TCU. Credit may be requested only for courses broad enough in content to meet the philosophic intent of the MLA Program. All requests are subject to approval by the MLA Advisory Committee. No more than six hours of transfer credit will be accepted. Courses, other than MLA, completed at TCU cannot be applied toward degree requirements.

MLA Courses

Courses in the MLA Program are offered on a rotating basis. Classes generally meet on weekday evenings; occasionally, day and Saturday classes are

offered. MLA courses are also offered during the various summer terms. The Office of Graduate Studies publishes course descriptions for each semester.

Ralph Lowe Energy Management Graduate Certificate

The Ralph Lowe Energy Management Program is designed to offer a graduate certificate in energy management to college graduates from any degree program who are targeting a professional career in any aspect of the energy industry. This is accomplished through an innovative approach of crafting a hybrid academic and industry-based individualized curriculum designed for each student, with parallel personal and professional development. While the individualized energy curriculum and concepts will change over time, the core foundation of creating ethical and accountable energy leaders will not.

Application Procedures

A bachelor's degree from a regionally accredited college or university is required for admission. Applications are available online at energymanagementprogram.tcu.edu.

The application procedure is as follows:

- Complete the online application form, which requires a \$60 fee.
- Complete an interview with the Ralph Lowe Energy Management Program Energy Education Committee.
- If selected for admission, provide one certified transcript to v.barth@tcu.edu or have it mailed directly from the applicant's degree-granting university to the Ralph Lowe Energy Management Program, attention Academic Program Specialist, TCU Box 298965, Fort Worth, TX 76129.

RLEMP Graduate Certificate Requirements

The RLEMP graduate certificate requires successful completion of a 22 hours of coursework and 18 hours of advanced practicum/professional development, including a Capstone Project and other projects deemed necessary by the Ralph Lowe Energy Management Program. The core classes include a mandatory ethics class and an environmental issues class. Graduate students pursuing this graduate certificate are expected to complete all work within nine months and will be individually advised before registering by the Directory of Energy Education.

RLEM 61031 Ethics and Energy and RLEM 61041 Environmental Issues in Energy are required for all students.

Advanced practicum/professional development classes may include field trips, a mentorship/intern program, off-campus classes and a Capstone Project. The RLEMP Capstone Project will be an intensive project unique to each class assigned to the collective cohort in the fall semester, with completion and professional presentations expected before the end of the spring semester. The project will focus on interdisciplinary collaboration, investigative skills, critical thinking and time management on a current issue in the energy industry.

Courses for the graduate certificate may not be taken on a pass/no credit basis.

For more information, contact the RLEMP office at 817.257.7478 or by email at energymanagementprogram@tcu.edu.

Graduate Certificate in Ranch Management

The Graduate Certificate in Ranch Management is designed to offer graduate-level education in ranch management. The curriculum addresses the needs of the modern day ranching business through an interdisciplinary program with an emphasis on beef cattle production and resource management. Five weeklong field trips combine classroom teaching with hands-on exposure.

Application Procedure

An applicant must possess a bachelor's degree from an institution regarded as standard by the University and a regional accrediting agency. Further, the

student must have at least a 3.0 GPA on a 4.0 scale. Applicants meeting academic enrollment criteria should have sufficient working experience in agriculture to understand the nature of the industry. Selection to the program is made after each applicant completes the application, including transcripts and a professional interview. Applications for admission are available through the Ranch Management Program.

Graduate Certificate Requirements

The Graduate Certificate in Ranch Management requires successful completion of 34 credit hours made up of graduate and undergraduate credit. Each of the four graduate credit courses incorporates a graduate-level project into the curriculum.

Graduate Credit (12 hours):

RAMA 50503	Range Management	3
RAMA 50603	Ranch Records and Finance	3
RAMA 50213	Ranch Business Management	3
RAMA 50803	Marketing of Livestock and Meats	3

Undergraduate Credit (22 hours):

RAMA 30102	Ranch Operations and Development	2
RAMA 30403	Soil and Water Conservation	3
RAMA 40103	Beef Cattle Production	3
RAMA 40303	Animal Health Management	3
RAMA 30703	Animal Nutrition and Feeding	3
RAMA 40112	Sheep and Goat Production	2
RAMA 40313	Animal Health and Reproduction	3
RAMA 40903	Forage Production and Use	3

Note: The student must complete RAMA 50503, RAMA 50603, RAMA 50803 and RAMA 50213 as graduate-level courses to be awarded the graduate certificate.

Students must declare their intention to pursue the graduate certificate program prior to their enrollment in any ranch management course.

Pass/No Credit

Courses for the graduate certificate may not be taken on a pass/no credit basis.

For more information on the Graduate Certificate in Ranch Management contact the Ranch Management Program office at 817.257.7145 or by email at ranching@tcu.edu.

Women and Gender Studies Certificate

A Certificate in Women and Gender Studies is available on the master's and doctoral degrees in selected programs. A list of eligible programs is available on the women and gender studies website. The certificate recognizes a student's intensive investigation of issues in women and gender studies in the context of their regular disciplinary graduate work.

Admission Requirements

A student must be enrolled in a master's or doctoral program approved by the women and gender studies program to participate. See the program website for a list of eligible programs. Application for admission to the certificate program should be made online to the director of women and gender studies.

Certificate Requirements

Completion of the certificate requires 12 hours (four courses), including either WGST 60003 Graduate Colloquium in Feminist Theories and Methodologies or WGST 50103/WGST 55103 Feminist Inquiry: Theory and Praxis. The other 9 hours may be taken in one or more of the following ways:

- Through another WGST-prefix graduate-level course.
- Through pre-approved WGST designated graduate courses in the student's field of study or in another department (with approval from the director of graduate studies in the student's major field).
- Through an independent study, with approval from the director of women and gender studies and the director of graduate studies in the student's major field. A memo from the instructor explaining the

feminist or gender components in this project must be submitted to and approved by the director of women and gender studies.

- Through a course that is not WGST designated, but that includes a substantial feminist/gender component. The student's individual research in such a course will be directed towards these issues, must be approved by the director of women and gender studies.

No more than 3 hours in independent study/thesis/dissertation writing may be applied to the certificate. Interdisciplinary work is encouraged in the certificate program. An approved list of courses is maintained by the director of women and gender studies. For more information, contact WGST@tcu.edu.

Intensive English Program

The Intensive English Program (IEP) is a non-degree, credit-bearing unit of TCU's University Programs. It aims to help students advance rapidly toward their academic, professional and personal English language goals. Advanced-level IEP students may enroll in TCU courses for undergraduate degree credit while in the non-degree credit, certificate program.

Those seeking entry to a TCU graduate program should see the International Student Admission section in this catalog. Completion of the advanced-level IEP allows the applicants to some TCU graduate programs to waive the TOEFL admission requirement.

TCU graduate programs may provide IEP tuition scholarships for a month-long summer session or even a full semester. (Intending students should check with their graduate departments.) The IEP at TCU will match any graduate program scholarship for IEP tuition so that the prospective graduate student may study English, tuition-covered; this doubles the amount of time the student may study English at no tuition cost. (Semester fees are usually not covered by the scholarships.) TCU employees and family members may pay half the IEP tuition when enrolling.

An IEP student begins at his or her own level and studies intensively at least 20 hours a week. Classes are organized into teams of 15 or fewer students. Outside class, IEP students work in a computer learning lab, take standardized English exams and meet one-to-one with conversation partners (native English speaking TCU students, staff or faculty who speak with the IEP student in English and sometimes in another language known by the IEP student and being studied by the partner).

IEP sessions begin January, March, May, July, August and October. More information is available at iep.tcu.edu.

M.J. Neeley School of Business

The Neeley School of Business is fully accredited by the AACSB-International Association for Management Education and is a member of the Graduate Management Admissions Council (GMAC).

The school offers small class sizes and a dedicated, accessible faculty enabling students to fulfill their individual education needs.

Neeley School Professional Graduate Degrees

The Neeley School offers the following graduate degrees:

Master of Business Administration (MBA)

Master of Accounting (MAc)

Master of Science in Supply Chain Management (MS-SCM)

Neeley School Dual-Degree MBA

MBA/Ed.D. in Educational Leadership

Neeley School Graduate Program Academic Policies

Transfer Credit

A student who has, prior to entering the Neeley School, completed a course that is the equivalent of a core course in the Neeley School MBA, MAc or MS-SCM degree plans may substitute an elective in the same functional area, with the permission of the executive director or associate dean of graduate programs (MBA and MS-SCM students) or the Director of the Masters Program in Accounting (MAc students). In order for such substitution to be approved, the course has to have been taken within three years of entering TCU and must have been completed at a graduate business school accredited by the AACSB. The substitution of a core course will not reduce the number of hours required to complete the MBA, MAc or MS-SCM degree. It is the student's responsibility to notify the Graduate Programs office or MAc Director prior to the first semester in the program.

A student who has completed, prior to enrollment at the Neeley School, graduate-level business courses that would qualify as electives at TCU may seek the approval of the associate dean of graduate programs or MAc Director to transfer a maximum of six hours of such coursework. Such approval will only be granted if the courses were taken at an AACSB-accredited program no more than three years before entering TCU. These transfer credits (when approved) will reduce the number of hours required to complete the MBA, MAc or MS-SCM degree on a one-to-one basis. When a course is taken outside the Neeley School for which elective credit is sought, the course must be equivalent to a 60000-level course or higher.

A student currently seeking the TCU MBA, MAc or MS-SCM degree may, under extraordinary circumstances, request approval from the associate dean of graduate programs or MAc Director to take a maximum of six hours outside the University.

Grading Procedures

The grading policy followed for all graduate business courses is based on the following scale:

Letter Grade	Grade Point Weight
A	4.0
A-	3.67
B+	3.33
B	3.0
B-	2.67
C+	2.33
C	2.0
C-	1.67
F	0.0

Academic Standards

All graduate students are required to meet the academic standards of the Neeley School faculty. Failure to do so will result in academic probation or academic suspension.

Graduate students must achieve a grade index of at least 2.75 each semester and on a cumulative basis throughout their program. A student seeking the MBA, MAc or MS-SCM degree who does not meet this standard will be placed on probation for the subsequent semester (excluding summer for full-time students). During this time, the student must achieve the minimum grade index (2.75) on both a semester and cumulative basis to be removed from probation. Failure to do so may result in dismissal from TCU (with the right of appeal to the associate dean for graduate programs in the Neeley School).

A student placed on academic probation for one semester may be dismissed if his/her semester or cumulative grade index falls below a 2.75 in *any* subsequent semester.

If a student in any of the Neeley School's graduate programs receives six hours of a grade of C+ or lower, the associate dean for graduate programs may dismiss him/her from the program because of a failure to make satisfactory academic progress.

Dismissal, Suspension or Expulsion for Lack of Academic Progress or Honor Code Violations

MBA, MAc and MS-SCM students in the Neeley School must abide by the Honor Code. Students violating the Honor Code may be dismissed from individual courses with a grade of "F" for conduct deemed to be contrary to the professional or ethical standards of a field.

At such times as the student fails to meet acceptable standards of academic performance or has engaged in professional misconduct, the student may be dismissed, suspended or expelled from the University at the discretion of the Neeley School dean.

If a student is dismissed, suspended or expelled from the University, a grade of "F" or a designation of "Q" is recorded for each course in progress as determined by the appropriate academic dean.

Miscellaneous Academic Policies

Academic probation describes the status of a graduate student who is experiencing academic difficulties; this status must change during the next semester of enrollment at TCU subject to the discretion of the associate dean of graduate programs. Academic dismissal describes the action taken by the Neeley School in the case where a student has failed to meet the minimum academic standards of the faculty. Dismissal from a Neeley School graduate program is permanent; a dismissed student is not permitted to enroll for graduate credit at a later date.

Other academic policies pertaining to graduate students:

1. In computing a graduate student's grade index, only the most recent grade is counted for courses that are repeated for credit.
2. Grades for non-TCU transfer courses are *not* included in computing a graduate student's grade index.
3. No 50000-level course may be taken for credit at TCU by a graduate student unless approved by the associate dean of graduate programs.
4. All MBA students are required to complete the MBA START Workshop or other designated orientation prior to commencing graduate studies. MAc and MS-SCM students are required to complete the relevant orientation for their program prior to beginning their graduate studies.
5. An MBA student may enroll for a maximum of three hours of independent study credit in one department. (Typically, these courses carry the 70970 number.) No more than a total of six hours can be taken in independent study courses. MAc students may enroll for a maximum of three hours of credit (in total) in independent study courses. Graduate students on academic probation are not permitted to enroll in independent study courses.

Graduation Requirements

At the beginning of the semester in which the student plans to graduate, he/she must submit an Intent to Graduate form to the Neeley School Graduate Programs Office or relevant program director. Graduation requires a minimum of 2.75 cumulative GPA. Students who do not have a 2.75 average after completing the program have a maximum of two semesters to raise their average to this standard.

MBA and MS-SCM students are expected to complete all requirements within five years. MAc students are expected to complete all requirements within two years. Extension of time must be applied for in writing to the associate dean of graduate programs or MAc program director. Additional courses may be assigned to students who do not complete the degree within the time limit.

MBA Programs

Neeley School MBA Admissions

The nature of the Neeley School MBA programs requires that a holistic approach be used in the admissions process. Not only must applicants demonstrate academic ability, but also the ability to perform in a highly interactive, team-based environment. Previous academic records, relevant test scores, professional work experience (where applicable), motivation, maturity and demonstrated leadership are all considered in the admissions decision.

Except under extraordinary circumstances, students applying to the MBA Program must have or expect to earn a bachelor's degree from an accredited college or university prior to enrollment.

Admission Application Checklist

An application to a Neeley School MBA program will not be considered by the Graduate Admissions Committee until all of the following materials are received:

1. Completed application form and essays
2. An official transcript from each college or university previously attended
3. Contact information for three professional references
4. Application fee of \$100
5. Official GMAT or GRE scores. The test requirement is waived for CFA® Charter holders.
6. Official TOEFL scores (non-native English speakers only)
7. Personal interview (by invitation only)

Additional Admission Requirements for Accelerated MBA Programs

The Full-time, Professional, Energy and Health Care focused Accelerated MBA Programs are available to individuals with professional experience and distinguished academic backgrounds in business, as evidenced by:

- completion, with a strong academic background, of the Bachelor of Business Administration (BBA) degree or equivalent from an AACSB-accredited business school
- minimum of three years of postgraduate professional work or military experience
- sufficiently high GMAT or GRE scores

Other exceptional indicators of success may also be taken into consideration.

MBA Program Prerequisites

Students admitted to the MBA program must complete two pre-enrollment requirements prior to registering for their first semester of graduate study:

1. Mathematical Skills Prerequisite
 - Entering students are expected to have an understanding of basic mathematics (i.e., basic algebraic operations, relations and functions, exponents, logarithms, sets and functions, linear equations, differentiation, integration, slope and extrema). This requirement is ordinarily satisfied by one of the following:
 - Satisfactory (C or better) completion of a 3-hour course in Introductory Applied Calculus or College Algebra or Mathematics with Emphasis on Business Applications; or
 - A score corresponding to or better than the 80th percentile on the quantitative portion of the GMAT; or
 - Satisfactory evidence of mathematical competence through a combination of courses taken in mathematics, statistics or economics prior to entering the program, and/or a makeup course that may be taken during the first semester of the Neeley School MBA Program. (For specific details, contact the Neeley Graduate Programs Office.)
2. START Workshop
 - START workshop or another designated orientation takes place on campus during the weeks before fall classes begin. During this workshop, students may receive instruction in teamwork and

communication skills; a campus and degree program orientation; introductions to primary functional disciplines; and self-assessment exercises for career development. Students also meet their program cohort group.

- Additionally, a student may be required to complete online modules over the summer months prior to enrollment. More information will be provided upon admission.

Neeley MBA Program Requirements

If a student in any of the MBA programs receives six hours of a grade of C+ or lower, the associate dean for graduate programs may dismiss him/her from the program because of a failure to make satisfactory academic progress.

Neeley MBA Program Options

Full-Time MBA

Program Length: 21 months

Full-time Accelerated MBA

Program length: 11 months

Professional MBA

Program Length: 24-33 months

Professional Accelerated MBA

Program Length: 18-24 months

MBA for Energy Professionals

Program Length: 24-33 months

Accelerated MBA for Energy Professionals

Program Length: 18-24 months

MBA for Health Care Professionals

Program Length: 24-33 months

Accelerated MBA for Health Care Professionals

Program Length: 18-24 months

Executive MBA

Program Length: 18 Months

Applicants must designate at the time of application which program of study they are seeking. Admission to one program is not necessarily valid for another. Students will not be allowed to switch programs except under extraordinary circumstances.

MBA, Full Time

The Full-Time MBA Program follows a prescribed sequence over 21 months. Any variance from this sequence must be pre-approved by the associate dean of graduate programs. If such pre-approval is not obtained and a break in the sequence occurs, the student is subject to dismissal.

54 credit hours are required in this program.

ACCT 60010	Financial Reporting	1.5
ACCT 60020	Accounting for Managerial Planning and Control	1.5
BUSI 60050	Global Environment of Business	1.5
BUSI 66100	Career Management and Professional Development	1.5
BUSI 60070	Business Simulation	1.5
FINA 60020	Managerial Economics	1.5
FINA 60010	Financial Management I	1.5
INSC 60010	Statistical Models	1.5
INSC 60020	Managing Operations and Processes	1.5
INSC 60600	Concepts in Supply Chain Management	1.5
MANA 60230	Legal Env of Business	1.5
MANA 60330	Engaging People	1.5
MANA 60340	Leading Teams and Organizations	1.5
MANA 60630	Strategic Management	1.5

MANA 60460	Business Ethics	1.5
MARK 60010	Marketing Management	1.5

Electives: 30 credit hours

Students should also complete an approved concentration in their elective credit hours. The director of graduate academic programs will maintain lists of approved concentrations and the requirements for each.

MBA, Full-Time Accelerated

The Accelerated MBA Program is an 11-month, full-time option designed for individuals with significant professional experience and a distinguished academic background in business. The Accelerated MBA Program is designed to build upon the business foundation and experience of these individuals.

Students in the Accelerated MBA Program pursue a fast-paced, individually tailored curriculum that complements their own unique business background. The curriculum includes a subset of the core courses offered in TCU's traditional MBA Program, plus electives that are selected to **complement the student's prior professional and academic credentials. It comprises:**

36 credit hours of graduate level business courses

22.5 credit hours of graduate business electives

13.5 credit hours of specified core MBA classes, some of which are specifically designed for accelerated students:

BUSI 66100	Career Management and Professional Development	1.5
MARK 60011	Marketing Fundamentals	1
INSC 60011	Supply Chain Management Fundamentals	1
FINA 60011	Finance Fundamentals	1
BUSI 60070	Business Simulation	1.5
MANA 60630	Strategic Management	1.5
MANA 60230	Legal Env of Business	1.5
BUSI 60050	Global Environment of Business	1.5
MANA 60460	Business Ethics	1.5
FINA 60020	Managerial Economics	1.5

MBA, Professional (Evening)

A total of 48 credit hours are required in this program.

ACCT 60010	Financial Reporting	1.5
ACCT 60020	Accounting for Managerial Planning and Control	1.5
BUSI 60050	Global Environment of Business	1.5
BUSI 60070	Business Simulation	1.5
FINA 60020	Managerial Economics	1.5
FINA 60013	Management of Financial Resources	3
INSC 60013	Data Analysis for Managerial Decisions	3
INSC 60020	Managing Operations and Processes	1.5
INSC 60040	Managing Information Technology	1.5
INSC 60050	Business Analytics	1.5
INSC 60600	Concepts in Supply Chain Management	1.5
MANA 60230	Legal Env of Business	1.5
MANA 60350	Competitive Advantage through People	1.5
MANA 60670	Strategy Formulation	1.5
MANA 60680	Strategy Implementation	1.5

MANA 60460	Business Ethics	1.5
MARK 60010	Marketing Management	1.5

Electives: 19.5 credit hours

MBA, Professional Accelerated (Evening)

36 credit hours are required in this program, including the following core courses:

MARK 60011	Marketing Fundamentals	1
INSC 60011	Supply Chain Management Fundamentals	1
FINA 60011	Finance Fundamentals	1
BUSI 60050	Global Environment of Business	1.5
BUSI 60070	Business Simulation	1.5
FINA 60020	Managerial Economics	1.5
INSC 60050	Business Analytics	1.5
MANA 60230	Legal Env of Business	1.5
MANA 60460	Business Ethics	1.5
MANA 60670	Strategy Formulation	1.5
MANA 60680	Strategy Implementation	1.5
MANA 72450	Health Care IT & Data analysis	1.5

Electives: 21 credit hours

MBA, Energy Professionals

This program provides coverage of both general business concepts and tools as well as industry specific practices and issues for working professionals in the energy industry. The main program components consist of 28.5 credit hours in core MBA courses, 9 credits in core energy classes, 6 credits in energy and general business elective courses, and 4.5 hours in capstone energy courses. Capstone courses include an international experience and Energy CEO Forum class.

The MBA for Energy Professionals is a 48 hour program. The 28.5 hour core is identical to that of the Professional MBA Program.

The remaining 19.5 hours are:

BUSI 70713	Energy in the 21st Century	3
FINA 70610	Energy Macroeconomics	1.5
FINA 70620	Energy Corporate Finance	1.5
MANA 70620	Energy Legal and Regulatory Issues	1.5
ACCT 70610	Energy Accounting	1.5
MANA 70650	Energy CEO Forum	1.5
MANA 70663	Global Experiences - Energy	3
	Electives	6

MBA, Energy Professionals Accelerated

For the accelerated version of the MBA for Energy professionals program, 36 credit hours are required, including the same 15 hours of core courses required in the Professional Accelerated MBA Program. In addition, students will take the 13.5 hours of energy-related courses included in the non-accelerated MBA for Energy Professionals program, plus 7.5 additional elective hours.

MBA, Health Care Professionals

This program provides coverage of both general business concepts and tools as well as industry specific practices and issues for working professionals in the health care industry.

The MBA for Health Care Professionals is a 48 hour program.

PMBA Core Courses: 28.5 hours

Health Care Specific Courses: 10.5 hours

MANA 72410	Health Care in the U.S.	1.5
MANA 72420	U.S. Health Care Policy	1.5
MANA 72430	Population Health	1.5
MANA 72440	Legal Issues in Health Care	1.5
MANA 72450	Health Care IT & Data analysis	1.5
MANA 72453	Health Care Capstone	3

Business or Health Care Electives: 9 hours

MBA, Health Care Professionals Accelerated

For the accelerated version of the MBA for Health Care Professionals program, 36 credit hours are required, including the same 15 hours of core courses required in the Professional Accelerated MBA Program. In addition, students will take the 10.5 hours of health care-related courses included in the non-accelerated MBA for Health Care Professionals program, plus 10.5 additional elective hours.

The Accelerated MBA for Health Care Professionals is a 36 hour program.

Accelerated PMBA Core Courses: 15 hours

Business or Health Care Electives: 10.5 hours

Health Care Specific Courses: 10.5 hours

MANA 72410	Health Care in the U.S.	1.5
MANA 72420	U.S. Health Care Policy	1.5
MANA 72430	Population Health	1.5
MANA 72440	Legal Issues in Health Care	1.5
MANA 72450	Health Care IT & Data analysis	1.5
MANA 72453	Health Care Capstone	3

MBA, Executive

The Executive MBA Program is an 18-month accredited MBA focused on developing agile, strategic business leaders. The program is designed for experienced executives, high-potential managers and business owners who wish to strengthen their leadership skills and business knowledge to enhance their job performance and advance their careers.

The *In-Residence Seminar*, a three-day orientation in mid-August, marks the beginning of the Executive MBA program. The seminar is designed to prepare students for success in their coursework, both as individuals and as team members, and provides tools to improve teamwork and leadership skills.

Course content is delivered across all business areas and emphasizes how to improve decision-making using both quantitative and qualitative data. Faculty from the business disciplines engage students in case analysis and discussion, problem solving, applied research projects, simulated decision-making, and a two-week study abroad experience. An interactive classroom environment gives students the opportunity to learn from experienced classmates across multiple industries.

Each student's personalized leadership development process includes an assessment of learning agility, which is the primary predictor for success in executive leaders. As well, a 360° survey solicits feedback from the student's management, peers and direct reports. Students use this qualitative and quantitative data to shape a personal leadership development plan in partnership with their assigned executive coach.

Classes meet all day Friday and Saturday on alternate weekends for a period of approximately 18 months, beginning in August.

ACCT 65013	Financial Reporting and Analysis	3
ACCT 65023	Accounting for Managerial Planning and Control	3
BUSI 65103	Personal Leadership Development Process	3
BUSI 75970	Special Problems in Business	1.00-20.00
BUSI 75974	Managing in a Global Business Environment	4
FINA 65013	Management of Financial Resources	3
FINA 65003	Economic Environment of Business	3
FINA 75543	Advanced Financial Management	3
INSC 65013	Business Analytics for Managerial Decisions	3
INSC 75663	Supply Chain and Operational Strategy	3
MANA 65000	Strategic Vision and Analysis	1.5
MANA 65063	Strategy in a Dynamic Environment	3
MANA 65023	Legal and Social Environment of Business	3
MANA 65160	Leadership in a Complex World	1.5
MANA 65260	Leading for Innovation and Results	1.50-3.00
MANA 65460	Ethical Business Decision Making	1.5
MANA 75613	Negotiations	3
MANA 75980	Innovation and Entrepreneurship	1.5
MARK 65013	Advanced Marketing Management	3

BUSI 75974 includes two-week study abroad

Dual-Degree MBA Programs

Educational Leadership, MBA/Ed.D.

The purpose of this program is to prepare students to assume major leadership positions in a wide variety of education-related organizations by applying managerial skills and educational leadership in the field of education. The program is designed to prepare students to enter educational management in school systems, regional, state, or federal governments, higher education institutions, research institutions, private foundations, or private sector companies.

Admission/Degree Requirements

Candidates must be admitted to both the Neeley School's MBA program and the College of Education's Ed.D. program. They must then meet all core requirements listed below as well as complete the START Workshop or other designated orientation. In the event a student elects to complete the MBA without continuing into the doctoral program, he/she must meet all remaining requirements for the MBA (i.e., elective units in the School of Business). If a student's work is unsatisfactory in MBA courses, and he/she is not permitted to continue, he or she may not be permitted to commence the doctoral program. Throughout the program, students must maintain a B average. At the completion of coursework, students will take written and oral comprehensives before proceeding into the dissertation stage.

Full-Time MBA Curriculum

ACCT 60010	Financial Reporting	1.5
ACCT 60020	Accounting for Managerial Planning and Control	1.5
BUSI 60050	Global Environment of Business	1.5
BUSI 60070	Business Simulation	1.5
FINA 60020	Managerial Economics	1.5
FINA 60010	Financial Management I	1.5
INSC 60010	Statistical Models	1.5
INSC 60020	Managing Operations and Processes	1.5

INSC 60600	Concepts in Supply Chain Management	1.5
MANA 60230	Legal Env of Business	1.5
MANA 60330	Engaging People	1.5
MANA 60340	Leading Teams and Organizations	1.5
MANA 60630	Strategic Management	1.5
MANA 60460	Business Ethics	1.5
MARK 60010	Marketing Management	1.5
	Electives	6

Professional Curriculum: MBA courses taught in the evening

ACCT 60010	Financial Reporting	1.5
ACCT 60020	Accounting for Managerial Planning and Control	1.5
BUSI 60050	Global Environment of Business	1.5
BUSI 60070	Business Simulation	1.5
FINA 60020	Managerial Economics	1.5
FINA 60013	Management of Financial Resources	3
INSC 60013	Data Analysis for Managerial Decisions	3
INSC 60020	Managing Operations and Processes	1.5
INSC 60040	Managing Information Technology	1.5
INSC 60050	Business Analytics	1.5
INSC 60600	Concepts in Supply Chain Management	1.5
MANA 60230	Legal Env of Business	1.5
MANA 60350	Competitive Advantage through People	1.5
MANA 60460	Business Ethics	1.5
MANA 60670	Strategy Formulation	1.5
MANA 60680	Strategy Implementation	1.5
MARK 60010	Marketing Management	1.5
	Electives	4.5

Ed.D. Degree Requirements

The M.J. Neeley School of Business and the College of Education offer the MBA/Ed.D. in Education with a business option. Details about this program are provided in the College of Education section of this catalog (p. 40). For more information, please see www.coe.tcu.edu/graduateprograms.asp.

MBA/MACS/MTS/MDiv Degree Program in Conjunction with Brite Divinity School

The purpose of this program is to prepare students to assume major leadership positions in a wide variety of divinity ministries and non-profit-related organizations. The program is designed to help graduates apply managerial, financial, operational and marketing skills in addition to theological studies and Christian services to religious and non-profit organizations.

Candidates must be admitted to both Neeley's MBA program and to Brite Divinity School's Master of Arts in Christian Service (M.A.C.S.), Master of Theological Studies (M.T.S.) or Master of Divinity (M.Div.) programs. Before taking any business courses the candidate must participate in a START Workshop or other designated orientation, which is held every August. In the event a student elects to complete the MBA without continuing into the Brite degree programs, he/she must meet all remaining requirements for the MBA (i.e., 21 and 15 hours for the full-time and PMBA programs, respectively). A student who initiates pursuit of a graduate degree in Brite must complete this number, 21 or 15, of graduate hours in either Brite or Neeley in order to earn their MBA.

Courses required from Neeley's Full-Time MBA curriculum:

ACCT 60010	Financial Reporting	1.5
ACCT 60020	Accounting for Managerial Planning and Control	1.5
BUSI 60050	Global Environment of Business	1.5

BUSI 60070	Business Simulation	1.5
FINA 60010	Financial Management I	1.5
FINA 60020	Managerial Economics	1.5
INSC 60010	Statistical Models	1.5
INSC 60020	Managing Operations and Processes	1.5
INSC 60600	Concepts in Supply Chain Management	1.5
MANA 60230	Legal Env of Business	1.5
MANA 60330	Engaging People	1.5
MANA 60340	Leading Teams and Organizations	1.5
MANA 60630	Strategic Management	1.5
MANA 60460	Business Ethics	1.5
MARK 60010	Marketing Management	1.5
	Electives	10.5

Courses required from Neeley's Professional MBA Curriculum:

ACCT 60010	Financial Reporting	1.5
ACCT 60020	Accounting for Managerial Planning and Control	1.5
BUSI 60050	Global Environment of Business	1.5
BUSI 60070	Business Simulation	1.5
FINA 60020	Managerial Economics	1.5
FINA 60013	Management of Financial Resources	3
INSC 60013	Data Analysis for Managerial Decisions	3
INSC 60020	Managing Operations and Processes	1.5
INSC 60040	Managing Information Technology	1.5
INSC 60050	Business Analytics	1.5
INSC 60600	Concepts in Supply Chain Management	1.5
MANA 60230	Legal Env of Business	1.5
MANA 60350	Competitive Advantage through People	1.5
MANA 60460	Business Ethics	1.5
MANA 60670	Strategy Formulation	1.5
MANA 60680	Strategy Implementation	1.5
MARK 60010	Marketing Management	1.5
	Electives	4.5

Physics with Business Option, Ph.D.

The M.J. Neeley School of Business and the Department of Physics offer the Ph.D. in Physics with a business option. Details about this program are provided in the College of Science & Engineering physics and astronomy section of the Graduate Catalog (p. 105).

Neeley School Master's Degrees

Master of Science in Supply Chain Management

This program provides learning opportunities for working professionals in the area of supply chain management (SCM). The degree plan provides students the flexibility to create a personalized learning track that best meets their individual and professional needs. Primary topics include concepts in supply chain management and leading supply chains. Along with global experiences and integrative field study, these courses provide a solid foundation in supply chain that students can build upon through a significant number of elective courses.

MS-SCM Curriculum:

INSC 60600	Concepts in Supply Chain Management	1.5
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INSC 70150	Leading Supply Chain	1.5
INSC 70793	Global Supply Chain Experience	3
INSC 70693	Integrative Field Study	3
	Electives	3

Subtotal: 30

Certificate in Supply Chain Management

This program provides learning opportunities for working professionals in the areas of supply chain management (SCM) that are most relevant to their learning objectives. Students benefit from exposure to supply chain concepts and, with guidance from an advisor, select from a host of class options to build expertise in specific facets of SCM. Through electives, the program provides experience in SCM analytical and decision-making tools. The certificate program can be completed with or without a global emphasis.

CRT-SCM Curriculum (Without Global Emphasis)

INSC 60600	Concepts in Supply Chain Management	1.5
	Electives	3
		Subtotal: 9

CRT-SCM Curriculum (With Global Emphasis)

INSC 60600	Concepts in Supply Chain Management	1.5
INSC 70793	Global Supply Chain Experience	3
	Electives	3
		Subtotal: 12

Accounting, MAc

The Master of Accounting (MAc) is designed for students planning on professional careers in accounting or related financial professions. It complements the educational experience of the Bachelor of Business Administration (BBA) accounting major by providing the additional accounting and business knowledge needed by successful accounting professionals. Students who successfully complete the BBA Accounting and MAc degree meet the educational requirements for the Uniform CPA Exam in the state of Texas.

MAc Admissions

The nature of the Neeley School MAc Program takes a holistic approach to the admissions process. Applicants must demonstrate academic proficiency as well as the ability to perform in a highly interactive, team-based environment. Academic records, relevant test scores, motivation, maturity and demonstrated leadership are all considered in the admissions decision.

Students who have not earned a BBA in the Neeley School must provide evidence that they have completed a comparable program at an accredited university that is recognized by the TSBPA. Except under extraordinary circumstances, students applying to the MAc Program must have or expect to earn a bachelor's degree from an accredited colleges or university prior to enrollment and have completed coursework taught in U.S GAAP, U.S Tax Law, and PCAOB/AICPA auditing standards.

Admission Application Checklist

An application to the Neeley School MAc Program will not be considered by the Admissions Committee until all of the following materials are received:

1. Evidence of all accounting prerequisites
2. Completed application packet
3. Official transcript from each college or university previously attended
4. Two completed reference forms
5. Official GMAT scores
6. Official TOEFL scores (non-native English speakers only)
7. Personal interview (by invitation only)

Application packet and forms are available on the MAc website, www.neeley.tcu.edu/MAC/Admissions.

Students admitted to the Neeley Professional Program in Accounting (PPA) who meet the requirements of that program will be evaluated to begin graduate studies and earn a Master of Accounting upon filing and approval of an Intent to Matriculate to graduate studies.

For additional information:

Contact:

MAc Program Coordinator
Department of Accounting
TCU Box 298530
Fort Worth, Texas 76129
Phone: 817.257.4467
Fax: (817) 257.7227
PPAccounting@tcu.edu

MAc Program Requirements

The degree consists of 30 semester hours of graduate-level classes. The 30 hours include 18 hours of courses required for all students. Students may **also select from one of three 'concentrations,' each of which consists of 7½ prescribed credit hours.** If a concentration is not selected, the program must be approved by the program director. Students can select from any of the graduate accounting MAc courses offered, any of the courses from any of the concentrations, and/or from a recommended list of MBA offerings to obtain the remaining 4½ required hours. The program is designed such that students are expected to complete the program in two semesters.

Graduate students must maintain a GPA of at least 2.75 in accordance with the provisions described under Academic Warning. All grades will be included in the computation of the GPA, but no more than two grades of "C+" or lower may be utilized in satisfying degree requirements.

MAc Curriculum

Required (core) courses:

ACCT 70260	Accounting and Global Perspectives	1.5
ACCT 70153	Financial Statement Analysis	3
ACCT 70303	Taxation of Business Entities	3
ACCT 70450	Moral Reasoning in Accounting	1.5
ACCT 70253	Business Combinations and Advanced Topics	3
BUSI 70970	Special Problems – Energy in the 21st Century	
ACCT 70263	Communication, Analysis, and Persuasion in Accounting	3
ACCT 70460	Ethics for Accounting Professionals	1.5
		Subtotal: 18

Assurance Services Concentration:

ACCT 70220	Advanced Accounting Information Systems	1.5
ACCT 70270	Financial Reporting Research	1.5
ACCT 71273	Advanced Audit and Assurance	3
ACCT 70510	Valuation in Accounting Context I	1.5
		Subtotal: 7.5

Taxation Concentration:

ACCT 70350	Seminar in Current Tax Topics	1.5
ACCT 70370	Tax Research	1.5
ACCT 70330	Corporate Taxation	1.5
ACCT 70320	Taxation of Flow-through Entities	1.5
ACCT 70340	Special Topics in Taxation	1.5
		Subtotal: 7.5

Financial Reporting and Valuation Concentration

ACCT 70270	Financial Reporting Research	1.5
ACCT 70510	Valuation in Accounting Context I	1.5
ACCT 70520	Valuation in Accounting Context II	1.5

Plus 3 hours from the following list:

FINA 70010	Financial Management II	1.5
FINA 70523	Financial Modeling	3

FINA 70543	Advanced Financial Management	3
FINA 70513	Security Analysis	3
FINA 70533	Portfolio Management	3
FINA 70183	Educational Investment Fund	3
FINA 70583	Topics in Applied Financial Analysis I	3

Other courses as appropriate with approval by MAc Director.

Additional accounting electives available to all MAc students (when offered):

ACCT 70020	Strategic Cost Analysis	1.5
ACCT 70610	Energy Accounting	1.5
ACCT 70433	International Financial Reporting and Global Markets	3

Students can select from any of the accounting electives that are part of each concentration as well as from a list of approved MBA courses to complete their 30 graduate credit hours.

Bob Schieffer College of Communication

The Bob Schieffer College of Communication offers the Master of Science in three degree plans. Degree plans include strategic communication, journalism and communication studies. Students interested either in continuing into a doctoral program or professional development will find programs that prepare them for the future. Research and development are balanced with applied experiences in the communication field. Located in the fifth largest media market in the United States, the graduate programs in the Bob Schieffer College of Communication at TCU offer diverse opportunities in a supportive and stimulating environment.

Bob Schieffer College of Communication Admission Requirements

An applicant must possess a bachelor's degree from an institution regarded as standard by the University and a regional accrediting agency. For unconditional admission, the student must have satisfactory undergraduate preparation for the particular degree sought. This is determined by the departmental graduate coordinator and the Bob Schieffer College of Communication associate dean and includes a:

- "B" average in the last 60 hours of undergraduate work or in all undergraduate work;
- "B" average in the major field of study; and
- Satisfactory scores on the GRE and TOEFL (if required).

An application that is otherwise satisfactory may still be rejected if the intended major area has already accepted as many new students as its facilities can accommodate, or if it is felt that the program TCU provides is not suitable to the applicant's vocational goals.

Application Procedure

The application is considered complete when the following are received:

- Completed online application form;
- Two certified transcripts mailed directly from the applicant's university. This includes all undergraduate and graduate work from all colleges or universities attended;
- A \$60 application fee;
- A statement of experience and professional goals, which allows the departmental graduate coordinator to adequately determine the suitability of the applicant with the graduate program;
- Three letters of recommendation; and
- GRE general test scores.

Additional admission information is available on the Bob Schieffer College of Communication Graduate Studies web page.

International Applicants

International applicants must submit TOEFL scores of 550 or better paper based, 213 computer based or 79 or better Internet-based, and proof of financial support. See individual programs for other requirements. TCU recommends a 100 or higher TOEFL score (internet based) for international students.

Conditional Admission Policy

A conditional admission may be granted to students who may be weak in one of the admission criteria if they show strength in all other criteria. The letter of acceptance will state the conditions that must be met in the first nine hours. Special permission to extend this conditional admission must be made in writing through the associate dean's office. Students who have not removed the conditions by the stated deadline will not be permitted to register for classes in the subsequent semester.

Bob Schieffer College of Communication Grading Procedures

The grading policy for all graduate communication courses is based on the following scale:

Letter Grade	Grade Point Weight
A	4.00
A-	3.67
B+	3.33

B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
F	0.000

"I" — Course has not been completed and final grade has not been assigned. The "I" must be removed within the first 60 days of the long semester immediately following (with exception to the thesis or project in lieu of a thesis) or it is changed to an "F." Any extension must have written approval of the instructor of record and college dean.

"Q" — Removed from the course by the academic dean

"W" — Officially withdrew from the course

"AU" — Officially audited the course

Bob Schieffer College of Communication Academic Standards

All graduate students are required to meet the academic standards set by the Bob Schieffer College of Communication faculty. Failure to do so will result in academic probation or suspension. Graduate students must achieve at least a 2.75 GPA each semester and on a cumulative basis throughout their program of study. A student who fails to meet this expectation will be placed on probation the following long semester and must achieve a cumulative GPA of 2.75. Failure to meet that expectation will result in the removal from the program with the right to appeal to the Bob Schieffer College of Communication dean. If a graduate student in the Bob Schieffer College of Communication receives six hours of a grade of "C+" or lower, the associate dean of the graduate programs for the college may dismiss the student from the program because of failure to make satisfactory academic progress.

Bob Schieffer College of Communication Financial Aid

Stipend/Tuition Reimbursement. Merit-based financial aid is available. Students must request financial assistance in their application.

Responsibilities tied to stipend awards are departmentally driven. In all units, the graduate students on a stipend are assigned to work with a faculty member. In some units, students are assigned a lab to work in as they mentor students and oversee lab setup and breakdown. In other units, students may assist a faculty member with grading or course development or research. The number of hours assigned are directly related to the stipend. Unit graduate coordinators are responsible for keeping track of the graduate student's time and job as an assistant. The faculty who oversees the student will report to the coordinator.

Satisfactory Progress

Candidacy. This status is awarded when the student has completed a minimum of nine graduate hours, maintained a graduate GPA of at least a 2.75 and secured approval from the unit graduate coordinator.

Communication Studies Degree Program

The Department of Communication Studies offers a Master of Science in Communication Studies. Applicants for the Communication Studies program must follow the Bob Schieffer College of Communication admission procedures as outlined in this catalog.

Communication Studies, MS

To pursue the Master of Science in Communication Studies, a student must have a bachelor's degree, including at least 15 hours in communication studies and nine hours in related areas.

The graduate major consists of 36 credit hours, including two basic plans. Plan I

The *non-thesis* plan includes 36 hours of coursework. A student electing this option must successfully complete oral and written comprehensive examinations as specified by the graduate committee.

Plan II

The *thesis* plan includes 30 hours of coursework and six hours of thesis. A student electing this option must successfully complete the thesis and satisfactorily pass an oral defense of the thesis.

General Information about Plan I and II

At least 24 hours of a student's program must be at the 60000 level. With special permission from the graduate coordinator, students may take up to six hours outside the department.

Required Courses

COMM 60173	Communication Research Methods	3
COMM 60183	Communication Theory	3
COMM 60193	Advanced Research Methods in Communication Studies	3

Department of Strategic Communication

Strategic Communication, MS

This degree is designed for working strategic communication professionals seeking to broaden their understanding of strategic communication theories and skills in strategy, research, storytelling, new media and leadership. Students will take a blend of advertising and public relations courses that **enable them to compete in today's digital and global world.**

Admission Requirements

Applicants must meet general University requirements as specified in the graduate catalog, and have completed 15 semester hours (five courses) in undergraduate journalism, advertising or public relations, or have substantial professional experience in a communication discipline as determined by the graduate faculty. The application must also include:

- Application form;
- Two official transcripts from all colleges or universities attended;
- Statement of no more than 250 words describing academic and/or professional objectives;
- Three letters of recommendation; and
- GRE general test scores.

An applicant who does not meet the admission requirements must take up to 15 semester hours of undergraduate journalism, advertising, or public relations courses that will not count toward the graduate degree. The Department of Strategic Communication graduate faculty will determine the number of semester hours needed.

Degree Requirements for Strategic Communication Master of Science Degrees

The Master of Science in Strategic Communication require 36 hours.

All Strategic Communication graduate students take the following core courses.

STCO 50123	Foundations	3
STCO 50183	Management and Leadership	3
STCO 60113	Research Methods	3
STCO 60133	Ethics	3
STCO 60123	Theory	3
STCO 60183	Global Strategic Communication	3

Students may select up to 18 hours of strategic communication courses that best fit their career needs. With special permission from the graduate director, up to 6 approved graduate hours may be taken outside the Department of Strategic Communication.

Students may choose one of two tracks for graduation.

Track I: Project

The project track requires 33 hours of coursework and 3 hours of project. For TCU Certified Public Communicator graduates, and with permission from the graduate director, the project track requires 27 hours of coursework and 3 hours of project. The project is completed during the semester prior to graduation. Students who do a project apply the skills and knowledge they have gained in their graduate coursework to solve an applied, contemporary problem or issue.

Track II: Thesis

The thesis track requires 30 hours of coursework and 6 hours of thesis. For TCU Certified Public Communicator graduates, and with permission from the graduate director, the thesis track requires 24 hours of coursework and 6 hours of thesis. The thesis takes two semesters to complete and involves a research project. Graduate students who are thinking of going on to earn a Ph.D. typically elect for the thesis track.

Students must secure permission from the graduate associate director prior to enrolling for the project or thesis.

Combined Bachelor's/Master's Program

This program allows outstanding strategic communication students to earn **both a bachelor's degree and a master's degree in five years. Students may apply for admission to the Master of Science in Strategic Communication program during the semester they complete 75 hours of undergraduate coursework.**

To be considered for admission, students must submit a graduate application. The application process is competitive, and only students with outstanding undergraduate performance and strong letters of recommendation will be considered. Students who are admitted complete up to 12 semester hours in the strategic communication graduate program during the last year of undergraduate study. Those 12 hours may fulfill elective requirements for the undergraduate strategic communication major. Once the student fulfills all graduation requirements for the undergraduate degree, he or she earns the baccalaureate degree in strategic communication.

During the summer before her or his fifth year, the student should plan to complete 6 hours of strategic communication graduate courses. In the fifth year, the student then completes the remaining 18 semester hours toward **the strategic communication master's degree. Students intending to pursue the combined bachelor's/master's program should make their plans known as early as possible to faculty members in the Department of Strategic Communication to ensure proper advising.**

College of Education

The mission of the College of Education at Texas Christian University is to prepare exemplary leaders for diverse educational settings and related fields who are reflective, ethical, innovative, and committed to all learners. We meet that mission by offering excellent graduate programs taught in small classes by professors who know their students well. Educational experiences are designed so that students can grow personally and professionally to become leaders in their field.

College of Education Programs

Master of Arts in Teaching (TCUteach)

Master of Education degrees are offered with majors in:

- Curriculum and Instruction
- Counseling
- Special Education
- Educational Leadership

Doctoral degrees are offered in:

- Ph.D. in Educational Studies
 - Counseling and Counselor Education
 - Curriculum Studies
 - Educational Leadership
 - Science Education
- Ed.D. in Educational Leadership
- Ed.D. in Higher Education Leadership
- MBA/Ed.D. Joint Program in Educational Leadership

College of Education Admission for Graduate Studies

TCU's admissions standards stated in the admissions portion of the graduate catalog are used in the College of Education admission process in addition to the following:

Application Checklist for Admission

Because applications are considered in light of multiple criteria, incomplete applications cannot be accepted. A complete application consists of:

- The completed application form. The application form may be obtained at www.applyweb.com/tcug.
- A personal essay stating reasons for applying to the graduate program including professional background information and goals (200 words or fewer).
- Two official transcripts from each college/university previously attended. Transcripts must be sent directly to the College of Education Office of Graduate Studies from the university or college attended. (TCU transcripts are not required.)
- One letter of recommendation attesting to the student's character and ethical conduct from a person who knows the student well (include contact information for follow-up).
- Two letters of recommendation attesting to the student's competence, character and ethical conduct in professional settings (include contact information for follow-up).
- Official TOEFL scores for non-native English speakers.
- Evidence of current criminal record search.
- Personal interviews for students applying to many of the graduate programs.
- Recent acceptable GRE scores for students applying to the Ph.D. in Counseling and Counselor Education, Curriculum Studies, Educational Leadership and Science Education and the Ed.D. in Educational Leadership and Higher Educational Leadership, as well as some of the master's degrees.
- A writing sample (15-20 pages, exclusive of notes and works cited) demonstrating appropriate academic writing skills needed for success in a graduate program for the Ph.D. in Counseling and Counselor

Education, Curriculum Studies, Educational Leadership and Science Education.

- An essay, including a short professional background summary, a statement addressing professional goals and a brief philosophy of leadership statement for the Ed.D. in Educational Leadership and Higher Educational Leadership programs as well as for the MBA/Ed.D. program.
- \$60 application fee.
- Pay the \$55 Texas Education Accountability System for Educator Preparation Program Fee, as required by 19 TAC 229.9(7). For the 2018-2019 academic year and beyond, certification candidates enrolled in the program will pay a fee of \$35 per year. The fee will appear on your TCU student account.

Admission Deadlines

M.Ed. Applications

- Nov. 16 for spring admission
- March 1 for summer/fall admission
- March 16 for fall admission, **Educational Leadership Master's Program**(Higher Ed track only)

TCUteach MAT Applications

- March 1 for summer admission

Ed.D. in Educational Leadership

- Feb. 1 for summer admission

Ed.D. in Higher Educational Leadership

- Nov. 16 for spring admission
- Feb. 1 for fall admission

Joint MBA/Ed.D. in Educational Leadership and Higher Education Leadership

- March 1 for fall admission

Ph.D. in Educational Studies: Curriculum Studies, Counseling and Counselor Education, Educational Leadership and Science Education

- February 1 for summer/fall admission

Retention in the College of Education Graduate Programs

Students must maintain acceptable academic performance (minimum 3.0 GPA) in order to advance in the program. The College of Education is dedicated to identifying and intervening to assist students who demonstrate difficulties maintaining these standards.

Any faculty member who has concern about a student's performance and/or professionalism may initiate the Academic Performance and Professionalism Warning (APPW) process. The process operates as follows:

- The faculty member completes the APPW form describing the concerns and indicating potential strategies and solutions to resolve the problem.
- A conference between the student and two faculty members is required to complete the APPW form. During the conference, the parties will discuss the student's understanding of the concerns, generate potential solutions, and agree upon a course of action. The APPW contract will be signed by the student and faculty members. If the student fails to respond or attend a conference, the two faculty members will complete the form and notify the student via certified mail.
- The completed form is submitted to the associate dean, the student and Campus Life.
- Any student receiving two notices through this process may be considered for dismissal from the College of Education.
- Except in an unusually severe or critical situation (e.g., plagiarism, cheating, threat of harm to others, etc.), no single retention notice will result in a student being dismissed from the program.
- These notices do not become part of a student's permanent academic record.

Master's of Arts in Teaching Program Description

TCU Teach, MAT

TCU Teach is an intensive 30-hour full-time graduate program for individuals who seek teacher certification in middle school (grades 4-8) or secondary education (grades 9-12), **while concurrently earning a Master's of Arts in Teaching (MAT) degree.** Participants will develop proficiency through experiences in diverse, field-based settings. They will learn to promote high student achievement through content-area expertise, research-based pedagogical practices, and utilization of multiple strategies, resources, and technologies to plan, implement and assess instruction.

Admission Criteria

The admission committee will give first consideration to applicants with strong academic performance and recommendations. Meeting the minimum criteria does not ensure admission to the program. To qualify for admission, applicants must fulfill the following requirements:

- **Prior to enrollment, complete a bachelor's degree conferred by an accredited institution of higher education in a field related to English, mathematics, science, or social studies.**
- Attain a minimum 3.0 GPA in the last 60 hours of coursework for **the most recent bachelor's degree earned.**
- Complete at least 12-15 hours of content area coursework (12 hours of English or social studies, or 15 hours of math or science) with a grade of C or higher. While 12-15 hours is the minimum required by the state of Texas for admission to a teacher education program, additional coursework in the content area is highly desired.
- Pass the Pre-Admission Content Test (PACT) or the Praxis II (for those from some states other than Texas) in the content area in which you have at least 12-15 hours of coursework.
- Demonstrate English language proficiency.
- Display positive professional dispositions.

Application Process

Step 1:

- Complete the TCU online application by March 1 (www.applyweb.com/tcug).
- Provide the following, as described in the Application Checklist for College of Education Graduate studies: a personal essay, transcripts from each college/university previously attended, three letters of recommendation, a current criminal background check and the application fee.
- Submit official TOEFL scores for non-native English speakers.
- Complete the ethics training module required by the Texas Education Agency.
- Provide PACT scores for your desired teaching field. If you are an out-of-state applicant where PACT is not offered, you may provide scores from a content-specific Praxis exam. For information, see www.ets.org/praxis/tx/pact.
- Submit the FERPA Agreement.

Step 2:

- Those who pass the PACT (or Praxis exam) and meet all other requirements listed in Step 1 will be invited to participate in an interview. The interview will be scored with a rubric to assess professional dispositions.
- The most qualified applicants will be notified of their acceptance to the program by mail prior to the summer session. Students will be admitted as a cohort and will take 12 hours of coursework together during the summer session.

Step 3:

- To advance to candidacy (i.e., be retained in the program) and be approved for clinical teaching, participants must display satisfactory performance during the summer term. The admission committee will consider academic performance and professional behavior (attitude, demeanor, abilities and preparation) when evaluating candidacy status. Students must:
 - Complete the first 12 hours of coursework at TCU with a C+ or better and a minimum GPA of 3.0. (No more than two grades of C+ may be utilized in satisfying degree requirements).
 - Meet expectations for professionalism according to the rubric in EDUC 50023 Effective Teaching and Classroom Implementation.
 - Complete 30 hours of field experience in accredited public school settings.
 - Demonstrate high professional, ethical, and relational standards of behavior, emotional control, and appropriate communication (oral, written, technological) with adults, children and fellow students.
 - Complete the modules required by the Texas Education Agency

regarding recognizing, intervening, and referring students with emotional or behavioral issues.

Required Courses

Summer: 12 Hours*

EDUC 50023	Effective Teaching and Classroom Implementation	3
EDUC 60263	Applied Teaching, Learning and Technology	3
EDUC 60143	Theories of Human Development	3
EDSP 60233	Understanding Exceptional Children and Youth At-Risk	3

The summer courses will include fieldwork to fulfill requirements for admission to student teaching.

Fall: 9 Hours

EDSP 50663	Motivating and Managing Students in the Classroom	3
EDUC 60980	Advanced Clinical Teaching	6
EDUC 50970	Special Problems in Education	1.00-20.00

***EDUC 50970 is a Content area specialization course*

Spring: 9 Hours

EDUC 60153	Seminar in Promoting Literacy in the Subject Areas	3
EDUC 60980	Advanced Clinical Teaching	6
EDUC 50970	Special Problems in Education	1.00-20.00

***EDUC 50970 is a Content area specialization course*

Courses for English Language Arts Specialization

EDMS/SE 50173	Development of Written Communication	3
EDMS/SE 50153	Literature for Adolescents	3

Courses for Science Specialization:

EDMS/SE 50553	Methods for Teaching Middle School/Secondary Science	3
EDSC 60333	Theory and Pedagogy of Science Instruction	3

Courses for Math Specialization

EDMS/SE 50443	Methods for Teaching Middle/Secondary Mathematics I	3
EDMS/SE 50453	Methods for Teaching Middle/Secondary Mathematics II	3

Courses for Social Studies/History Specialization

EDUC 50003	Diversity in American Education	3
EDMS/SE 50463	Methods for Teaching Middle/Secondary Social Studies	3

***The 1-credit special problems courses will explore critical issues encountered in public school settings. Each seminar will address specific topics such as professional roles and responsibilities, issues in urban education, diversity, multiculturalism, and the social contexts of students, curriculum, and schools.*

Teacher Certification Process

To obtain Texas teacher certification at TCU, students must complete the **required coursework in the College of Education and achieve a master's degree.** Students who seek certification must take the state TExES Pedagogy and Professional Responsibilities exam. Prior to admission, students also must have successfully completed the appropriate state certification exams for the content area and grade level they wish to teach. TCU will recommend students to the state of Texas for teacher certification after fulfilling the following requirements:

- Successful completion of the TCU Teach program, including clinical teaching;
- Final GPA of 2.75 or above with grades of C+ or higher in coursework;

- Passing scores on relevant Texas Examination of Educator Standards (TEXES) certification exams.

To be eligible to take the TEXES Pedagogy and Professional Responsibilities exam, students must pass a representative practice exam. Students who do not pass the practice exam must present evidence of test preparation before the exam will be re-administered. Practice exams are offered through the College of Education. For additional test preparation, students may use <http://www.certifyteacher.com/>. A student who does not pass the practice exam may not take the TEXES Pedagogy and Professional Responsibilities exam.

A single certification exam may be attempted five times. Additional attempts require State Board for Educator Certification (SBEC) permission. Students who fail to take the appropriate TEXES within three years of program completion must present documentation of completion of TEXES review or additional coursework prior to receiving permission to test.

Master of Education Program Descriptions

Curriculum and Instruction, M.Ed.

The Curriculum and Instruction master's degree program is designed for teachers and other educational professionals interested in improving their instruction, preparing for positions of leadership, or enhancing their abilities to support learning in K-12 schools or other educational settings. Our program offers graduate students two kinds of preparation: 1) knowledge related to content and 2) knowledge that helps them contribute to scholarship. The degree is constructed so that students choose a content specialization and either a research emphasis, or a teaching and learning emphasis. The objectives of the program are to:

- Provide a rigorous master's degree program that prepares graduate students to work with children, adolescents, and families in a variety of educational settings.
- Provide graduate students with the knowledge and skills necessary to enhance their teaching and research abilities.

There are two options for earning the Curriculum and Instruction master's degree:

- Traditional master's degree (36 credit hours)
- Accelerated master's degree (36 credit hours)

The traditional Master of Education (MEd) is a 36 credit hour program that provides a solid knowledge base and background in the theoretical and practical aspects of the selected specializations. These specializations include:

Curriculum Studies Specialization

Curriculum Studies as a field is interdisciplinary and draws upon multiple perspectives including psychology, social foundations, cultural studies, critical theory, and education to study curriculum, individuals, societies, and interdisciplinary themes, while critically examining educational issues and policies. The field values democratic community building and an ethic of social action that honors diversity. Students come to curriculum studies from formal and informal learning contexts as well as various disciplines. Graduates of the program pursue varied professional positions in schools, non-profit agencies, and other community organizations. While curriculum studies students' backgrounds and goals are diverse, they share an interest in understanding the intersections of individuals and sociopolitical contexts. Curriculum studies arises from a 1970s reconceptualization of curriculum. Concerned with understanding curriculum more so than developing and evaluating curricula, Curriculum Studies addresses questions such as:

- What is knowledge and who decides? How does knowledge affect lives?
- What does it mean to educate and to be/come educated?
- What are the relationships between learning and teaching, curriculum theory and practice?
- How is curriculum culturally, politically, and economically situated?
- What are the roles of power and vulnerability in curriculum studies?

Language and Literacy Specialization

The Language and Literacy specialization focuses on research and pedagogy related to language and literacy, while preparing graduate students with an in-depth understanding of teaching reading and writing to children and adolescents. With this knowledge, students will be able to establish themselves as teacher-leaders in their respective schools and districts.

Prerequisite: Certification to teach EC-6, or English Language Arts/Reading as respective grade levels. Note: This program does not meet the requirements for Reading, English Language Arts teacher certification.

Mathematics Education Specialization

By completing this specialization, students will enhance their mathematical knowledge for teaching and pedagogical content knowledge, understand the vertical alignment of the mathematics content areas in the pre-K through 12 curriculum, and link research and practice by understanding how to use and conduct research to enhance teacher practice. With this knowledge, students will be able to establish themselves as teacher-leaders in their respective schools and districts. Prerequisite: Certification to teach mathematics at respective grade level. If not certified, the applicant must demonstrate subject preparation for a highly qualified teacher as outlined by the Texas Education Association under the No Child Left Behind Act:

- 24 hours or more of mathematics coursework at the undergraduate level (for middle/secondary candidates) or
- Undergraduate mathematics coursework, professional development in mathematics and/or teaching experience (for elementary candidates).

Note: This program does not meet the requirements for mathematics teacher certification.

Science Education Specialization

Science Education draws upon science, psychology, and education as a foundation for the teaching about and learning of science. The science education reform documents require students to have knowledge of practices, crosscutting concepts, and core ideas of science and an in-depth understanding of teaching science to all children. In addition, students earning this degree will have an understanding of and experience in original research. There is a minimum requirement of 15 hours of course work in this area of specialization.

Required Courses for the Traditional Master's Option

Students complete 15 hours of course work within their specialization selected from:

Curriculum Studies

EDUC 70813	Curriculum Studies Seminar	3
EDUC 60833	Curriculum History in the United States	3
EDUC 60843	Contemporary Curriculum Theory	3
EDUC 70823	Inquiry Seminar	3
EDUC 70813	6 hours may be repeated with new topic.	

Language and Literacy

EDUC 60053	Advanced Study of Literacy Instruction	3
EDUC 60083	Seminar in Language and Literacy	3
EDUC 60413	Foundations of Literacy	3
EDUC 60613	Analysis of Literacy Progress	3
EDXX XXXX3	Elective (3 hours)	3

Mathematics Education

EDMT 50123	Teaching Geometry and Measurement	3
EDMT 50133	Teaching Data Analysis and Probability	3
EDMT 60103	Teaching Number and Operations	3
EDMT 60113	Teaching Algebraic Thinking	3
EDMT 60143	Teaching and Learning Mathematics with Technology	3
	or	
EDMT 60153	Fostering Discourse in the Mathematics Classroom	3
EDMT 60513	Practicum in Mathematics Education	3

EDMT 60513: required for Accelerated Master's Option

Science Education

EDSC 60023	Education for Sustainability	3
EDSC 60033	Academic Language Development in Science	3

EDSC 60333	Theory and Pedagogy of Science Instruction	3
EDMS/SE 50553	Methods for Teaching Middle School/Secondary Science	3
EDXX XXXX3	Elective (3 hours)	3
Core Requirements (9 hours minimum required for all students)		
EDUC 60203	Curriculum and Instruction	3
	or	
EDLE 60043	Instructional Leadership A: Curriculum, Instruction, and Assessment	3
EDUC 70953	Research in Education	3
Additional Research (3 hours)		
EDUC 60043	Action Research	3
	or	
EDUC 70963	Qualitative Inquiry	3
	or	
EDUC 70983	Introduction to Quantitative Research	3

In addition to the content specialization and core requirements, students select either a Research or Teaching and Learning Emphasis.

Research Emphasis (6 Thesis hours are required for Research Emphasis. An additional 6 hours of course work are required from the list of courses below, with adviser guidance)

EDUC 60043	Action Research	3
EDUC 60810	Seminar in Educational Research	1.00-3.00
EDUC 60823	Educational Program Evaluation	3
EDUC 70823	Inquiry Seminar	3
EDUC 70923	Introduction to Applied Qualitative Methods	3
EDUC 70960	Apprenticeship in Research	3
EDUC 70963	Qualitative Inquiry	3
EDUC 70973	Advanced Qualitative Inquiry	3
EDUC 70983	Introduction to Quantitative Research	3
EDUC 70980	Thesis	1.00-20.00
EDUC 70990	Thesis	1.00-3.00

EDUC 60810: 1-3 hours

EDUC 70960: 1-3 hours, may be repeated

EDUC 70980: 3 hours required

EDUC 70990: 3 hours required

Teaching and Learning Emphasis (All students choosing the Teaching and Learning emphasis select 12 hours from the list of courses below, with adviser guidance)

EDEC 60133	Play and Creativity	3
EDEC 60223	The Young Child	3
EDLE 60043	Instructional Leadership A: Curriculum, Instruction, and Assessment	3
EDLE 60053	Instructional Leadership B: Supervision	3
EDSE 50173	Development of Written Communication	3
EDSP 50273	Technology for Diverse Learners	3
EDUC 50003	Diversity in American Education	3
EDUC 50503	Foundations of Language Acquisition	3
EDUC 50513	Curriculum and Instruction in the Second Language Learning Classroom	3

EDUC 60213	Psychology of Thinking and Learning	3
EDUC 60253	Historical and Philosophical Foundations of Education	3
EDUC 60313	Educational Assessment	3
EDUC 60833	Curriculum History in the United States	3
EDUC 60843	Contemporary Curriculum Theory	3
EDUC 70903	Treatise	3

EDUC 70903: required for Traditional Master's Degree Option

Accelerated Master's Option

The Accelerated Option is for high achieving undergraduate students enrolled in TCU's College of Education. This option is available only to TCU undergraduates obtaining a baccalaureate degree and teacher certification in early childhood (EC-6), middle school or secondary education. The Accelerated Option allows outstanding students to complete a bachelor's degree with the Master of Education (MEd) in five years. Students are eligible to apply for admission to the graduate program during the semester they complete 90 hours of undergraduate coursework. To be considered for admission to the Accelerated Option, students must submit a graduate program application packet. Only candidates demonstrating superior undergraduate academic performance and having strong recommendations are considered for admission.

Students intending to pursue an Accelerated Option should make their plans known as early as possible to their faculty adviser in the College of Education to ensure proper advising. If admitted to the Accelerated Program, students complete up to 12 semester hours of the MEd program during the fourth year of undergraduate study. Candidates must work with their undergraduate advisers to determine how the courses they take will apply to the undergraduate degree. During their senior year, they complete the following classes.

EC-6 Undergraduate Major

EDEC 55663	Motivating and Managing Students in the Classroom	3
EDSP 55123	Learner-Centered Teaching: Families	3
EDUC 55293	Curriculum Workshop	3
EDEC 55313	Educational Assessment	3

Middle/Secondary Undergraduate Major

EDEC 55313	Educational Assessment	3
EDUC 55663	Motivating and Managing Students in the Classroom	3
EDUC 55980	Internship	3

At the end of the fourth year, assuming all other graduation requirements are met, the student earns the baccalaureate degree. During the fifth year, including summer, the student completes the remaining semester hours toward the MEd degree. Students will complete 9 hours of core courses, 12 hours from the Teaching and Learning emphasis (including EDMS/SE 51103 Educational Assessment), and 15 hours from content area specialization as described under the Traditional Master's Option.

Note: No more than 15 hours of 50000-level classes may be applied toward a master's degree.

Counseling, M.Ed.

Those seeking the MEd in Counseling have three options:

- Specialization I: School Counseling
- Specialization II: Student Affairs
- Clinical Mental Health Counseling (60 hours) (focuses on preparation for licensure)

All specializations are designed to provide students with the necessary counseling skills and external resources to provide individual, preventive, responsive and support services to counseling programs.

The MEd in School Counseling focuses on providing students with a 36-hour rigorous and strength-based program to pursue certification in school counseling. All counseling classes can be applied to Texas professional licensure. The MEd in School Counseling meets the requirements of the State

Board of Educator Certification and follows the guidelines for certification in school counseling. The following courses are required.

School Counseling

Major (36 semester hours)

EDGU 60323	Assessment in Counseling	3
EDUC 70953	Research in Education	3
EDUC 60143	Theories of Human Development	3
EDGU 50223	Helping Relationships	3
EDGU 60003	Counseling Diverse Populations	3
EDGU 60233	Career Development and Information	3
EDGU 50323	Small Group Dynamics	3
EDGU 60143	Counseling Interventions	3
EDGU 60383	Counseling Theories and Techniques	3
EDGU 60613	Orientation and Programs in Guidance and Counseling	3
EDGU 70103	Practicum I	3

Three hours of elective study are required in a similar field experience.

If students choose Specialization I, they must pass the practice TExES exam before taking the state exam for counseling in schools.

School Counseling Certification Only

The certification in school counseling meets the 30-hour requirement of the Texas State Board of Education. Students who have completed a master's degree in education or the equivalent may be admitted to the program for school counselor certification. The 30-hour certification program qualifies a student to take the TExES exam for school-counseling certification, provided the student has completed all coursework successfully and has two years of teaching experience in an accredited public or private school. The following courses are required:

Professional Studies (36 hours)

EDGU 60003	Counseling Diverse Populations	3
EDGU 60323	Assessment in Counseling	3
EDGU 50223	Helping Relationships	3
EDGU 60233	Career Development and Information	3
EDGU 50323	Small Group Dynamics	3
EDGU 60143	Counseling Interventions	3
EDUC 60143	Theories of Human Development	3
EDGU 60383	Counseling Theories and Techniques	3
EDGU 60613	Orientation and Programs in Guidance and Counseling	3
EDGU 70103	Practicum I	3

Probationary School Counseling

A student may apply for probationary certification if a) a school district has made an official offer to the student to fill a counselor position, and b) the counseling program faculty in the College of Education approve the probationary certification. In order to gain faculty approval the student must be within the last 12 hours of the program or two long semesters and have successfully completed:

Certification

EDGU 60613	Orientation and Programs in Guidance and Counseling	3
EDGU 50223	Helping Relationships	3
EDGU 50323	Small Group Dynamics	3
EDGU 60143	Counseling Interventions	3

The student also must have demonstrated ethical and professional behavior. As long as the student has not graduated, he or she must remain under

supervision of the TCU counseling faculty. This will require the student to report to the faculty member on a regular basis and maintain appropriate documentation regardless of whether the student is enrolled in a practicum course.

Student Affairs

The M.Ed. in Student Affairs focuses on providing students with a 36-hour rigorous and strength-based program designed to prepare students to work in colleges and universities in the area of student affairs. It offers the necessary knowledge and skills to effectively provide counseling, consultation and leadership to individuals and groups, and to enhance learning, as well as personal and professional development in the university setting. The following courses are required in the 36-hour Student Affairs Counseling Program.

Professional Studies (36 hours)

EDUC 60823	Educational Program Evaluation	3
EDUC 70953	Research in Education	3
EDGU 50223	Helping Relationships	3
EDGU 60003	Counseling Diverse Populations	3
EDGU 60233	Career Development and Information	3
EDGU 50323	Small Group Dynamics	3
EDGU 60143	Counseling Interventions	3
EDGU 60383	Counseling Theories and Techniques	3
EDGU 60403	Theories of Student Development	3
EDGU 60423	Organization and Administration of Support Programs	3
EDGU 70103	Practicum I	3
EDAD 70200	Internship in Educational Administration	1.00-6.00
	or	
EDGU 71103	Field Experience in Student Affairs	3

If students who select Specialization II wish to add a specialization in school counseling, they must successfully complete the following classes and pass the practice and actual TExES exam.

EDGU 60613	Orientation and Programs in Guidance and Counseling	3
EDGU 60323	Assessment in Counseling	3
EDUC 60143	Theories of Human Development	3

Clinical Mental Health Counseling

The Master of Education in Clinical Mental Health Counseling focuses on providing students with a 60-hour, rigorous and strength-based program to prepare students for licensure in the State of Texas, in accordance with Council for Accreditation of Counseling and Related-Educational Program (CACREP) requirements.

The objectives of this program are to:

- Provide a rigorous course of study to prepare students to work with children and families in a variety of settings; and
- Provide students with the necessary foundational knowledge to successfully pass the National Counselor Exam administered by the Texas State Board of Examiners of Professional Counselors. To meet these objectives, the following courses are required:

Professional Studies (12)

EDGU 60003	Counseling Diverse Populations	3
EDGU 60323	Assessment in Counseling	3
EDUC 70953	Research in Education	3
EDUC 60143	Theories of Human Development	3

Specialization (30 hours)		
EDGU 50223	Helping Relationships	3
EDGU 50323	Small Group Dynamics	3
EDGU 60113	DSM: Diagnosis and Treatment	3
EDGU 60143	Counseling Interventions	3
EDGU 60163	Abnormal Human Development	3
EDGU 60383	Counseling Theories and Techniques	3
EDGU 60133	Addictions Counseling	3
EDGU 60213	Introduction to Marriage and Family Therapy	3
EDGU 60233	Career Development and Information	3
EDGU 70033	Legal, Ethical, and Professional Issues in Counseling	3

Program Class (minimum 3 hours)		
EDGU 60613	Orientation and Programs in Guidance and Counseling	3

Field Experience (9 hours)		
EDGU 70103	Practicum I	3
EDGU 70303	Internship (Semester 1)	3
EDGU 70303	Internship (Semester 2)	3

Other Course Options		
EDGU 60223	Pre-Practicum	3
EDGU 60403	Theories of Student Development	3
EDGU 60423	Organization and Administration of Support Programs	3
EDGU 70233	International Practices of Counseling	3

Students may transfer up to 6 hours of approved course-work.

As the counseling program expands, other courses at TCU may be added to course options.

To complete the MEd in Counseling requires that students successfully complete the 36-hour or 60-hour master's program with a "B" average or better and successfully pass orals involving a written and video case presentation.

Special Education, M.Ed.

The mission of the special education master's degree program is to prepare educators who understand and implement researched-based practices, serve as instructional leaders, and advocate for students with disabilities and their families.

The M.Ed. in Special Education is a 36-hour program designed for students who are certified in elementary, middle school, secondary school special education or who have extensive experience in a related field. The traditional program addresses K-12 special education, focusing on evidenced-based instructional practices and research methodology related to students with high-incidence disabilities such as learning or behavioral disabilities. In the second M.Ed. option, Special Education M.Ed. with Educational Diagnostician Certification, students learn evidence-based instructional practices and research methodologies, as well as become certified Educational Diagnosticians through the state of Texas. Students may choose either option in pursuit of a Special Education M.Ed.

Upon acceptance into the graduate program in special education, students must meet with a special education adviser. It is essential that students work closely with an adviser at the time of program admittance through completion.

The M.Ed. in special education does not lead to initial teacher certification.

There are two options for earning a Special Education master's degree:

- Special Education (36 credit hours)
- Special Education with Educational Diagnostician Certification (36 credits)

The traditional Master of Special Education (M.Ed.) is a 36 credit hour program that provides a solid knowledge base and background in the

theoretical and practical aspects of the field of special education. The traditional degree plan is outlined below.

Required Courses for the Traditional Master's Option

Core requirements (24 hours)

EDSP 50013	Literacy Methods in Special Education	3
EDSP 50273	Technology for Diverse Learners	3
EDSP 50663	Motivating and Managing Students in the Classroom	3
EDSP 60233	Understanding Exceptional Children and Youth At-Risk	3
EDSP 60313	Critical Issues in Special Education	3
EDSP 60433	Planning and Instruction in Academically Diverse Classrooms	3
EDUC 60313	Educational Assessment	3
EDSP 60513	Practicum in Special Education	3

Research Requirements (12 hours)

EDUC 70953	Research in Education	3
EDSP 70003	Single Subject Research Design	3
EDUC 60043	Action Research	3
EDSP 70903	Treatise in Special Education	3

The Master of Special Education with Educational Diagnostician Certification (M.Ed.) is a 36 credit hour program that provides a solid knowledge base related to the field of special education along with a certification as an Educational Diagnostician. This degree plan is outlined below.

Required Courses for Master's of Special Education with Educational Diagnostician Certification

Core requirements (12 hours)

EDSP 50013	Literacy Methods in Special Education	3
EDSP 50663	Motivating and Managing Students in the Classroom	3
EDSP 60233	Understanding Exceptional Children and Youth At-Risk	3
EDSP 60513	Practicum in Special Education	3

Diagnostician Certification Requirements (15 hours)

EDSP 60333	Academic Achievement and Evaluation	3
EDSP 60313	Critical Issues in Special Education	3
EDSP 60433	Planning and Instruction in Academically Diverse Classrooms	3
EDSP 60533	Culturally Responsive and Language Based Assessment	3
EDSP 60723	Cognitive Assessment and Adaptive Behavior	3

Research Requirements (9 hours)

EDUC 70953	Research in Education	3
EDSP 70003	Single Subject Research Design	3
EDSP 70903	Treatise in Special Education	3

Accelerated Master's Option

The Accelerated Option for a master's degree in special education is for high-achieving undergraduate students enrolled in TCU's College of Education. This option is available only to TCU undergraduate students obtaining a baccalaureate degree and teacher certification in early childhood (EC-6), middle school, or secondary education. The Accelerated Option allows outstanding students to complete a bachelor's degree and a Master of Education (M.Ed.) in five years. Students are eligible to apply for admission to the graduate program during the semester they complete 90 hours of undergraduate coursework. To be considered for admission to the Accelerated Option, students must submit a graduate program application packet. Only candidates demonstrating superior undergraduate academic performance and having strong recommendations are considered for admission.

Students intending to pursue an Accelerated Option should tell their faculty adviser as early as possible to ensure proper advising. If admitted to the Accelerated Program, students' complete 12 semester hours of the M.Ed. program during the fourth year as listed below:

Accelerated Master's Degree in Special Education

EC-6 Undergraduate Major (Required Courses 12 hours)

EDEC 55313	Educational Assessment	3
EDEC 55123	Learner-Centered Teaching: Families	3
EDUC 55293	Curriculum Workshop	3
EDEC 55663	Motivating and Managing Students in the Classroom	3

OR

Middle/Secondary Undergraduate Major Required Courses (12 hours)

EDEC 55313	Educational Assessment	3
EDUC 55663	Motivating and Managing Students in the Classroom	3
EDUC 55980	Internship	3

At the end of the fourth year, assuming all other graduation requirements are met, the student earns a baccalaureate degree. During the fifth year, including summer, all students (EC-6 and Middle/Secondary) complete the remaining semester hours toward the M.Ed. degree as listed below:

Remaining Core Requirements (15 hours)

EDSP 50013	Literacy Methods in Special Education	3
EDSP 50273	Technology for Diverse Learners	3
EDSP 60233	Understanding Exceptional Children and Youth At-Risk	3
EDSP 60313	Critical Issues in Special Education	3
EDSP 60433	Planning and Instruction in Academically Diverse Classrooms	3

Remaining Research Requirements (9 hours)

EDUC 70953	Research in Education	3
EDSP 70003	Single Subject Research Design	3
EDSP 70903	Treatise in Special Education	3

School Leadership-Principal Certification Only

Non-degree seeking students who already hold teaching certification, master's degree in an education-related field and who have credited at least two years of full-time teaching in an accredited school may opt for a program of coursework that will enable the student to meet requirements for certification as a school administrator (Principal) in the state of Texas. Students who hold a master's degree from an accredited university in education or an education-related field may be admitted to the program for

principal certification. The 21-hour program qualifies a student to take the TExES Principal exam, provided the student has completed all coursework successfully, has passed a practice certification exam, and met any other requirements as outlined by Texas law. The following courses are required:

EDLE 60033	Community Engagement and Culturally Responsive Practice	3
EDLE 60043	Instructional Leadership A: Curriculum, Instruction, and Assessment	3
EDLE 60053	Instructional Leadership B: Supervision	3
EDLE 60063	Law and Ethics in Educational Leadership	3
EDLE 60093	Principal Practicum in Educational Leadership Semester 1	3
EDLE 60093	Principal Practicum in Educational Leadership Semester 2	3
	Plus ONE of the following:	9
EDUC 60043	Action Research	3
EDUC 60823	Educational Program Evaluation	3
EDLE 60083	Data Use for Educational Leaders	3

School Leadership-Superintendent Certification Only

Non-degree seeking students who meet the following requirements may apply for enrollment in the 21-hour program leading to eligibility to receive the Texas Superintendent certificate:

1. The prospective student holds, at a minimum, a master's degree from an accredited institution of higher education or an institution otherwise approved by an accrediting organization recognized by the Texas Higher Education Coordinating Board (THECB).
2. The prospective student holds a valid principal certificate or the equivalent issued by another state or country.

The program qualifies a student to take the TExES Superintendent exam, provided the student has completed all coursework successfully, has passed a practice certification exam, and met any other requirements as outlined by Texas law. The following courses are required:

EDAD 70043	Educational Policy and Practice	3
EDAD 70033	Ethical and Moral Dimensions of Educational Leadership	3
EDAD 70023	Theory and Management of Education Systems	3
EDAD 70013	Legal and Social Environment of Education	3
EDLE 70083	Issues and Trends in Superintendentcy	3
EDLE 70093	Superintendent Practicum B (Semester 2)	3
EDLE 70093	Superintendent Practicum B (Semester 2)	3

Educational Leadership, M.Ed.

The M.Ed. in Educational Leadership is a 36 credit-hour non-thesis program that prepares individuals to serve in educational leadership in a variety of educational settings. Two pathways are available in the Educational Leadership, M.Ed. The first pathway leads to certification for those wanting to serve as elementary and secondary principals, supervisors and central office staff in public and private schools (where certification may be required). The second focuses on leadership in higher education contexts. Note: Applicants seeking to enroll in the coursework leading to certification as a principal must have completed at least one full year of teaching in an accredited school prior to beginning coursework.

Program Requirements

PK-12 Emphasis (leading to Principal Certification)

Tier I (15 hours)

EDLE 60013	Leadership: Theory and Practice	3
EDLE 60033	Community Engagement and Culturally Responsive Practice	3
EDLE 60043	Instructional Leadership A: Curriculum, Instruction, and Assessment	3
EDLE 60053	Instructional Leadership B: Supervision	3
EDUC 70953	Research in Education	3

Tier II (15 hours)

EDLE 60023	Seminar: Trends in Teaching, Learning, and Leadership	3
EDLE 60063	Law and Ethics in Educational Leadership	3
EDLE 60073	Education Policy Studies	3
EDLE 60023	Seminar: Trends in Teaching, Learning, and Leadership	3
EDLE 60083	Data Use for Educational Leaders	3
EDUC 60043	Action Research	3

Tier III (6 hours)

EDLE 60093	Principal Practicum in Educational Leadership	3
EDLE 60093	Principal Practicum in Educational Leadership	3

In addition to completing the appropriate course requirements, students seeking certification as a principal must take and pass a practice exam (minimum score 80 percent) before being recommended to take the appropriate state-required examination for principal certification.

Higher Education Emphasis

EDAD 70200	Internship in Educational Administration	1.00-6.00
EDAD 70200	Internship in Educational Administration	1.00-6.00
EDGU 60403	Theories of Student Development	3
EDGU 60423	Organization and Administration of Support Programs	3
EDHE 60133	Legal Issues in Higher Education	3
EDLE 60013	Leadership: Theory and Practice	3
EDLE 60023	Seminar: Trends in Teaching, Learning, and Leadership	3
EDUC 60253	Historical and Philosophical Foundations of Education	3
EDUC 70953	Research in Education	3
EDUC 70983	Introduction to Quantitative Research	3
	Electives	3
	Electives	3

Educational Leadership Programs

TCU's College of Education offers an Ed.D. in Educational Leadership. This Ed.D. prepares students to assume major leadership positions in a wide variety of education-related organizations by applying managerial skills and educational leadership in the field of education. The program is designed to prepare students to enter educational management in school systems; regional, state, or federal governments; research institutions; private foundations; universities; or private sector companies.

The program:

- Develops leaders who understand the operations and leadership of organizations.

- Develops leaders prepared to take advantage of increasing opportunities for creating new educational institutions and systems.
- Develops educational leaders who operate with a global perspective in a diverse and rapidly evolving professional field.
- Develops educational leaders who operate with clear-cut ethical and moral commitments for the education of all students.
- Develops educational leaders able to envision and create new settings now possible through the availability of information technologies.

There are three options to the Educational Leadership Program.

Option 1: The Ed.D. in Educational Leadership: Schools and Districts offers high-quality instruction preparing students for leadership roles in K-12 education. For those interested, this program also provides students the background necessary to complete superintendent certification in Texas.

Option 2: The Ed.D. in Higher Education Leadership is designed to prepare students to assume leadership positions in higher education institutions.

Option 3: Together with the M.J. Neeley School of Business, the College of Education has created a unique option: a comprehensive program that integrates a Master of Business Administration (MBA) with a doctorate in educational leadership (Ed.D.) or higher education leadership (Ed.D.), effectively combining the best of business and educational disciplines.

Educational Leadership, MBA/Ed.D.

Admission and Degree Requirements

Candidates must be admitted to both TCU's MBA Program and the Ed.D. Program in the College of Education. They also must meet all 36 hours of core requirements as well as the START Workshop. At the completion of the first year of the MBA program, students may elect to begin taking coursework in the Ed.D. program. The Educational Leadership doctorate is a 60-hour program. The Higher Education Leadership Doctorate is a 63-hour program. After completing 42 hours in the College of Education, the student schedules comprehensive examinations (see the Graduate Studies in Educational Leadership Policies and Procedures Handbook for complete details). Upon successful completion of the comprehensive exams, the student will be admitted to candidacy. In the event a student elects to complete the MBA without continuing into the doctoral program, he/she **must meet all remaining requirements for the MBA. If a student's work is unsatisfactory in MBA courses, and he/she is not permitted to continue, he/she may not be permitted to commence the Ed.D. Program.**

Educational Leadership, Ed.D.

The mission of the TCU Educational Leadership doctoral program is to develop teacher-scholar leaders who make a difference for the common good. The program serves four types of students:

- Those from outside the EC-12 system who want to establish professional roots in EC-12
- Those from within the EC-12 educational context who want to grow, develop and work in a leadership aspect within the EC-12 context
- Those who want to work external to EC-12 but in education-related endeavors (business/corporate training, policy organizations, nongovernmental organizations, or as higher education faculty members with EC-12 leadership emphasis), and
- Those on a personal or professional journey to develop as leaders in an education-related context.

The program incorporates several planned redundancies that all students can expect to address as threads throughout multiple courses. These elements support the student to:

- Develop and practice ethical leadership
- Produce exceptional oral and written communication
- Define and respond to complex problems
- Be a critical consumer of technologies, and
- Anticipate and respond to dynamic environments

The TCU Educational Leadership Program is committed to developing of five broad-based leadership themes, which assessments and course syllabi address from varying perspectives depending on the guiding focus of the course. These themes aim to support leaders capable of: 1) Ensuring the effectiveness and coherence of the institutions instructional program; 2) Creating an organization with increased capacity, coherence, and responsiveness; 3) Growing the human and social capital of the institution; 4)

Enhancing relationships between the organization and the community; and 5) Effectively using data and evaluation to enhance the people, programs and learning within the organization.

Admission and Degree Requirements

An applicant must have a master's degree in education or related field. Additionally, applicants who want certification as a public school principal in Texas must have completed at least one year of full-time teaching at an accredited school prior to beginning coursework (and must have completed at least two years of full-time teaching, as well as met other coursework and practicum requirements by the time certification is sought). Applicants seeking superintendent certification must hold or obtain principal certification by the time the superintendent certificate is sought in addition to meeting coursework and practicum requirements. Applicants must present a strong academic record, acceptable GRE no more than 5 years old, and a writing sample that documents evidence of leadership skills and experiences and explains motivations and goals for pursuing the Ed.D. degree.

Application Deadlines

Students who wish to enroll in the summer semester must complete all application requirements by Feb. 1. Students who plan to seek financial assistance or employment as a graduate assistant during the first semester of enrollment must use the Feb. 1 deadline.

Ed.D. Degree Requirements

The Ed.D. in Educational Leadership is a 60-hour degree aimed at enabling students to successfully engage in a range of professional activities, from working as a leading practitioner in the EC-12 educational context, to the corporate training or educational world, to leadership in athletics-related endeavors. A general program of study is outlined in the following section. Students are required to take a suitable number and variety of graduate courses and field-based experiences, as described below, to prepare for the qualifying examination and the completion of a capstone project or dissertation. The Ed.D. encompasses a minimum of 60 hours of coursework, fieldwork and capstone or dissertation, though additional courses may be needed if prerequisites have not been met or if a student requires more than 12 credit hours to complete the capstone or dissertation.

Texas Administrator Certificate

Note for students seeking Texas Administrator (Principal or Superintendent) Certification in conjunction with the Ed.D. in Educational Leadership: Ed.D. students seeking certification as a principal or superintendent in Texas must ensure that they successfully complete, within the planned program of coursework or in addition to the planned program of coursework, the following courses (or acceptable substitutes) in order for TCU to recommend certification:

General Courses

EDAD 70013	Legal and Social Environment of Education	3
EDLE 60033	Community Engagement and Culturally Responsive Practice	3
EDLE 60053	Instructional Leadership B: Supervision	3
EDLE 70083	Issues and Trends in the Superintendency (Superintendent Certificate Only)	3
EDUC 60013	Curriculum Theory	3

Plus one of the following:

EDAD 70063	Data-Informed Decision-Making	3
EDLE 60083	Data Use for Educational Leaders	3
EDUC 60043	Action Research	3
EDUC 60823	Educational Program Evaluation	3

Plus a two-semester, 160-hour field-based practicum (campus or district-based), as required by the level of certification being pursued:

EDLE 60093A	Principal Practicum A	3
EDLE 60093	Principal Practicum in Educational Leadership (Semester 2)	3
or		

EDLE 70090	Superintendent Practice in Educational Leadership	3.00-6.00
EDLE 70090	Superintendent Practice in Educational Leadership	3.00-6.00

Program of Study

Students should use the approved program of study to guide course selection, with the assistance of the adviser. Each student will work with an assigned adviser to plan and, where needed, adjust the plan of study to meet both student needs and programmatic requirements.

Module I: Leadership Core (15 hours)

EDAD 70003	Foundational Readings in Educational Administration	3
EDAD 70013	Legal and Social Environment of Education	3
EDAD 70033	Ethical and Moral Dimensions of Educational Leadership	3
EDAD 70043	Educational Policy and Practice	3
EDHE 70153	Organizational Behavior in Education Contexts	3

Module II: Inquiry Core (12 hours)

EDUC 60043	Action Research	3
EDUC 60823	Educational Program Evaluation	3
EDUC 70823	Inquiry Seminar	3
EDUC 70983	Introduction to Quantitative Research	3
EDUC 70923	Introduction to Applied Qualitative Methods	3
EDUC 70960	Apprenticeship in Research	3
EDUC 70963	Qualitative Inquiry	3
EDUC 70973	Advanced Qualitative Inquiry	3

A grade of "B-" or better in EDUC 70953 Research in Education or a similar course completed at another institution is a prerequisite to enrolling in many research and inquiry oriented courses at TCU; if a student did not complete EDUC 70953 or a similar course prior to beginning doctoral coursework, EDUC 70953 may be taken for credit toward the 60-hour degree as long as EDUC 70953 is completed for elective credit and does not count toward the required 12 hours in the inquiry core.

Module III: Specialization (15 hours from among the following)

EDAD 70023	Theory and Management of Education Systems	3
EDAD 70063	Data-Informed Decision-Making	3
EDUC 60013	Curriculum Theory	3
EDLE 70083	Issues and Trends in Superintendency	3
EDXX XXXXX	Elective	
EDXX XXXXX	Elective	
EDXX XXXXX	Elective	

Module IV: Practicum or Internship Experience (6 hours)

EDLE 60093A	Principal Practicum A	3
EDLE 60093	Principal Practicum in Educational Leadership (Semester 2)	3
OR		
EDLE 70090	Superintendent Practice in Educational Leadership	3.00-6.00
	Semester 1	3
EDLE 70090	Superintendent Practice in Educational Leadership	3.00-6.00
	Semester 2	3
EDAD 70200	Internship in Educational Administration	1.00-6.00

Students seeking principal certification must enroll in EDLE 60093 Practicum A and B. Students seeking superintendent certification must enroll in EDLE 70093. EDAD 70200 Internship is reserved for non-certification seeking students. With permission of the adviser, non-certification seeking students may substitute one additional 3-hour internship in lieu of one elective in the specialization module for a maximum of 9 internship hours.

Module V: Capstone or Dissertation (12 hours)

EDAD 70073	Capstone/Doctoral Seminar	3
EDAD 90770	Capstone Project	1.00-20.00
EDAD 90770	Capstone Project	1.00-20.00
EDUC 90980	Dissertation	1.00-6.00
EDUC 90990	Dissertation	1.00-6.00

While many students will complete the capstone or dissertation within a year of successfully defending the proposal, others may require additional time, and students who need to take more than 12 credit hours must continue to enroll in 1-3 hours of EDAD 90770 Capstone Project or EDUC 90990 Dissertation (fall and spring terms) through completion of the degree.

Process for Advancement to Candidacy

Students take a comprehensive examination to demonstrate knowledge of aspects of educational leadership as they pertain to the intended subject of dissertation research; the exam should be scheduled when students have completed approximately 42 hours of coursework. Students must pass the comprehensive exam prior to enrolling in EDAD 70073

Capstone/Dissertation Seminar. In rare instances a student may be allowed to complete the comprehensive exam concurrently with enrollment in EDAD 70073. However, a student may not be assigned a final grade in EDAD 70073 and may not enroll in additional dissertation or capstone hours until the comprehensive exam has been successfully completed.

Once students have successfully completed the comprehensive exam, they are admitted to candidacy.

Dissertation (or Capstone) Research

Students complete their proposed (and accepted) plan for research, compose the capstone or dissertation, and defend the work in a final oral examination. A minimum of 12 hours of capstone/dissertation (including EDAD 70073) are required.

Details and forms related to the process and requirements are in the Graduate Handbook for Educational Leadership Programs.

Higher Education Leadership, Ed.D.

The Ed.D. in Higher Education Leadership is designed to prepare students for leadership roles in a variety of higher education institutional settings. The program will provide a professional degree to improve the practice of those engaged in administrative functions in higher education. The Ed.D. in Higher Education Leadership would be similar in construct to the existing Ed.D. programs, but would vary in some significant ways.

The doctorate of Educational Leadership in Higher Education:

- Comprises a 63 hour program combining a common core, inquiry courses, cognate area, practical experience and a capstone project.
- Provides a flexible design capitalizing on individual experience goals and needs.
- Takes advantage of TCU's history as a sectarian institution to include value based and ethical leadership concepts as part of the curriculum.
- Is a collaborative degree with options for students to include studies in a variety of disciplines as part of their studies.

The Higher Education Leadership program prepares students to assume major leadership roles in higher education institutions. The program:

- Prepares students for positions such as presidents, vice-presidents, deans and department heads.
- Develops educational leaders who understand organizations and the effective leadership of organizations.
- Develops educational leaders prepared to take advantage of increasing opportunities for creating new educational institutions and systems.

- Develops leaders who understand the relationship of higher education to community settings.
- Develops educational leaders who operate with a global perspective in a diverse and rapidly evolving professional field.
- Develops educational leaders who reflect clear ethical and moral commitments for the education of students.
- Develops educational leaders able to envision and create new settings now possible through the availability of information technologies.

Admission

To be admitted to the doctoral program in Higher Education Leadership, a student must:

- Apply to TCU Graduate School
- Demonstrate a strong academic record
- Have a Master's Degree in education or an appropriate field from a regionally accredited institution
- Demonstrate an acceptable GRE or the Miller's Analogy Score from the past five years
- Provide a written statement that documents evidence that leadership skills and experiences, and explains motivations and goals for pursuing the Ed.D. degree
- Complete an interview with College of Education faculty
- Complete a reference referral form and provide letters of reference
- Agree to a criminal background check
- Show three years of professional experience, preferred
- International students must meet TCU International Admission requirements

Program of Study

A program of study is both a guideline for the student and the student's Doctoral Advisory Committee and a document for ongoing evaluation and assessment. Each student will create a Doctoral Advisory Committee (DAC). The DAC will be created using the criteria established by the College of Education in the "Guidelines for Project/Dissertation Committee Service" document. Among the first tasks of the DAC is to develop the student's Program of Study. While there is latitude intended in this plan, the DAC has the responsibility to help the student be prepared to achieve their career goals. The Ed.D. in Higher Education Leadership requires a minimum of 60 hours of post-matriculation course work.

Foundations (18 hours)

EDAD 70003	Foundational Readings in Educational Administration	3
EDAD 70033	Ethical and Moral Dimensions of Educational Leadership	3
EDHE 60133	Legal Issues in Higher Education	3
EDHE 70133	History and Philosophy of Higher Education	3
EDHE 70143	Advanced Student Development Theory: Impact of College on Students	3
EDHE 70153	Organizational Behavior in Education Contexts	3

Inquiry (9-12 hours)

Students must take at least nine hours from the courses listed below. However, if a student takes EDUC 70953 Research in Education, then the student must take at least 12 hours from the courses listed below.

EDAD 70063	Data-Informed Decision-Making	3
EDUC 60043	Action Research	3
EDUC 60823	Educational Program Evaluation	3
EDUC 70953	Research in Education	3
EDUC 70960	Apprenticeship in Research	3
EDUC 70963	Qualitative Inquiry	3
EDUC 70973	Advanced Qualitative Inquiry	3
EDUC 70983	Introduction to Quantitative Research	3
EDUC 70923	Introduction to Applied Qualitative Methods	3

Administrative Leadership in Higher Education (18-21 hours)

EDAD 60133	Trends and Issues in Educational Administration	3
EDAD 70043	Educational Policy and Practice	3
EDGU 60403	Theories of Student Development	3
EDGU 60423	Organization and Administration of Support Programs	3
EDGU 70793	Strength-Based Theories: Assessment, Research, and Practice	3
EDGU 71103	Field Experience in Student Affairs	3
EDHE 70113	Academic Leadership and Governance in Higher Education	3
EDHE 70123	College President	3
EDHE 70163	The Small College	3
EDHE 70223	Intercollegiate Athletics in Higher Education	3
EDHE 70233	Comparative Higher Education	3
EDHE 70253	Assessment and Accreditation in Post-Secondary Education	3
EDHE 70263	Finance in Higher Education	3
EDHE 70633	Challenges in Higher Education: Student Affairs	3

Up to two different topics for total of 6 hours: Strategic Planning, Environmental Theory in Higher Education, Finance and Administration in Higher Education, Athletics in Higher Education, or Development in Higher Education

Cognate Areas (6-12 hours)

- Student Affairs Administration in Higher Education
- Communication and Marketing - courses to be arranged in conjunction with the student's adviser and the Bob Schieffer College of Communication
- Management and Leadership - courses to be arranged in conjunction with the student's adviser and the Neeley School of Business
- Leadership in Church Related Higher Education - courses to be arranged in conjunction with the student's adviser and Brite Divinity School
- Athletics - courses to be arranged with the student's adviser

Field Based Experience (6 hours)

The student will complete two internships in higher education settings. Each internship must be completed in separate settings that oversee different institutional responsibilities or are completed in different types of institutions.

The College of Education will endeavor to provide an assistantship in a university setting. The assistantships provide an opportunity for the student to work with practitioners to directly address theory and practice in a supervised field experience. This is a paid position designed to assist in funding for the student. There is no guarantee that an assistantship will be available for all students, but the TCU College of Education will work diligently to place all Higher Education Leadership students in an assistantship.

EDAD 70200	Internship in Educational Administration	1.00-6.00
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Capstone Project (12 hours)

EDAD 70073	Capstone/Doctoral Seminar	3
EDAD 90770	Capstone Project	1.00-20.00

Educational Studies: Ph.D.

Educational Studies: Curriculum Studies, Ph.D.

The Ph.D. in Educational Studies: Curriculum Studies is a distinctive program that prepares students who are qualified to engage in high-quality original scholarships, to assume faculty positions in curriculum studies at the college and university levels, to take leadership positions at district and state-level

education agencies, to assume curriculum positions in informal learning environments and to take on positions of influence in educational advocacy.

Admission

For admission into the program, an applicant must have a master's degree in an education-related field. Applicants must present a strong academic record, acceptable GRE scores within the past five years, a writing sample (15-20 pages, exclusive of notes and works cited) that demonstrates appropriate academic writing skills needed for success in a graduate program and three letters of recommendation. Applicants will be interviewed as part of the selection process.

Degree Requirements

As a research degree, the Ph.D. is awarded for demonstrating competence in research by successfully defending a doctoral dissertation. The emphasis is on developing knowledge and skills in curriculum studies and the ability to conduct original research. A general program of study is outlined below. Students are required to take a suitable number and variety of graduate courses and research apprenticeships to prepare them for the qualifying examination and the dissertation. The program requires 66-75 hours after acceptance into the program. The Ph.D. in Educational Studies: Curriculum Studies includes the following requirements.

I. Courses and Requirements

Curriculum Studies Content (24 hours)

EDUC 60833	Curriculum History in the United States	3
EDUC 60843	Contemporary Curriculum Theory	3
EDUC 70813	Curriculum Studies Seminar	9
EDUC 70823	Inquiry Seminar	9

EDUC 70813 and EDUC 70823 may be repeated with new topics for 9 credit hours.

Portfolio

Students develop an academic portfolio throughout their course of study. Student and program advisors determine course study (electives, research courses, etc.) during portfolio conferences held before completion of the second semester and qualifying comprehensive examination. Students may use the portfolio for New Media graduate certificate.

Electives (15-18 hours)

Students work with program advisors to determine electives that support **student's goals and interests**. Students may use elective hours to take additional curriculum studies and inquiry seminars, pursue graduate certificate(s) (e.g. Women and Gender Studies) and/or develop an area of emphasis.

Research (12-15)

In addition to research courses, which may include the following among others, students consult with program advisors to identify and join at least one research community during their first year in the program and continue participation in research projects throughout their doctoral studies.

PSYC 50423	Graduate Statistics	3
EDUC 60043	Action Research	3
EDUC 60823	Educational Program Evaluation	3
EDUC 70953	Research in Education	3
EDUC 70960	Apprenticeship in Research	3
EDUC 70963	Qualitative Inquiry	3
EDUC 70973	Advanced Qualitative Inquiry	3
EDUC 70983	Introduction to Quantitative Research	3

EDUC 70960: 1-3 hours may be repeated

II. University Teaching (3-6 hours)

Students apprentice with faculty in teaching at least one course before taking on more advanced teaching responsibilities.

EDUC 70943	Apprenticeship in Teaching	3
EDCS 70973	Teaching Diversity	3

III. Comprehensive Qualifying Examination

Students take a qualifying examination to demonstrate their knowledge and abilities in curriculum studies. Upon the successful completion of the qualifying examination, students are admitted to candidacy.

IV. Dissertation Research

Students propose and conduct original research, write a dissertation and defend the dissertation in a final oral examination with at least 12 dissertation hours.

EDUC 90980	Dissertation	1.00-6.00
EDUC 90990	Dissertation	1.00-6.00

Educational Studies: Counseling and Counselor Education Ph.D.

The Ph.D. in Educational Studies: Counseling and Counselor Education is designed to prepare advanced professional practitioners in counseling, counselor education and systems intervention with particular emphases on strength-based approaches to work with diverse populations and settings. Its purpose is to provide quality doctoral training for future educators, researchers and clinicians who wish to emphasize clinical applications that promote the health, quality of life and well-being of children, adolescents, young adults and their families. The counseling theory and counselor education courses are designed to increase understanding of current research and practice in the field. The professional competencies and counselor education courses are designed to expose students to supervisory and teaching experiences to help the student become proficient in social science research methodologies and to best prepare the student for original research and career goals. Finally, electives taught in education, communication, pastoral counseling, health and kinesiology, psychology and other disciplines will be chosen with the advisory committee. These will offer each doctoral student a personal specialization area for professional development and research. The college/department in which courses are offered will determine the readiness of students to take courses.

The Ph.D. in Educational Studies: Counseling and Counselor Education prepares students to be qualified to engage in high-quality original scholarship. Recipients will have the knowledge and skills to assume college faculty positions with responsibility in teaching graduate counseling courses, participate in counseling and counselor education research, and assume leadership positions in counseling and counselor education within schools and other organizations.

Admission

For admission into the program, an applicant must have a master's degree in a clinical mental health discipline and be eligible for licensure or certification as a mental health professional in the state of Texas. These disciplines include (but are not limited to) counseling, marriage and family therapy, psychology/psychological associate, nursing and social work. Each applicant must show evidence of knowledge and skill in human development, helping relationships, assessment, research and evaluation, and clinical experience in applied settings. Also, the applicant must present a strong academic record, acceptable GRE scores within the past five years, a writing sample (15-20 pages, exclusive of notes and works cited) that demonstrates appropriate academic writing skills needed for success in a graduate program and three professional letters of recommendation. Students may be admitted who lack the prerequisites for some of the courses required in the program. In such cases, it will be necessary for the student to complete the prerequisites in addition to the requirements of the Ph.D. degree. A live interview is also required prior to admission.

Program of Study

A minimum of 51 credit hours post-matriculation is required for the degree.

Counseling Theory (15 hours)

The program is committed to providing students with coursework relevant to the research and practice of counseling. The counseling theory component is designed to create learning opportunities directly related to developing both theoretical and philosophical expertise in counseling and counselor education.

EDGU 70003	Advanced Human Systems	3
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EDGU 70013	Language Systems	3
EDGU 70793	Strength-Based Theories: Assessment, Research, and Practice	3
EDGU 70043	Philosophical Underpinnings of Psychotherapy	3
EDGU 70383	Advanced Study in Counseling Theories and Techniques	3

Counselor Education (9 hours)

The College of Education is committed to the professional socialization of its doctoral students. EDGU 70033 Legal, Ethical and Professional Issues in Counseling will introduce the students to the TCU professors, the program of study, the culture of education and professional societies, as well as ethical and legal aspects of counseling and counselor education. It must be taken within the first year upon entering the program. In addition, students will be required to take Teaching Helping Relationships and Teaching Counseling Interventions courses, which focus on developing classroom and leadership skills as students generate a personal teaching philosophy, as well as study and practice creativity. These courses are taught concurrently with master's-level counseling courses in the college so students have multiple opportunities to teach, lead and mentor under faculty supervision.

EDGU 70023	Teaching Helping Relationships	3
EDGU 70143	Teaching Counseling Interventions	3
EDGU 70033	Legal, Ethical, and Professional Issues in Counseling	3

Research (12 hours)

The program and college are committed to helping doctoral students broadly understand research methodology while specializing in one or more methodologies. Students take the equivalent of 12 hours of research **coursework as approved by the student's advisory committee. Courses may include (but are not limited to):**

EDUC 70963	Qualitative Inquiry	3
EDUC 70973	Advanced Qualitative Inquiry	3
EDUC 60823	Educational Program Evaluation	3
	Advanced statistics courses in education, psychology, kinesiology or other programs	

Professional Competencies (6 hours)

The program is committed to establishing authentic supervisory learning opportunities for students. Because the program is designed for those who wish to pursue a career in academic, administrative and/or supervisory positions, students will be expected to complete practicum experiences that will prepare them for such positions. The program will have a unique focus on supervisor and educator development. Practicum and classroom experiences that focus on supervisory skill development, program evaluation and other advanced skills will be required for all students.

EDGU 70223	Supervision in Counseling	3
EDGU 70323	Advanced Group Leadership	3

Electives (9 hours)

To create a program that is sensitive to student career goals, elective courses **will be selected by each student's advisory committee. Students seeking an academic or research career will have different coursework needs than those who wish to work as school district supervisors or administrators.** Up to 9 credits of masters-level specialty course-work that enhances the student's theoretical background, clinical skills or research interest may be transferred.

Qualifying Examination

The qualifying examination is taken at the end of the coursework and prior to beginning work on the dissertation. The purpose of the qualifying examination is to assess the student's readiness to begin dissertation research. The qualifying examination requires students to demonstrate their ability to critically discuss theory, research and practice in the field of counseling and counselor education. The exams consist of a series of **questions developed by the student's advisory committee. These questions are designed for two purposes: 1) to examine the student's knowledge of a body of literature in depth and 2) to examine the student's breadth of understanding of the field of counseling and counselor education.** The qualifying examination consists of two parts: a written examination and an oral examination. All committee members will read and give feedback to the student on the written product. When all committee members are satisfied

with the quality of the written product, an oral examination will be scheduled. The student's **committee will determine by consensus if he/she 1) passed the examination, 2) failed the examination or 3) passed with conditions, which the student will need to meet prior to passing.** A student is limited to three attempts to pass the qualifying examination.

Dissertation (6 hours)

The College of Education is committed to helping students establish their own research interests and agenda. To this end, the students will work with a committee of faculty to propose a research study, conduct the study and defend the results of the study. All students will take a minimum of six hours of dissertation proposal and research, but some students may require more than six hours, depending on the number of semesters that are needed for full completion of all requirements. Students may not begin dissertation data collection without the approval of the student's full advisory committee.

EDUC 90980	Dissertation	1.00-6.00
EDUC 90990	Dissertation	1.00-6.00

Sequence of Experiences

1. Completion of all non-dissertation coursework
2. Completion of the qualifying exam
3. Completion of original research and successful defense of the resulting dissertation

Educational Studies: Educational Leadership Ph.D.

The Ph.D. in Educational Studies: Educational Leadership is a research-intensive 66-hour degree designed to equip graduates to engage in high-quality original scholarship. Degree recipients will have the knowledge and skills to assume positions as tenure-track college faculty tasked with engaging in research and with teaching graduate education courses, as experts with policy organizations responsible for producing or overseeing education-related research, and as high-level leaders in K-12 or high education-related organizations with oversight and/or responsibility for research oriented functions. Within the degree, students may opt to focus some course selections around a concentration in PK-12 leadership or higher education contexts. Students may also opt to work with an advisor to craft a program with PK-20 perspective.

The Ph.D. in Educational Studies: Educational Leadership requires a **minimum of 66 hours beyond the master's degree. While the Ph.D.** encompasses a minimum of 66 hours of coursework, including fieldwork and a dissertation, additional courses may be required if prerequisites have not been met.

Admission

For admission into the program, an applicant must hold a master's degree in educational leadership or a related field: those applicants seeking professional certification as principal or superintendent in conjunction with the degree must meet eligibility requirements in the state of Texas, and may be required to take additional coursework in order to meet both programmatic and State of Texas certification requirements. Each applicant must present: (1) a letter of introduction that outlines the ways in which the applicant perceives the program to fit with personal and professional goals; (2) a strong academic record as demonstrated by college transcripts; (3) acceptable GRE scores within the past five years, with a preferred Analytical Writing score of 4.0 or better; (4) a writing sample (10-20 pages, exclusive of references) that demonstrates academic writing skills appropriate for success in a graduate program; and (5) three professional letters of recommendation. Applicants will also be asked to complete an interview to demonstrate oral presentation skills and the ability to articulate connections among the program, as well as discuss their background, and professional aspirations.

Program of Study

A minimum of 66 credit hours is required for the degree. Students work closely with their academic advisor to draw from courses in the College of Education and, if appropriate, from other areas on campus that relate to the **students' area of inquiry. Students should use the approved program of study course selection, with the assistance of the advisor. Each student will work with an assigned advisor to plan and, where needed, adjust the plan of study to meet both student needs and programmatic requirements.**

For both areas of emphasis (Focus in PK-12 Contexts and Higher Education) requirements for the qualifying examination and dissertation are identical, as is the typical sequence of activities.

Qualifying Examination

The qualifying examination is taken when students have completed approximately 45 hours of coursework and prior to beginning work on the dissertation research. The purpose of the qualifying examination is to assess **the student's readiness to begin dissertation research.** The qualifying examination requires students to demonstrate their ability to critically discuss theory, research and practice as related to a topic within educational leadership. The exam consists of a series of questions developed by the **student's qualifying exam panel. These questions are designed for two purposes: (1) to examine the student's knowledge of a body of literature in depth and (2) to examine the student's breadth of understanding of the field of educational leadership.** The qualifying examination consists of two parts: a written examination and an oral examination. All committee members will **read and give feedback to the student on the written product. The student's committee will determine by consensus if the student "passed"; "passed with conditions," which the student must meet prior to passing; "revise and resubmit" (necessitating major revisions and/or actions prior to committee reconsideration); or "failed" the examination (necessitating a restart of the entire qualifying exam process).** When all committee members are satisfied with the quality of the written product, an oral examination will be scheduled. In alignment with university policy, a doctoral student is limited to two attempts to pass the qualifying examination. Students may not move beyond EDAD 70073, propose the dissertation, or enroll in further dissertation coursework until they have successfully passed the qualifying examination.

Dissertation (12 hours)

The College of Education is committed to helping students establish their own research interests and agenda. To this end, the students will work with a committee of faculty to propose a research study, conduct the study and defend the results of the study. All students will take a minimum of twelve hours of dissertation proposal and research (including EDAD 70073the Dissertation Seminar), but some students will have to take more than 12 hours, depending on the number of semesters that are needed for full completion of all requirements. Students enroll in EDUC 90980 until such time as the dissertation committee has approved the proposal, and EDUC 90990 thereafter until a successful defense. Students may not begin dissertation data collection without the approval of their full advisory committee and, as appropriate, the TCU Institutional Review Board.

Sequence of Experiences

1. Completion of a minimum of 45 hours of coursework
2. Completion of the qualifying examination (and remaining coursework)
3. Successful proposal of dissertation research
4. Completion of original research and successful defense of the resulting dissertation

While most students will complete the dissertation within the 12-hours noted here, others may require additional time, and students who need to take more than 12 credit hours must continue to enroll in 1-3 hours of EDUC 90990 (Fall, Spring, and Summer terms) through the completion of the degree.

Ph.D. in Educational Studies: Educational Leadership (Focus in PK-12 Contexts)

Foundations (18 hours)

The program is committed to providing students with coursework that provides complex and in-depth context to the work of the educational leader, including a grounding in philosophical, historical, legal, ethical, and organizational influences.

EDAD 70003	Foundational Readings in Educational Administration	3
EDAD 70013	Legal and Social Environment of Education	3
EDAD 70033	Ethical and Moral Dimensions of Educational Leadership	3
EDAD 70043	Educational Policy and Practice	3
EDHE 70153	Organizational Behavior in Education Contexts	3
EDUC 60253	Historical and Philosophical Foundations of Education	3

Research (15 hours from the following)

The program and college are committed to helping doctoral students broadly understand research methodology while specializing in one or more methodologies. Students take a minimum of 15 hours of research coursework and work with a faculty member on a project toward presentation/publication in a scholarly venue in addition to completing the dissertation.

*EDUC 70823 may be repeated up the three times with different emphasis with consent of advisor.

*INSC 60010 is a 1.5 hour course; students opting to take it must exceed the 18 hour requirement in inquiry by taking another 3-hour course (i.e., will total 19.5 hours of inquiry), although they may take another 1.5-hour elective (in the specialization/electives section) to avoid exceeding the minimum of 66 hours for the degree plan.

EDUC 60043	Action Research	3
EDUC 60753	Research in Education	3
EDUC 70823	Inquiry Seminar	3
EDUC 70923	Introduction to Applied Qualitative Methods	3
EDUC 70960	Apprenticeship in Research	3
EDUC 70963	Qualitative Inquiry	3
EDUC 70973	Advanced Qualitative Inquiry	3
EDUC 70983	Introduction to Quantitative Research	3
INSC 60010	Statistical Models	1.5
PSYC 50213	Interactive Data Analysis	3
PSYC 60623	Regression Analysis	3

Leadership Approaches, PK-12 Contexts (15 hours from among the following)

Additional course selections – aimed at equipping doctoral students with the in-depth and specialized knowledge needed to succeed in various areas of research and leadership – should be made with professional and research goals in mind; in some cases, this may mean electing coursework outside of the College of Education, with permission of the advisor.

EDAD 70023	Theory and Management of Education Systems	3
EDAD 70063	Data-Informed Decision-Making	3
EDUC 70813	Curriculum Studies Seminar	3
EDLE 70083	Issues and Trends in :Superintendency	3
EDSP 60233	Understanding Exceptional Children and Youth At-Risk	3
EDUC 60013	Curriculum Theory	3
EDUC 60023	Analyzing Professional Literature and Writing Professionally	3
EDUC 60213	Psychology of Thinking and Learning	3
EDUC 60823	Educational Program Evaluation	3
	Electives	3
	Electives	3

*EDCS 60183 may be taken up to three times with different emphasis with consent of advisor

Module IV: Practicum or Internship Experiences (6 hours)

The program is committed to establishing authentic supervisory learning opportunities for students, and to doing so in ways that align with certification requirements established by the Texas Education Agency. Certification-seeking students will enroll in Principal or Superintendent Practicum, as appropriate; those who are not seeking certification or who already hold certification will engage in internship hours to explore a facet of educational leadership or policymaking, or they may elect up to 6 hours of additional coursework.

EDLE 60093A	Principal Practicum A	3
	OR	
EDLE 70093A	Superintendent Practicum A	3

OR

EDAD 70200	Internship in Educational Administration	1.00-6.00
EDLE 60093B	Principal Practicum B	3
	OR	
EDLE 70093B	Superintendent Practicum B	3
	OR	
EDAD 70200	Internship in Educational Administration	1.00-6.00

*For non-certification seeking students, an additional 3-hour internship may be substituted for one elective in the specialization section with approval of the student's advisor for a maximum of 9 hours of internship.

Dissertation (12 hours)

EDAD 70073	Capstone/Doctoral Seminar	3
EDUC 90980	Dissertation	1.00-6.00
EDUC 90990	Dissertation	1.00-6.00

*Comprehensive exams must be completed prior to enrollment in EDAD 70073; in rare cases, a student may be allowed to enroll in EDAD 70073 while completing the comprehensive exam, but in no case will a final grade be assigned in EDAD 70073 until successful completion of the comprehensive exam.

Ph.D. in Educational Studies: Educational Leadership (Focus in Higher Education)

Foundations (18 hours)

The program is committed to providing students with coursework that provides complex and in-depth context to the work of the educational leader, including a grounding in philosophical, historical, legal, ethical, and organizational influences.

EDAD 70003	Foundational Readings in Educational Administration	3
EDAD 70033	Ethical and Moral Dimensions of Educational Leadership	3
EDHE 60133	Legal Issues in Higher Education	3
EDHE 70133	History and Philosophy of Higher Education	3
EDHE 70143	Advanced Student Development Theory: Impact of College on Students	3
EDHE 70153	Organizational Behavior in Education Contexts	3

Research (15 hours from the following)

The program and college are committed to helping doctoral students broadly understand research methodology while specializing in one or more methodologies. Students take a minimum of 15 hours of research coursework and work with a faculty member on a project toward presentation/publication in a scholarly venue in addition to completing the dissertation.

EDUC 60043	Action Research	3
EDUC 60753	Research in Education	3
EDUC 70823	Inquiry Seminar	3
EDUC 70960	Apprenticeship in Research	3
EDUC 70923	Introduction to Applied Qualitative Methods	3
EDUC 70963	Qualitative Inquiry	3
EDUC 70973	Advanced Qualitative Inquiry	3
EDUC 70983	Introduction to Quantitative Research	3
INSC 60010	Statistical Models	1.5
PSYC 50213	Interactive Data Analysis	3
PSYC 60623	Regression Analysis	3

*EDUC 70823 Inquiry Seminar may be repeated up the three times with different emphasis with consent of advisor.

*INSC 60010 is a 1.5 hour course; students opting to take this course must exceed the 18 hour requirement in inquiry by taking another 3-hour course (i.e., will total 19.5 hours of inquiry), though they may take another 1.5 hour elective (in the specialization/electives section) to avoid exceeding the minimum of 66 hours for the degree plan.

Leadership and Approaches: Higher Education Contexts (21 hours from the following)

Additional course selections – aimed at equipping doctoral students with the in-depth and specialized knowledge needed to succeed in various areas of research and leadership – should be made with professional and research goals in mind; in some cases, this may mean electing coursework outside of the College of Education, with permission of the advisor.

EDAD 60133	Trends and Issues in Educational Administration	3
EDAD 70023	Theory and Management of Education Systems	3
EDAD 70043	Educational Policy and Practice	3
EDGU 60423	Organization and Administration of Support Programs	3
EDHE 70113	Academic Leadership and Governance in Higher Education	3
EDHE 70123	College President	3
EDHE 70163	The Small College	3
EDHE 70223	Intercollegiate Athletics in Higher Education	3
EDHE 70233	Comparative Higher Education	3
EDHE 70253	Assessment and Accreditation in Post-Secondary Education	3
EDHE 70263	Finance in Higher Education	3
EDHE 70633	Challenges in Higher Education: Student Affairs	3
EDUC 60213	Psychology of Thinking and Learning	3
EDUC 60823	Educational Program Evaluation	3
	Electives	3
	Electives	3

*Students may enroll in 9-12 hours of graduate coursework at TCU outside of the College of Education with advisor approval.

*EDAD 60133 may be taken up to twice for a total of 6 hours with different emphasis. Topics: Strategic Planning, Sustainability, Environmental Theory in Higher Education, Finance and Administration, Development in Higher Education.

*EDHE 70233 Comparative Higher Education may be taken up to twice for a total of 6 hours with different emphasis. Topics: Great Britain, Central and South American, Europe and Asia.

Dissertation (12 hours)

EDAD 70073	Capstone/Doctoral Seminar	3
EDUC 90980	Dissertation	1.00-6.00
EDUC 90990	Dissertation	1.00-6.00

*Comprehensive exams must be completed prior to enrollment in EDAD 70032; in rare cases, a student may be allowed to enroll in EDAD 70073 while completing the comprehensive exam, but in no case will a final grade be assigned in EDAD 70073 until successful completion of the comprehensive exam.

Educational Studies: Science Education Ph.D.

The Ph.D. in Educational Studies: Science Education prepares students who are qualified to engage in high-quality original scholarship. Recipients are prepared to assume faculty positions in science at the community college

and university levels and take science leadership positions at district and state-level education agencies.

Admission

For admission into the program, applicants must have a master's degree in a science or education field. Applicants must present a strong academic record, acceptable GRE scores within the past five years, a writing sample (15-20 pages, exclusive of notes and works cited) that demonstrates appropriate academic writing skills needed for success in a graduate program and three letters of recommendation.

This program requires extensive knowledge from two academic units, including the College of Education and the College of Science & Engineering. Therefore, students may be admitted who lack the prerequisites for some of the courses required in the program. If such is the case, it is necessary for the student to complete the prerequisites in addition to the requirements of the Ph.D. degree.

Degree Requirements

A Ph.D. is a research degree. It is awarded for demonstrating competence in research by successfully defending a dissertation. The emphasis is on developing knowledge and skills in science education that result in the ability to conduct original research in science education. A general program of study is outlined below. Students are required to take a suitable number and variety of graduate courses and research apprenticeships to prepare them for the qualifying examination and for the writing of the dissertation. Depending on the graduate history of the student, the program would require 51-63 hours of coursework after acceptance into the program. The Ph.D. in Educational Studies: Science Education includes the following components.

I. Courses

Field of Education

Students take EDSC 70011 Colloquium in the Profession of Science Education, EDUC 60980 Internship and other courses for the equivalent of 27 hours as approved by the adviser in the College of Education.

Research

Students take the equivalent of 12 hours of research coursework as approved by the adviser in the College of Education.

Science Content

Students take the equivalent of 18 hours of coursework that qualify for science content as approved by the adviser in the College of Education.

II. Apprenticeships

Students are required to join at least one research community during their second year in the program, as approved by the adviser in the College of Education. Students continue to have a research apprenticeship each term thereafter.

III. Comprehensive Qualifying Examination

Students take a qualifying examination to demonstrate their knowledge and ability in science education. Upon the successful completion of the qualifying examination, students are admitted to candidacy.

IV. Dissertation Research

Students propose and conduct original research, write a dissertation and defend the dissertation in a final oral examination. Six hours of dissertation are required.

College of Fine Arts

The College of Fine Arts comprises the School of Art, the School for Classical and Contemporary Dance, The Department of Interior Design and Merchandising, the School of Music and the Department of Theatre. The School of Art offers the M.F.A. in Studio Art and the M.A. in Art History. The School of Music offers the M.M. in Performance, Musicology, Theory, Composition, Conducting and Pedagogy; the M.M.E. in Music Education and Piano Pedagogy; the Artist Diploma in Performance; and the Doctor of Musical Arts in Performance, Pedagogy, Composition and Conducting.

College of Fine Arts faculty are dedicated teachers who combine strong academic training with years of professional experience in their disciplines, and pride themselves on the ability to convey to students the knowledge necessary for successful lives and careers in the 21st century. The college also hosts visiting faculty, guest artists and performers who interact with students throughout the year enriching the learning experience.

Resources available to students include numerous computer labs, lighting and sound systems, specialized libraries and conditioning equipment, galleries, art and dance studios, theaters, and performance halls. Importantly, College of Fine Arts programs enjoy close working relationships with the Kimbell Art Museum, the Fort Worth Symphony, Casa Mañana Theatre, and the other visual and performing arts institutions in the Dallas/Fort Worth metropolis.

Art History, MA

The School of Art offers the Master of Arts in Art History. This graduate program enables students to gain a deeper understanding of the history of art, its objects and its methods. An integral component of this program, which sets it apart from many others, is "the museum experience": the opportunity to study in art museums and work with museum professionals. Centering on the art object, the program allows students to expand their knowledge of the historical, stylistic and theoretical dimensions of the visual arts, while having the practical experience of working directly with art objects and in museums with professional staffs. Students participate in courses that utilize the resources of the Amon Carter Museum of American Art, the Modern Art Museum of Fort Worth and the Kimbell Art Museum, and serve internships in these and other art museums. Graduates are prepared to engage in work at the Ph.D. level and pursue careers in the teaching and art museum professions.

Program Prerequisites

In addition to meeting the minimum requirements for admission established by TCU, applicants will normally have completed 18 semester hours (six courses) in art history. The department will consider applications from qualified students in other fields. Applicants are expected to have studied one foreign language — French, German, Italian, Spanish or one approved by the department — for two years or have reading proficiency. The TOEFL is required for foreign students and must be passed at the level set by the University. The application must include:

- A personal statement of no more than 250 words describing the applicant's academic and professional objectives
- A writing sample that demonstrates art history research skills, not to exceed 20 pages in length
- Three letters of recommendation
- GRE General Test scores

Degree Requirements

The program requires 30 hours of coursework and six hours for the thesis. Upon approval of the faculty, entering students may transfer up to six hours of graduate study in art history earned prior to admittance. Required courses are:

ARHI 70003	Art Historical Methods, Theories and Issues	3
ARHI 70013	The Art Museum	3
ARHI 70100	Museum Seminar	3.00-9.00
ARHI 70983	Internship	3

ARHI 70990	Thesis	3.00-6.00
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The remaining 18 hours are elective courses; students are strongly encouraged to enroll in courses that reflect chronological and geographical diversity. Generally, a student may not earn more than three hours of graduate credit in coursework taken outside of the art history program.

Thesis Requirement

The thesis is to be fulfilled by a paper, or its equivalent, that demonstrates advanced research skills. The thesis should be the result of independent study, the revision and improvement of a seminar paper, or writing generated by the student's museum internship. In all cases, the topic must receive approval of the student's adviser. The thesis is overseen by department faculty members in conjunction with a museum professional.

Language Requirement

Students are required to pass a reading proficiency examination in French, German, Italian, Spanish or another language approved by the faculty upon entering the program. The language examination is administered at the beginning of the fall or spring semester. Students are expected to translate two passages into English, one with the use of a dictionary and one without a dictionary. Each passage is no more than 250 words, and students are given 30 minutes to complete each portion of the exam.

Foreign language exams are administered to ensure that students can do art historical research in a foreign language. To this end, students are encouraged to possess a strong understanding of basic grammar and vocabulary, as well as important art historical terminology. Students whose basic knowledge of a language or mastery of basic terminology in art history appears to be unsatisfactory will not receive a passing grade on the exam. Language exams are graded on the following scale: high pass; pass; low pass; fail. The dictionary and non-dictionary portions of the exam are each graded separately. Students are required to pass both sections of the exam for the M.A. in Art History.

Students not passing the examination have two options:

Option 1: Retake and pass the examination at the beginning of the following semester.

Option 2: Enroll in two semesters (or an approved intensive equivalent) of second-year foreign language study and earn at least a "B" in both semesters (or their equivalent). This option must be completed by the beginning of the student's second year in the program.

Students who do not satisfy the language requirement by the beginning of their second year may be withdrawn from the program.

Oral Examination

Candidates for the M.A. are required to perform satisfactorily in a "capstone conversation."

Art Facilities

TCU maintains a number of facilities appropriate to the graduate art student. The School of Art is housed in one of the best designed and fully equipped facilities in the Southwest — the J. M. Moudy Building for the Visual Arts and Communication, designed by Kevin Roche, John Dinkeloo and Associates. The campus library houses a fine collection of art and art-related books, catalogues and journals. The Visual Resources Library holds an extensive collection of slides and digital images. The Art Galleries at TCU display international, national and regional art. Fort Worth's galleries and three major museums — the Modern Art Museum of Fort Worth, the Amon Carter Museum of American Art and the Kimbell Art Museum — are conveniently located near campus. Dallas, with its many galleries and excellent art museums, is 40 minutes away by car.

Art History Course Subcategories

ARHI 60123	American Art 1913 to the Present	3
ARHI 60133	Art of the Aztecs	3
ARHI 60143	Gender in Mesoamerican Art	3
ARHI 60153	The Aztec, Maya, and Olmec: Ancient	3

	Mesoamerican Art		Total	10
ARHI 60163	Maya Art and Architecture	3	Second Year	
ARHI 60173	Early Italian Renaissance Art	3	1st Semester	
ARHI 60183	High and Late Italian Renaissance Art	3	Studio	7
ARHI 60193	Northern Renaissance Painting: Van Eyck - Bruegel	3		
ARHI 60203	17th Century Italian and Spanish Art	3	Seminar	3
ARHI 60213	Drawing as Artistic Invention	3	Candidacy	
ARHI 60333	Modern Art I: Romantic classicism to Impressionism	3	Total	10
ARHI 60343	Modern Art II: Post-Impressionism to Surrealism	3		
ARHI 60363	17th Century Flemish-Dutch Painting	3	2nd Semester	
ARHI 60500	Special Topics in Art History	3	Studio	4
ARHI 60603	Art Since 1945	3	Grad. Critique	3
ARHI 60613	Modern Architecture	3	Art History	3
ARHI 60623	History of the Print	3	Total	10
ARHI 60823	History of Photography	3		
ARHI 70023	Approaches to the Art Object	3	Third Year	

Studio Art, MFA

Master of Fine Arts degree available in painting (including drawing), printmaking and sculpture (including ceramics and new media).

TCU offers a three-year (60-semester-hour) program in art leading to the Master of Fine Arts degree. The faculty welcomes applicants whose work displays high quality, originality and sustained visual ideas.

Program Prerequisites

B.F.A., or equivalent, including concentration in intended specialty as evidenced by appropriate credit, an acceptable portfolio of work, a statement of professional experience and goals, and letters of recommendation. Admission to the program is based on:

- Portfolio acceptable to faculty committee
- Strong G.P.A. in undergraduate art courses
- Statement of professional experience and goals
- Good overall academic G.P.A.
- Three letters of recommendation.

Degree Requirements

At least 60 semester hours must be earned, including no less than 12 in one area of specialization, and one hour in Thesis Exhibition. Six hours of Graduate Seminar, 12 hours of ARST 60120 and 6 hours of Special Topic Contemporary Art History are required. If necessary, 3 hours in art history may be chosen in consultation with the student's advisory committee. The remaining hours may be selected with the approval of the student's thesis committee, but with no more than 6 hours taken outside the School. Suggested Credit-Hour Distribution:

First Year

1st Semester	
Studio	4
Grad. Critique	3
Seminar	3
Total	10

2nd Semester

Studio	4
Grad. Critique	3
Art History	3

Third Year

1st Semester	
Studio	7
Grad. Critique	3
Total	10
2nd Semester	
Studio	9
Thesis Exhibition	1
Total	10

Sequential Summary

First semester-request appointment of thesis committee; complete sequence of courses as approved by committee; complete any conditions contained in the admission letter from the Graduate Office. Second semester-complete sequence of courses as approved by committee. Third semester-complete sequence of courses as approved by committee; seek candidacy approval of committee. Fourth semester-complete sequence of courses as approved by committee. Fifth semester-request committee approval for preparation of Thesis Exhibition; complete sequence of courses approved by committee. Sixth semester-enroll for ARST 70991 Thesis Exhibition with major adviser as chair of committee; complete approved sequence of courses; give careful attention to the special deadlines for graduating students as they are outlined in the Bulletin or "Information and Deadlines for Graduation" available from the Graduate Office. Students are advised to work at least two weeks ahead of deadlines to avoid disappointments caused by unexpected delays and schedule conflicts.

Thesis Committees

Students admitted to the program will be assigned a temporary adviser in their major or specialty area until an ultimate area of specialization is determined. In the first six weeks of study the student must request, in writing, that the director appoint a faculty member as a permanent major adviser. The student must confer with the proposed major adviser, and ensure that the faculty member is prepared to accept the student before requesting the director to appoint the major adviser. The student may also suggest the names of two other faculty members to serve on the thesis committee. The thesis committee is formally appointed by the Graduate Office on the recommendation of the director of the School of Art.

While every effort will be made to compose a committee of the student's first choices, it may be necessary to make changes in light of the student's field of concentration, and the load or commitments of the faculty members.

A student may request, in writing, to the director, that a change be made of the major adviser, or committee members, if the field of specialization changes, or if other justifiable reasons arise that would make the continuation of the existing committee contrary to the best interests of the student or the program.

The major adviser will be responsible for committee activities, for aiding the student in matters of the program and for informing the director, in writing, of the progress of the student.

Colloquia

Colloquia are offered by the faculty of the School. These are intended to serve the specific purpose of establishing a personal and informal means of communication between students and faculty. The colloquia will feature presentations and discussions by on and off-campus speakers, faculty and members of the School of Art.

Candidacy

Admission to candidacy requires the approval of the thesis committee of each student. Admission to candidacy is expected no later than the end of the third semester of graduate study. Those who have not been admitted to candidacy by the beginning of their fourth semester may not earn additional credits. Those who wish additional elective credits may continue for a probationary period of not more than 12 semester hours as a 'non-degree' student. Further enrollment will be permitted only if a student is re-admitted to the degree program.

Exhibition

Thesis exhibition enrollment requires admission to candidacy as a prerequisite. Actual installation of the thesis exhibition requires approval of the thesis committee. The written portion of the thesis exhibition also requires committee approval. This written portion, and the format of the permanent record of the thesis exhibition, will be determined by the committee. The written portion of the MFA requirement is to be called 'Thesis Exhibition Statement' and will contain the following:

1. Title page;
2. Approval (signatures) page;
3. Index to the written portion;
4. Curriculum Vitae of the student;
5. List of illustrations (with title, media, dimensions);
6. Narration;
7. Illustrations in the form of photographs.

The narration (6 above) will take one of the following formats:

- Program notes of an explanatory nature from the student's work in the exhibition;
- Student's personal evaluation of the art forms contained in the exhibit;
- Contemporary or historical perspectives supporting the student's exhibit.

An electronic version of the Thesis Exhibition Statement will be submitted to the library. This copy will contain digital images of the work, which must include the title, date, media and dimensions of work.

Oral Examination

Candidates for the M.F.A. are required to perform satisfactorily in a final oral examination.

Graduate Assistantships

Graduate assistantships are offered each year to qualified candidates. Graduate assistants have an obligation of ten hours a week in service to the School. They are given a full tuition waiver plus a stipend. Graduate assistants are assigned a studio space.

School of Music

School of Music Facilities

The TCU School of Music is housed in historic Ed Landreth Hall, the Mary D. and F. Howard Walsh Center for Performing Arts, Music Building South and Jarvis Hall. The Ed Landreth building includes the music offices and conference room; teaching studios; classrooms; a computer lab; practice and rehearsal facilities; and a 1,200-seat auditorium, once home to the Van Cliburn International Piano Competition. Instrumental resources include numerous upright and grand pianos, four pipe organs, two harpsichords, a clavichord and a collection of authentic Baroque instruments.

The Walsh Center is home to the unique 325-seat PepsiCo Recital Hall, which is well known for its unprecedented acoustical design. The Walsh Center also contains an instrumental rehearsal hall, a choral rehearsal hall, an electronic piano laboratory, piano teaching studios and piano practice rooms all furnished exclusively with Steinway pianos.

Located on the south side of the TCU campus, Music Building South serves the TCU Opera Studio and contains a 100-seat rehearsal studio theater and the John Large Vocal Arts Laboratory.

The third floor of Jarvis Hall contains teaching studios, two classrooms, the Upchurch Studio for Electro-Acoustic Music, the Music Education Resource Library and the School of Music student lounge.

In addition to these four buildings, practice rooms and teaching studios are located in Waits and Foster residence halls; and a large, comprehensive music library complete with recordings, reference books, texts, scores and a listening room is housed in the Mary Coats Burnett Library.

Musical Arts, DMA

The objective of the TCU Doctor of Musical Arts (DMA) degree in performance, piano pedagogy, composition or conducting is to develop the musician-scholar—one who displays a high level of mastery in a professional medium and is equipped with scholarly research skills. The program leading to the degree is designed to prepare musician-scholars for careers as creative artists and teachers at institutions of higher learning. Enrollment in the doctoral program is carefully monitored toward the goal of remaining highly selective and relatively small. Prospective DMA students must demonstrate the potential for both artistry and scholarship on the highest levels.

DMA Admission Requirements

To be admitted for study leading to the Doctor of Musical Arts, applicants must hold a master's degree in music or music education (or the equivalent) of at least 30 graduate credit hours from an accredited college, university, or comparable institution, and present a GPA of at least 3.0 for all previous graduate-level work (A = 4.0). Appropriate preparation for doctoral study will vary according to the major/degree plan chosen; therefore, prospective applicants should consult with faculty in their intended major area for specific requirements and expectations.

Application to the Doctor of Musical Arts program requires students to complete the TCU Graduate Admission Application in addition to the School of Music application. The TCU Graduate Admission Application is available at www.graduate.tcu.edu.

Applicants are required to submit the following:

1. Completed online application to TCU Graduate Studies and the School of Music.
2. Two official transcripts of all college work. Translations must be provided for all international transcripts.
3. Non-refundable application fees will be charged for both the TCU application and the School of Music application.
4. Three current letters of reference from persons qualified to comment on the applicant's academic and/or musical achievement, teaching and/or professional experience, and potential for success in the degree program.
5. A double-spaced typed paper of five pages or more that illustrates the applicant's writing and research skills. A term paper completed as part of master's level work is sufficient, or the student may submit a research paper, a critical analysis, or an article suitable for publication.
6. A curriculum vitae is required. This should include a list of concert performances, compositions, publications, and other musical accomplishments.
7. Test scores must be sent to TCU from the testing agency: GRE (composition and piano pedagogy only) and TOEFL or IELTS (international students).
8. Applicants must complete the requirements for the major field of study as described below:
Performance

Applicants must submit a video recording of a live performance and include a program (PDF preferred). These required materials are uploaded through the School of Music Web-site. Go to www.music.tcu.edu

Composition

Applicants must submit five scores of recent works with recordings, as available. These materials should be mailed directly to the College of Fine Arts Graduate Office. Complete directions are available at the School of Music Website.

Conducting

Applicants must submit a video recording of a recent ensemble performance and rehearsal conducted by the applicant and a repertoire list of significant works conducted, as well as those prepared for conducting. These required materials are uploaded through the School of Music Website.

Audition

Based on the results of pre-screening, an invitation may be extended to perform an on-campus audition and/or interview in the principal applied music area before a faculty committee. Applicants should not select an audition day until they have received an official invitation to do so. If invited, the audition/recital/interview should be arranged in coordination with the faculty in the major area and the College of Fine Arts Graduate Office. Consult the faculty in the major area for instructions concerning the audition requirements, materials to bring, etc. The CFA Graduate Office will send faculty contact information after application materials are received. Audition dates are posted on www.cfagraduate.tcu.edu/.

Language Requirement

The student must demonstrate a reading knowledge of one language in addition to English.

The student may meet the language requirement by having earned at least a "B" average in the undergraduate sophomore year (both semesters) of the language, by earning a "B" in a graduate-level course in the language, or by achieving an appropriate score on a language exam such as the College Level Examination Program (CLEP). Curricular DMA credit is not given for language courses; in addition, no graduate financial aid is available for these courses.

Entrance Examination

The academic and musical abilities of all applicants are assessed by means of an entrance examination. This exam is given during the audition/interview visit. The exam serves as a diagnostic tool to determine whether or not a student is prepared for doctoral study, the results of the exam are reported to the College of Fine Arts Graduate Office and added to the student's file.

Students whose master's degree program did not include a course in bibliographic research will be required to take MUSI 60103 Bibliography and Research Techniques; this course must be counted as an elective.

Further information about the entrance exam and suggestions for preparation are available at the College of Fine Arts Graduate Studies Website. Go to www.cfagraduate.tcu.edu/.

English Requirements for International Applicants

In order to be considered for admission to the TCU DMA Program, all international students must complete the Test of English as a Foreign Language and achieve a score of 100 on the iBT, TOEFL or 7.5 on the IELTS. Official scores must be sent to TCU from the testing agency.

This requirement applies to prospective international students.

Students who have earned a degree (in music) at an English-language university may be exempted from taking the TOEFL, at the discretion of the DMA Oversight Committee.

The on-campus interview and submitted writing samples will also be used to evaluate each applicant's English language proficiency. International students may be asked to interview via teleconference to ascertain listening and speaking ability in English.

GRE

The GRE is required of DMA applicants in Composition and Piano Pedagogy. Be sure to take the exam early enough that scores are available during the admissions decision process.

Application Deadlines

For full consideration, applicants seeking admission to the DMA Program should complete their application by December 15 to be considered for fall matriculation.

Graduate Assistantships

Graduate assistantships are available in various areas; these assistantships provide a tuition waiver, a stipend or both, and require up to 10 hours of work per week. Graduate assistants must be full-time resident students. Applicants should indicate their interest in being considered for an assistantship on the application for admission. The application must be received in the graduate office by December 1 for full consideration for the fall semester.

Generally, assistantships are for a complete academic year and are not available starting in the spring semester. Students are notified by April 15 if they have been granted an assistantship for the next academic year.

TCU adheres to the following Code of Ethics of the National Association of Schools of Music: "The acceptance of financial aid or the signing of a declaration of intent to enter a given institution to begin a specific degree or program of study shall not be binding if signed before April 15 of the calendar year of matriculation. In accepting this offer of financial aid from TCU, the student understands that there is a mutual commitment on the part of the student and the institution. The student agrees that after April 15 of the calendar year of matriculation, the student will not consider any other offer of financial aid from an institutional member of the National Association of Schools of Music or any other institution for the purpose of enrolling in a music major program for the academic year except with the express written consent of the music executive of TCU. Institutions shall allow students to choose without penalty among offers of admission and financial aid until April 15 of the calendar year of matriculation. Written declarations of intent become binding on these dates.

Doctoral students may hold an assistantship for a maximum of three years; yearly renewal is dependent upon the recommendation of the faculty. In order to have an assistantship renewed, the student must make excellent progress in all aspects of his/her degree plan, display professional and collegial conduct, and fulfill all assistantship duties.

Outside employment is discouraged for students who have financial aid with stipends. The University assumes that the student's primary obligation is toward graduate study. The Director of the School of Music and College of Fine Arts Associate Dean for Graduate Studies reserve the right to review any outside employment and require that the student modify the commitment to the outside employment or relinquish the financial aid appointment.

DMA Keyboard Proficiency

Certain areas of study require keyboard proficiency. These standards are as follows:

Composition : Keyboard sight reading for composition majors consists of simple four-part, open choral score reading and a demonstrated ability to sight-read multiple lines at a time from a full orchestral or band score at pitch and in common transpositions (F, E-flat, B-flat, A) and tenor or alto clefs. The selected excerpts, which require moderate piano technical skills, must be transposed to the proper key and sounding octave.

Voice (Vocal Performance): Perform a piano audition of approximately five minutes in length. Repertoire presented should be equivalent in difficulty to that of Clementi Sonatinas or J. S. Bach Two Part Inventions. Pieces need not be memorized. Sight-read song accompaniments of moderate difficulty.

Choral Conducting: Sight reading for choral conducting majors consists of four-part, open choral score reading.

Wind Instrument Conducting: Sight read lines from a full orchestral or band score in common transpositions (F, E-flat, B-flat, A) and tenor or alto clefs. The selected excerpts, which require moderate piano technical skills, must be transposed to the proper key and sounding octave.

Orchestral Conducting: Two excerpts will be given to the student 24 hours prior to the exam, including four-part strings and four to five woodwinds and/or brass, including at least two transpositions. Two additional excerpts will be given at the exam, including a single line in alto or tenor clef, and a single line in B-flat, F, or A transposition.

The student's keyboard proficiency will be ascertained by means of an audition; the required skills must be acquired before candidacy.

DMA Program Specifics

Major and Professor

At the time of admission, each student is assigned a faculty member—typically the student's professor in the major area—who serves as adviser and mentor throughout the program. The Major Professor advises the student on all matters pertaining to the program of study.

The Major Professor typically serves as the chair of the students Doctoral Committee, guiding the preparation of recitals and research for the Document or Dissertation. The chair of the committee chairs the oral portion of the general exam as well as the final oral defense.

Co-Major Professor

If the Major Professor does not have an earned doctorate, a Co-Major Professor with an earned doctorate will be appointed. In this case, the Co-Major Professor will be the chair of the student's doctoral committee and mentor for the DMA Document/Dissertation. He/she will also lead the oral exam and defense. The Major Professor and Co-Major Professors must work cooperatively to ensure the student's success in all aspects of the program.

Doctoral Committee

Each student is counseled by a Doctoral Committee which is selected jointly by the student and the Major Professor. The student contacts members of the faculty to secure their willingness to serve on the committee and obtains the signature of each member on the Appointment of Doctoral Committee Form.

The Doctoral Committee will normally consist of five members:

1. The Major Professor
 2. The Co-Major Professor or another professor from the major area
 3. A faculty member from Theory/Composition
 4. A faculty member from Musicology
 5. A professor from outside the School of Music, or possibly from outside TCU.
- The chair of the committee will be the Major Professor, or Co-Major Professor, following the guidelines above.

The committee approves the Doctoral Committee Report, conducts the oral portion of the general examination, supervises the preparation of the Document/Dissertation, and administers the final oral defense. At the Document/Dissertation stage, the Doctoral Committee may be reconstituted to provide additional expertise appropriate to the project. Any changes in membership of the Doctoral Committee must receive approval by the Director of the School of Music and the Associate Dean for Graduate Studies.

Doctoral Committee Report

The Doctoral Committee Report affords the opportunity for a thorough review of the student's degree progress. It is normally prepared jointly by the Major Professor and student when the student has earned at least 20, but not more than 30 doctoral credits, using the Doctoral Committee Report form on the College of Fine Arts Graduate Studies Website. It is then circulated to all Doctoral Committee members for approval.

The report specifies the requirements for the completion of the degree and thus constitutes an agreement between the student, Doctoral Committee, the School of Music and the College of Fine Arts Graduate Office. It must be submitted to and accepted by the College of Fine Arts Graduate Office prior to attempting the general examination.

Residency Requirements

The student must be in residence as a full-time student for two consecutive regular semesters (fall/spring or spring/fall). A minimum of nine hours of approved coursework and/or approved research must be completed each semester of the year of residence. Depending on the area of study, summer study/coursework may or may not be available. Summer coursework does not count toward residency requirements. Any exceptions to this policy must be approved by the Director of the School of Music and the College of Fine Arts Associate Dean for Graduate Studies.

Transfer Credit

All TCU DMA programs include 60 semester hours of credit. A master's degree of at least 30 hours is a prerequisite for DMA study at TCU.

Up to 12 semester hours of transfer credit earned beyond the master's level may be applied to doctoral degree requirements in accordance with the following rules:

1. The credit hours transferred must represent valid graduate credit from an institution accredited to offer the DMA or equivalent degree.
2. The credit is applicable to the degree program and is approved by the Major Professor, and the College of Fine Arts Associate Dean for Graduate Studies.
3. Credit hours in the candidate's major area of concentration may not be transferred.
4. Credit hours transferred must carry a grade of "A" or "B".
5. Credit hours transferred normally cannot be more than five years old at the time of admission or readmission to the degree program.
6. Students whose master's degree program included more than 30 hours may be eligible to transfer up to six hours of master's degree work.

DMA Public Performance Requirements

The program content for DMA recitals must be approved by the Major Professor. In the case of a lecture recital, an outline of the lecture must accompany the program. The first recital should be presented before the general examination is taken, and at least one recital should be performed after the general examination has been passed.

All members of the Doctoral Committee should be notified of the time, date, and location of each recital by the candidate at least two weeks prior to the performance. The Committee must also be furnished with the recital program two weeks in advance.

Normally, all doctoral recitals are given on campus. However, with permission of the Major Professor, a student may present a recital off campus. When a recital is given off campus, the Major Professor must be in attendance.

The recital will be evaluated and graded by the Major Professor, who may consult with committee members or other faculty in attendance. The student should send a web link to the recorded performance to all members of his/her doctoral committee.

Performance: A minimum of three public performances is required. At least two performances must be full-length solo recitals. The remaining performance may be either a lecture recital or chamber music recital. A student who has an opportunity to perform a concerto with orchestra or appear in a major operatic role may apply for evaluation of such performances as a portion of the recital requirements. Concerto or operatic performances may not be substituted for more than one full-length recital. Such substitution must be approved in advance by the student's Doctoral Committee. Memorization requirements are determined by the faculty in the major area. A DVD may be required by some programs/areas.

Piano Pedagogy: A student emphasizing piano pedagogy must demonstrate competence both as a performer and as a teacher. To this end, three public performances are required:

1. A full-length solo recital;
2. A second full-length solo recital, a lecture recital (which may be pedagogical in nature), or a chamber music recital in which the piano plays an important musical role; and
3. A public workshop for piano teachers concentrating on teaching techniques and materials. The public workshop must be at least five hours in length. It may be presented off campus, provided the major professor is in attendance and the workshop is videotaped.

Composition: A student in composition must demonstrate competence as a practitioner of the musical art by presenting two recitals. One recital is a program of original music. The second recital requirement may be satisfied through the presentation of a single recital of original music or the equivalent realized through several performances of original compositions presented during regular School of Music concerts or recital programs. As appropriate, the student may appear as a soloist, member of a chamber ensemble or as conductor. A student who has the opportunity for a significant off-campus performance of original music may apply for evaluation of that performance as a portion of the second recital requirement. This must be approved by the major professor and the Doctoral Committee.

Conducting: Three public performances are required. Two of these may be performed by TCU School of Music ensembles; at least one recital must be performed by a group recruited by the student. At least two performances must be full-length concerts. The remaining performance may be a lecture recital related to the document topic. Concert literature should comprise a variety of national and historical styles, and should make use of large as well as small ensembles. Choice of repertoire and media is made after consultation with and approval of the major professor and the Doctoral Committee. Detailed and specific requirements are available from the conducting area faculty.

Recital Recording

Recitals performed in Ed Landreth Hall or PepsiCo Recital Hall will be recorded by School of Music staff. The student must arrange for a recording to be made of any recitals given outside of the School of Music or off campus. Recordings made by the School of Music are archived by the library.

DMA General Examination

The general examination is designed to evaluate the student's ability to integrate knowledge, apply theoretical concepts, demonstrate skills and draw conclusions. It normally covers coursework completed for the doctoral degree as well as general musical knowledge acquired through prior study

and professional experience. It covers music theory, music history, the cognate area, and the major area.

Before taking the examination, the student should have completed nearly all of the coursework in music history and theory, and a majority of the major field coursework. The student must receive the approval of his or her Doctoral Committee to take the examination using the Approval for Taking the DMA General Exam form available on the CFA grad studies website. This form must be signed by all members and returned to the CFA Graduate Office. The student must be enrolled in at least one graduate credit hour during the semester in which the general examination is taken.

The General Examination is both written and oral. The written portion of the examination has four parts: music theory, music history, the cognate area, and the major area. The exam is given up to one time per semester, scheduled as needed. All four parts are taken during a two-day period.

Once a student has passed all parts of the written exam, the oral portion may be scheduled; this will be 2 to 4 weeks after the written exam. All members of the Doctoral Committee, including the outside member, must be present when the oral portion of the examination is administered. The oral exam is **essentially a "follow up" on the written exam. The candidate will have an opportunity to clarify or expand on any issues not adequately covered in writing.**

After the oral portion of the general examination, the committee will determine if the student has passed or failed. The result will be conveyed by the Report of DMA Comprehensive Examination form. The Major Professor should bring this form to the oral exam. All members of the committee must sign the form and it is then returned to the CFA Graduate Office. If the student fails, he/she may, with the permission of the committee, attempt the examination one more time during the following semester or later. A third attempt is not permitted.

More Information about the structure of the exam may be obtained from the CFA grad studies website. Students should also consult with the relevant faculty concerning the different sections of the written exam. The written exam is administered by the various divisions: Theory, Musicology, the cognate area, and the major area.

DMA Written Document/Dissertation

A 6-credit hour written Document is required for the DMA in Performance, Piano Pedagogy and Conducting. The Document is normally more limited in scope than a Dissertation, but demonstrates high standards of scholarship and contributes to existing knowledge. It is hoped that the final project is suitable for publication.

Composition students produce a full 12-hour dissertation of one or more compositions suitable for publication.

Students should begin thinking about a topic early during the coursework so they may be ready to present the topic proposal as soon as possible during their degree program.

Choosing a Topic

Performance, Conducting, and Pedagogy: The document is normally concerned with such areas as music history, repertoire, performance practices, analysis of major works, human physiology, acoustics, psychology, aesthetics, teaching methods and materials, and the editing of lesser-known compositions.

Composition: The Dissertation comprises one or more major works.

Proposal

Once a potential topic is identified, a written proposal is prepared under the guidance of the Major Professor and possibly other members of the Doctoral Committee. The proposal normally includes an introduction, a discourse on the nature and importance of the topic, the state of current knowledge relevant to the topic, a chapter-by-chapter outline, and a bibliography. Sample chapters may also be required. Expectations for the proposal will vary considerably from one major area to another. The Major Professor will ultimately determine the style and scope of the proposal, which will be shaped by the expectations in that particular discipline.

Once the proposal is written, it is submitted to all committee members for comments and suggestions. Following further revision (if needed), the proposal is considered at a meeting of the entire Doctoral Committee. The student is required to be present at this meeting. Approval of the proposal is indicated on the Approval of DMA Document/Dissertation Proposal form. This is signed by all committee members and taken to the CFA Graduate Office.

Document or Dissertation Hours Enrollment

The student should enroll in MUSI 90960/MUSI 90970 (DMA Document) or MUSI 90980/MUSI 90990 (DMA Composition Dissertation) during any enrollment period in which work on the project or proposal is undertaken.

Following the initial enrollment in Document or Dissertation hours, a student should maintain continuous enrollment during each regular semester in at least one hour of Document or Dissertation until the degree is completed. The 6 or 12 Document/Dissertation credit hours should be divided as evenly as possible over the semesters in which the work is unfolding; normally this will begin in the fifth semester of study. These hours will at first receive the grade of Incomplete. The Incomplete grades for Document/Dissertation **remain as such on the student's record until the project is finished and a final grade is recorded by the Major Professor. Unlike grades in regular coursework, they do not revert to F's automatically.**

Document/Dissertation Writing

During the research and writing of the project, the candidate is advised to consult regularly with the Major Professor and, from time to time, with the other members of the Doctoral Committee. The Major Professor bears the primary responsibility for guiding the research efforts of the doctoral candidate and should possess expertise in the topic area as well as skills of scholarship necessary to guide the project to successful completion. When the topic extends beyond the expertise of this faculty member, a Co-Major Professor may serve the best interests of the student. In addition, if the student's Major Professor does not have an earned doctorate, the Co-Major Professor, appointed at the outset of doctoral study, will mentor the project. (See above, Co-Major Professor.) The major or Co-Major Professor supervises the project to ensure exhaustive research of the topic, a thorough and complete report of the findings, a logical organization of the paper, correct grammar, proper spelling, scholarly writing style, and appropriate format. Before other members of the Doctoral Committee receive the paper for review (either in part or whole), the paper should be at a stage of progress and level of scholarship suitable for critical examination.

Each committee member brings his/her own area of expertise to bear on the paper and carefully scrutinizes it for weaknesses in research, content, organization and general scholarship. In the case of disagreement between the committee members, the Major Professor (chair of the Doctoral Committee) will have final authority over the project.

A style guide and instructions for the Document/Dissertation may be found on the CFA grad studies website. This guide includes samples for the title and signature page. Since all TCU theses, Documents, and Dissertations are electronically archived, previous successful DMA projects may be downloaded from the TCU library repository. The student should examine these works. URL links to the repository are provided in the style guide.

Completing and Defending the Document/Dissertation

The following timeline assumes that the student has worked for several semesters on the project and that the Major Professor and committee members have provided sufficient input and guidance. The candidate must enroll in at least one graduate hour during the semester in which the project is completed and the Final Oral Defense is taken. For each semester, the CFA Graduate Office will post deadlines that must be followed in order to complete the project and graduate. These dates will vary somewhat from year to year, but will be essentially as follows:

Week 2: The candidate must file an Intent to Graduate Form in the CFA Graduate Office by this date. A non-refundable fee is charged when the Intent is filed. Candidates should not file the Intent without reviewing the following deadlines and obtaining permission from the Major Professor.

Week 6: The completed Document/Dissertation must be available for the committee by this time. Minor revisions may take place during the weeks following this date. If the committee, led by the Major Professor, approves the Document/Dissertation the final oral defense may be scheduled.

Week 11: Date of Final Oral defense should be agreed upon and set by this time. The candidate will schedule the exam and notify the CFA Graduate Office of the date using the Final Oral Defense Scheduling Form. In order to allow adequate time for preparation of questions, the candidate will provide a PDF of the finished Document/Dissertation to each member of the committee two weeks before the defense.

Week 15: The Final Oral Defense must be completed by this date. The defense is a discussion of the Document/Dissertation. At least four members of the committee, including the Major Professor, must be present to conduct the **defense. Following a decision on the candidate's defense, those committee members present will grade and sign the Report on the Final Oral Defense Form.** The Major Professor will deliver the form to the CFA Graduate Office.

Week 16: The candidate will submit a PDF of the final Document/Dissertation following the instructions posted at lib.tcu.edu/NDLTD and the CFA Graduate website. Copyright may be obtained; the candidate must pay the fee for this optional service. The School of Music also requires a bound copy of the Document/Dissertation for its archives. Electronic submission of the final version of the project, including any changes suggested at the Oral

Defense, must be completed by the Monday before graduation. The Major Professor must turn in a course grade for the Document/Dissertation by the Wednesday before graduation. This grade will replace all previous Incomplete grades for Document or Dissertation hours.

Week 17: Degree awarded. Congratulations!

Time Limit

The DMA degree must be completed within 10 years of matriculation into the DMA program. Extension of the time limit must be applied for in writing to the Director of the School of Music, who will then make a recommendation to the Associate Dean. The letter should explain why the candidate did not complete the degree within the time limit and should present a schedule for completion of the degree.

DMA Music Degree Program Requirements

Performance with Cognate in Music Theory or History

MUSP 70110-70610	Lessons on major instrument	18
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSP 80991	DMA Recital III	1
	Music Theory Courses	9
	Music History Courses	9
	Cognate	6
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	7
		Subtotal: 60

* Six additional credits in music history or theory

MUSP 70110-70610: six semesters

Performance with Cognate in Composition

MUSP 70110-70610	Lessons on major instrument	18
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSP 80991	DMA Recital III	1
	Music Theory Courses	9
	Music History Courses	9
MUSI 60630	Composition	1.00-6.00
MUSI 60801	Composition Seminar	1
	Composition Electives	2
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	4
		Subtotal: 60

*Admission to the composition cognate is determined by the composition faculty; ability to do graduate-level work in composition is a prerequisite.

MUSP 70110-70610: six semesters

Performance with Cognate in Voice Pedagogy

MUSP 70110	Doctoral Voice	12
MUSP 70110	Doctoral Voice (Vocal Coaching)	6

MUSP 80961	DMA Lecture Recital	1
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
	Ensembles-Opera	2
MUSI 60064	Advanced Vocal Pedagogy Seminar	4
MUSI 60072	Technology in Voice Teaching	2
MUSI 60052	Voice Repertoire Management	2
MUSI 60041	Voice Pedagogy Practicum	1
MUSI 60041	Voice Pedagogy Practicum	1
	Pedagogy Elective	2-3
	Music-History-Courses	6-9
	Music-Theory-Courses	6-9
MUSI 90970	DMA Document	1.00-6.00
	Electives	4-5
		Subtotal: 60

*Advanced courses in music theory and music history with a minimum of two courses in an area.

Pedagogy Electives is chosen from MUSI 50063, MUSI 60041, MUSI 60062, MUSI 60016 or speech communications disorders courses.

MUSI 70110: 6 semesters each

Piano Performance with Cognate in Piano Pedagogy

MUSP 70210	Doctoral Piano	18
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSP 80961	DMA Lecture Recital	1
	Piano Pedagogy Courses	11-12
	Music Theory Courses	9
	Music History Courses	9
MUSI 60080-60170	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	4.5
		Subtotal: 60

Piano Pedagogy courses are chosen from MUSI 60203, MUSI 60213, MUSI 60223, MUSI 60233, MUSI 60243, MUSI 60913, MUSI 60923, MUSI 61230, MUSI 60400

MUSI 70210: six semesters

Piano Pedagogy DMA Requirements

MUSP 70210	Doctoral Piano	1.00-3.00
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSI 80971	Doctoral Pedagogy Workshop I	1
MUSI 80981	Doctoral Pedagogy Workshop II	1
	Piano Pedagogy courses	12-14
	Music Theory Courses	9
	Music History Courses	9
MUSI 60080-60170	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	4-6

		Subtotal: 60
Piano Pedagogy Courses are chosen from MUSI 60203, MUSI 60213, MUSI 60223, MUSI 60233, MUSI 60243, MUSI 60913, MUSI 60923, MUSI 61230, MUSI 60400		
MUSI 70210: six semesters		
Composition with Cognate in Music History		
MUSI 70630	Doctoral Composition	1.00-3.00
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSI 60801	Composition Seminar	1
	Music Theory Courses	12
MUSI 70903	Music Theory Treatise	3
	Music History Cognate	15
MUSI 60010-60360	Ensembles	1
MUSI 90980	DMA Composition Dissertation	1.00-6.00
MUSI 90990	DMA Composition Dissertation	1.00-6.00
	Electives	2
		Subtotal: 60

Music Theory Courses/Treatise-All DMA degrees in composition include the equivalent of a cognate in music theory.

MUSI 70630: four semesters

Composition with Cognate in Performance

MUSI 70630	Doctoral Composition	1.00-3.00
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSI 60801	Composition Seminar	1
	Music Theory Courses	12
MUSI 70903	Music Theory Treatise	3
	Music History Courses	9
MUSP 60110-60610	Applied Music Lessons	6
	Performance Electives	2
MUSI 60010-60360	Ensembles	1
MUSI 90980	DMA Composition Dissertation	1.00-6.00
MUSI 90990	DMA Composition Dissertation	1.00-6.00
		Subtotal: 60

Admission to the performance cognate is by audition and must be approved by the appropriate applied music faculty.

Music Theory Courses/Treatise-All DMA degrees in composition include the equivalent of a cognate in music theory.

MUSI 70630: four semesters

Conducting with Cognate in Music History or Theory

MUSI 70220	Doctoral Conducting	1.00-3.00
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSP 80991	DMA Recital III	1
MUSI 60232	Score Reading	2
	Music History Courses	9

	Music Theory Courses	9
	Cognate	6
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	5

Subtotal: 60

MUSI 70220 must include lessons in orchestral, band and choral conducting.

Music Theory Courses must include MUSI 70203 Analysis for Performance and MUSI 50970 Special. Studies: Advanced Orchestration.

Music History Courses- MUSI 50403 Symphonic Literature, MUSI 50423 Choral Literature, MUSI 50970 Special Studies: Band Literature are required.

Cognate-Six additional credits in music history or theory

MUSI 70220:six semesters

Conducting with Cognate in Performance

MUSI 70220	Doctoral Conducting	1.00-3.00
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSP 80991	DMA Recital III	1
MUSI 60232	Score Reading	2
	Music Theory Courses	9
	Music History Courses	9
MUSP 60110-60610	Applied Music Lessons	6
MUSP 70971	Recital I	1
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	4
		Subtotal: 60

Admission to the performance cognate is by audition and must be approved by the appropriate applied music faculty.

MUSI 70220 must include lessons in orchestral, band and choral conducting.

Music Theory Courses must include MUSI 70203 Analysis for Performance and MUSI 50970 Special. Studies: Advanced Orchestration.

Music History Courses- MUSI 50403 Symphonic Literature, MUSI 50423 Choral Literature, MUSI 50970 Special Studies: Band Literature are required.

MUSI 70220: six semesters

Musical Arts, DMA

The objective of the TCU Doctor of Musical Arts (DMA) degree in performance, piano pedagogy, composition or conducting is to develop the musician-scholar - one who displays a high mastery in a professional medium and is equipped with scholarly research skills. The program leading to the degree is designed to prepare musician-scholars for careers as creative artists and teachers at institutions of higher learning. Enrollment in the doctoral program is carefully monitored toward the goal of remaining highly selective and relatively small. Prospective DMA students must demonstrate the potential for both artistry and scholarship on the highest levels.

DMA Admission Requirements

To be admitted for study leading to the Doctor of Musical Arts, applicants must hold a master's degree in music or music education (or the equivalent) of at least 30 credit hours from an accredited college, university or comparable institution, and present a GPA of at least 3.0 for all previous graduate-level work (A = 4.0). Appropriate preparation for doctoral study will vary according to the major/degree plan chosen; therefore, prospective applicants should consult with faculty in their intended major area for specific requirements and expectations.

Application to the Doctor of Musical Arts program requires students to first complete the TCU Graduate Admission Application. The TCU Graduate Admission Application is at www.graduate.tcu.edu.

Applicants are required to submit the following:

1. Completed online applications to TCU Graduate Studies and the School of Music.
2. Two official transcripts of all college work. Translations must be provided for international transcripts.
3. Non-refundable application fees, which will be charged for both the TCU application and the School of Music application.
4. Three current letters of reference from persons qualified to comment on the applicant's academic musical achievement, teaching and/or professional experience, and potential for success in the degree program.
5. A double-spaced typed paper of five pages or more that illustrates the applicant's writing and research skills. A term paper completed as part of master's work is sufficient, or the student may submit a research paper, a critical analysis, or an article suitable for publication.
6. Curriculum vitae. This should include a list of concert performances, compositions, publications and other musical accomplishments.
7. Test scores sent to TCU from the testing agency: GRE (composition and piano pedagogy only) and TOEFL or IELTS (international students)

These complete requirements for the major field of study:

Performance

Applicants must submit a video recording of a live performance and include a program (.pdf preferred). These required materials are uploaded through the School of Music website. Go to: www.music.tcu.edu

Composition

Applicants must submit five scores of recent works with recordings, as available. These materials should be mailed directly to the College of Fine Arts Graduate Office. Directions are available at the SOM website.

Conducting

Applicants must submit a video recording of a recent ensemble performance and rehearsal conducted by the applicant and a repertoire list of significant pieces conducted, as well as those prepared for conducting. These required materials are uploaded through the School of Music website.

Pedagogy

Students must submit a 15-minute DVD recording of their teaching. The teaching excerpt should include a private lesson and may include a group lesson. International students should submit a video demonstrating their ability to teach using the English language. (Teaching excerpts may be uploaded as part of the School of Music Graduate Audition Request Application.

Audition

Based on the results of pre-screening, an invitation may be extended to perform an on-campus audition and/or interview in the major area before a faculty committee. Applicants should not select an audition day until they have received an official invitation to do so. If invited, the audition/recital/interview should be arranged in coordination with the faculty in the major area and the College of Fine Arts Graduate Office. Consult the faculty in your major area for instructions concerning the audition requirements, materials to bring, etc. The CFA Graduate Office will send faculty contact information after application materials are received. Audition dates are posted on the School of Music website.

Language Requirement

The student must demonstrate a reading knowledge of one language in addition to English.

The student may meet the language requirement by having earned at least a "B" average in the undergraduate sophomore year (both semesters) of the language, by earning a "B" in a graduate-level course in the language, or by achieving an appropriate score on a language exam such as the College Level Examination Program (CLEP). Curricular DMA credit is not given for language courses and no graduate financial aid is available for these courses.

Entrance Examination

The academic and musical abilities of all applicants are assessed with an entrance examination. This exam is given during the audition/interview visit and serves as a diagnostic tool to determine whether a student is prepared

for doctoral study. The results of the exam are reported to the CFA Graduate Office and added to the student's file. Adequate performance on these tests is necessary for admission.

Students whose master's degree program did not include a course in bibliographic research will be required to take MUSI 60103 Bibliography and Research Techniques. This course must be counted as an elective.

Further information about the entrance exam and suggestions for preparation are available at the CFA Grad Studies website. Go to www.cfagraduate.tcu.edu

English Requirements for International Applicants

To be considered for admission to the TCU DMA program, international students must complete the Test of English as a Foreign Language and score 100 on the iBT TOEFL or 7.5 on the IELTS. Official scores must be sent to TCU from the testing agency.

This requirement applies to all prospective international students. Students who have earned a degree (in music) at an English-language university may be exempted from taking the TOEFL, at the discretion of the DMA Oversight Committee.

The on-campus interview and submitted writing samples will also be used to evaluate each applicant's English language proficiency. International students may be asked to interview via teleconference to ascertain listening and speaking ability in English.

GRE

The GRE is required of DMA applicants in composition and piano pedagogy. Be sure to take the exam early enough that scores are available during the admissions decision process.

Application Deadlines

For full consideration, applicants seeking admission to the DMA program should complete their application by Dec. 1 to be considered for fall matriculation.

Graduate Assistantships

Graduate assistantships are available in various areas and provide a tuition waiver, a stipend or both; they require up to 10 hours of work per week. Graduate assistants must be full-time resident students. Applicants should indicate their interest in being considered for an assistantship on the application for admission. The application must be received by Dec. 1 for consideration for the fall semester.

Generally, assistantships are for a complete academic year and are not available starting in the spring semester. Students are notified by April 15 if they have been granted an assistantship for the next academic year.

TCU adheres to the Code of Ethics of the National Association of Schools of Music: "The acceptance of financial aid or the signing of a declaration of intent to enter a given institution to begin a specific degree or program of study shall not be binding if signed before April 15 of the calendar year of matriculation. In accepting this offer of financial aid from TCU, the student understands that there is a mutual commitment on the part of the student and the institution. The student agrees that after April 15 of the calendar year of matriculation, the student will not consider any other offer of financial aid from an institutional member of the National Association of Schools of Music or any other institution for the purposes of enrolling in a music major program for the academic year except with the express written consent of the music executive of TCU. Institutions shall allow students to choose without penalty among offers of admission and financial aid until April 15 of the calendar year of matriculation. Written declarations of intent become binding on these dates."

Doctoral students may hold an assistantship for a maximum of three years; yearly renewal depends upon the recommendation of the faculty. To have an assistantship renewed, the student must make excellent progress in all aspects of his/her degree plan, display professional and collegial conduct, and fulfill all assistantship duties.

Outside employment is discouraged for students who have financial aid with stipends. The University assumes that the student's primary obligation is to graduate study. The School of Music director and the College of Fine Arts associate dean for Graduate Studies reserve the right to review any outside employment and require that the student modify the commitment to the outside employment or relinquish the financial aid appointment.

DMA Keyboard Proficiency

Certain areas of study require keyboard proficiency.

Composition Keyboard sight reading for composition majors consists of simple four-part, open choral score reading and a demonstrated ability to sight-read multiple lines at a time from a full orchestral or band score at pitch and in common transpositions (F, E-flat, B-flat, A) and tenor or alto clefs. The

selected excerpts, which require moderate piano technical skills, must be transposed to the proper key and sounding octave.

Voice (vocal performance) Perform a piano audition of approximately five minutes. Repertoire presented should be equivalent in difficulty to that of Clementi Sonatinas or J.S. Bach Two-Part Inventions. Pieces need not be memorized. Sight-read song accompaniments of moderate difficulty.

Choral conducting Sight-reading for choral conducting majors consists of four-part, open choral score reading.

Wind instrument conducting Sight-read lines from a full orchestral or band score in common transpositions (F, E-flat, B-flat, A) and tenor or alto clefs. The selected excerpts, which require moderate piano technical skills, must be transposed to the proper key and sounding octave.

Orchestral conducting Two excerpts will be given to the student 24 hours prior to the exam, including four-part strings and four to five woodwinds and/or brass, including at least two transpositions. Two additional excerpts will be given at the exam, including a single line in alto or tenor clef, and a single line in B-flat, F or A transposition.

The student's keyboard proficiency will be determined by an audition; the required skills must be present for candidacy.

DMA Program Specifics

Major Professor

At the time of admission, each student is assigned a faculty member - typically the student's professor in the major area - who serves as adviser and mentor throughout the program. The Major Professor advises on all matters pertaining to the program of study.

The Major Professor typically serve as chair of the student's Doctoral Committee, guiding the preparation of recitals and research for the document or dissertation. The chair of the committee chairs the oral portion of the general exam as well as the final oral defense.

Co-Major Professor

If the Major Professor does not have an earned doctorate, a Co-Major Professor with an earned doctorate will be appointed. In this case, the Co-Major Professor will be the chair of the student's Doctoral Committee, and mentor for the DMA document/dissertation. He/she will also lead the oral exam and defense. The Major Professor and Co-Major Professors must work cooperatively to ensure the student's success in all aspects of the program.

Doctoral Committee

Each student is counseled by a Doctoral Committee that is selected jointly by the student and the Major Professor. The student contacts members of the faculty to secure their willingness to serve on the committee and obtains the signature of each member on the *Appointment of Doctoral Committee* form.

The Doctoral Committee will normally consist of five members:

1. Major Professor
2. Co-Major Professor or another professor from the major area
3. Faculty member from theory/composition
4. Faculty member from musicology
5. Professor from outside the School of Music, or possibly from outside TCU

The chair of the committee will be the Major Professor or Co-Major Professor, following the guidelines above.

The committee approves the Doctoral Committee Report, conducts the oral portion of the general examination, supervises the preparation of the document/dissertation and administers the final oral defense. At the document/dissertation stage, the Doctoral Committee may be reconstituted to provide additional expertise appropriate to the project. Any changes in membership of the Doctoral Committee must receive approval by the director of the School of Music and the associate dean for Graduate Studies.

Doctoral Committee Report

The Doctoral Committee Report affords the opportunity for a thorough review of the student's degree progress. It is normally prepared jointly by the Major Professor and student when the student has earned at least 20 but not more than 30 doctoral credits, using the *Doctoral Committee Report* form on the CFA grad studies website. It is then circulated to all Doctoral Committee members for approval.

The report specifies the requirements for the completion of the degree and thus constitutes an agreement between the student, Doctoral Committee, the School of Music and the College of Fine Arts Graduate Office. It must be accepted by the CFA Graduate Office prior to attempting the general examination.

Residency Requirements

The student must be in residence as a full-time student for two consecutive regular semesters (fall/spring or spring/fall). A minimum of 9 hours of approved coursework and/or approved research must be completed each semester of the year of residence. Depending on the area of study, summer study/coursework may or may not be available. Summer coursework does not count toward residency requirements. Exceptions to this policy must be approved by the director of the SOM and the associate dean.

Transfer Credit

All TCU DMA programs include 60 semester hours of credit. A master's degree of at least 30 hours is a prerequisite for DMA study at TCU.

Up to 12 semester hours of transfer credit earned beyond the master's level may be applied to doctoral degree requirements in accordance with the following rules:

1. The credit hours transferred must represent valid graduate credit from an institution accredited to offer the DMA or equivalent degree.
2. The credit is applicable to the degree program and is approved by the Major Professor and the CFA associate dean for graduate studies.
3. Credit hours in the candidate's major area of concentration may not be transferred.
4. Credit hours transferred must carry a grade of A or B.
5. Credit hours transferred normally cannot be more than five years old at the time of admission or readmission to the degree program.
6. Students whose master's degree program included more than 30 hours may be eligible to transfer up to 6 hours of master's degree work.

DMA Public Performance Requirements

The program content for DMA recitals must be approved one month in advance by the Major Professor. In the case of a lecture recital, an outline of the lecture must accompany the program. The first recital should be presented before the general examination is taken, and at least one recital must be performed after the general examination has been passed.

All members of the Doctoral Committee should be notified of the time, date and location of each recital by the candidate at least two weeks prior to the performance. The committee must also be furnished with the recital program two weeks in advance.

Normally, all doctoral recitals are given on campus. However, with permission of the Major Professor, a student may present a recital off campus. When a recital is given off campus, the Major Professor must be in attendance.

The recital will be evaluated and graded by the Major Professor, who may consult with committee members or other faculty in attendance. The student should send a web link to the recorded performance to all members of his/her Doctoral Committee.

Performance A minimum of three public performances is required. At least two performances must be full-length solo recitals. The remaining performance may be either a lecture recital or chamber music recital. A student who has an opportunity to perform a concerto with orchestra or appear in a major operatic role, or equivalent concert work, may apply for evaluation of such performances as a portion of the recital requirements. Concerto or operatic performances may not be substituted for more than one full-length recital. Such substitution must be approved in advance by the student's Major Professor. Memorization requirements are determined by the faculty in the major area.

Special major area requirements:

Piano pedagogy A student emphasizing piano pedagogy must demonstrate competence both as a performer and as a teacher. To this end, three public performances are required:

1. Full-length solo recital;
2. Second full-length solo recital, a lecture recital (which may be pedagogical in nature) or a chamber music recital in which the piano plays an important musical role
3. Public workshop for piano teachers concentrating on teaching techniques and materials. The public workshop must be at least five hours long. It may be presented off campus, provided the Major Professor is in attendance and the workshop is videotaped.

Composition A student in composition must demonstrate competence as a practitioner of the musical art by presenting two recitals. One recital is a program of original music. The second recital requirement may be satisfied through the presentation of a single recital of original music or the equivalent realized through several performances of original compositions

presented during regular School of Music concerts or recital programs. As appropriate, the student may appear as a soloist, member of a chamber ensemble or as conductor. A student who has the opportunity for a significant off-campus performance of original music may apply for evaluation of that performance as a portion of the second recital requirement. This must be approved by the Major Professor and the Doctoral Committee.

Conducting Three public performances are required. Two of these may be performed by TCU School of Music ensembles; at least one recital must be performed by a group recruited by the student. At least one performance must be full-length concert. The remaining performances may be a lecture recital related to the document/dissertation topic or a compilation of performances compiled in video format. All recitals should be videotaped and shared with the School of Music conducting area faculty for approval. Repertoire should comprise a variety of styles and may make use of large as well as small ensembles. Choice of repertoire and media is made after approval of the Major Professor. Detailed and specific requirements are available from the conducting area faculty.

Recital Recording

Recitals performed in Ed Landreth Hall or PepsiCo Recital Hall will be recorded by School of Music staff. The student must arrange for a recording to be made of any recitals given outside the School of Music or off campus. Recordings made by the SOM are archived by the library.

DMA General Examination

The general examination is designed to evaluate the student's ability to integrate knowledge, apply theoretical concepts, demonstrate skills and draw conclusions. It normally covers coursework completed for the doctoral degree as well as general musical knowledge acquired through prior study and professional experience. It covers music theory, music history, the cognate area and the major area.

Before taking the examination, the student should have completed nearly all of the coursework in music history and theory, and a majority of the major field coursework. The student must receive the approval of his/her Doctoral Committee to take the examination using the *Approval for Taking the DMA General Exam* form available on the CFA Grad Studies website. The form must be signed by all committee members and returned to the CFA Graduate Office. The student must be enrolled in at least 1 graduate credit hour during the semester in which the general examination is taken.

The general exam is both written and oral. The written portion has four parts - music theory, music history, the cognate area and the major area. The exam is given one time per semester, scheduled as needed. All four parts are taken over two days.

Once a student has passed all parts of the written exam, the oral portion may be scheduled usually two to four weeks after the written exam. All members of the Doctoral Committee, including the outside member, must be present when the oral portion of the exam is administered. The oral exam is essentially a "follow-up" to the written exam. The candidate will have an opportunity to clarify or expand on any issues not adequately covered in writing.

After the oral portion of the general exam, the committee will determine if the student has passed or failed. The result will be conveyed by the *Report of DMA General Examination* form. The Major Professor should bring this form to the oral exam. All members of the committee must sign the form, which is then returned to the CFA Graduate Office. If a student fails, he/she may, with permission of the committee, attempt the examination one more time during the following semester or later.

More information about the structure of the exam may be obtained from the CFA Grad Studies website. Students should also consult with the relevant faculty concerning the different sections of the written exam. The written exam is administered by the various divisions: theory, musicology, the cognate area and the major area.

DMA Written Documentation/Dissertation

A 6 hour written document is required for the DMA in performance, piano pedagogy and conducting. The document is normally more limited in scope than a dissertation, but demonstrates high standards of scholarship and contributes to existing knowledge. It is hoped that the final project is suitable for publication.

Composition students produce a full 12-hour dissertation of one or more compositions suitable for publication.

Students should begin thinking about a topic early during the coursework so they may be ready to present the topic proposal as soon as possible during their degree program.

Choosing a Topic

Performance, conducting and pedagogy. The document is normally concerned with such areas as music history, repertoire, performance practices, analyses of major works, human physiology, acoustics, psychology, learning theories, aesthetics, teaching methods and materials, and the editing of lesser-known compositions.

Composition the dissertation comprises one or more major works.

Proposal

Once a potential topic is identified, a written proposal is prepared under the guidance of the Major Professor and possibly other members of the Doctoral Committee. The proposal normally includes an introduction, a discourse on the nature and importance of the topic, the state of current knowledge relevant to the topic, a chapter-by-chapter outline and a bibliography. Sample chapters may also be required. Expectations of the proposal will vary considerably from one major area to another. The Major Professor will ultimately determine the style and scope of the proposal, which will be shaped by the expectations in that particular discipline.

Once the proposal is written, it is submitted to all committee members for comments. Following further revision (if needed), the proposal is considered at a meeting of the entire Doctoral Committee. The student is required to be present at this meeting. Approval of the proposal is indicated on the *Approval of DMA Document/Dissertation Proposal* form. This is signed by all committee members and taken to the CFA Graduate Office.

Document or Dissertation Hours Enrollment

The student should enroll in MUSI 90960/ MUSI 90970 (DMA document) or MUSI 90980/MUSI 90990 (DMA composition dissertation) during any enrollment period in which work on the project or proposal is undertaken. Following the initial enrollment in document or dissertation hours, a student should maintain continuous enrollment during each regular semester in at least 1 hour of document or dissertation until the degree is completed. The 6 or 12 document/dissertation credit hours should be divided as evenly as possible over the semesters in which the work is unfolding; normally this will begin in the fifth semester of study. These hours will at first receive the grade of incomplete. The incomplete grades for document/dissertation remain on the student's record until the project is finished and a final grade is recorded by the Major Professor. Unlike grades in regular coursework, they do not revert to F's automatically.

Document or Dissertation Writing

During the research and writing of the project, the candidate is advised to consult regularly with the Major Professor and, from time to time, with the other members of the Doctoral Committee. The Major Professor bears the primary responsibility for guiding the research efforts of the doctoral candidate and should possess expertise in the topic area as well as skills of scholarship necessary to guide the project to successful completion. When the topic extends beyond the expertise of this faculty member, a Co-Major Professor may serve the best interests of the student. In addition, if the student's Major Professor does not have an earned doctorate, the Co-Major Professor, appointed at the onset of doctoral study, will mentor the project. (See above, Co-Major Professor.) The Major or Co-Major Professor supervises the project to ensure exhaustive research of the topic, a thorough and complete report of the findings, a logical organization of the paper, correct grammar, proper spelling, scholarly writing style and appropriate format. Before other members of the Doctoral Committee receive the paper for review (either in part or whole), the paper should be at a stage of progress and level of scholarship suitable for critical examination.

Each committee member brings his/her own area of expertise to bear on the paper and scrutinizes it for weaknesses in research, content, organization and general scholarship. In the case of disagreement between committee members, the Major Professor (chair of the Doctoral Committee) will have final authority.

A style guide and instructions for the document/dissertation may be found on the CFA Grad Studies website. This guide includes samples for the title and signature page. Since all TCU theses and documents/dissertations are electronically archived, previous successful DMA projects may be downloaded from the TCU library repository. The student should examine these works. URL links to the repository are provided in the style guide.

Completing and Defending the Document/Dissertation

DMA Final Oral Examination

The following timeline assumes that the student has worked for several semesters on the project and that the Major Professor and committee

members have provided sufficient input and guidance. The candidate must enroll in at least 1 graduate hour during the semester in which the project is completed and the final oral defense is taken. For each semester, the CFA Graduate Office will post deadlines that must be followed in order to complete the project and graduate. These dates will vary from year to year, but essentially will be as follows:

Week 2: The candidate must file an *Intent to Graduate* form in the CFA Graduate Office by this date. A non-refundable fee is charged when the intent is filed. Candidates should not file the intent without reviewing the deadlines and obtaining permission from the Major Professor.

Week 6: The completed document/dissertation must be available for the committee by this time. Minor revisions may take place during the weeks following this date. If the committee approves, the final oral defense may be scheduled.

Week 11: Date of the final oral defense should be agreed upon and set by this time. The candidate will schedule the exam and notify the CFA Graduate Office of the date using the defense scheduling form. To allow adequate time for preparation of questions, the candidate will provide a .pdf of the finished document/dissertation to each member of the committee two weeks before the defense.

Week 15: The final oral defense must be completed by this date. The defense is a discussion of the document/dissertation. At least four members of the committee, including the Major Professor, must be present. Following a decision on the candidate's defense, those committee members present will grade and sign the *Report on the Final Oral Defense* form. The Major Professor will deliver the form to the CFA Graduate Office.

Week 16: The candidate will submit a .pdf of the final document/dissertation following the instructions posted at lib.tcu.edu/NDLTD and the CFA Graduate Studies website. Copyright may be obtained; the candidate must pay the fee for this optional service. The School of Music also requires a bound copy of the document/dissertation for its archives. Electronic submission of the final version, including any changes suggested at the oral defense, must be completed by the Monday before graduation.

The major professor must turn in a course grade for the document/dissertation by the Wednesday before graduation. This grade will replace all previous incomplete grades for document or dissertation hours.

Week 17: Degree awarded. Congratulations!

Time Limit

The DMA degree must be completed within 10 years of matriculation into the DMA program. Extension of the time limit must be applied for in writing to the director of the School of Music, who will then make a recommendation to the associate dean. The letter should explain why the candidate did not complete the degree within the time limit and should present a schedule for completion.

Revised February 2018.

DMA Music Degree Program Requirements

Performance with Cognate in Music Theory or History

MUSP 70110-70610	Lessons on major instrument	18
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSP 80991	DMA Recital III	1
	Music Theory Courses	9
	Music History Courses	9
	Cognate	6
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	7
Subtotal: 60		

* Six additional credits in music history or theory

MUSP 70110-70610: six semesters

Performance with Cognate in Composition

MUSP 70110-70610	Lessons on major instrument	18
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSP 80991	DMA Recital III	1
	Music Theory Courses	9
	Music History Courses	9
MUSI 60630	Composition	1.00-6.00
MUSI 60801	Composition Seminar	1
	Composition Electives	2
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	4
Subtotal: 60		

*Admission to the composition cognate is determined by the composition faculty; ability to do graduate-level work in composition is a prerequisite.

MUSP 70110-70610: six semesters

Performance with Cognate in Voice Pedagogy

MUSP 70110	Doctoral Voice	12
MUSP 70110	Doctoral Voice (Vocal Coaching)	6
MUSP 80961	DMA Lecture Recital	1
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
	Ensembles-Opera	2
MUSI 60064	Advanced Vocal Pedagogy Seminar	4
MUSI 60072	Technology in Voice Teaching	2
MUSI 60052	Voice Repertoire Management	2
MUSI 60041	Voice Pedagogy Practicum	1
MUSI 60041	Voice Pedagogy Practicum	1
	Pedagogy Elective	2-3
	Music-History-Courses	6-9
	Music-Theory-Courses	6-9
MUSI 90970	DMA Document	1.00-6.00
	Electives	4-5
Subtotal: 60		

*Advanced courses in music theory and music history with a minimum of two courses in an area.

Pedagogy Electives is chosen from MUSI 50063, MUSI 60041, MUSI 60062, MUSI 60016 or speech communications disorders courses.

MUSI 70110: 6 semesters each

Piano Performance with Cognate in Piano Pedagogy

MUSP 70210	Doctoral Piano	18
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSP 80961	DMA Lecture Recital	1
	Piano Pedagogy Courses	11-12
	Music Theory Courses	9

	Music History Courses	9
MUSI 60080-60170	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	4.5

Subtotal: 60

Piano Pedagogy courses are chosen from MUSI 60203, MUSI 60213, MUSI 60223, MUSI 60233, MUSI 60243, MUSI 60913, MUSI 60923, MUSI 61230, MUSI 60400

MUSI 70210: six semesters

Piano Pedagogy DMA Requirements

MUSP 70210	Doctoral Piano	1.00-3.00
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSI 80971	Doctoral Pedagogy Workshop I	1
MUSI 80981	Doctoral Pedagogy Workshop II	1
	Piano Pedagogy courses	12-14
	Music Theory Courses	9
	Music History Courses	9
MUSI 60080-60170	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	4-6

Subtotal: 60

Piano Pedagogy Courses are chosen from MUSI 60203, MUSI 60213, MUSI 60223, MUSI 60233, MUSI 60243, MUSI 60913, MUSI 60923, MUSI 61230, MUSI 60400

MUSI 70210: six semesters

Composition with Cognate in Music History

MUSI 70630	Doctoral Composition	1.00-3.00
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSI 60801	Composition Seminar	1
	Music Theory Courses	12
MUSI 70903	Music Theory Treatise	3
	Music History Cognate	15
MUSI 60010-60360	Ensembles	1
MUSI 90980	DMA Composition Dissertation	1.00-6.00
MUSI 90990	DMA Composition Dissertation	1.00-6.00
	Electives	2

Subtotal: 60

Music Theory Courses/Treatise-All DMA degrees in composition include the equivalent of a cognate in music theory.

MUSI 70630: four semesters

Composition with Cognate in Performance

MUSI 70630	Doctoral Composition	1.00-3.00
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1

MUSI 60801	Composition Seminar	1
	Music Theory Courses	12
MUSI 70903	Music Theory Treatise	3
	Music History Courses	9
MUSP 60110-60610	Applied Music Lessons	6
	Performance Electives	2
MUSI 60010-60360	Ensembles	1
MUSI 90980	DMA Composition Dissertation	1.00-6.00
MUSI 90990	DMA Composition Dissertation	1.00-6.00

Subtotal: 60

Admission to the performance cognate is by audition and must be approved by the appropriate applied music faculty.

Music Theory Courses/Treatise-All DMA degrees in composition include the equivalent of a cognate in music theory.

MUSI 70630: four semesters

Conducting with Cognate in Music History or Theory

MUSI 70220	Doctoral Conducting	1.00-3.00
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSP 80991	DMA Recital III	1
MUSI 60232	Score Reading	2
	Music History Courses	9
	Music Theory Courses	9
	Cognate	6
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	1.00-6.00
	Electives	5

Subtotal: 60

MUSI 70220 must include lessons in orchestral, band and choral conducting.

Music Theory Courses must include MUSI 70203 Analysis for Performance and MUSI 50970 Special Studies: Advanced Orchestration.

Music History Courses- MUSI 50403 Symphonic Literature, MUSI 50423 Choral Literature, MUSI 50970 Special Studies: Band Literature are required.

Cognate-Six additional credits in music history or theory

MUSI 70220:six semesters

Conducting with Cognate in Performance

MUSI 70220	Doctoral Conducting	1.00-3.00
MUSP 80971	DMA Recital I	1
MUSP 80981	DMA Recital II	1
MUSP 80991	DMA Recital III	1
MUSI 60232	Score Reading	2
	Music Theory Courses	9
	Music History Courses	9
MUSP 60110-60610	Applied Music Lessons	6
MUSP 70971	Recital I	1
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	1.00-

Electives	4
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Subtotal: 60

Admission to the performance cognate is by audition and must be approved by the appropriate applied music faculty.

MUSI 70220 must include lessons in orchestral, band and choral conducting.

Music Theory Courses must include MUSI 70203 Analysis for Performance and MUSI 50970 Special Studies: Advanced Orchestration.

Music History Courses- MUSI 50403 Symphonic Literature, MUSI 50423 Choral Literature, MUSI 50970 Special Studies: Band Literature are required.

MUSI 70220: six semesters

Music, MM

Degree programs may be pursued in Master of Music with emphasis in performance, pedagogy, musicology, music theory, composition and the Master of Music Education.

Prerequisites

To apply to the Master of Music program, students must possess a Bachelor of Music or its equivalent, with a major in the area of proposed graduate study, including sophomore-level credit in an approved foreign language in the case of prospective majors in musicology or theory/composition.

Application

Application to the Master of Music program requires students to first complete the TCU Graduate Admission Application. The TCU Graduate Admission Application is available at www.graduate.tcu.edu.

Audition

Students applying in performance must present a satisfactory, in-person audition. In exceptional circumstances, permission may be granted for a video audition to be considered for admission.

Before an audition can be scheduled, applicants must submit the following:

- The School of Music Audition Request Application (available online)
- A résumé listing education and professional musical experience
- A personal statement detailing a professional experience or professional career goals
- Music Theory Diagnostic Exam

These required materials are uploaded through the School of Music Web site. Complete directions are available at: www.music.tcu.edu/GRAD_admissions.asp.

Additional Requirements

Students applying in the areas of musicology, theory/composition, and music education are required to submit acceptable GRE scores prior to admission. Students applying for admission to all other Master of Music programs are not required to take the GRE, but are strongly encouraged to do so and submit scores prior to admission. The test scores, along with other materials, provide valuable information aiding in the evaluation and placement of students.

All entering graduate students are required to take placement examinations during the first week of residency, and must satisfy keyboard and theory proficiencies. All portions of the test must be satisfactorily completed prior to admission to candidacy.

Students majoring in musicology or theory/composition must submit examples of scholarly or creative work prior to admission. Scholarly papers, compositions (scores and recordings), and original computer programs are appropriate. These materials should be mailed directly to the Office of Graduate Studies. Complete directions are available at: www.music.tcu.edu/GRAD_admissions.asp.

Every graduate student must participate in an ensemble for a minimum of two semesters during residency. In special circumstances related to stipend or assistantship, ensemble participation may be required for additional semesters.

Application Deadlines

For full consideration, applicants seeking admission to any music master's program should complete their application by March 1 to be considered for fall matriculation.

International Student Requirements

Applicants from countries other than the United States must meet the same admission standards required of all other applicants. In addition, before being admitted to the School of Music, each international student must demonstrate proficiency in the English language by taking the Test of English as a Foreign Language (TOEFL) Exam. The University requires an official iBT score of 80 for admission.

Performance majors must earn 30-34 hours in approved graduate courses, including at least 12 hours in studio instruction, and present two recitals, the content and format of which shall be determined and evaluated by the student's Graduate Advisory Committee.

Pedagogy, musicology, music theory and composition majors must earn 34-36 hours in approved graduate courses, with at least half of the courses, including thesis where appropriate, in the principal field.

The piano pedagogy curriculum is designed to provide advanced training in the field of piano pedagogy by preparing students to teach studio and class piano, conduct research in their field, write papers suitable for publication and present lectures and workshops on pedagogical topics.

A comprehensive oral examination must be passed before the completion of all programs. This examination is given after the final recital or project is completed.

Master of Music Degree Programs

String Requirements

String Performance

MUSP 60310-60360	Lessons	12
MUSI 60120	Symphony Orchestra	1
MUSI 60120	Symphony Orchestra	1
MUSI 60120	Symphony Orchestra	1
MUSI 60120	Symphony Orchestra	1
MUSI 60080	Chamber Music	1
MUSI 60080	Chamber Music	1
MUSP 70971	Recital I	1
MUSP 70981	Recital II	1

Musicology

MUSI 60103	Bibliography and Research Techniques	3
	Electives in Music History	3

Music Theory

MUSI 50203	Musical Structure and Style	3
	Electives in Music Theory	3

Electives

Electives	3
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Subtotal: 32

MUSP 70981- The recital shall be no less than 60 minutes in length, not including intermission. Two copies of a good quality recording of the final recital must be submitted to the Graduate Studies Office before the student can be cleared for graduation. This is the student's responsibility.

Music Theory Requirements

Music Theory

MUSI 50203	Musical Structure and Style	3
MUSI 50523	Linear Analysis	3
MUSI 60553	Analysis of Music: 1880-1950	3
MUSI 60800	Seminar in Music Theory	1.00-20.00

Additional Courses in Music Theory or Composition			
MUSI 60800	Seminar in Music Theory	1.00-20.00	
MUSI 60000	Music Pedagogy	1.00-20.00	
Musicology/Music Literature/Other Fields of Music			
MUSI 60103	Bibliography and Research Techniques	3	
MUSI 60010-60210	Ensembles	1	
	MUSI 50000 or 60000 Musicology Elective	3	
Electives			
	Electives	5	
Monograph or Research Project			
MUSI 70980	Thesis I	1.00-20.00	
MUSI 70990	Thesis II	1.00-20.00	
			Subtotal: 36

*Chosen from graduate courses in music outside music theory. Recommendations may be made on the basis of undergraduate transcript and placement examinations.

Composition Requirements

Composition			
MUSI 60630	Composition	1.00-6.00	
MUSI 70980	Thesis I	1.00-20.00	
MUSI 70990	Thesis II	1.00-20.00	
Music Theory			
MUSI 50523	Linear Analysis	3	
MUSI 60553	Analysis of Music: 1880-1950	3	
MUSI 60800	Seminar in Music Theory	1.00-20.00	
Musicology/Music Literature/Other Fields of Music			
MUSI 60103	Bibliography and Research Techniques	3	
MUSI 60010-60210	Ensembles	1	
	MUSI 50000 or 60000 Musicology Elective	3	
Electives			
	Electives	5	
			Subtotal: 36

*In the Music Composition degree, composition lessons are continued under the course heading of Thesis, resulting in a capstone composition of significant scope.

**Chosen from graduate courses in music outside music theory. Recommendations may be made on the basis of undergraduate transcript and placement examinations.

Piano Performance Requirements

Piano Performance			
MUSP 60210	Piano	1.00-6.00	
MUSI 60080-	Ensembles	1	

60210			
MUSP 70971	Recital I	1	
MUSP 70981	Recital II	1	
Musicology			
MUSI 60103	Bibliography and Research Techniques	3	
MUSI 50433	Keyboard Literature I Pre-Baroque through Classical	3	
	or		
MUSI 50533	Keyboard Literature II Romantic through Contemporary	3	
Music Theory			
MUSI 50523	Linear Analysis	3	
MUSI 60553	Analysis of Music: 1880-1950	3	
Electives			
	Electives	3	
			Subtotal: 30

MUSI 60080-60210-Piano majors fulfill this two-semester requirement through Piano Accompanying and/or Chamber Music.

MUSI 70971-Each of the two recitals shall be no less than 60 minutes in length. The first recital may, if desired, include a concerto with second piano accompaniment and/or chamber music; this portion, however, must be no more than half the length of the recital.

MUSI 70981 -Two copies of a good quality recording of the final recital must be submitted to the Graduate Studies Office before the student can be cleared for graduation. This is the student's responsibility.

Organ Performance Requirements

Organ Performance			
MUSP Organ	MUPS 60220	12	
MUSI 60080-60210	Ensembles	1	
MUSP 70971	Recital I	1	
MUSP 70981	Recital II	1	
Musicology			
MUSI 60103	Bibliography and Research Techniques	3	
MUSI 50423	Choral Literature	3	
	or		
MUSI 50970	Special Problems	.50-6.00	
Music Theory			
MUSI 50523	Linear Analysis	3	
MUSI 50203	Musical Structure and Style	3	
Electives			
	Electives	5	
			Subtotal: 32

MUSP 70971-The recitals should be one hour in length. The first recital may be a lecture recital, or it could include ensemble or chamber music. However, this recital must include at least 30 minutes of solo performance.

MUSP 70981- Two copies of a good quality recording of the final recital must be submitted to the Graduate Studies Office before the student can be cleared for graduation. This is the student's responsibility. A comprehensive oral examination follows the final recital.

Electives-Recommended electives are MUSI 50212 Choral Conducting MUSI 60700 Special Studies: Keyboard Harmony and/or MUSI 50433 Keyboard Literature.

Collaborative Piano Requirements

Performance

MUSP 60312	Applied Collaborative Piano	8
MUSI 60080	Chamber Music	1
	or	
MUSI 60170	Piano Accompanying	1
MUSI 60141	Collaborative Piano Practicum	4
MUSP 71971	Collaborative Piano Recital I	1
MUSP 72971	Collaborative Piano Recital II	1

Musicology

MUSI 60103	Bibliography and Research Techniques	3
	MUSI 50000 or 60000 Musicology Electives	3

Music Theory

MUSI 50000 or 60000 Music Theory Elective	6
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Vocal & Instrumental Electives (5 hours)

MUSI 60191	Vocal Coaching for Pianists	1
MUSI 60232	Score Reading	2
MUSI 50212	Choral Conducting	2
MUSP 60110	Voice	1-2
MUSI 60180	Collegium Musicum	1
MUSI 60232	Score Reading	2
MUSI 50222	Instrumental Conducting	2
MUSP 60240	Harpichord	1-2

Subtotal: 32

Piano Pedagogy Performance Requirements

Performance

MUSP 60210	Piano	8
MUSI 60080-60210	Ensembles	1
MUSP 70971	Recital I	1

Pedagogy

MUSI 60203	Graduate Piano Pedagogy and Practicum I	3
MUSI 60213	Graduate Piano Pedagogy and Practicum II	3
MUSI 60223	Current Trends and Research in Piano Pedagogy	3
MUSI 61231	Internship in Teaching	1
MUSI 60913	Psychology of Music	3
MUSI 70972	Lecture Recital	2

Musicology

MUSI 60103	Bibliography and Research Techniques	3
MUSI 50433	Keyboard Literature I Pre-Baroque through Classical	3
	or	
MUSI 50533	Keyboard Literature II Romantic through	3

Contemporary

Music Theory

MUSI 50523	Linear Analysis	3
	or	
MUSI 60553	Analysis of Music: 1880-1950	3

Subtotal: 34

MUSI 60080-60210 Piano pedagogy majors fulfill this two-semester requirement through Accompanying and/or Chamber Music.

Piano pedagogy majors must pass the Keyboard Skills Exam or take Functional Piano MUSI 20071 and 20081

Voice Pedagogy Emphasis Requirements

Performance

MUSP 60110	Voice	8
MUSI 60100	Opera Studio	2
	or	
MUSI 60040	Concert Chorale	2
MUSP 70971	Recital I	1

Pedagogy

MUSI 50053	Introduction to Voice Pedagogy	3
MUSI 50063	Comparative Voice Pedagogy	3
MUSI 60052	Voice Repertoire Management	2
MUSI 60162	Techniques for the Singer-Actor	2
MUSI 60041	Voice Pedagogy Practicum	1

Musicology/Music Literature

MUSI 60103	Bibliography and Research Techniques	3
	Musicology Music Literature Elective	3
	Music Theory	3

Subtotal: 34

Electives

Electives	3
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Subtotal: 34

MUSI 70971-The recital shall be no less than 60 minutes in length, not including intermission. Two copies of a good quality recording of the final recital must be submitted to the Graduate Studies Office before the student can be cleared for graduation. This is the student's responsibility.

MUSI 60041-Voice Pedagogy Practicum may be repeated for elective credit.

Electives are chosen from graduate courses in music or related academic fields. Recommendations may be made on the basis of undergraduate transcript and placement examinations.

Voice Performance Emphasis Requirements

Performance

MUSP 60110	Voice	8
MUSI 60100	Opera Studio	2
	or	
MUSI 60040	Concert Chorale	2
MUSP 70971	Recital I	1
MUSP 70981	Recital II	1

Pedagogy

MUSI 50053	Introduction to Voice Pedagogy	3
MUSI 60052	Voice Repertoire Management	2

MUSI 60162	Techniques for the Singer-Actor	2
Musicology/Music Literature		
MUSI 60103	Bibliography and Research Techniques	3
	Musicology Music Literature Elective	3
	Music Theory	6
Electives		
	Electives	3
		Subtotal: 34

MUSI 70971-Each recital shall be no less than 60 minutes in length, not including intermission. A major operatic role may be substituted for one of the recitals.

MUSI 70981-Two copies of a good quality recording of the final recital must be submitted to the Graduate Studies Office before the student can be cleared for graduation. This is the student's responsibility.

Electives are chosen from graduate courses in music or related academic fields. Recommendations may be made on the basis of undergraduate transcript and placement examinations.

Wind and Percussion Performance Requirements

Performance		
MUSP 60310-60710	Lessons	12
MUSI 60010-60210	Ensembles	1
MUSP 70971	Recital I	1
MUSP 70981	Recital II	1
Musicology		
MUSI 60103	Bibliography and Research Techniques	3
MUSI 60500	Seminar in Musicology	1.00-20.00
Music Theory		
MUSI 50523	Linear Analysis	3
MUSI 60553	Analysis of Music: 1880-1950	3
Electives		
	Electives	3
		Subtotal: 30

MUSI 60010-60210 is a two-semester requirement.

MUSI 70981-A good quality tape recording of the final recital must be submitted in two copies to the Graduate Studies Office, before the student may be cleared for graduation. This is the student's responsibility. A comprehensive oral examination follows the final recital.

Musicology Requirements

Music History Courses		
MUSI 60103	Bibliography and Research Techniques	3
MUSI 60500	Seminar in Musicology	1.00-20.00
MUSI 70950	Special Problems in Musicology	1.00-20.00
MUSI 70980	Thesis I	1.00-20.00
MUSI 70990	Thesis II	1.00-20.00
	Three additional music history courses	9

Other Requirements		
MUSI 60800	Seminar in Music Theory	1.00-20.00
MUSI 50203	Musical Structure and Style	3
	or	
MUSI 50523	Linear Analysis	3
	or	
MUSI 60553	Analysis of Music: 1880-1950	3
MUSI 60010-60210	Ensembles	1
Electives		
	Electives	3
		Subtotal: 30

Electives are chosen from graduate-level courses (musicology, theory or courses outside the school).

Conducting

Band Conducting Emphasis		
Music Theory		
MUSI 50523	Linear Analysis	3
MUSI 60553	Analysis of Music: 1880-1950	3
Musicology		
MUSI 60103	Bibliography and Research Techniques	3
MUSI 60500	Seminar in Musicology	1.00-20.00
Conducting		
MUSI 50222	Instrumental Conducting	2
MUSI 60232	Score Reading	2
MUSI 50970	Special Problems	.50-6.00
MUSI 60220	Special Studies in Conducting	1.00-4.00
Performance		
MUSP 60410-60610	Lessons	4
MUSP 70971	Recital I	1
MUSP 70981	Recital II	1
Electives		
	Electives	3
		Subtotal: 32

MUSP 70981 -Conducting majors participate as conductors in at least two public performances with major University ensembles. Each candidate for the Master of Music in Conducting must submit two copies of good quality audio and video recordings of both recital appearances to the Graduate Studies Office before the student can be cleared for graduation.

Electives are chosen from graduate courses in music or related academic fields.

Choral Conducting Emphasis

Music Theory

MUSI 50523	Linear Analysis	3
MUSI 60553	Analysis of Music: 1880-1950	3

Musicology

MUSI 60103	Bibliography and Research Techniques	3
MUSI 60500	Seminar in Musicology	1.00-20.00

Conducting

MUSI 50212	Choral Conducting	2
MUSI 60232	Score Reading	2
MUSI 50423	Choral Literature	3
MUSI 60220	Special Studies in Conducting	1.00-4.00

Performance

MUSP 60110	Voice	1.00-6.00
MUSP 70971	Recital I	1
MUSP 70981	Recital II	1
	Electives three chosen from graduate courses in music or related academic fields	3

Subtotal: 32

MUSI 70971, MUSI 70981 - Conducting majors participate as conductors in at least two public performances with major University ensembles. Each candidate for the Master of Music in Conducting must submit two copies of good quality audio and video recordings of both recital appearances to the Graduate Studies Office before the student can be cleared for graduation.

Electives are chosen from graduate courses in music or related academic fields.

Orchestral Conducting Emphasis

Music Theory

MUSI 50523	Linear Analysis	3
MUSI 60553	Analysis of Music: 1880-1950	3

Musicology

MUSI 60103	Bibliography and Research Techniques	3
MUSI 60500	Seminar in Musicology	1.00-20.00

Conducting

MUSI 50222	Instrumental Conducting	2
MUSI 60232	Score Reading	2
MUSI 50403	Symphonic Literature	3
MUSI 60220	Special Studies in Conducting	1.00-4.00

Performance

MUSP 60310-60810	Lessons	4
MUSP 70971	Recital I	1
MUSP 70981	Recital II	1

Subtotal: 32

Electives

Electives	3
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Subtotal: 32

MUSI 70971/ MUSI 70981 Conducting majors participate as conductors in at least two public performances with major University ensembles. Each

candidate for the Master of Music in Conducting must submit two copies of good quality audio and video recordings of both recital appearances to the Graduate Studies Office before the student can be cleared for graduation.

Electives are chosen from graduate courses in music or related academic fields.

Music Education, MMEd

Master of Music Education Degree Program Requirements

Music education majors must earn a minimum of 32 hours in approved graduate courses, with at least half of the courses, where appropriate, in the principal field of instrumental, choral or general music. This degree is designed to strengthen musical scholarship and performance, to promote philosophical and psychological understanding in music education, and to provide opportunities to explore specific interests of the individual student through special topics courses. To apply to the Master of Music Education program, students must possess a Bachelor of Music or its equivalent, with a major in music education.

General Courses

MUSI 60913	Psychology of Music	3
MUSI 60923	Philosophy of Music Education	3
MUSI 60300	Special Problems in Music Education	1.00-20.00

Education Courses 6

Musicology

MUSI 60103	Bibliography and Research Techniques	3
	Music Theory	3
MUSI 50523	Linear Analysis	3
	or	
MUSI 60553	Analysis of Music: 1880-1950	3

Performance

MUSP 60110-60710	Lessons	3-6
MUSI 60010-60210	Ensembles	1

Subtotal: 32

Electives

Electives	1-4
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Subtotal: 32

MUSI 60300 - A comprehensive oral examination follows submission of the final Special Problems Report.

MUSP 60110/ MUSI 60710 - With permission, students may take Performance for six semester hours, including a public recital.

Electives - Majors with keyboard concentration fulfill this two-semester requirement through Accompanying and Chamber Music ensembles.

Piano Pedagogy

MUSI 60913	Psychology of Music	3
MUSI 60923	Philosophy of Music Education	3
MUSI 60203	Graduate Piano Pedagogy and Practicum I	3
MUSI 60213	Graduate Piano Pedagogy and Practicum II	3
MUSI 60223	Current Trends and Research in Piano Pedagogy	3
MUSI 60231		

EDEC 60133	Play and Creativity	3
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EDUC 60810	or Seminar in Educational Research	1.00- 3.00
MUSI 60300	Special Problems in Music Education	1.00- 20.00
Musicology		
MUSI 60103	Bibliography and Research Techniques	3
Theory		
MUSI 50523	Linear Analysis	3
	or	
MUSI 60553	Analysis of Music: 1880-1950	3
Performance		
MUSP 60210	Piano	6
MUSI 60010- 60210	Ensembles	1
		Subtotal: 34

MUSI 60080/ MUSI 600X0/ MUSI 51081-Appropriate course determined by student's applied music area; specific ensemble assignment determined upon admission

MUSI 60300 -A comprehensive oral examination follows submission of the final Special Problems Report.

MUSP 60210-With permission, students may take Performance for six semester hours, including a public recital.

MUSI 60010-60210-Majors with keyboard concentration fulfill this two-semester requirement through Accompanying and Chamber Music ensembles.

Artist Diploma (Post-Baccalaureate)

The Artist Diploma is a program for the most advanced and gifted performers, who, by their performance and credentials, demonstrate that they have serious potential to become concert artists. The program is designed to provide intensive study and performance opportunities under the guidance of master teachers in preparation for a concert career.

An audition for the appropriate applied studio faculty is required. Admission to the program is allowed only upon the recommendation of the appropriate applied studio faculty and the approval of the School of Music director.

The Artist Diploma is a three-year program available in both a pre-baccalaureate and a post-baccalaureate track. A minimum cumulative GPA of 3.0 is required to maintain satisfactory academic progress in this program.

Application Deadlines

For full consideration, applicants seeking admission to the Artist Diploma program should complete their application by March 1 to be considered for fall matriculation.

Program Requirements

The Artist Diploma (post-baccalaureate) requires 33 hours total.

Studio Performance Lessons: 26 hours

MUSP 50XX0 MUSP 50XX0

Recitals: 4 hours

MUSP 50961	Artist Diploma Recital I	1
MUSP 50971	Artist Diploma Recital II	1
MUSP 50981	Artist Diploma Recital III	1
MUSP 50991	Artist Diploma Recital IV	1

Chamber Music/Ensemble/Collaborative Piano: 3 hours

60800	Seminars in Music Theory	1
MUSI 600X0	MUSI 600X0	
MUSI 51081	Artist Diploma Post-Baccalaureate Collaborative Piano	1

Addran College of Liberal Arts

In 1873, Addison and Randolph Clark established Addran Male and Female College in Thorp Spring, Texas. That institution later moved to Fort Worth and became Texas Christian University. Though the University has grown and expanded into areas that the Clark brothers could not have conceived, the Addran College of Liberal Arts perpetuates their vision of education and the centrality of the liberal arts that lay at its core.

Today, Addran offers the MA and Ph.D. in English and History, the Ph.D. in Rhetoric and Composition, and the MS in Criminal Justice. Four departments (economics; philosophy; religion; sociology and anthropology) offer a limited number of courses at the graduate level in which graduate students from across the University can enroll. Additionally, faculty in other Addran departments also hold appointments to the graduate faculty, allowing them to work with graduate students in various capacities, including serving on thesis or dissertation committees.

English

The English concentration is available for the Master of Arts and the Doctor of Philosophy degrees.

For admission and general requirements, see degree requirements (p. 8) for specific departmental requirements and supplementary information.

English MA/Ph.D. and Rhetoric and Composition Ph.D. Admission Requirements

To pursue the MA in English, students must earn a B.A. or equivalent, with credit in English equivalent to the TCU 30-semester-hour major. To pursue the Ph.D., students must earn a B.A. or equivalent, with credit in English equivalent to the TCU 30-semester-hour major and sophomore-level credit in a foreign language. Applicants with less preparation may be admitted conditionally but must take such additional courses as prescribed by Addran College and the departmental director of graduate studies. Applicants must present recent GRE scores (less than five years old) with the admission application. Applicants must also submit a writing sample (10-20 pages, exclusive of notes and works cited) that demonstrates appropriate academic and writing skills needed for success in an English graduate program. Applicants should include with their materials a personal statement outlining career goals, explaining how they match the English Program at TCU, and three to five references relevant to postgraduate work in English studies.

English, MA

The program requires at least 30 semester hours of credit approved by the director of graduate studies in addition to any coursework required because of inadequate prerequisites. The 30 hours include ENGL 60113 Introduction to Graduate Studies and the Profession of English and 6 hours for a thesis and may include up to 9 hours for an approved minor or approved courses in a related field or fields.

Accelerated MA in English

The accelerated MA in English option allows outstanding TCU undergraduates with a declared English or writing major to earn both a **Bachelor's and a Master's degree in English in five** years. Students may apply for admission into the Accelerated MA in English program after earning 60 hours of undergraduate coursework. Students intending to pursue this accelerated option should tell the English Department as early as possible in order to ensure proper advising.

For admission consideration, students must submit a graduate program application packet. The application process is selective; only students with an outstanding record and strong recommendations will be considered. If admitted, students will complete a 30-hour graduate degree plan including ENGL 60113 *Introduction to Graduate Studies and the Profession of English*. Students will complete up to 12 hours of graduate coursework (four graduate courses) during the last year of undergraduate study. Those 12 hours may also fulfill requirements for the undergraduate English or writing major. Candidates must work with the graduate adviser to determine how the courses will apply to the MA degree.

At the end of a student's fourth year, assuming that all other graduation requirements are met, the student earns the baccalaureate degree (in English or writing). During the fifth year, students must take an additional 18 hours to complete the Accelerated MA in English degree, including ENGL 60113 *Introduction to Graduate Studies and the Profession*, as well as 6 thesis hours.

English, Ph.D.

Course Requirements

Students must complete for credit a minimum of 54 semester hours of graduate courses, exclusive of 12 credit hours for the dissertation. Postgraduate hours completed more than seven years prior to a student's admission into TCU's English graduate program may not count toward requirements; the graduate adviser will determine applicable credit on a case-by-case basis.

Of the 54 hours, at least 36 must be taken at TCU. Students must take 12 hours in Foundations to the Profession and remaining hours in electives, as outlined below.

I. Foundations to the Profession (12 hours)

Students must complete 12 hours in coursework that addresses each of the four areas listed below. The course in critical theory may be satisfied through transfer/waiver.

ENGL 60513	Teaching College Composition	3
ENGL 60113	Introduction to Graduate Studies and the Profession of English	3
ENGL 60803	Literature Pedagogy	3
ENGL 60123	Introduction to Modern Critical Theory	3

II. Electives (24 hours)

Students must complete a minimum of 12 hours in coursework that addresses at least four of the six areas listed below. Although each 3-hour seminar typically addresses two of the areas, students will receive credit for only one area per course.

- Genre
- Historical Engagement
- National/Transnational/Comparative Approaches
- Research Methods/Methodology
- Textual/Scholarly Production
- Theory

Students should select their additional coursework based on intended area(s) of specialization, in consultation with the director of graduate studies.

Language Requirement

Reading knowledge of one approved foreign language, typically selected from French, German, Spanish or Latin, is required. Other languages may be offered on approval of the Departmental Graduate Committee, but the language should be the one most appropriate to the student's research, field of concentration or professional development. This requirement may be met by satisfying the general University statement under Ph.D. Degree Requirements or by any other means approved by the Departmental Graduate Committee. The language requirement must be satisfied before the student can be admitted to candidacy for the Ph.D. degree.

Examinations

A student takes qualifying comprehensive examinations, consisting of a minimum of two exams in two different areas, when she or he has completed for credit 48-54 hours of graduate courses, of which 36 must be from TCU; has completed requisite coursework; and has met the language requirement. **These examinations are based on the student's areas of concentration.** The student and his or her advisory committee will determine the areas to be covered by the exams. A student who fails one or more areas of the examinations may retake the failed area(s) again, but a second failure on any area of the examination bars the student from candidacy.

Dissertation

Doctoral students must complete a dissertation that demonstrates their ability to do independent and original research, and to synthesize their findings and existing knowledge into a unified document. A candidate must present a dissertation prospectus to his/her advisory committee for discussion, suggestions and approval before proceeding with the project. The candidate's oral defense of the dissertation is a public lecture based upon his/her findings, presented to the Department of English graduate faculty, graduate students and other interested persons within the academic community.

Advisory Committee

Before taking qualifying examinations, a student requests through the director of graduate studies that the associate dean of AddRan College of Liberal Arts appoint an advisory committee of four members. The dissertation director normally serves as chair of the student's advisory committee. One member of the committee may come from outside the Department of English if the candidate's dissertation project requires such additional expertise. The advisory committee suggests concentration courses, prepares the qualifying examinations, approves the student for candidacy and directs the dissertation.

Academic Advising

Students are advised by the departmental director of graduate studies throughout their doctoral programs.

Rhetoric and Composition, Ph.D.

Course Requirements

Students must complete for credit a minimum of 54 semester hours of graduate courses hours exclusive of 12 credit hours for the dissertation. Postgraduate hours completed more than seven years prior to a student's admission into TCU's graduate program in Rhetoric and Composition may not count toward requirements; the graduate adviser will determine applicable credit on a case-by-case basis.

Of the 54 hours, at least 36 must be taken at TCU. Students must take 9 hours in Foundations to the Profession and remaining hours in electives, as outlined below.

I. Foundations to the Profession (9 hours)

Students must complete 9 hours in coursework that addresses each of three areas:

ENGL 60513	Teaching College Composition	3
ENGL 60113	Introduction to Graduate Studies and the Profession of English	3
ENGL 60723	Research Practices in Composition and Rhetoric	3

II. Electives (27 hours)

Students must complete a minimum of 12 hours in coursework that addresses at least four of the six areas listed below. Although each 3-hour seminar typically addresses two of the areas, students will receive credit for only one area per course.

- Rhetoric and Culture
- Composition and Literacy
- Pedagogy
- Digital Humanities and Multimedia
- Textual/Scholarly Production
- Theory

Students should select their additional coursework based on intended area(s) of specialization, in consultation with the director of graduate studies.

Language Requirement

Reading knowledge of one approved foreign language, typically selected from French, German, Spanish or Latin, is required. Other languages may be offered on approval of the Departmental Graduate Committee, but the language should be the one most appropriate to the student's research, field of concentration or professional development. This requirement may be met by satisfying the general University statement under Ph.D. Degree Requirements or by any other means approved by the Departmental Graduate Committee. The language requirement must be satisfied before the student can be admitted to candidacy for the Ph.D. degree.

Examinations

A student takes qualifying comprehensive examinations, consisting of a minimum of two exams in two areas, when she or he has completed for credit 48-54 hours of graduate courses, of which 36 must be from TCU; has completed requisite coursework; and has met the language requirement. **These examinations are based on the student's areas of concentration.** The student and his or her advisory committee will determine the areas to be covered by the exams. A student who fails one or more areas of the examinations may retake the failed area(s) again, but a second failure on any area of the examination bars the student from candidacy.

Dissertation

Doctoral students must complete a dissertation that demonstrates their ability to do independent and original research, and to synthesize their findings and existing knowledge into a unified document. A candidate must present a dissertation prospectus to his/her advisory committee for discussion, suggestions and approval before proceeding with the project. The candidate's oral defense of the dissertation is a public lecture based upon his/her findings, presented to the Department of English graduate faculty, graduate students and other interested persons within the academic community.

Advisory Committee

Before taking qualifying examinations, a student requests through the director of graduate studies that the associate dean of AddRan College of Liberal Arts appoint an advisory committee of four members. The dissertation director normally serves as chair of the student's advisory committee. One member of the committee may come from outside the Department of English if the candidate's dissertation project requires such additional expertise. The advisory committee suggests concentration courses, prepares the qualifying examinations, approves the student for candidacy and directs the dissertation.

Academic Advising

Students are advised by the departmental director of graduate studies throughout their doctoral programs.

Comparative Race and Ethnic Studies Graduate Certificate

A Graduate Certificate in Comparative Race and Ethnic Studies (CRES) is available to TCU graduate students as a supplement to existing master's and doctoral degree programs. CRES critically examines race and ethnicity as an essential step in becoming ethical citizens and leaders in today's global community. It is an academic and community-oriented program that values respect, inclusiveness, creative expression, dialogue, engagement, inquiry, and academic excellence. The certificate recognizes a student's intensive engagement with issues in Race and Ethnic Studies in the context of her/his regular disciplinary graduate work. A Graduate Certificate in CRES signifies a TCU graduate student has adequately demonstrated a commitment to the CRES program's mission and demonstrated competencies in its learning outcomes. Students may also add a supplemental Concentration in Research and/or Pedagogy.

Admission Requirements

A student must be enrolled in a TCU master's or doctoral program approved by the Comparative Race and Ethnic Studies program to participate. See the program website for a list of eligible programs. Admission to the CRES Graduate Certificate is automatic if the student has full good standing in her/his graduate program as certified by the Director of Graduate Studies of the student's home program or his/her College's Associate Dean of Graduate Studies.

For admission to the supplemental Concentration in Research and/or the Concentration in Pedagogy programs, the student must have already completed a minimum of 6 hours of the CRES Graduate Certificate requirements (described below), including CRES 60003, and have full good standing in her/his graduate program as certified by the program's Director of Graduate Studies or his/her College's Associate Dean of Graduate Studies.

Application for admission to the CRES Graduate Certificate and the supplemental Concentration in Research and/or Concentration in Pedagogy programs should be made by downloading the admissions form on the CRES website, obtaining the necessary signatures in the student's home program or college, and then delivering it to the Director of Comparative Race and Ethnic Studies.

CRES Graduate Certificate Requirements

The Graduate Certificate in Comparative Race and Ethnic Studies requires 10 semester hours including the required CRES 60003 Graduate Introduction to Comparative Race and Ethnic Studies course and the required CRES 70001 CRES Portfolio. The other six hours of electives consist of CRES-prefixed or CRES-approved courses passed with a grade of "C-" or better.

Program of Study

Required Core Courses: 10 hours

CRES 60003	Graduate Introduction to Comparative Race and Ethnic Studies	3
CRES 70001	Portfolio	1
	Elective Course (CRES prefix or CRES approved)	3
	Elective Course (CRES prefix or CRES approved)	3

CRES Graduate Certificate Portfolio (CRES 70001) 1 hour

To earn a Graduate Certificate in CRES, students must complete the following and demonstrate the appropriate competencies when applicable:

- Provide evidence, such as a paper or project, of a presentation at an academic conference that engages with issues, areas of study, or research that align with the work outlined in the students' CRES Graduate Certificate coursework.
- Demonstrate an application of knowledge gained in the Graduate Certificate coursework either through scholarship and/or community service.
- Develop (and when possible implement) a lesson plan that speaks to the various commitments of the CRES program. The Graduate Certificate Portfolio will be approved by a committee of CRES core faculty appointed by the Director of Comparative Race and Ethnicity.

The remaining six hours of electives may be taken in one or more of the following ways:

- Through pre-approved CRES-designated graduate courses in the student's field of study or in another department (with approval from the Director of Graduate Studies in the student's major field).
- Through an independent study, with approval from the Director of Comparative Race and Ethnic Studies and the Director of Graduate Studies in the student's major field. A memo from the instructor explaining the race and ethnic studies components in this project must be submitted to and approved by the Director of Comparative Race and Ethnic Studies; and
- Through a course that is not CRES-designated, but that includes a substantial race and ethnic studies component. The student's individual research in such a course will be directed towards these issues. No more than three hours of independent study may be applied towards the certificate. Interdisciplinary work is encouraged in the certificate program. However, students who want to take courses outside their discipline should contact the instructor a semester ahead of registration to seek the instructor's permission. Students registering for graduate electives should also be mindful of course prerequisites and follow the registration process accordingly.

An approved list of courses is maintained by the Director of Comparative Race and Ethnic Studies. For more information, contact M.Krochmal@tcu.edu.

Supplemental Concentrations in Research and/or Pedagogy

For admission to the supplemental Concentration in Research and/or the Concentration in Pedagogy programs, the student must satisfactorily complete a minimum of 6 hours of the CRES Graduate Certificate requirements, including CRES 60003, and have full good standing in her/his graduate program as certified by the program's Director of Graduate Studies or his/her College's Associate Dean of Graduate Studies.

Students should submit a second separate application for admission to each supplemental Concentration program to the Director of Comparative Race and Ethnic Studies.

Students may opt to complete one or both of the concentrations.

Concentration in Research

In order for graduate students to achieve the supplemental certification in research a total of six (6) dissertation or thesis hours must be added to their CRES program of study. For these hours to be considered, the student, in consultation with a CRES affiliated faculty member, must demonstrate how their research, such as thesis or dissertation work, meets the aims and objectives of the CRES program.

Concentration in Pedagogy

In order for graduate students to achieve the supplemental certification in pedagogy they must add an additional six (6) hours to their CRES program of study. Students can either take courses that specifically address teaching within comparative race and ethnicity framework and/or be a teaching assistant or instructor of record for a CRES approved course or equivalent.

Criminal Justice

The Department of Criminal Justice offers the Master of Science in Criminal Justice and Criminology. This graduate program emphasizes independent research and analytic thinking in examining topics and issues related to the study of crime and the criminal justice system. Students will apply analytic skills developed in the courses to examine contemporary criminal justice issues, analyze existing research and inform policy. Courses will integrate published research, empirical data and the personal experiences of the instructors and students in the criminal justice field. Students and instructors with a variety of backgrounds and experiences in the criminal justice field will provide a rich and interactive learning environment for those with or without a background in the criminal justice. The program is offered exclusively online with the exception of a two-day orientation that includes some classroom instruction. It is designed for prospective doctoral students, working professionals and college graduates interested in the advanced study of criminal justice and criminology.

Admission Requirements

For unconditional admission, applicants must meet the following requirements set by TCU:

- **A bachelor's degree in from an institution regarded as standard by the University and a regional accrediting agency**
- **A "B" average in either the last 60 hours of undergraduate work or in all undergraduate work**
- **A "B" average in the major field**

The Department of Criminal Justice also requires the following from each applicant:

- A personal statement of no more than 250 words describing academic and professional objectives
- Three letters of recommendation
- A non-refundable application fee of \$60 in the form of a check made payable to TCU

Individuals who do not meet these requirements may be accepted conditionally, in accordance with TCU policy and with the approval of the department chair or program director and AddRan dean. Meeting these minimum requirements does not guarantee admission to the program; it is up to the discretion of the department chair and faculty to select applicants for admission. The department will consider qualified majors in other fields and can take into account life and career experience.

Students not meeting minimum GPA requirements can be considered for admission with supplemental performance predictors such as career experience, GRE exam scores (not required) and additional coursework.

Application Deadlines

Application materials must be received by April 1 to be considered for full consideration.

Criminal Justice, MS

Degree requirements differ depending on whether a student chooses to complete a thesis, which is recommended for those planning on doctoral studies. Since this is a fixed two-year program, students will not choose among course offerings, and no transfer credits will be given.

Thesis Track

30 hours of coursework and 6 hours of thesis work

Year 1

CRJU 61113	Introduction to Online Learning and Critical Thought	3
CRJU 61123	Criminal Justice Systems	3
CRJU 61133	Advanced Social Science Research Methodology	3
CRJU 61143	Social Science Statistics and Probability	3
CRJU 61183	Advanced Criminological Theory	3

Year 2 - including summer

CRJU 61253	Policing	3
CRJU 61263	Courts, Law, and Legal Procedure	3
CRJU 61273	Corrections and Reentry	3
CRJU 61283	Research Writing	3
CRJU 61293	White-Collar Crime	3
CRJU 70980	Thesis	1.00-3.00
CRJU 70990	Thesis	1.00-3.00

The thesis is a paper that must be approved by student's adviser and thesis committee advisory members. It is a product of independent research and should demonstrate the appropriate level of analytic and writing acumen to the standards in the social sciences. Students will meet regularly with their advisers throughout the research and writing process. Each thesis student will enroll in at least 1 credit hour of CRJU 70980 each semester the first year and CRJU 70990 the second year. Three credit hours of thesis must be completed each year.

Non-Thesis Track

30 hours of coursework and 6 hours of applied research project

Year 1

CRJU 61113	Introduction to Online Learning and Critical Thought	3
CRJU 61123	Criminal Justice Systems	3
CRJU 61133	Advanced Social Science Research Methodology	3
CRJU 61143	Social Science Statistics and Probability	3
CRJU 61183	Advanced Criminological Theory	3

Year 2 - including summer

CRJU 61253	Policing	3
CRJU 61263	Courts, Law, and Legal Procedure	3
CRJU 61273	Corrections and Reentry	3
CRJU 61283	Research Writing	3
CRJU 61293	White-Collar Crime	3
CRJU 61193	Applied Research and Policy 1	3
CRJU 61393	Applied Research and Policy 2	3

Non-thesis-track students are required to take two additional courses in order to complete the required 36 hours of degree coursework. CRJU 61193 Applied Research and Policy 1 and CRJU 61393 Applied Research and Policy 2 are designed to incorporate course material, acquired analytic skills, and each student's life and career experience in a group project that assesses a contemporary topic in criminal justice and criminology. Students work

collaboratively, with each submitting independent research and writing, to create a final coherent project as directed by the instructor. Instructors for these courses can be an expert in a particular field.

Leadership, Executive and Administrative Development (LEAD) Certificate

The LEAD certificate is a 12-hour program designed for law enforcement and security professionals in mid to upper level supervisory positions. Two courses are taken concurrently on campus on two evenings each semester for one year. Credits can be transferred to the M.S. in Criminal Justice and Criminology degree, which requires a separate application process. Applicants must have a bachelor's degree in an accredited institution and are required to submit a letter of recommendation from a Chief or equivalent supervisor to be considered for admission. Admission is highly selective.

Required courses:

CRJU 61333	Law Enforcement Policy and Practice
CRJU 61323	Legal Issues in Law Enforcement Management
CRJU 61313	Law Enforcement Management and Leadership
CRJU 61303	Critical Issues in Law Enforcement

History

The history concentration is available on the Master of Arts and Doctor of Philosophy degrees.

Students must earn a B.A. degree or its equivalent with a 24-hour major in history. Applicants lacking these qualifications may be admitted conditionally, but must take such preparatory work as may be prescribed by the departmental graduate committee. Applicants should take the GRE and submit these scores with their admission materials.

Applicants should submit their materials before Feb. 1. Late applications will be accepted but will not have priority of consideration.

History, MA

To be admitted to study in the MA program, an applicant must complete 24 hours of undergraduate history courses and scored at least 500 (old scale) or 153 (new scale) on the verbal portion of the GRE and 4.5 (old scale) or 4.0 (new scale) on the analytical writing portion of the exam.

For the thesis option, a minimum of 30 approved semester hours, including at least 15 in history courses and 6 in thesis, is required. A maximum of nine hours of supporting work in related disciplines is optional. For the non-thesis option, a minimum of 30 approved semester hours is required, including at least 15 hours in history courses. A maximum of 9 hours of supporting work in related disciplines is optional. HIST 50960 Historiography and Bibliography is required of all graduate students.

For specific requirements, consult the Department of History Guide to Graduate Study.

History, Ph.D.

To be admitted to study in the Ph.D. program, an applicant must complete 24 hours of undergraduate history courses and have scored at least 500 (old scale) or 153 (new scale) on the verbal portion of the GRE and 4.5 (old scale) or 4.0 (new scale) on the analytical writing portion of the exam.

Students must also present a strong academic record and provide evidence of an ability to do scholarly research and writing. Even though he/she may have earned an MA degree at TCU, the student must reapply to AddRan College before being admitted to work toward the Ph.D. degree. Letters of recommendation, GRE scores, a statement of purpose and writing sample, and three letters of recommendation are required.

The doctorate is offered in the areas of the U.S. and Latin America history. Students are normally expected to earn the MA degree before continuing toward the Ph.D.

Degree Requirements

1. A suitable number and variety of graduate courses to prepare the student for the qualifying examination and for the writing of the dissertation. In addition to the major area of specialization, the student

also completes coursework in three minor areas, usually 9 hours in each. With approval of the student's graduate committee, as many as 12 hours may be taken outside the department. The doctoral program comprises no fewer than 54 hours of graduate courses for credit exclusive of credit hours for the dissertation.

2. Reading knowledge of one approved foreign language, usually selected from French, German or Spanish. The language should be the one most appropriate to the student's research and fields of concentration. Reading knowledge can be demonstrated by superior performance on the ETS examination, by satisfactory completion of a special course offered by the Department of Modern Languages, by independent study and successful examination by a member of the department fluent in the language, or by achieving at least a "B" in 6 hours of sophomore-level college language courses. The language requirements must be met before submitting the comprehensive portfolio.
3. A comprehensive portfolio consisting of written materials and an oral examination covering two minor fields and the major area of specialization. The student must pass the written portions of the portfolio before taking the oral exam. The student will be allowed two opportunities to pass the oral exam. Upon completion of the comprehensive portfolio, the student is admitted to candidacy. For specifics regarding this examination, see the Department of History Guide to Graduate Study.
4. A doctoral dissertation constituting an original contribution to scholarship or a new synthesis of existing knowledge. The candidate defends the dissertation in a final oral examination.

Harris College of Nursing and Health Sciences

Conditional Admission

Conditional admission of graduate students may be granted upon the recommendation of the department chair or director. No student may remain on conditional status more than one semester without further approval of the department chair or director. Removal of the conditional status is described in acceptance letters to students and requires a minimum of one semester of full-time work with grades of "B" or better in each course. Specific courses to be taken for the semester of full-time work are identified in acceptance letters.

PhD in Health Sciences

Doctor of Philosophy in Health Sciences Program of Study (54 semester credit hours)

Mission Statement:

The mission of this PhD program is to shape the next generation of faculty, scholars, and clinical scientists within the health sciences.

Program Description:

This PhD program will prepare individuals for research and teaching careers in academia and industry. A significant shortage of professors and clinical science leaders exists in many health science disciplines. There is a need to replace and fill these positions now and in the future. To help meet the shortfall of faculty and clinical research scientists, this PhD degree focuses on specific areas within the health sciences in one of two tracks: physical health sciences and social health sciences.

The physical health sciences track focuses on physiological and epidemiological issues related to human health across the lifespan. The social health sciences track focuses on psychological issues affecting human health across the lifespan.

The student will be admitted into a specific area of emphasis based on a declared department/unit affiliation. Each track will have a total of 18 hours of emphasis courses and a research seminar class each semester designed to **develop the student's research interest within that area of emphasis**. A Major Adviser, assigned to each student, will guide the types of emphasis courses based on the program of study. Students will also select a Dissertation Chair either at the beginning of the program or as soon as they identify their research interest area. The PhD in Health Sciences Handbook includes **specifics about the student's Dissertation. Examples of possible emphasis courses for each track are provided below.** Some of the emphasis courses will be focus seminars.

Physical Health Science Track -Emphasis Examples:

Biochemistry (two semesters - 8 hours)

Molecular Biology

Systems Physiology (muscular, cardio, respiratory)

Pharmacology

Stats-specific coursework

Special Topics (e.g., immunology, genetics, thermo-regulation)

Social Health Science Track Emphasis Examples:

Psychology (clinical, exercise, performance)

Sociology (family, cultural, diversity)

Quality of Life

Measurement/Assessment Tools

Theories of Practice

Stats-specific coursework

Special Topics (e.g., vulnerable populations, public health policy, children, pain management, symptom management)

ADMISSION REQUIREMENTS:

All applicants must meet the general requirements for admission to the Graduate School. In addition to these general requirements, Harris College of Nursing and Health Sciences requires the following for admission to the Ph.D. program:

1. A minimum 3.5 grade point average (GPA) on all prior graduate level course work is strongly preferred.

2. A completed course in statistics (adequacy will be evaluated by the committee).
3. A completed graduate level research course.
4. **A completed master's degree or higher in a related field from a program accredited by a nationally recognized accrediting body.**
5. **A completed thesis or comparable project from the master's or higher prepared degree.**
6. Three letters of recommendation. Two of the three must be academic references with at least one of those from a previous graduate program faculty member or administrator.
7. A letter discussing research interest area(s) and professional goals.
8. A current license to practice in related field of study in the U.S. if applicable to the discipline.
9. A curriculum vita or resume.

Applicants who do not meet the 3.5 GPA, but who have a GPA of 3.0 on prior graduate level course work may be considered for provisional admission on an individual basis. Factors that will be considered in the admission decision are GRE, GPA on graduate level course work, research interest, scholarly activities, professional leadership, and work history.

Use the following application deadlines. This is the deadline for all materials to be submitted including the application, all transcripts, reference letters, CV, and letter discussing research interest area and professional goals.

Semester for Admission:

Fall

Submit application no later than:

Feb. 1

PhD Program Requirements

Degree Requirements:

54 credit hours of graduate course work must be taken at TCU. Up to 3 graduate-level courses may be transferred from another school or internally from a pre-PhD graduate degree program allowing a student to meet specific programmatic requirements.

1. 19 credit hours of basic research skills (of which at least nine credit hours include research analysis coursework such as Experimental Design, Mixed Methods, Ethnography, Qualitative Techniques, Regression Analysis, and so on).
2. 18 credit hours in emphasis courses
3. Two years of pre-dissertation research
4. Written and oral qualifying exam
5. 12 hours minimum in dissertation
6. Teaching experience
7. PhD dissertation

Curriculum Sequence

Research Sequencing within the Curriculum Summary:

Year 1: Exposure to different basic research skills obtained through six HCHS courses (exposure to different research labs, writing styles, research methods, statistical designs, faculty from different disciplines within the chosen track). These research courses are bolded on the curriculum sequencing chart below.

Year 2: One research seminar course per semester with the purpose of aligning the student's research interests developed in year 1 with a faculty mentor, if not already established. This year will include heavy involvement in all areas of a faculty mentor's research. The student will also be developing ideas for the dissertation topic.

Year 3: 12 hours of dissertation – minimum to complete degree

Year 1

Fall		
HCHS 70112	Philosophy of Science	2
HCHS 60712	Learning and Instruction	2
HCHS 60021	Research Seminar: Responsible Conduct in Research	1
HCHS	Emphasis Course	TBD
Spring		
HCHS 60783	Teaching Practicum	3
HCHS 60260	Research Seminar: Skills and Techniques	1.00-2.00
HCHS	Quantitative/Qualitative Methods	3
HCHS	Emphasis Course	TBD
Summer		
HCHS	Research Design and Analysis	3
HCHS 70233	Scientific & Grant Writing in the Health Sciences	3
HCHS	Emphasis Course	TBD

Year 2

Fall		
HCHS	Research Design and Analysis II	3
HCHS 60260	Research Seminar: Skills and Techniques	1.00-2.00
HCHS	Emphasis Course	TBD
Spring		
HCHS	Emphasis Course	TBD
HCHS	Emphasis Course	TBD
HCHS 60260	Research Seminar: Skills and Techniques	1.00-2.00
Summer		
HCHS 60260	Research Seminar: Skills and Techniques	1.00-2.00
HCHS	Comp Exams	

Year 3

Fall		
HCHS 90980	Dissertation	1.00-20.00
Spring		
HCHS 90990	Dissertation	1.00-20.00

Grade Requirements

1. A student must maintain a minimum cumulative GPA of 3.0 in order to remain in good standing in the Ph.D. program. A student whose cumulative GPA falls below a 3.0 goes on academic warning and will have the next long semester, or subsequent summer enrollment, to raise their GPA to a 3.0.
2. A student who has earned a grade of "B-" or lower in two Ph.D. courses at the graduate level or who has earned a grade of "B-" or lower twice in the same graduate level course will be removed from the program. For the purpose of removal, a grade of "B-" or lower is counted in the student's academic record, even if the course has been successfully repeated with a grade of "B" or better.

3. A student who receives an "F" in any course, he/she will be dismissed from the program.
4. A student who is admitted to the doctoral program provisionally, based on a low GPA, he/she must complete the first 8 semester credit hours of coursework with a grade of "B" or better in each course. A provisionally admitted student will be dismissed from the program if a grade of "B-" or lower is made in any course during the probationary period.
5. Valid grades are "C" or higher. A grade of "C-" and "D" are not valid grades in this program. Plus/minus grading is at the discretion of the instructor of record for "C" or higher grading.

Teaching Requirements

Teaching undergraduate courses is considered an important part of the graduate training program. Each student is required to participate in four semesters of teaching (equivalent of 3 credit hours of undergraduate coursework per semester). In order to teach in years 2 and 3 of the PhD program, each student must successfully meet the pedagogy I and II course requirements and pass each of those courses with a B or better before moving into the teaching phase. If the teaching requirements are not met, the student will be dismissed from the program.

Residency Requirements

Students are expected to complete a minimum of five consecutive semesters (first two years) of full-time graduate study at Texas Christian University prior to comprehensive exams. Doctoral students holding appointments as teaching fellows or research assistants are considered full-time students for purposes of the residency requirement, provided that the time beyond that required by their appointments is devoted fully to their graduate program. In order to graduate, students must be registered in at least one hour of dissertation during the semester in which they complete degree requirements, and demonstrated enrollment in the semester prior to degree completion as well.

For those accepting a TCU assistantship, the 54 hours as outlined in the curriculum sequence table above must be completed in three consecutive years. If this requirement is not met, a student may continue toward completion of the 54 hours; however, he/she will be required to cover the cost of tuition.

Candidacy Requirements

Upon successful completion of the written and oral comprehensive examinations, a student is accepted to candidacy. The maximum period allowable between matriculation and acceptance to candidacy will be three years. Once in candidacy, a student will have three years to complete the dissertation requirements successfully; this period can be extended only if approved by the Oversight Committee, Major Adviser and the Harris College Associate Dean of Research.

Written and Oral Comprehensive Examinations

After the 42 hours as stipulated in the curriculum sequence chart of non-dissertation courses are completed, each student must pass a written and oral comprehensive examination with a Comprehensive Examination Committee (CEC) composed of faculty involved in the student's coursework to be evaluated. The Associate Dean of Research appoints the Board in consultation with the Department Chair or delegate. These examinations will be written with an oral examination follow up and will be scheduled for the summer after completion of the coursework. Ordinarily, the written and oral comprehensive exams should be completed within one academic semester (including summer) of completing course work. If either exam is failed a second time, the student will be dismissed from the program.

Dissertation Requirements

The dissertation is based upon the successful completion of an original research project. Each student defends his/her dissertation in an oral examination before his/her dissertation chair and committee. Faculty and students are permitted to attend the dissertation defense. Twelve hours of credit is required minimally before the oral exam may commence or be presented/scheduled/defended?

* The PhD in Health Sciences program will be led in each discipline by the following professors:

Kathy Baker, PhD, Nursing (www.nursing.tcu.edu)

James Petrovich, PhD, Social Work (www.socialwork.tcu.edu)

Kay Sanders, PhD, Nurse Anesthesia (www.crna.tcu.edu)

Meena Shah, PhD, Kinesiology (www.kinesiology.tcu.edu)

Chris Watts, PhD, Communication Sciences and Disorders (www.csd.tcu.edu)

Master of Science in Nursing

TCU graduate Nursing offers an innovative online Master of Science in Nursing (MSN).

There are four majors within the degree program: Clinical Nurse Specialist (CNS), Nursing Administration and Leadership, Nursing Education and Clinical Nurse Leader (CNL). There are two role foci for the CNS and Nursing Education majors: Adult-Gerontology or Pediatric.

All didactic coursework is offered online. Clinical practicum and teaching practicum courses are supervised by Nursing faculty in concert with qualified preceptors. Generally, students complete their practicum/residency courses in agencies located in their geographic area. If adequate practicum/residency or preceptor resources are not available in the student's geographic area, concentrated practicum experiences are available in the Fort Worth area.

Admission

Admission is competitive. An individualized approach is used to identify applicants with demonstrated academic achievement and potential, who have strong motivation to succeed in academic study and professional practice, and the potential to function as a leader in advanced practice, nursing administration, healthcare delivery, or nursing education. The applicant's GPA, writing and speaking skills, and professional experience are used to assess applicants for admission. A profile of each applicant is developed based on an admission portfolio consisting of:

- Completed online application
- Baccalaureate degree in nursing from an accredited school or university.
- Evidence of current unencumbered licensure in the state of Texas or the state in which practicum course work will occur.
- Evidence of current CPR certification that meets facilities' requirements.
- One official transcript from all colleges or universities attended with a preferred cumulative GPA of 3.0 (on a 4.0 scale) from the baccalaureate nursing program. (International transcripts should be sent with an evaluation from a transcript credentialing service.)
- A preferred work history that includes one year of full-time experience or its equivalent as a registered nurse. New graduates will be considered based on GPA and faculty letters of reference.
- For applicants for whom English is a second language, demonstrated English language proficiency is measured by an acceptable score on the Test of Spoken English as a Foreign Language (TOEFL) and the institutional version of the Test of Spoken English (TSE).
- Resume
- An essay, up to 500 words, demonstrating written communication skills. This essay should describe your experience and career goals, and discuss how the program at TCU can help you achieve those goals.
- Three professional references (should be from a supervisor, previous faculty or other professional reference).
- All submitted materials become the property of TCU.

Prior to beginning clinical courses, students must present satisfactory evidence of the following:

1. Immunizations
 - Tetanus/diphtheria (TD): Must have DTaP if the immunization is more than two years old.
 - Measles: Those born since Jan. 1, 1957, must have two doses since 12 months of age. The doses must be at least 30 days apart.
 - Mumps: Those born since Jan. 1, 1957, must have two doses since 12 months of age. The doses must be at least 30 days apart.
 - Rubella: Those born since Jan. 1, 1957, must have two doses since 12 months of age. The doses must be at least 30 days apart.
 - Hepatitis B: The completed three-dose series must be received before contact with clients in practica.

- Varicella (chickenpox): All practicum students must document evidence of immunity to varicella. This requirement may be met by either: 1) documentation of varicella immunization. (Immunization for adolescents and adults is a series of two doses 4-8 weeks apart); or 2) positive varicella titer.
 - Annual seasonal and other recommended influenza vaccination or declination forms on file.
2. Current health insurance coverage.
 3. Current certification by American Heart Association BLS for Healthcare Provider.
 4. Negative TB skin test (two-step method) or negative chest x-ray.
 5. Acceptable results from a drug screening test and a criminal background check within the 30 days prior to beginning practicum course-work. Screening tests and background checks must be completed by TCU nursing approved vendors. CPR and TB cannot expire at any point during the semester once the student begins clinical courses

If accepted, you will be required to take an online writing course prior to beginning the program. The cost of the writing course is \$300 and is due with the Intent to Enroll form.

Due to higher education regulations and the complexity of rules and regulations of some states, Texas Christian University (TCU) is currently unable to accept new applications for admissions to our distance education programs and courses from students residing in Massachusetts. TCU is also unable to allow for-credit field experiences, including internships, clinical, and practicums to take place in this state. We regret this restriction as it is our goal to offer a quality education to students everywhere. Please visit our website for an interactive map showing state authorization: <http://www.cte.tcu.edu/distance-learning/distance-learning-state-authorization/>

Academic Standards

Students must maintain a GPA of at least 3.0 in accordance with provisions described under "Academic Warning." All grades are included in the computation of the GPA, but no more than one grade of "C" or lower may be utilized in satisfying degree requirements. Students who achieve a GPA of less than 3.0 in any semester or term will be placed on academic warning. Students can be removed from that status by achieving a 3.0 cumulative average by the end of the next six hours of enrollment. If a student should fail to do so, further enrollment will be granted only by special recommendation of the Division Director of Graduate Nursing and with permission of the Associate Dean for Nursing and Dean of the Harris College of Nursing and Health Sciences.

An "I" (incomplete) grade is recorded when the student and instructor have determined that the work required for a course cannot be completed within the term of enrollment due to circumstances beyond the student's control. Under no circumstances will a grade of "I" be given to avoid earning an "F" for the course.

The "I" grade must be removed within the first 60 days of the regular semester immediately following or it is changed to an "F." Any extension of this time must have written approval of the instructor and the Associate Dean for Nursing.

Until the "I" grade is removed, progression in the program will be at the discretion of the Division Director of Graduate Nursing.

Grade Point Average

Two GPAs are maintained by TCU:

1. A semester average based on courses taken at TCU during a particular term; and
2. A cumulative average based on all work attempted at TCU.

A student's GPA is computed by dividing the number of grade points (grade points earned per semester hour for the successful completion of academic work) by the number of hours (total credit hours attempted at TCU, excluding those attempted on a pass/no-credit basis).

Clinical Nurse Specialist (CNS), MSN Requirements

The 38 hour curriculum comprises 29 hours of didactic coursework and 9 hours of clinical practicum. The CNS program offers Adult-Gerontology or Pediatric focus.

Required Coursework

NURS 50003	Advanced Pathophysiology	3
NURS 50013	Advanced Health Assessment	3
NURS 50022	Advanced Practice Roles	2
NURS 50053	Advanced Pharmacotherapeutics	3
NURS 60013	Health Care Policy, Law and Ethics	3
NURS 60043	Advanced Nursing Research and Theory	3
NURS 60443	Financial Concepts in Health Care	3
NCNS 60412	Advanced Care of Adult-Gerontology Populations OR	2
NCNS 60712	Advanced Care of Pediatric Populations	2
NCNS 60492	Advanced Care of Adult-Gerontology Populations Practicum OR	2
NCNS 60782	Advanced Care of Pediatric Populations Practicum	2
NCNS 60512	The CNS and Professional Practice	2
NCNS 60582	The CNS and Professional Practice Practicum	2
NCNS 60612	The CNS and Systems Leadership	2
NCNS 60682	The CNS and Systems Leadership Practicum	2
NCNS 60713	Diagnostic Reasoning and Advanced Patient Management of the Adult-Gerontology Patient OR	3
NCNS 60723	Diagnostic Reasoning and Advanced Patient Management of the Pediatric Patient	3
NCNS 60783	Diagnostic Reasoning and Advanced Patient Management of the Adult-Gerontology Patient Practicum OR	3
NCNS 60793	Diagnostic Reasoning and Advanced Patient Management of the Pediatric Patient Practicum	3

Nursing Administration and Leadership,
MSN

Requirements

The 36-hour curriculum comprises 29 semester hours of didactic coursework, 7 semester hours of practicum.

Required Coursework

NURS 50003	Advanced Pathophysiology	3
NURS 50013	Advanced Health Assessment	3
NURS 50053	Advanced Pharmacotherapeutics	3
NURS 60013	Health Care Policy, Law and Ethics	3
NURS 60043	Advanced Nursing Research and Theory	3
NURS 60443	Financial Concepts in Health Care	3
NUAL 60802	Role of the Nursing Administrator and Leader	2
NUAL 60812	Leadership and Self	2
NUAL 60811	Leadership Development: Individual Practicum	1
NUAL 60822	Administration and Leadership of Groups and Teams	2
NUAL 60821	Administration and Leadership of Groups and Teams Practicum	1
NUAL 60832	Administration and Leadership of Organizations	2
NUAL 60831	Administration and Leadership of Organizations Practicum	1
NUAL 60843	Advanced Administration and Leadership in the	3

Changing Healthcare Environment

NUAL 60844	Advanced Administration and Leadership in the Changing Healthcare Environment Practicum	4
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Nursing Education, MSN

Requirements

The 34 hour curriculum comprises 29 semester hours of didactic coursework, 2 semester hours of clinical practicum and 3 semester hours of teaching practicum. The Nursing Education program offers Adult-Gerontology or Pediatric focus.

Required Coursework

NURS 50003	Advanced Pathophysiology	3
NURS 50013	Advanced Health Assessment	3
NURS 50053	Advanced Pharmacotherapeutics	3
NURS 60013	Health Care Policy, Law and Ethics	3
NURS 60043	Advanced Nursing Research and Theory	3
NURS 60443	Financial Concepts in Health Care	3
NCNS 60412	Advanced Care of Adult-Gerontology Populations OR	2
NCNS 60712	Advanced Care of Pediatric Populations	2
NCNS 60492	Advanced Care of Adult-Gerontology Populations Practicum OR	2
NCNS 60782	Advanced Care of Pediatric Populations Practicum	2
NUED 60712	Learning and Instruction	2
NUED 60721	Interprofessional Education Strategies	1
NUED 60722	Curriculum and Program Development in Nursing	2
NUED 60732	Evaluation in Nursing Education	2
NUED 60742	Principles of Simulation in Education	2
NUED 60783	Teaching Practicum	3

Clinical Nurse Leader (CNL), MSN

Requirements

The 33-hour curriculum comprises 27 semester hours of didactic coursework and 6 hours of clinical practicum/residency.

Required Coursework

NURS 50003	Advanced Pathophysiology	3
NURS 50013	Advanced Health Assessment	3
NURS 50053	Advanced Pharmacotherapeutics	3
NURS 60013	Health Care Policy, Law and Ethics	3
NURS 60043	Advanced Nursing Research and Theory	3
NURS 60443	Financial Concepts in Health Care	3
NCNL 61113	Leadership in Clinical Microsystems	3
NCNL 61123	Care Environment Management	3
NCNL 61133	Clinical Outcomes Management	3
NCNL 61182	Clinical Nurse Leader Practicum	2
NCNL 61284	Clinical Nurse Leader Residency	4

Doctor of Nursing Practice

The Doctor of Nursing Practice (DNP) is an innovative, solution-focused program designed to prepare advanced practice nurses and nursing administrators to lead efforts in solving complex healthcare issues and developing new healthcare opportunities.

The practice doctorate in nursing provides the terminal academic preparation for nursing practice. The purpose of this program is to prepare students to assume clinical leadership positions in a variety of healthcare, business, government and educational organizations.

Upon completion of the program, graduates will be able to:

1. Demonstrate advanced levels of clinical judgment and scholarship in nursing practice.
2. Utilize scientific knowledge to evaluate new and current approaches in nursing practice and healthcare delivery to promote optimal outcomes.
3. Provide leadership in organizations and systems to assure quality care delivery models.
4. Design, deliver, direct and disseminate evidence-based practices.
5. Use information systems to design, select, use and evaluate programs of care, outcomes of care and care systems.
6. Advocate for healthcare practice change through policy development and evaluation.
7. Assume leadership roles for effective trans-disciplinary collaboration to achieve optimal outcomes.
8. Employ ethical principles to decision-making in healthcare practices and systems.
9. Demonstrate advanced clinical reasoning and judgment in the management of complex clinical situations and systems.

TCU Nursing offers the post-master's DNP program for those who have previously earned a master's degree (MSN) in an Advanced Practice Registered Nurse or Nurse Administrator role and post-baccalaureate DNP program for students with a Bachelor of Science in Nursing (BSN) degree.

Post-Master's DNP (MSN to DNP)

The TCU Nursing Post-Master's DNP is a completely online practice doctorate designed to prepare experts in specialized advanced nursing practice.

A master's degree from an accredited program and current recognition as an advanced practice registered nurse by appropriate certification and licensing boards is required for admission to the advanced practice track. All students are required to maintain their advanced practice recognition through practice requirements defined by appropriate certification and licensing boards during the program.

For direct matriculation into the DNP nursing administration track, a master's degree in nursing administration, current registered nurse license and employment in an administrative role are required. Administrative certification is preferred.

If the applicant does not hold a master's degree in either advanced practice or nursing administration, then 20 hours for the Clinical Nurse Specialist role or 18 hours for the Nursing Administration and Leadership role are offered as a post-master's certificate, which allows matriculation into the DNP program.

The post-master's DNP degree may be completed in two years (24 months) at minimum. The first year is typically composed of didactic courses. The second year focuses on fulfillment of practice and final project requirements. Additional courses are also available to help prepare students for teaching in academia. Part-time study is available.

Admission Requirements

Students will be selected based on the evaluation of a portfolio of evidence to include the following:

- Completed on-line application.
- Master's degree with focus in specialty nursing or nursing administration and a minimum GPA of at least 3.0 on a 4.0 scale.
- Receipt of one official transcript from all universities and colleges attended.
- Unencumbered license to practice as a registered nurse (RN) in the United States.
- For advanced practice roles:
 - Current recognition as advanced practice registered nurse (APRN) by state Board of Nursing in a state where the role is recognized.
- For nurse administrators:
 - National certification in administration preferred.
 - Additional coursework will be required if the master's degree is not in nursing.

- Resume or curriculum vita.
- Three professional references (should be from a supervisor, previous faculty or other professional reference).
- Satisfactory completion of in-person interview.
- An essay (up to 500 words) addressing 1) specific personal, academic and/or professional strengths or accomplishments and how these qualify you as a strong candidate for the DNP program; 2) your interest in a clinical doctorate and how the program goals will help you achieve your goals; and 3) an overview of your proposed area of interest for your final capstone project. The essay is to be double spaced with one-inch margins, Times New Roman 12 font and a maximum of two pages.

All submitted materials become the property of TCU.

Acceptable results from a drug screening test and a criminal background check within the 30 days prior to beginning practicum coursework. Screening tests and background checks must be completed by TCU Nursing approved vendors.

If accepted, a \$250 non-refundable deposit is due with the Intent to Enroll to hold your position. Once enrolled, the \$250 deposit will be applied to your student account.

Due to higher education regulations and the complexity of rules and regulations of some states, TCU is currently unable to accept new applications for admissions to our distance education programs and courses from students living in Massachusetts. TCU is also unable to allow for credit field experiences, including internships, clinical, and practicums to take place in this state. We regret this restriction as it is our goal to offer a quality education to students everywhere. Please visit our website for an interactive map showing state authorization, <http://www.cte.tcu.edu/distance-learning/distance-learning-state-authorization/>.

Transfer Credit

Transfer credit hours are not used to satisfy degree requirements and are not used in the calculation of the cumulative GPA.

Pass/No-Credit

Pass/no-credit courses are disregarded in the calculation of the student's GPA.

Post-Master's DNP Degree Requirements

The post-master's DNP degree requires a minimum of 30 semester hours of coursework for completion. Students must maintain a 3.0 GPA throughout the program. Minimum coursework requirements are:

Courses

NDNP 86612	Foundations of Scholarly Inquiry	2
NDNP 81113	Complexity and Innovation in Healthcare	3
NDNP 81123	Biostatistics for the Advanced Health Practitioner	3
NDNP 81233	Decision Science and Informatics	3
NDNP 81243	Translational Research	3
NDNP 81353	Health Care Policy and Politics	3
NDNP 81363	Emerging Sciences for Advanced Practice	3
NDNP 88062	DNP Project I	2
NDNP 88072	DNP Project II	2
NDNP 88182	DNP Project III	2
NDNP 82272	Advanced Practicum I	2
NDNP 82282	Advanced Practicum II	2

A student must complete the DNP degree within five academic years from the semester they first began coursework. Extension of time must be applied for in writing to the Division Director of Graduate Nursing, who will then make a recommendation to the Associate Dean for Nursing. The letter should explain why the degree was not completed within the time limit and should present a schedule for completing the program. Additional courses may be assigned to students who do not complete the degree within the time limit.

Academic Standards

Students must maintain a GPA of at least 3.0 in accordance with provisions described under "Academic Warning." All grades are included in the

computation of the GPA, but no more than one grade of "C" or lower may be utilized in satisfying degree requirements. Students who achieve a GPA of less than 3.0 in any semester or term will be placed on academic warning. Students can be removed from that status by achieving a 3.0 cumulative average by the end of the next six hours of enrollment. If a student should fail to do so, further enrollment will be granted only by the special recommendation of the Division Director of Graduate Nursing and with permission of the Associate Dean for Nursing and Dean of the Harris College of Nursing and Health Sciences.

An "I" (incomplete) grade is recorded when the student and instructor have determined that the work required for a course cannot be completed within the term of enrollment due to circumstances beyond the student's control. Under no circumstances will a grade of "I" be given to avoid earning an "F" for the course.

The "I" grade must be removed within the first 60 days of the regular semester immediately following or it is changed to an "F." Any extension of this time must have written approval of the instructor and the Associate Dean for Nursing.

Until the "I" grade is removed, progression in the program will be at the discretion of the Division Director of Graduate Nursing.

The practicum and project must be completed within two academic years.

Grade Point Average

Two GPAs are maintained by TCU:

A semester average based on courses taken at TCU during a particular term; and a cumulative average based on all work attempted at TCU.

A student's GPA is computed by dividing the number of grade points (grade points earned per semester hour for the successful completion of academic work) by the number of hours (total credit hours attempted at TCU, excluding those attempted on a pass/no-credit basis).

Post-Baccalaureate DNP (BSN to DNP)

The TCU nursing post-baccalaureate DNP is a practice doctorate designed to prepare advanced practice registered nurses (APRNs). The following programs are offered:

- Family Nurse Practitioner (FNP)
- Adult-Gerontology Acute Care Nurse Practitioner (AGACNP) *
- Clinical Nurse Specialist (CNS)

A baccalaureate degree in nursing from an accredited school or university and evidence of current licensure is required for admission. All students are required to maintain current unencumbered licensure throughout the program.

The post-baccalaureate DNP degree may be completed in three years (36 months) or up to four years part time. The first year of the program is composed of didactic courses providing core knowledge and skills required for the doctorally prepared APRN. The second and third year of study focus on the didactic/clinical population focus courses, and fulfillment of practice and final project requirements.

All didactic coursework is offered online. Clinical practicum courses are supervised by TCU nursing faculty in concert with qualified preceptors. Generally, students complete their practicum courses in clinical settings located in their geographic area. If adequate practicum or preceptor resources are not available in the student's geographic area, practicum experiences are available in the Fort Worth area.

On campus requirements include a two-day orientation at the beginning of the program and participation in clinical training and skills assessments during On Campus Intensives (OCIs) scheduled throughout the program.

Admission Requirements

- Completed on-line application.
- Baccalaureate degree in nursing from an accredited school or university.
- Evidence of current unencumbered licensure in the state of Texas or the state in which practicum course work will occur.
- Evidence of current CPR certification and immunization documentation **that meets facilities' requirements.**
- One official transcript from all colleges and universities attended with a preferred cumulative GPA of 3.0 (on a 4 point scale). International transcripts should be sent with an evaluation from a transcripts credentialing service.
- For FNP and CNS:

- A preferred work history that includes one year of full-time experience or its equivalent as a registered nurse.
- For AGACNP:
 - Required two years of full-time experience or the equivalent as a registered nurse in an acute care setting.
- For applicants for whom English is a second language, demonstrated English language proficiency is measured by an acceptable score on the Test of Spoken English as a Foreign Language (TOEFL) and the institutional version of the Test of Spoken English (TSE).
- Resume
- An essay (up to 500 words) addressing 1) specific personal, academic and/or professional strengths or accomplishments, and how these qualify you as a strong candidate for the TCU BSN to DNP program; and, 2) your interest in a clinical doctorate and how the program goals will help you achieve your goals. The essay is to be double spaced with one-inch margins, Times New Roman 12 font, and a maximum of two pages.
- Three professional references (should be from a supervisor, previous faculty or other professional reference).
- Satisfactory completion of in-person interview

All submitted materials become the property of TCU.

Acceptable results from a drug screening test and a criminal background check within the 30 days prior to beginning practicum coursework. Screening tests and background checks must be completed by TCU Nursing approved vendors.

If accepted, a \$250 non-refundable deposit is due with the Intent to Enroll to hold your position. Once enrolled, the \$250 deposit will be applied to your student account.

Due to higher education regulations and the complexity of rules and regulations of some states, TCU is currently unable to accept new applications for admissions to our distance education programs and courses from students residing in Massachusetts. TCU is also unable to allow for credit field experiences, including internships, clinical, and practicums to take place in this state. We regret this restriction as it is our goal to offer a quality education to students everywhere. Please visit our website for an interactive map showing state authorization, <http://www.cte.tcu.edu/distance-learning/distance-learning-state-authorization/>.

*At this time we are only accepting Texas residents for AGACNP.

Prior to beginning clinical courses, students must present satisfactory evidence of the following:

1. Immunizations:
 - Tetanus/diphtheria (TD): Must have DTaP if the immunization is more than two years old.
 - Measles: Those born since Jan. 1, 1957, must have two doses since 12 months of age. The doses must be at least 30 days apart.
 - Mumps: Those born since Jan. 1, 1957, must have two doses since 12 months of age. The doses must be at least 30 days apart.
 - Rubella: Those born since Jan. 1, 1957, must have two doses since 12 months of age. The doses must be at least 30 days apart.
 - Hepatitis B: The completed three-dose series must be received before contact with clients in practice.
 - Varicella (chickenpox): All practicum students must document evidence of immunity to varicella. This requirement may be met by either: 1) documentation of varicella immunization (immunization for adolescents and adults is a series of two doses 4-8 weeks apart); or 2) positive varicella titer.
 - Annual seasonal and other recommended influenza vaccination or declination forms on file.
2. Current health insurance coverage.
3. Current certification of American Heart Association BLS for Healthcare Provider.
4. Negative TB skin test (two-step method) or negative chest x-ray.

CPR and TB cannot expire at any point during the semester.

Transfer Credit

For BSN to DNP up to six approved transfer credit hours can be used to satisfy degree requirements but are not used in the calculation of the cumulative GPA.

Pass/No-Credit

Pass/no-credit courses are disregarded in the calculation of the student's GPA.

Family Nurse Practitioner (FNP)

The Doctorate of Nursing Practice Family Nurse Practitioner program prepares graduates to provide comprehensive primary health care to individuals and families throughout the lifespan and across the continuum of health. Program emphasis is on health promotion, preventive health services, health education and counseling, and diagnosis and management of acute episodic and chronic illnesses to include prescribing medications and treatments. Interprofessional collaboration with the health care team is integrated throughout the curriculum.

Graduates will be eligible for national certification through the American Nurses Credentialing Center (ANCC) and the American Academy of Nurse Practitioners Certification Program (AANPCP).

Requirements

The BSN to DNP Family Nurse Practitioner Program requires a total of 67 semester hours of coursework for completion. The curriculum comprises 52 hours didactic coursework and 15 hours of clinical practicum. Students may complete the program of study in three years (36 months). Part time option is available.

Required Coursework

NURS 50003	Advanced Pathophysiology	3
NURS 50013	Advanced Health Assessment	3
NURS 50022	Advanced Practice Roles	2
NURS 50053	Advanced Pharmacotherapeutics	3
NDNP 86612	Foundations of Scholarly Inquiry	2
NAPN 84202	Promoting Health and Wellness in Primary Care	2
NAPN 84212	Business and Legal Aspects for the Nurse Practitioner	2
NAPN 84222	Diagnostic Methods and Procedures for the Advanced Practice Registered Nurse	2
NAPN 84213	Primary Care Adult-Gerontology I	3
NAPN 84282	Primary Care Adult-Gerontology I Practicum	2
NAPN 84323	Primary Care Adult-Gerontology II	3
NAPN 84382	Primary Care Adult-Gerontology II Practicum	2
NAPN 84333	Primary Care of the Young Family	3
NAPN 84392	Primary Care of the Young Family Practicum	2
NAPN 84385	Primary Care of the Family Practicum	5
NDNP 81113	Complexity and Innovation in Healthcare	3
NDNP 81123	Biostatistics for the Advanced Health Practitioner	3
NDNP 81233	Decision Science and Informatics	3
NDNP 81243	Translational Research	3
NDNP 81353	Health Care Policy and Politics	3
NDNP 81363	Emerging Sciences for Advanced Practice	3
NDNP 82272	Advanced Practicum I	2
NDNP 82282	Advanced Practicum II	2
NDNP 88062	DNP Project I	2
NDNP 88072	DNP Project II	2
NDNP 88182	DNP Project III	2

A student must complete the BSN to DNP degree within six academic years from the semester they first began coursework. Extension of time must be applied for in writing to the Division Director of Graduate Nursing, who will then make a recommendation to the Associate Dean for Nursing. The letter should explain why the degree was not completed within the time limit and should present a schedule for completing the program. Additional courses may be assigned to students who do not complete the degree within the time limit.

Students must maintain a GPA of at least 3.0 in accordance with provisions described under "Academic Warning." All grades are included in the computation of the GPA, but no more than one grade of "C" or lower may be utilized in satisfying degree requirements. Students who achieve a GPA of less than 3.0 in any semester or term will be placed on academic warning. Students can be removed from that status by achieving a 3.0 cumulative average by the end of the next six hours of enrollment. If a student should fail to do so, further enrollment will be granted only by the special recommendation of the Division Director of Graduate Nursing and with permission of the Associate Dean for Nursing.

An "I" (incomplete) grade is recorded when the student and instructor have determined that the work required for a course cannot be completed within the term of enrollment due to circumstances beyond the student's control. Under no circumstances will a grade of "I" be given to avoid earning an "F" for the course.

The "I" grade must be removed within the first 60 days of the regular semester immediately following or it is changed to an "F." Any extension of this time must have written approval of the instructor and the Associate Dean for Nursing.

Until the "I" grade is removed, progression in the program will be at the discretion of the Division Director of Graduate Nursing.

The practicum and project must be completed within two academic years.

Grade Point Average

Two GPAs are maintained by TCU:

A semester average based on courses taken at TCU during a particular term; and a cumulative average based on all work attempted at TCU.

A student's GPA is computed by dividing the number of grade points (grade points earned per semester hour for the successful completion of academic work) by the number of hours (total credit hours attempted at TCU, excluding those attempted on a pass/no-credit basis).

Adult Gerontology Acute Care Nurse Practitioner (AGACNP)

The Doctor of Nursing Practice Adult-Gerontology Acute Care Nurse Practitioner program prepares graduates to provide comprehensive health care to chronically, acutely or critically ill young adults, adults, and elders in the continuum of acute care services. Program emphasis is on working with **a multidisciplinary team to facilitate and accelerate the patient's return to optimal health and to manage health and illness in the context of individuals, families, health care settings, and society.**

Graduates will be eligible for national certification through the American Association of Critical-Care Nurses (AACN) or the American Nurses Credentialing Center (ANCC).

Requirements

The BSN to DNP Adult-Gerontology Acute Care Nurse Practitioner Program requires a total of 66 semester hours of coursework for completion. The curriculum comprises 52 hours of didactic coursework and 14 hours of clinical practicum. Students may complete the program of study in three years (36 months). A part-time option is available.

Required Coursework

NURS 50003	Advanced Pathophysiology	3
NURS 50013	Advanced Health Assessment	3
NURS 50022	Advanced Practice Roles	2
NURS 50053	Advanced Pharmacotherapeutics	3
NDNP 86612	Foundations of Scholarly Inquiry	2
NAPN 84202	Promoting Health and Wellness in Primary Care	2
NAPN 84212	Business and Legal Aspects for the Nurse Practitioner	2
NAPN 84222	Diagnostic Methods and Procedures for the Advanced Practice Registered Nurse	2
NAPN 84213	Primary Care Adult-Gerontology I	3
NAPN 84282	Primary Care Adult-Gerontology I Practicum	2
NAPN 85213	Acute Care Adult-Gerontology I	3

NAPN 85223	Acute Care Adult-Gerontology II	3
NAPN 85282	Acute Care Adult-Gerontology I Practicum	2
NAPN 85382	Acute Care Adult-Gerontology II Practicum	2
NAPN 85384	Acute Care Adult-Gerontology Advanced Practicum	4
NDNP 81113	Complexity and Innovation in Healthcare	3
NDNP 81123	Biostatistics for the Advanced Health Practitioner	3
NDNP 81233	Decision Science and Informatics	3
NDNP 81243	Translational Research	3
NDNP 81353	Health Care Policy and Politics	3
NDNP 81363	Emerging Sciences for Advanced Practice	3
NDNP 82272	Advanced Practicum I	2
NDNP 82282	Advanced Practicum II	2
NDNP 88062	DNP Project I	2
NDNP 88072	DNP Project II	2
NDNP 88182	DNP Project III	2

A student must complete the BSN to DNP degree within six academic years from the semester they first began coursework. Extension of time must be applied for in writing to the Division Director of Graduate Nursing, who will then make a recommendation to the Associate Dean for Nursing. The letter should explain why the degree was not completed within the time limit and should present a schedule for completing the program. Additional courses may be assigned to students who do not complete the degree within the time limit.

Students must maintain a GPA of at least 3.0 in accordance with provisions described under "Academic Warning." All grades are included in the computation of the GPA, but no more than one grade of "C" or lower may be utilized in satisfying degree requirements. Students who achieve a GPA of less than 3.0 in any semester or term will be placed on academic warning. Students can be removed from that status by achieving a 3.0 cumulative average by the end of the next six hours of enrollment. If a student should fail to do so, further enrollment will be granted only by the special recommendation of the Division Director of Graduate Nursing and with permission of the Associate Dean for Nursing.

An "I" (incomplete) grade is recorded when the student and instructor have determined that the work required for a course cannot be completed within the term of enrollment due to circumstances beyond the student's control. Under no circumstances will a grade of "I" be given to avoid earning an "F" for the course.

The "I" grade must be removed within the first 60 days of the regular semester immediately following or it is changed to an "F." Any extension of this time must have written approval of the instructor and the Associate Dean for Nursing.

Until the "I" grade is removed, progression in the program will be at the discretion of the Division Director of Graduate Nursing.

The practicum and project must be completed within two academic years.

Grade Point Average

Two GPAs are maintained by TCU:

A semester average based on courses taken at TCU during a particular term; and a cumulative average based on all work attempted at TCU.

A student's GPA is computed by dividing the number of grade points (grade points earned per semester hour for the successful completion of academic work) by the number of hours (total credit hours attempted at TCU, excluding those attempted on a pass/no-credit basis).

Clinical Nurse Specialist (CNS)

The Doctor of Nursing Practice Clinical Nursing Specialist program prepares graduates as expert clinicians in a specialized area of population nursing practice (adult-gerontology, or pediatric) with preparation for medical diagnosis and treatment of disease, injury, and disability, including prescribing medications and treatments. The CNS influences care outcomes by providing expert consultation for nursing staffs and implementing improvements in health care delivery systems with a particular expertise in evidence-based practice, safety, and quality.

Graduates will be eligible for national certification through the American Nurse Credentialing Center (ANCC) (Adult/Gerontology; Pediatric), the

American Association of Critical Care Nurses Certification Corporation (Adult/Gerontology; Pediatric).

Requirements

The BSN-to-DNP Clinical Nurse Specialist Program requires a total of 64 semester hours of coursework for completion. The curriculum comprises of 51 hours of didactic coursework, and 13 hours of clinical practicum. Students may complete the program of study in three years (36 months). A part-time option is available.

Required Coursework

NURS 50003	Advanced Pathophysiology	3
NURS 50013	Advanced Health Assessment	3
NURS 50022	Advanced Practice Roles	2
NURS 50053	Advanced Pharmacotherapeutics	3
NURS 60443	Financial Concepts in Health Care	3
NDNP 86612	Foundations of Scholarly Inquiry	2
NCNS 60412	Advanced Care of Adult-Gerontology Populations	2
	OR	
NCNS 60712	Advanced Care of Pediatric Populations	2
NCNS 60492	Advanced Care of Adult-Gerontology Populations Practicum	2
	OR	
NCNS 60782	Advanced Care of Pediatric Populations Practicum	2
NCNS 60512	The CNS and Professional Practice	2
NCNS 60582	The CNS and Professional Practice Practicum	2
NCNS 60612	The CNS and Systems Leadership	2
NCNS 60682	The CNS and Systems Leadership Practicum	2
NCNS 60713	Diagnostic Reasoning and Advanced Patient Management of the Adult-Gerontology Patient	3
	OR	
NCNS 60723	Diagnostic Reasoning and Advanced Patient Management of the Pediatric Patient	3
NCNS 60783	Diagnostic Reasoning and Advanced Patient Management of the Adult-Gerontology Patient Practicum	3
	OR	
NCNS 60793	Diagnostic Reasoning and Advanced Patient Management of the Pediatric Patient Practicum	3
NAPN 84222	Diagnostic Methods and Procedures for the Advanced Practice Registered Nurse	2
NDNP 81113	Complexity and Innovation in Healthcare	3
NDNP 81123	Biostatistics for the Advanced Health Practitioner	3
NDNP 81233	Decision Science and Informatics	3
NDNP 81243	Translational Research	3
NDNP 81353	Health Care Policy and Politics	3
NDNP 81363	Emerging Sciences for Advanced Practice	3
NDNP 82272	Advanced Practicum I	2
NDNP 82282	Advanced Practicum II	2
NDNP 88062	DNP Project I	2
NDNP 88072	DNP Project II	2
NDNP 88182	DNP Project III	2

A student must complete the BSN to DNP degree within six academic years from the semester they first began coursework. Extension of time must be applied for in writing to the Division Director of Graduate Nursing, who will then make a recommendation to the Associate Dean for Nursing. The letter should explain why the degree was not completed within the time limit and

should present a schedule for completing the program. Additional courses may be assigned to students who do not complete the degree within the time limit.

Students must maintain a GPA of at least 3.0 in accordance with provisions described under "Academic Warning." All grades are included in the computation of the GPA, but no more than one grade of "C" or lower may be utilized in satisfying degree requirements. Students who achieve a GPA of less than 3.0 in any semester or term will be placed on academic warning. Students can be removed from that status by achieving a 3.0 cumulative average by the end of the next six hours of enrollment. If a student should fail to do so, further enrollment will be granted only by the special recommendation of the Division Director of Graduate Nursing and with permission of the Associate Dean for Nursing.

An "I" (incomplete) grade is recorded when the student and instructor have determined that the work required for a course cannot be completed within the term of enrollment due to circumstances beyond the student's control. Under no circumstances will a grade of "I" be given to avoid earning an "F" for the course.

The "I" grade must be removed within the first 60 days of the regular semester immediately following or it is changed to an "F." Any extension of this time must have written approval of the instructor and the Associate Dean for Nursing.

Until the "I" grade is removed, progression in the program will be at the discretion of the Division Director of Graduate Nursing.

The practicum and project must be completed within two academic years.

Grade Point Average

Two GPAs are maintained by TCU:

A semester average based on courses taken at TCU during a particular term; and a cumulative average based on all work attempted at TCU.

A student's GPA is computed by dividing the number of grade points (grade points earned per semester hour for the successful completion of academic work) by the number of hours (total credit hours attempted at TCU, excluding those attempted on a pass/no-credit basis).

Post-Graduate Certificates

A post-graduate certificate option is available in all majors for nurses with a previous master's or doctorate degree in another nursing specialty.

The amount of coursework required for the post-graduate FNP and CNS certificates are based on transcript review and the Texas Board of Nursing (BON) requirements for FNP and CNS-Advanced Practice Nurse recognition.

Family Nurse Practitioner (FNP) Post-Graduate Certificate

The certificate requirement for the FNP consists of 25 hours including six didactic courses and four precepted practicum courses.

Requirements

Required Coursework

NAPN 84201	Prescribing for Advanced Practice Registered Nurses	1
NAPN 84202	Promoting Health and Wellness in Primary Care	2
NAPN 84222	Diagnostic Methods and Procedures for the Advanced Practice Registered Nurse	2
NAPN 84213	Primary Care Adult-Gerontology I	3
NAPN 84282	Primary Care Adult-Gerontology I Practicum	2
NAPN 84323	Primary Care Adult-Gerontology II	3
NAPN 84382	Primary Care Adult-Gerontology II Practicum	2
NAPN 84333	Primary Care of the Young Family	3
NAPN 84392	Primary Care of the Young Family Practicum	2
NAPN 84385	Primary Care of the Family Practicum	5

Additional coursework may be required to meet the BON requirements for advanced practice nurses.

If not completed in a previous graduate degree, the following courses are required:

NURS 50003	Advanced Pathophysiology	3
NURS 50013	Advanced Health Assessment	3
NURS 50053	Advanced Pharmacotherapeutics	3

Clinical Nurse Specialist (CNS), Adult-Gerontology or Pediatric Post-Graduate Certificate

The certificate requirement for the CNS consists of 18 hours including four didactic courses and four precepted practicum courses.

Requirements

Required Coursework

NCNS 60412	Advanced Care of Adult-Gerontology Populations	2
	OR	
NCNS 60712	Advanced Care of Pediatric Populations	2
NCNS 60492	Advanced Care of Adult-Gerontology Populations Practicum	2
	OR	
NCNS 60782	Advanced Care of Pediatric Populations Practicum	2
NCNS 60512	The CNS and Professional Practice	2
NCNS 60582	The CNS and Professional Practice Practicum	2
NCNS 60612	The CNS and Systems Leadership	2
NCNS 60682	The CNS and Systems Leadership Practicum	2
NCNS 60713	Diagnostic Reasoning and Advanced Patient Management of the Adult-Gerontology Patient	3
	OR	
NCNS 60723	Diagnostic Reasoning and Advanced Patient Management of the Pediatric Patient	3
NCNS 60783	Diagnostic Reasoning and Advanced Patient Management of the Adult-Gerontology Patient Practicum	3
	OR	
NCNS 60793	Diagnostic Reasoning and Advanced Patient Management of the Pediatric Patient Practicum	3

Additional coursework may be required to meet the BON requirements for advanced practice nurses.

If not completed in previous graduate degree the following courses are required:

NURS 50003	Advanced Pathophysiology	3
NURS 50013	Advanced Health Assessment	3
NURS 50053	Advanced Pharmacotherapeutics	3

Nursing Administration and Leadership Post-Graduate Certificate

The certificate requirement for Nursing Administration and Leadership consists of 18 hours including five didactic courses and four precepted practicum courses.

Requirements

Required Coursework

NUAL 60802	Role of the Nursing Administrator and Leader	2
NUAL 60812	Leadership and Self	2

NUAL 60811	Leadership Development: Individual Practicum	1
NUAL 60822	Administration and Leadership of Groups and Teams	2
NUAL 60821	Administration and Leadership of Groups and Teams Practicum	1
NUAL 60832	Administration and Leadership of Organizations	2
NUAL 60831	Administration and Leadership of Organizations Practicum	1
NUAL 60843	Advanced Administration and Leadership in the Changing Healthcare Environment	3
NUAL 60844	Advanced Administration and Leadership in the Changing Healthcare Environment Practicum	4

Nursing Education Post-Graduate Certificate

The certificate requirement for Nursing Education consists of 12 hours including three didactic courses and one precepted practicum courses.

Requirements

Required Coursework

NUED 60712	Learning and Instruction	2
NUED 60722	Curriculum and Program Development in Nursing	2
NUED 60721	Interprofessional Education Strategies	1
NUED 60742	Principles of Simulation in Education	2
NUED 60732	Evaluation in Nursing Education	2
NUED 60783	Teaching Practicum	3

If not completed in a previous graduate degree, the following courses are required:

NCNS 60412	Advanced Care of Adult-Gerontology Populations	2
NCNS 60492	Advanced Care of Adult-Gerontology Populations Practicum	2
	or	
NCNS 60712	Advanced Care of Pediatric Populations	2
NCNS 60782	Advanced Care of Pediatric Populations Practicum	2

Clinical Nurse Leader (CNL) Post-Graduate Certificate

The certificate requirement for the CNL consists of 15 hours including three didactic courses, one precepted practicum and one precepted residency course. This major is offered in collaboration with clinical practice partners. Contact the Division Director of Graduate Nursing and Coordinator of the CNL program for an updated list of clinical practice partners.

Requirements

Required Coursework

NCNL 61113	Leadership in Clinical Microsystems	3
NCNL 61123	Care Environment Management	3
NCNL 61133	Clinical Outcomes Management	3
NCNL 61182	Clinical Nurse Leader Practicum	2
NCNL 61284	Clinical Nurse Leader Residency	4

If not completed in a previous graduate degree, the following courses are required:

NURS 50003	Advanced Pathophysiology	3
NURS 50013	Advanced Health Assessment	3

NURS 50053	Advanced Pharmacotherapeutics	3
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Oncology Post-Graduate Certificate

The certificate requirement for oncology consists of 10 hours including three didactic courses, two precepted practicums and one precepted residency course. An optional four credit hours is offered in palliative and end-of-life care.

Requirements

Required Coursework

NURS 60811	Advanced Oncology Practicum I	1
NURS 60813	Advanced Oncology Nursing I	3
NURS 60821	Advanced Oncology Nursing II: Practicum	1
NURS 60823	Advanced Oncology Nursing II	3
NURS 60832	Advanced Oncology Nursing Residency	2
NURS 60834	Palliative and End of Life Care	4

NURS 60834 is optional.

School of Nurse Anesthesia

TCU's School of Nurse Anesthesia is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA), a specialized accrediting body recognized by the Council on Higher Education Accreditation (CHEA) and the U.S. Department of Education (DOE). (Council on Accreditation of Nurse Anesthesia Educational Programs, 222 S. Prospect Ave., Suite 304, Park Ridge, IL 60068-4010, <http://home.coa.us.com>.)

The Standards and Guidelines for accreditation of nurse anesthesia educational programs/schools endorsed by the COA are merely guidelines. They are not a contract between any members of the TCU School of Nurse Anesthesia and should not be construed to give rise to any liability on the part of TCU to any student enrolled in the School of Nurse Anesthesia. The program, the parent institution or the clinical affiliates will not distort or misrepresent the program's accreditation status.

The mission of TCU's School of Nurse Anesthesia is to prepare professional nurses for nurse anesthesia practice with advanced, specialized knowledge and skills in order to meet the health needs of a diverse population.

Program Goals

1. Support the University's mission, vision and core values.
2. Prepare graduates to become competent certified registered nurse anesthetists, ready to serve society in an advanced role on the healthcare team.
3. Promote core values and behaviors that encourage respect for diversity, acknowledge human worth and dignity, and support professional nurse anesthesia practice.
4. Foster an appreciation for the necessity of learning, thinking critically and continuing to grow personally and professionally.
5. Contribute to the nurse anesthesia profession and to society by engaging in expert clinical practice and by demonstrating commitment to ethical leadership and responsible citizenship.

Code of Ethics

A code of ethics guiding the practice of TCU student nurse anesthetists is published in the school handbook and is available upon request.

Nurse Anesthesia Admission Criteria

Students will be selected based on evaluation of the following:

- Bachelor of Science in Nursing or an appropriate bachelor's degree from an accredited school, college or university in the United States.
- Valid licensure as a registered nurse in Texas or another Compact State.
- Official Graduate Record Examination (GRE) scores (verbal and quantitative > 50th percentile, writing 4.0 or better) within the last 5 years.
- Weighted GPA of 3.0 or greater.
- A minimum of one year of experience in adult critical care or the equivalent. Two years are highly recommended.
- Certification in BLS, ACLS, PALS, CCRN with individual area scores.

- Three strong professional references, one must be from current supervisor, the other two from professionals of your choice.
- A short essay.
- If English is not the first language, a score of at least 600 on the Test of English as a Foreign Language (TOEFL) and a score of 6 on the institutional version of the Spoken English Test within the past two years.
- International applicants should refer to the TCU Graduate Bulletin.

Candidates who satisfactorily meet these criteria will be invited to an interview. Candidates will be informed of admission status following completion of candidate interviews.

Nurse Anesthesia Admission Deadlines

Application deadline is July 1 for classes beginning the next January. Candidates will be notified of admission status by Oct. 15. Important dates related to admission are at www.crna.tcu.edu or call 817.257.7887.

Non-Discrimination

TCU does not discriminate on the basis of personal status, individual characteristics or group affiliation, including, but not limited to, classes protected under federal and state law.

TCU complies with the Americans with Disabilities Act and with Section 504 of the Rehabilitation Act of 1973 regarding students with disabilities. Disabled students will be individually assessed for their ability to meet the requirements of the curriculum and of the practice. Students with questions about disabilities should contact the director.

Nurse Anesthesia Medical Requirements

A documented health examination is required prior to the beginning of classes. Each student must be in good physical and mental health, free of communicable disease when involved in patient care, and have a medical questionnaire and physician's certificate on file at the University prior to enrollment with proof of tuberculin testing (negative) and immunization against the diseases noted below.

A student who contracts a communicable disease shall notify the director or associate director as soon as possible after learning of same and shall be suspended immediately and indefinitely until the student is free from infection.

Schedule for Immunizations

- Tetanus/Diphtheria (Td): Must have had one dose within past 10 years.
- Measles: Those born since Jan. 1, 1957, must have two doses, at least 30 days apart, since 12 months of age.
- Mumps: Those born since Jan. 1, 1957, must have at least one dose since 12 months of age.
- Rubella: At least one dose since 12 months of age.
- Hepatitis B: A complete series or proof of immunity is required prior to beginning direct patient care.
- Varicella (Chickenpox): Positive V/Z titer or documentation of immunization.
- TB Skin Test (within one year): Negative PPD or negative chest x-ray.
- All incoming students under the age of 30 must submit proof of a current meningitis vaccination.
- Seasonal Flu immunization (September through March).

For more information, see www.tdh.state.tx.us/immunize/ or call the Texas School of Health, Immunization Division, 1.800.252.9152.

Environmental Exposure

Providers in anesthesia are advised that several studies find an increase in congenital abnormalities in children of parents exposed to inhalation agents. Results of these studies are questionable. Students of childbearing age are advised to use caution and limit their exposure to inhalation agents. Dorsch, J.A. & Dorsch, S.E. (2008). *Understanding anesthesia equipment* (5th ed.). Baltimore: Williams & Wilkins.

Health Insurance

Students must carry health insurance throughout the program. Although TCU offers a major medical insurance plan for students to purchase, students are advised to evaluate several plans before selection. Proof of coverage is required. Students are not hospital employees and are not covered by Worker's Compensation. Neither affiliated hospitals nor TCU is liable for student injury during clinical residency.

Nurse Anesthesia Drug and Alcohol Abuse Statement

The following policy is in accordance with the Council on Accreditation of Nurse Anesthesia Educational Programs' *Statement on admissions inquiries regarding drug and alcohol use*.

- Applicants will be asked if they are currently using illegal drugs, abusing prescription drugs or engaging in intemperate alcohol use at the time of application. An affirmative answer is grounds for denial of admission.
- After acceptance into the School of Nurse Anesthesia, but prior to enrollment, the student will be asked about prior illegal drug usage, abuse of prescription drugs and prior intemperate alcohol use. Past users will be monitored, including, but not limited to, drug testing. Failure to comply with this policy or failure of a drug screen will result in dismissal from the program. The University or clinical training facility pays for the drug testing.
- All students are required to submit to random or scheduled drug testing at any point in their training based on the decision of the University or clinical training site. Failure to comply with this policy or failure of a drug screen will result in immediate dismissal from the program. The University or clinical training facility pays for the drug testing.
- In the event of a failed drug screen, the University or clinical training site will provide information about rehabilitation. The University or the clinical training site will not incur any expense in this matter.
- In Texas referrals are made to: Texas Peer Assistance Program for Nurses (T-PAPN), 7600 Burnet Road, Suite 440 Austin, Texas 78757-1292, 1.800.288.5528
- Following successful completion of a drug rehabilitation program, students may apply for reinstatement in the program. Readmission is not automatic; cases are individually considered.
- Criminal background checks are required for insurance coverage and facility credentialing prior to entering the clinical residency. Students with concerns or questions should contact the director before beginning the program. Prior conviction(s) may result in denial of admission to the clinical residency.

Nurse Anesthesia General Information

Housing and Meals

Students are eligible for residence halls and meal plans at TCU. Contact Residential Services at 817.257.7865 or www.rlh.tcu.edu/GraduateHousing.aspx for further information. Students are responsible for their own housing and meals at their assigned primary clinical site.

Financial Aid

Both loans and limited scholarships are available for students. Deadlines are early in the semester prior to entry, and students are encouraged to contact the Graduate Financial Aid Adviser, TCU Box 297012, Fort Worth, TX 76129 or www.financialaid.tcu.edu as soon as possible. TCU is recognized by the Veterans Administration for financial assistance to eligible students. The **School of Nurse Anesthesia participates in the Veteran's Administration Yellow Ribbon program.**

A student withdrawing from TCU within a limited time frame is eligible for tuition refund. Deadlines are printed in the University calendar every semester.

The student is responsible for all supplies and equipment as required by courses. Required textbooks are provided.

The RRNA is provided with operating room attire during clinical instruction except at a few rotation sites. The RRNA must provide black scrubs for simulation lab and a white lab coat.

Technology

Students should have sufficient computer literacy to manipulate multiple types of files. Students need a Pentium Class PC with one of the following operating systems: Windows 8, Windows 10, or a Mac OS X based computer with one of the following operating systems: OS X 10.9, (Mavericks), OS X 10.10 (Yosemite), OS X 10.11 (El Capitan), and OS 10.12 (Sierra). Students are required to have Microsoft Office (with PowerPoint, Word, Excel or Mac-compatible version), an Internet connection (broadband), and a printer.

Time Commitment

A student's time commitment is approximately 64 hours during a seven-day week averaged over four weeks. This includes class time and clinical time but not study time. One hour of classroom time generates two hours or more of study time. The student should expect a rotating schedule during clinical residency.

Employment

Student employment is strongly discouraged after the first eight months of the program. Students gain more from their academic and clinical experiences without the additional burden of work commitments. If student employment is absolutely necessary, the student must notify the director in writing of the position and hours, documenting that there is no conflict in time between their job and program responsibilities. Students/RRNAs may not be employed to practice anesthesia. Clinical students/RRNAs may not work the shift prior to clinical time.

Distance Option

All students must be in residence during the fall semester of the first year. Students may arrange to complete the second spring and second summer semesters by distance programming at clinical sites that offer this option. Distance option classes are presented via live interactive video broadcast. At least two students per site must elect this option to make programming feasible; once initiated for a group of students, distance programming will continue as long as needed by that group. A fee per credit hour is assessed to cover broadcasting costs (no students at distant sites are assessed broadcast fees during clinical residency).

Nurse Anesthesia Curriculum

Minimum Case Requirements

The School of Nurse Anesthesia exceeds the general requirements as set forth by the Council on Accreditation, Standards and Guidelines for Accreditation of Nurse Anesthesia Educational Programs/Schools. An RRNA is required to complete a minimum of 750 cases.

GPA Requirements

A grade is assigned for each course in which a student is enrolled for graduate credit. A passing grade may be earned only if the student is enrolled for the duration of the course.

The TCU School of Nurse Anesthesia requires a minimum overall GPA of 3.0 for graduation.

A student who receives a course grade of less than a "B" in any course will be dismissed from the program.

Policy on Grading Scale

The faculty of the School of Nurse Anesthesia use the following scale in determining course grades.

A = 92-100

B = 83-91

C = 74-82

F = < 74

Graduation Criteria

All didactic work is to be completed within 20 months for the DNP-A. The clinical residency is to be completed in 16 months. To qualify for graduation, a student must have a 3.0 overall GPA (on a 4.0 scale) and have completed a minimum of 87 semester hours for the DNP-A.

Nursing Practice - Anesthesia, DNP-A

Description of Program

The Doctor of Nursing Practice-Anesthesia (DNP-A) is an innovative, solutions-focused program designed to prepare nurse anesthesia students for solving complex healthcare issues and developing new healthcare opportunities, specifically in the context of nurse anesthesia practice. The program builds on TCU's mission - "Learning to Change the World" - and charges post-baccalaureate registered nurse DNP-A students with "Making a Difference in Healthcare".

Mission

The DNP-A provides the terminal academic preparation for nurse anesthesia practice with advanced, specialized knowledge and skills to meet the health needs of diverse populations. The purpose of the DNP-A program is to prepare nurse anesthetists who are equipped to assume clinical leadership positions in a variety of healthcare, business, government and educational organizations.

Objectives

Upon completion of the DNP-A curriculum, graduates should be able to:

Patient Safety

1. Be vigilant in the delivery of patient care.

2. Refrain from engaging in extraneous activities that abandon or minimize vigilance while providing direct patient care (e.g., texting, reading, emailing, etc.).
3. Conduct a comprehensive equipment check.
4. Protect patients from iatrogenic complications.

Perianesthesia

1. Provide individualized care throughout the perianesthesia continuum.
2. Deliver culturally competent perianesthesia care.
3. Provide anesthesia services to all patients across the lifespan.
4. Perform a comprehensive history and physical assessment.
5. Administer general anesthesia to patients with a variety of physical conditions.
6. Administer general anesthesia for a variety of surgical and medically related procedures.
7. Administer and manage a variety of regional anesthetics.
8. Maintain current certification in ACLS and PALS.

Critical Thinking

1. Apply knowledge to practice in decision-making and problem solving.
2. Provide nurse anesthesia services based on evidence-based principles.
3. Perform a preanesthetic assessment before providing anesthesia services.
4. Assume responsibility and accountability for diagnosis.
5. Formulate an anesthesia plan of care before providing anesthesia services.
6. Identify and take appropriate action when confronted with anesthetic equipment-related malfunctions.
7. Interpret and utilize data obtained from noninvasive and invasive monitoring modalities.
8. Calculate, initiate, and manage fluid and blood component therapy.
9. Recognize, evaluate, and manage the physiological responses coincident to the provision of anesthesia services.
10. Recognize and appropriately manage complications that occur during the provision of anesthesia services.
11. Use science-based theories and concepts to analyze new practice approaches.
12. Pass the national certification examination (NCE) administered by NBCRNA.

Communication

1. Utilize interpersonal and communication skills that result in the effective exchange of information and collaboration with patients and their families.
2. Utilize interpersonal and communication skills that result in an effective interprofessional exchange of information and collaboration with other healthcare professionals.
3. Respect the dignity and privacy of patients while maintaining confidentiality in the delivery of interprofessional care.
4. Maintain comprehensive, timely, accurate and legible healthcare records.
5. Transfer the responsibility for care of the patient to other qualified providers in a manner that assures continuity of care and patient safety.
6. Teach others.

Leadership

1. Integrate critical and reflective thinking in his or her leadership approach.
2. Provide leadership that facilitates intraprofessional and interprofessional collaboration.

Professional Role

The graduate must demonstrate the ability to:

1. Adhere to the Code of Ethics for the Certified Registered Nurse Anesthetist.
2. Interact on a professional level with integrity.
3. Apply ethically sound decision-making processes.
4. Function within legal and regulatory requirements.

5. Accept responsibility and accountability for his or her practice.
6. Provide anesthesia services to patients in a cost-effective manner.
7. Demonstrate knowledge of wellness and chemical dependency in the anesthesia profession through completion of content in wellness and chemical dependency.
8. Inform the public of the role and practice of the CRNA.
9. Evaluate how public policy-making strategies impact the financing and delivery of healthcare.
10. Advocate for health policy change to improve patient care.
11. Advocate for health policy change to advance the specialty of nurse anesthesia.
12. Analyze strategies to improve patient outcomes and quality of care.
13. Analyze health outcomes in a variety of populations.
14. Analyze health outcomes in a variety of clinical settings.
15. Analyze health outcomes in a variety of systems.
16. Disseminate research evidence.
17. Use information systems/technology to support and improve patient care.
18. Use information systems/technology to support and improve healthcare systems.
19. Analyze business practices encountered in nurse anesthesia delivery settings.

DNP-A Curriculum

Minimum coursework requirements are as follows:

Spring I or Summer I

NRAN 81153	Emerging Sciences, Complexity & Innovation in Health Care	3
NRAN 81123	Biostatistics for the Advanced Health Practitioner	3

Summer I or Spring I

NRAN 60113	Research in Nurse Anesthesia	3
NRAN 81233	Decision Science and Informatics	3

Fall I

NRAN 81243	Translational Research	3
NRAN 60123	Physical Science in Nurse Anesthesia	3
NRAN 60134	Advanced Pharmacology	4
NRAN 60146	Advanced Anatomy, Physiology, and Pathophysiology I	6

Spring II

NRAN 60235	Advanced Anatomy, Physiology and Pathophysiology II	5
NRAN 60213	Advanced Anatomy, Physiology and Pathophysiology III	3
NRAN 60224	Pharmacology of Anesthesia Agents	4
NRAN 81443	Advanced Health Assessment:Anesthesia Focus	3

Summer II (First Session)

NRAN 60316	Principles of Anesthesia Practice I	6
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Summer II (Second Session)

NRAN 60416	Principles of Anesthesia Practice II	6
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Fall II

NRAN 60572	Advanced Pathophysiology and Clinical Management I	2
NRAN 88080	Advanced Project	3
NRAN 60583	Clinical Residency I	3

Spring III

NRAN 60672	Advanced Pathophysiology and Clinical Management II	2
NRAN 88080	Advanced Project	3
NRAN 60683	Clinical Residency II	3

Fall III

NRAN 60972	Clinical Concepts	2
NRAN 60983	Clinical Residency IV	3
NRAN 88080	Advanced Project	3

NRAN 81153, NRAN 81123, NRAN 60113, NRAN 81223, NRAN 81243 are online courses

Summer III

NRAN 81353	Health Care Policy and Politics	3
NRAN 60782	Clinical Residency III	2
NRAN 88080	Advanced Project	3

Clinical Residency (minimum 16 months)

Upon completion of the initial 20 months of the program, students must immediately enter the clinical residency, which begins in late August and lasts approximately 16 months. During this time the student's learning is built on the material covered previously and comes primarily in a clinical residency although the student also returns to the classroom on a weekly basis for extensive clinically related study. The clinical residency ends in December. The graduate receives a Doctor of Nursing Practice-Anesthesia degree and is eligible to write the National Certifying Examination (NCE) for Nurse Anesthetists administered by the National Board of Certification and Recertification of Nurse Anesthetists (NBCRNA). Graduates who successfully complete this written exam are certified registered nurse anesthetists (CRNAs).

The clinical residency consists of administering general and regional anesthesia alongside a qualified clinical instructor (anesthesiologist or CRNA). Weekly classroom sessions are clinical conferences; journal clubs; and seminars dealing with current topics including, but not limited to, respiratory, cardiovascular, thoracic, neurosurgical, regional, obstetrical, pediatric and special areas of anesthesia. Various projects and competency examinations are required/administered throughout this phase.

Courses during clinical residency are offered in concurrent sequences. Each set, e.g., NRAN 60572 and 60583, must be taken together and successfully completed prior to beginning the next set.

DNP-A to MHSc Degree Option

Students enrolled in the School of Nurse Anesthesia DNP-A, who choose to transfer to the MHSc degree program, must have the recommendation of the faculty and have complied with the School of Nurse Anesthesia and TCU Code of Ethics and Professional Standards and Behavior. No direct admission is allowed to the MHSc.

Degree Requirements

Completion of the following coursework:

Spring Semester - 6 Hours

NRAN 60113	Research in Nurse Anesthesia	3
NRAN 81123	Biostatistics for the Advanced Health Practitioner	3

Summer Semester - 6 hours

NRAN 81113	Complexity and Innovation in Health Care	3
NRAN 81233	Decision Science and Informatics	3

Fall Semester - 16 hours

NRAN 60123	Physical Science in Nurse Anesthesia	3
NRAN 60134	Advanced Pharmacology	4
NRAN 60146	Advanced Anatomy, Physiology, and Pathophysiology I	6
NRAN 81243	Translational Research	3

Spring Semester - 12 Hours

NRAN 60213	Advanced Anatomy, Physiology and Pathophysiology III	3
NRAN 60235	Advanced Anatomy, Physiology and Pathophysiology II	5
NRAN 60224	Pharmacology of Anesthesia Agents	4

NRAN 82233	Pharmacology for Pain Management	3
NRAN 82323	Interventional Pain Strategies for Advanced Pain Practice	3
NRAN 82221	Spiritual Aspects of Health	1

Semester III (summer)

NRAN 82311	Comprehensive Pain Treatment Clinical Practicum III	1
NRAN 82123	Advanced Theoretical Foundations of Pain	3
NRAN 82321	Functional Health and Functional Health Assessment	1
NRAN 82121	Pain Psychology	1

The student is responsible for all books, supplies and equipment as required by courses.

Advanced Pain Management Certificate Program

TCU's School of Nurse Anesthesia Advanced Pain Management Program is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (COA).

Mission

The mission of the program is to educate Certified Registered Nurse Anesthetists (CRNAs) to be competent providers of care to patients who suffer from chronic pain. The purpose of the Advanced Pain Management Program is to educate and prepare advanced pain management practitioners to deliver holistic pain management care, including comprehensive pain management interventions and patient education. The objective of the program is to prepare CRNAs to enter this subspecialty of nurse anesthesia practice and to successfully pass the National Board of Certification and Recertification of Nurse Anesthetists (NBCRNA) subspecialty certification examination for Nonsurgical Pain Management (NSPM). The NSPM credential program measures the knowledge, skills, and abilities of NBCRNA-certified registered nurse anesthetists for practice in the NSPM field (<http://www.nbcna.com/NSPM/Pages/NSPM.aspx>).

Application Deadlines

May 1st for class beginning the next August. Candidates will be notified of admission status by June 1st.

Objectives

Upon completion of the Program, graduates should be able to:

- Demonstrates knowledge and skills required of the area of specialty practice or concentration. Academic success is measured throughout the Program and is memorialized as course grades for each student in their permanent academic transcript. Clinical success is monitored through direct clinical mentorship and evaluation. Both formative and summative evaluation is employed to validate the demonstration of knowledge and skills. Each semester, the clinical mentor is solicited to identify:
 - **If the student's clinical performance** is acceptable and progression to the next semester is recommended
 - If the weaknesses are identified and noted, but progression is acceptable to the next semester with plans for corrective action
 - **If the student's clinical performance is unacceptable** and they do not recommend progression to the next semester

Pain Management Curriculum

Certificate Requirements

Minimum coursework requirements are as follows:

Certificate Requirements

Semester I (fall)

NRAN 82111	Comprehensive Pain Management Clinical Practicum-I	1
NRAN 82133	Imaging and Radiation Safety	3
NRAN 82223	Pain Evaluation and Treatment	3
NRAN 82331	Anatomy and Physiology for Pain Management	1

*Jack Neary II is a requirement for NRAN 82111

Semester II (spring)

NRAN 82211	Comprehensive Pain Management Clinical Practicum-II	1
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Technology

Students should have sufficient computer literacy to manipulate multiple types of files. Students need a Pentium Class PC with one of the following operating systems: Windows 8, Windows 10, or a Mac OS X based computer with one of the following operating systems: OS X 10.9 (Mavericks), OS X 10.10 (Yosemite), OS X 10.11 (El Capitan), and OS 10.12 (Sierra). Students are required to have Microsoft Office (with PowerPoint, Word and Excel or Mac-compatible version), an internet connection (broadband), and a printer.

Communication Sciences and Disorders

The Davies School of Communication Sciences and Disorders offers the Master of Science in Speech-Language Pathology. The master's degree program is accredited by the ASHA Council on Academic Accreditation.

Within 30 days prior to enrolling in the graduate program, each student is required to present satisfactory evidence of acceptable results from a criminal background check arranged by the Department of Communication Sciences and Disorders.

Speech-Language Pathology, MS

To pursue the MS in Speech-Language Pathology, students must possess a bachelor's degree, including at least 24 hours in approved speech-language pathology courses.

Course distributions leading to the MS in Speech-Language Pathology (SLP) will allow for the completion of compulsory academic and clinical training required by the American Speech-Language-Hearing Association (ASHA) for professional certification in the field of speech-language pathology (Certificate of Clinical Competence in SLP, CCC-SLP). While the student must enroll for clinical practicum each semester, no more than six semester credit hours may be used to satisfy degree requirements. A minimum of 375 clock hours of supervised clinical practice, 325 hours of which must be on the graduate level, is required.

The Davies School of Communication Sciences & Disorders offers two tracks within the graduate program leading to the master's of science: 1) a monolingual track and 2) a bilingual track. Both tracks require a core of 43 credit hours, which includes COSD 60443 to ensure that all students receive a multicultural education at the graduate level. The bilingual track requires an additional three credit hours, consisting of COSD 60233. Additionally, the clinical training experiences of students in the bilingual track include children and adults whose primary language is one other than English.

In both the monolingual and bilingual tracks, students have the option to complete a thesis. The requirements for the thesis and non-thesis options are as follows:

Thesis Option

This option requires a minimum of 43 hours for students electing the monolingual track of study, and 46 hours for students electing the bilingual track of study. Students are required to complete COSD 70323 and six hours of thesis. Thesis hours will be taken in lieu of other coursework. A final comprehensive examination based on the thesis is required.

Non-Thesis Option

This program requires a minimum of 43 hours for students electing the monolingual track of study, and 46 hours for students electing the bilingual track of study. Students are required to complete COSD 70323. A final comprehensive examination consisting of both written and oral portions is

required, and is based on the academic and clinical experiences of the students during their program of study.

Kinesiology

The mission of the graduate program in kinesiology is to provide students the opportunity to gain an in-depth understanding of the theoretical basis of human movement. Students are able to specialize in one of the sub-disciplines within kinesiology; however, the departmental core curriculum also gives students a cross-disciplinary exposure to the study of human movement. Along with classroom studies, involvement in original laboratory research constitutes a major means by which students gain a broad understanding of their specialty area. At the completion of the master's degree students should be able to:

- Provide strategies for solving both practical problems and research questions within the disciplines; and
- Integrate movement-based principles into a variety of activities taking place in laboratory, educational, clinical and athletic settings.

Prerequisites include a Bachelor of Science or Bachelor of Arts degree with a 24-hour concentration in kinesiology or its equivalent from an accredited college or university. All applicants are required to take the GRE.

Academic Warning and GPA Requirements

Kinesiology graduate students must maintain a GPA of at least 3.0. A graduate student who achieves a cumulative GPA of less than 3.0 at any point in their program will be placed on academic warning. A student can be removed from that status by achieving a 3.0 cumulative average by the end of the next nine hours of enrollment. Failure to resolve academic warning will result in dismissal. No student is allowed to graduate with less than a 3.0 cumulative GPA. All grades are included in the computation of the GPA, but no more than six hours of a minimum of a "C" or "C+" may be utilized in satisfying degree requirements

Kinesiology, MS

Kinesiology Academic Areas of Emphasis

Student may choose an emphasis in exercise physiology, exercise psychology, motor control, nutrition, physical activity and chronic disease, and sport psychology.

Kinesiology Thesis Option

Professional Development (6 hours)

KINE 60103	Research Methods in Kinesiology	3
PSYC 50423	Graduate Statistics	3

Academic Core (9 hours)

KINE 60213	Advanced Biomechanics	3
KINE 60423	Advanced Motor Behavior	3
KINE 60613	Physiology of Exercise	3

Academic Specialization (9-12 hours)

Academic courses that emphasize specific concentrations such as exercise physiology, motor control, nutrition, physical activity and chronic disease, or sport psychology.

Resource Area (3-6 hours)

Courses in related areas determined after a review of student preparation and goals. Must have approval of adviser.

Thesis (6 hours)

Kinesiology Treatise Option

Professional Development (3 hours)

KINE 60103	Research Methods in Kinesiology	3
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Academic Core (9 hours)

KINE 60213	Advanced Biomechanics	3
KINE 60423	Advanced Motor Behavior	3

Academic Specialization (9-12 hours)

Academic courses that emphasize specific concentrations such as exercise physiology, motor control, nutrition, physical activity and chronic disease, or sport psychology.

Resource Area (9-12 hours)

Courses in related areas determined after a review of student preparation and goals. Must have approval of adviser.

Treatise (3 hours)

Master of Social Work

The Master of Social Work (MSW) Program prepares advanced generalist social workers with a common base of social work knowledge, values and skills that equip the graduate for leadership positions that promote human rights and social and economic justice. The advanced generalist focus enables graduates to apply their abilities within service systems of various sizes and types. Practice courses stress application of advanced skills in a variety of systems using assessment, planning, intervention and evaluation relevant to diverse individuals, families, groups and communities. Field education provides opportunities for students to integrate theory with practice and experientially apply knowledge, values and skills in appropriate settings.

TCU's Department of Social Work does not discriminate on the basis of age, gender, race, color, ethnicity, national origin, handicap, veteran status, political beliefs or sexual orientation.

Mission

The mission of the TCU Master of Social Work Program is "to prepare ethical and competent advanced social work practitioners who promote human rights and economic and social justice with diverse clients in the global community." This mission reflects and flows from the University mission.

Program of Study

The MSW curriculum is based on educational standards developed by the Council on Social Work Education (CSWE). The MSW curriculum includes foundation content (the first 30 hours of the program) and advanced practice content (the final 30 hours of the program).

The MSW requires 60 credit hours (48 hours coursework, 12 hours internships). MSW students take 15 hours each semester and complete their degree in two years. Both BSW graduates and those with undergraduate degrees in other disciplines are eligible for seeking admission to the MSW. Students who already have the BSW are known as Advanced Standing students and can complete the MSW with one year of study (30 hours). Students with baccalaureate degrees in other disciplines will require two years of study (60 hours).

The Women and Gender Studies Certificate option is available for 2-year MSW students. Students are required to take four courses to qualify for the certificate (see additional details below).

Students may also apply for the dual degree program with Brite Divinity School. In this option, students complete both their MSW and a degree from Brite Divinity School (see additional details below).

Advanced Standing

Advanced Standing is awarded only to graduates holding degrees from baccalaureate social work programs accredited by CSWE, those recognized through its International Social Work Degree Recognition and Evaluation Service, or those covered under a memorandum of understanding with international social work accreditors. Students meeting the requirements for Advanced Standing will receive credit for the foundation content of the MSW curriculum and be allowed to enter the concentration content of the MSW Program.

Gatekeeping

The social work profession has the legal and ethical responsibility to protect **both society and the profession by assessing students' readiness to work with clients.** The faculty **team discusses students' professional development and readiness to interact with clients.** This gatekeeping responsibility is outlined and enforced through the Code of Ethics of the National Association of Social Workers and addressed in the TCU Program Handbook.

MSW Admission Requirements

In addition to meeting TCU's graduate admission requirements, applicants must meet the admission requirements of either the Traditional or Advanced Standing Master of Social Work Program. Applicants may be reviewed for

entry into either program. Admission decisions are based on a range of information, including the qualifications described below. Admission to the program presumes the ability and willingness to follow the sequential curriculum outlined in the Program Requirements.

Traditional MSW Program (60 credits, 2-year)

Required qualifications for admission:

1. **Prior Degree.** Students accepted for the MSW Program must have completed a baccalaureate (BA, BS) degree reflecting a liberal arts foundation from an accredited college or university.
2. **GPA.** Applicants should have strong academic preparation as demonstrated by an undergraduate GPA of at least 3.0 (on a 4.0 scale) in the last 60 hours of coursework.
3. **Course Prerequisites.** Applicants must have one college-level course in each of the following: statistics, sociology and psychology before registering for the first semester in the MSW Program.
4. **References.** Applicants must submit three professional and academic reference forms with letters from persons who can address academic abilities and interpersonal skills, potential for graduate education and potential for professional social work practice. At least one reference must be from an academic adviser or instructor. It is preferred that one of these references be from a field instructor.
5. **Professional Statement.** Applicants must submit a well-written professional statement 750-1,500 words that addresses:
 - What motivated you to pursue an MSW?
 - How do your values connect with the values of the social work profession?
 - What personal strengths and weaknesses will impact you as a social worker?
 - Describe experiences and leadership opportunities you have had that will help you succeed in this graduate program.
 - Discuss any significant volunteer or work experiences related to social work.
 - What are your professional goals in social work?
6. **Resume.** Applicants will submit a current resume or vita with their application.
7. **Interview.** Applicants may be asked to interview with the Admissions Committee before a final decision is reached.

Petition for Academic Exception:

Must be completed by applicants whose undergraduate GPA is below 3.0.

An applicant who believes that his or her individual circumstances warrant consideration for a waiver of the minimum university admissions requirement must petition the MSW admissions committee.

The request should be a one page statement entitled "Petition for Academic Exception". The petition should include a statement indicating how not meeting the minimum admissions requirement of a 3.0 GPA should be waived, as it does not adequately represent the applicant's capabilities. The applicant should briefly discuss how he or she has demonstrated a capacity for successful achievement in a rigorous graduate program. For example, an applicant might provide evidence of:

- Superior grades during the final 60 hours of undergraduate coursework indicating a trend toward improved performance.
- Competence through achievement in another graduate program.
- Outstanding work experience in human services (volunteer or paid).

The applicant should also discuss how he or she plans to address obstacles to successfully complete the program (for example, if a low grade point average was viewed as the result of a "needing to work full time during my undergraduate studies" the applicant should discuss why that is not likely to be a factor during his or her graduate study).

Petitions must be uploaded along with all other application documents.

Advanced Standing MSW Program (30 credits, 1-year)

Required qualifications for admission:

1. **Prior Degree.** Applicants to the Advanced Standing option must hold a **Bachelor's Degree in Social Work (BSW, BSSW) or other Bachelor's degree (BS, BA or BSW)** with a major in social work from an accredited CSWE program at the time of enrollment.

2. **GPA.** Applicants should have strong academic preparation as demonstrated by an undergraduate GPA of at least 3.00 (on a 4.00 scale) in the last 60 hours of coursework.
3. **Course Prerequisites.** Applicants must have one college-level course in statistics before registering for the first semester in the MSW Program.
4. **References.** Applicants must submit three professional and academic reference forms with letters from persons who can address academic abilities and interpersonal skills, potential for graduate education and potential for professional social work practice. At least one reference must be from an academic adviser or instructor. It is preferred that one of these references be from a field instructor.
5. **Professional Statement.** Applicants must submit a well-written professional statement, 750-1,500 words, that addresses:
 - What motivated you to pursue an MSW?
 - How do your values connect with the values of the social work profession?
 - What personal strengths and weaknesses will impact you as a social worker?
 - Describe experiences and leadership opportunities you have had that will help you succeed in this graduate program.
 - Discuss any significant volunteer or work experiences related to social work.
 - What are your professional goals in social work?
 - What are your professional goals and plans in social work?
6. **Resume.** Applicants will submit a current resume or vitae with their application.
7. **Interview.** Applicants may be asked to interview with the Admissions Committee before a final decision is reached.

Transfer Credit

The MSW Program may accept up to 10 transfer credits from: 1) a CSWE-accredited MSW Program for foundation year courses, or 2) a CSWE-accredited MSW Program or another graduate program in a related field for concentration year electives. No transfer credit will be awarded for practice courses, required concentration-year courses or for field education.

In addition, requests for transfer course credit must meet the following criteria:

1. The student requesting credit for graduate coursework must be admitted to TCU's MSW Program prior to approval of a request for transfer credit. However, admission to the MSW Program does not guarantee approval of transfer credits.
2. Upon admission, the student may request a review of graduate course(s) taken to determine whether the course(s) may be transferred for credit.
3. A minimum grade of "B" must have been earned in each course proposed for transfer credit.
4. When requesting transfer credit, a student must submit: a letter of request to the TCU MSW Program director that identifies the course(s) for which transfer credit is requested, a copy of the official catalog of the university where the course was taken, a copy of the course syllabus and an official transcript showing the grade earned.

Social Work, MSW

MSW Degree Requirements

The foundation curriculum lays the groundwork for the advanced content. Students must complete coursework in professional foundation (knowledge, values, skills, ethics), practice (micro and macro), human behavior, social welfare policy, diversity and social justice, and research. Two-semester field education courses give students the opportunity to apply the foundation knowledge to enter the concentration area of study.

The concentration curriculum builds on the foundation curriculum and has an advanced generalist focus so that graduates can assume practice, supervisory, and administrative roles in organizations. The concentration curriculum allows students to choose electives in the areas of children and families, and health and mental health.

All students complete a full year of advanced practice courses: SOWO 65803 Administration and Management, SOWO 65843 Trauma-Informed Social Work Practice, SOWO 65813 Research Methods 2, SOWO 65853 Applied

Evaluation Research, SOWO 65873 Advanced Practice, and SOWO 65833 Perspectives in Mental Health Practice. In addition to these required courses, the concentration curriculum provides for students to take two electives in order to enhance their knowledge and skills in an area of specialization. The advanced field education courses allow students to apply their advanced knowledge and skills to an area of specialization.

Traditional Full-time MSW Program Curriculum (2-year)

MSW Foundation – Year 1

Fall

SOWO 61803	Professional Foundation	3
SOWO 61813	Research Methods in Social Work 1	3
SOWO 61843	Human Behavior and the Social Environment 1	3
SOWO 61873	Micro Practice	3
SOWO 61883	Field Education 1	3

Spring

SOWO 61823	Diversity and Social Justice	3
SOWO 61833	Macro Practice	3
SOWO 61853	Human Behavior and the Social Environment 2	3
SOWO 61863	Social Welfare Policies and Services	3
SOWO 61893	Field Education 2	3

MSW Concentration – Year 2

Fall

SOWO	Elective	
SOWO 65813	Research Methods in Social Work 2	3
SOWO 65833	Perspectives of Mental Health Practice	3
SOWO 65873	Advanced Practice	3
SOWO 65883	Field Education 3	3

Spring

SOWO	Elective	
SOWO 65843	Trauma-Informed Social Work Practice	3
SOWO 65803	Administration and Management	3
SOWO 65853	Applied Evaluation Research	3
SOWO 65893	Field Education 4	3

Advanced Standing Full-time MSW Program

Curriculum (1-year):

Fall

SOWO	Elective	
SOWO 65813	Research Methods in Social Work 2	3
SOWO 65833	Perspectives of Mental Health Practice	3
SOWO 65873	Advanced Practice	3
SOWO 65883	Field Education 3	3

Spring

SOWO	Elective	
SOWO 65843	Trauma-Informed Social Work Practice	3
SOWO 65803	Administration and Management	3
SOWO 65853	Applied Evaluation Research	3
SOWO 65893	Field Education 4	3

MSW and /MATM/MTS/MDiv-Dual Degree Program

The purpose of this dual degree offering is to equip graduates to assume leadership positions in a wide variety of divinity ministries and social service agencies and organizations. The program is designed to help graduates apply advanced social work knowledge and skills in addition to theological studies and Christian services to religious and social service agencies. The dual degree prepares graduates for positions that promote human rights and social and economic justice.

The MSW–MATM, MSW–MTS and the MSW–MDiv degrees represent the Master of Social Work, Master of Arts in Theology and Ministry, Master of Theological Studies, and Master of Divinity degrees.

Admissions/Degree Requirements

Candidates must be admitted to the Department of Social Work's Master of Social Work (MSW) Program and the Brite Divinity School's Master of Arts in Theology and Ministry (MATM), Master of Theological Studies (MTS) or Master of Divinity (MDiv) program. Students who elect to complete the MSW without continuing into a Brite degree program, must meet all remaining requirements for the MSW (i.e., elective units in the MSW Program). Students must apply for dual degree status prior to completing 21 hours in either program (Advanced Standing MSW students will need to declare at admission into the program). Students admitted to the dual degree program must meet all requirements of both programs.

Traditional MSW Curriculum

SOWO 61803	Professional Foundation	3
SOWO 61813	Research Methods in Social Work 1	3
SOWO 61843	Human Behavior and the Social Environment 1	3
SOWO 61873	Micro Practice	3
SOWO 61883	Field Education 1	3
SOWO 61823	Diversity and Social Justice	3
SOWO 61833	Macro Practice	3
SOWO 61853	Human Behavior and the Social Environment 2	3
SOWO 61863	Social Welfare Policies and Services	3
SOWO 61893	Field Education 2	3
SOWO	Elective	
SOWO 65813	Research Methods in Social Work 2	3
SOWO 65833	Perspectives of Mental Health Practice	3
SOWO 65873	Advanced Practice	3
SOWO 65883	Field Education 3	3
SOWO	Elective	
SOWO 65843	Trauma-Informed Social Work Practice	3
SOWO 65803	Administration and Management	3
SOWO 65853	Applied Evaluation Research	3
SOWO 65893	Field Education 4	3

Students in the Traditional MSW Program who enter the dual degree program will be able to complete the MSW requirements by taking their elective courses from a departmentally approved list of courses offered at Brite Divinity School. Choices of field placement will be made on an individual basis through consultation with both the Department of Social Work and Brite Divinity School. Students will register conjointly at both institutions for 6 hours of Field Work, but will only pay the tuition at Brite for those hours.

A full-time student in the Dual Degree Traditional MSW Program would have coursework that looks like the following:

DUAL DEGREE – MSW AND DEGREE FROM BRITE DIVINITY SCHOOL (MDiv, MATM, MTS)

MSW - Year 1

Fall

SOWO 61803	Professional Foundation	3
SOWO 61813	Research Methods in Social Work 1	3
SOWO 61843	Human Behavior and the Social Environment 1	3
SOWO 61873	Micro Practice	3
SOWO 61883	Field Education 1	3

Spring

SOWO 61823	Diversity and Social Justice	3
SOWO 61833	Macro Practice	3
SOWO 61853	Human Behavior and the Social Environment 2	3
SOWO 61863	Social Welfare Policies and Services	3
SOWO 61893	Field Education 2	3

MSW - Year 2

Fall

SOWO	Elective	
SOWO 65813	Research Methods in Social Work 2	3
SOWO 65833	Perspectives of Mental Health Practice	3
SOWO 65873	Advanced Practice	3
SOWO 65883	Field Education 3	3

Spring

SOWO	Elective	
SOWO 65843	Trauma-Informed Social Work Practice	3
SOWO 65803	Administration and Management	3
SOWO 65853	Applied Evaluation Research	3
SOWO 65893	Field Education 4	3

*Six hours of electives are chosen from courses at Brite Divinity School.

DUAL DEGREE FOR ADVANCED STANDING STUDENTS MSW AND DEGREE FROM BRITE DIVINITY SCHOOL (MDiv, MATM, MTS)

Students in the Advanced Standing MSW Program who enter the dual degree program will be able to complete the requirements of the MSW by taking their elective courses from a departmentally approved list of courses offered at Brite Divinity School. Choices of field placement will be made on an individual basis through consultation with both the Department of Social Work and Brite Divinity School. Students will register conjointly at both institutions for 6 hours of Field Work, but will only pay the tuition at Brite for those hours.

A full-time student in the Advanced Standing Dual Degree MSW Program would have coursework that looks like the following:

Advanced Standing Full-time MSW Program Curriculum (1-year):

Fall

SOWO	Elective	
SOWO 65813	Research Methods in Social Work 2	3
SOWO 65833	Perspectives of Mental Health Practice	3
SOWO 65873	Advanced Practice	3
SOWO 65883	Field Education 3	3

Spring

SOWO	Elective	
SOWO 65843	Trauma-Informed Social Work Practice	3
SOWO 65803	Administration and Management	3
SOWO 65853	Applied Evaluation Research	3
SOWO 65893	Field Education 4	3

*Six hours of electives are chosen from courses at Brite Divinity School.

Women and Gender Studies Certificate Required social work courses

SOWO 61823	Diversity and Social Justice	3
SOWO 61843	Human Behavior and the Social Environment 1	3
SOWO 61803	Professional Foundation	3

The fourth course is one of two graduate-level courses in women and gender studies:

WGST 50103	Feminist Inquiry: Theory & Praxis	3
WGST 60003	Colloquium on Feminist Theory	3

These are to be taken in the first year of the program.

One of these two WGST courses will be offered each semester, and either can be taken in place of one of the second-year social work electives.

College of Science & Engineering

The College of Science & Engineering includes ten departments:

Biology
 Chemistry & Biochemistry
 Computer Science
 Engineering
 Environmental Sciences
 Geological Sciences
 Mathematics
 Nutritional Sciences
 Physics & Astronomy
 Psychology

The college offers graduate study for master's and doctoral degrees in several areas. Master of Arts degrees are available in biology, chemistry, environmental science, physics and psychology. Master of Science degrees are offered in biology, chemistry, developmental trauma, dietetics, environmental science, geology, mathematics, physics and psychology. A Master of Arts in Teaching is available in mathematics. A Master of Environmental Management is available in environmental science. The Ph.D. is available in biology, chemistry, mathematics, physics and psychology.

Program descriptions and information concerning admission and degree requirements for each program are presented in their departmental and program listings. Detailed information about the application for admission process can be found at: <http://www.cse.tcu.edu/prospective-students>.

Administrative offices for the College of Science & Engineering are located on the first floor of the Tucker Technology Center (Suite 102). Tucker also houses departmental offices of computer science, engineering and mathematics. Chemistry & biochemistry, environmental sciences, geological sciences, and physics & astronomy are located in the Sid W. Richardson Building. Departmental offices for biology and psychology are in Winton-Scott Hall. Nutritional Sciences is in the Annie Richardson Bass Building.

Biology

Students may pursue the Master of Arts, the Master of Science, and the Doctor of Philosophy in Biology.

Prerequisites for the MA/MS degrees: A BA or BS degree with a biology major of 24 semester hours of biology including intermediate or advanced undergraduate courses in cellular and molecular biology, organismal biology, ecology, evolution, genetics, physiology, microbiology or their equivalents. Students with majors in other areas may be considered upon request, but may be required to make up any deficiencies in their undergraduate preparations.

Scores on the GRE are used as an aid in the overall evaluation of the **applicant's graduate potential**.

As part of their professional training, full-time graduate students in biology are required to participate in the undergraduate teaching function of the department. This requirement is met by assisting in undergraduate labs, giving laboratory instructions, leading seminars or discussion groups, and grading written assignments and exams.

Prerequisites for the Ph.D.:

1. Successful completion of the MS degree at TCU under the direction of a member of the biology faculty with an overall GPA of 3.0 or higher. At least 12 hours of graduate coursework for the MS degree must be in biology; these hours are in addition to hours earned in BIOL 70980 and BIOL 70990.
2. Documented evidence indicating research productivity and the potential to complete the requirements for a Ph.D. Evidence of research productivity should be submitted to the Committee on Graduate Studies (COGS) and can include, but is not limited to, publications in scientific journals or presentations at regional, national or international scientific meetings.
3. Completed TCU online graduate application to the Ph.D. program, including a statement of purpose and two letters of recommendation

from individuals who can comment on the student's potential for excellence in research and teaching.

4. Demonstrated ability to serve as a teaching assistant in undergraduate biology courses at TCU.

Biology, MA (Non-Thesis)

Requirements

The Master of Arts in Biology comprises 36 hours of graduate coursework, including

BIOL 60001	Scientific Presentation	1
BIOL 60910	Biology Seminar	1
BIOL	22 additional hours in biology minimum	22
	12 hours approved electives	12
	Limit of three hours of assigned problems unless approved by graduate committee or department chair	

Biology, MS

Requirements

The Master of Science in Biology comprises 30 approved graduate hours, including

BIOL 60001	Scientific Presentation	1
BIOL 60910	Biology Seminar	1
BIOL 70980	Thesis	3
BIOL 70990	Thesis	3
BIOL	13 additional hours in biology (minimum)	13
	9 hours of approved electives	9
	Limit of three hours of assigned problems unless approved by graduate committee or department chair	

Biology, Ph.D.

Requirements

The program leading to the Ph.D. in biology has a research emphasis reflecting the desire to train students in the process of science. An additional program goal is to train students to be effective science communicators and teachers. Students entering the Ph.D. program will have met all of the prerequisites for the program, including having successfully defended a **master's thesis under the direction of a biology faculty member at TCU**.

Completion of the following courses:

BIOL 60320	Graduate Research in Biology (At least 9 hours)	9
BIOL 60703	Advanced Teaching in Biology	3
BIOL 80703	Teaching Practicum in Biology	3
BIOL 90980	Dissertation	6
BIOL 90990	Dissertation	6
	At least 3 graduate-level seminar courses (1 hour each) are required.	3

Research-specific coursework

After successfully defending the MS thesis (typically in the spring semester of the second year), the student decides on his/her direction of research and

dissertation adviser. Based on the recommendation of the Committee on Graduate Studies in biology, the dean appoints a Ph.D. Advisory Committee of at least five members, including the dissertation adviser as chair. Students are encouraged to have one committee member from outside of their discipline and one committee member from outside TCU. The student and advisory committee agree on a detailed plan of study to prepare the student for dissertation research and any additional required coursework. At least 9 hours of BIOL 60320 Graduate Research in Biology, BIOL 60703 Advanced Teaching in Biology, BIOL 80703 Teaching Practicum in Biology, and 6 hours of BIOL 90980 Dissertation and 6 hours of BIOL 90990 Dissertation are required. Enrollment and participation in at least three graduate-level seminars is also required.

Qualifying examination

The student will prepare a written research proposal for his/her dissertation **research the summer following the defense of the master's thesis.** The specific format of the written research proposal may vary by sub-discipline within biology and will be determined by the dissertation advisory committee in consultation with COGS. For the qualifying examination, the student will give a research proposal presentation to the biology department and defend the research proposal to his/her advisory committee during the fall semester of the third year. The research proposal is evaluated by the advisory committee on a pass/fail basis, and the student will have two attempts to pass the examination (the first attempt in the fall semester and second attempt in the spring semester of the third year). If the student is unable to pass the examination in two attempts, he/she will be terminated from the program. Upon successful completion of the qualifying examination, a student is formally admitted to candidacy for the Ph.D. degree.

Teaching experience

As teaching is considered an important part of the graduate training program, each student is required to participate in at least one substantive teaching experience after earning the MS in biology (typically in years 3-5 of the program). This experience may involve developing and teaching in an undergraduate lab or undergraduate seminar class, or teaching an undergraduate lecture class. For each substantive teaching experience, the student will prepare a teaching proposal that must be approved by COGS and the Biology Curriculum Committee. During these semesters, the student enrolls in BIOL 80703 Teaching Practicum in Biology.

Dissertation

Completion of a dissertation consisting of an original research project directed by a faculty member at TCU. Each student presents a departmental seminar on the dissertation research and defends the dissertation in an oral examination before the advisory committee. At least one paper based on the dissertation research must be published, accepted for publication, or submitted for publication and under active review in an appropriate scientific journal (as determined by the advisory committee).

There is no language requirement for the Ph.D. in biology. Failure to meet these requirements may result in termination from the program.

Chemistry & Biochemistry

Students may earn the Master of Arts, Master of Science and Doctor of Philosophy in Chemistry.

Prerequisites for the MA/MS and Ph.D. degrees: A baccalaureate degree in chemistry from an approved college or university with an academic record meeting the standards established by TCU. Students who have majored in related areas will be considered if it is believed that the relevant undergraduate chemistry background can be acquired during the first year of graduate study.

The GRE must be taken by all entering graduate students. Normally, a student must submit the results of the exam to the Department of Chemistry & Biochemistry before being admitted. In all cases, the examination must be taken before the end of the student's first semester residence in the program.

The time required for part-time students to meet requirements may be modified upon recommendation of a committee composed of the chair and two faculty advisers.

General Requirements

All graduate students must satisfy the core course requirements in three out of four areas of chemistry through placement examination or *appropriate courses*. The examinations are at the level expected for an ACS-certified BS

degree. These examinations are given during the week prior to the beginning of the fall and spring semesters.

Students must take at least three exams upon entering the program. Courses are selected from the following: CHEM 50133 Biochemistry, CHEM 50223 Advanced Organic Chemistry, CHEM 50282 Advanced Physical Chemistry, CHEM 50290, Chemical Thermodynamics and CHEM 50163 Advanced Inorganic Chemistry. A grade of "B" or better in the appropriate course is required to satisfy the requirement. *All graduate students must satisfy the core course requirements by the end of the third semester in residence.*

All graduate students are required to satisfactorily complete training in laboratory safety.

Chemistry, MA (Non-Thesis)

Requirements

The Master of Arts in Chemistry (non-thesis option) requires a total of 36 approved hours, including at least 24 in chemistry with no more than a total of six hours of credit in the courses listed below:

CHEM 50120	Teaching of Chemistry	2-4
CHEM 50230	Special Problems in Chemistry	1
CHEM 60110	Seminar	1
CHEM 60240	Graduate Research in Inorganic Chemistry	1
CHEM 60260	Graduate Research in Organic Chemistry	1
CHEM 60270	Graduate Research in Physical Chemistry	1
CHEM 60280	Graduate Research in Biochemistry	1

Each student is also required to pass an oral examination based upon the chosen program of study.

The teaching experience is considered an important part of the graduate training program. Each student on an MA or MS track is required to participate in a minimum of 2, but usually no more than 4, semesters of teaching.

Chemistry, MS

Requirements

The Master of Science in Chemistry (thesis option) requires a total of at least 30 approved hours, including at least 15 in chemistry and 6 in thesis. Each student will defend his/her thesis in an oral examination.

The teaching experience is considered an important part of the graduate training program. Each student on an MA or MS track is required to participate in a minimum of 2, but usually no more than 4, semesters of teaching.

Chemistry, Ph.D.

Requirements

The Ph.D. in Chemistry comprises the following components:

Completion of the following courses:

CHEM 50120	Teaching of Chemistry	4
CHEM 90980	Dissertation	6
CHEM 90990	Dissertation	6
	AND	

1. Lecture courses to provide the student with extensive depth and breadth of knowledge in major areas of chemistry.

2. A seminar program designed to supplement the traditional course program with presentations given both by visiting scholars and TCU

students and faculty. Graduate students are required to present one departmental seminar on a topic selected from the current literature but not related to their own research. This is normally given in the second semester, and a second seminar describing the student's Ph.D. work is given in the last semester in residence.

3. A research progress report written and oral, to be presented to the student's supervisory committee by the end of the second year in residence. The written report must provide a summary of the research results obtained up to that point as well as a plan for the future direction of the student's research project. The research progress is evaluated on a pass/fail basis.

4. A cumulative examination program designed to inform the faculty of the student's knowledge and ability in the chosen field and to guide the student in his/her own development. These examinations are given four times per semester during the academic year in the areas of inorganic, organic, physical chemistry and biochemistry. In general, they are based on advanced coursework and/or the current chemical literature. A student is expected to begin taking cumulative examinations no later than the beginning of the third semester. Once the cumulative examinations are begun, the student should normally pass two during the first six attempts and must pass a total of four within three semesters (12 attempts). Part-time students should consult with their faculty adviser concerning time limitations associated with the cumulative examinations.

5. An original research proposal covering a feasible research plan within their area of interest, but outside their current research efforts. This proposal should be at least five double-spaced pages, 12-point font, and not be longer than 10 pages, including references. The proposal is evaluated by a given student's supervisory committee on a pass/fail basis, defended in oral presentation before the supervisory committee, and should be completed by the beginning of the second regular semester following completion of the cumulative exams. Upon completion of the proposal defense, a student is formally admitted to candidacy for the Ph.D. degree. Admission to candidacy must occur at least one full semester before graduation.

6. A teaching experience that is considered an important part of the graduate training program. Each student is required to participate in four semesters of teaching, normally as an assistant in an undergraduate laboratory course. During these semesters, the student enrolls in CHEM 50120.

7. A dissertation that is based upon the successful completion of an original research project. Each student presents a departmental seminar on the dissertation research and defends the dissertation in an oral examination before the student's supervisory committee.

Environmental Science

Students may earn the Master of Arts, Master of Science and Master of Environmental Management.

Prerequisites for the MA/MS degrees: A bachelor's degree with a major in environmental science, biology, geology (or the equivalent) or a major in one of the other sciences, or engineering, or one of the social sciences. Students with undergraduate preparations different from these will be considered after careful review.

The student must have completed at least one year of biology, one semester of physical geology, one year of chemistry, one semester of calculus and one semester of introductory statistics. Satisfactory scores (minimum of 300) on the GRE are required.

Prerequisites for the MEM degree: The department accepts students with a variety of undergraduate majors, including the humanities, social sciences, natural sciences and engineering. However, in order to be adequately prepared for the required coursework, MEM applicants should have completed two semesters in any combination of biology, geology or chemistry; one semester of either calculus or introductory statistics; and one semester of upper-level ecology. Students lacking some of this preparation may be accepted for admission, but are expected to make up the deficiencies prior to entrance by means of formal coursework or other arrangements agreed upon by the applicant and the director. Acceptable scores on the GRE (minimum of 300) are also required.

Program of Study

Each student prepares an individual Program of Study (POS) designed specifically for the student's particular background and goals. The POS is prepared in consultation with the student's major professor and the director of the program.

Each student, regardless of the graduate degree selected, is also required to pass an oral examination based upon the chosen program of study.

Environmental Science, MA Requirements (Non-Thesis)

The Master of Arts in Environmental Science requires at least 36 semester hours made up as follows:

Required Courses (9 semester hours)

ENSC 50703	Environmental Compliance	3
	or	
ENSC 50693	Natural Resources Compliance	3
BIOL 60001	Scientific Presentation	1
	or	
ENSC 60001	Environmental Presentations	1
ENSC 60011	Literacy of Science Review	1
ENSC 60021	Oral Examination	1
ENSC 60203	Environmental Issues	3
BIOL 60001 if major advisor is BIOL		
ENSC 60001 if major advisor is ENSC or GEOL		

Electives (24-27 semester hours)

The electives are selected in consultation with the director of the program. At least 21 hours of electives must be ENSC, BIOL or GEOL courses. Students may count up to 6 hours of Applied Projects (ENSC 50003) toward their electives, though further Applied Projects hours may be taken with the approval of the director of the program. Each student also prepares an individual Program of Study (POS) in consultation with the director of the program.

Elective Internship (3 semester hours)

Students may complete an approved internship with a company, government agency or national laboratory. Three credit hours may count toward their degree plan through the internship. The purpose of the internship program is to train and equip students for future careers as environmental professionals. It provides the opportunity for students to experience first-hand actual environmental challenges in government, industry, public interest groups and scientific research organizations. The program reaches beyond the campus to provide practical experience individually tailored to each student's academic goals and capabilities. Part-time students who already work in their area of study may fulfill the internship requirement by working on a special project with their current employer. All projects require a brief proposal and approval from the program director. At the conclusion of this internship, students must present a summary of their internship project(s) in both oral and written form.

Environmental Science, MS Requirements

The Master of Science in Environmental Science requires at least 30 semester hours with a thesis. These semester hours are made up as follows:

Required Courses:

ENSC 60203	Environmental Issues	3
ENSC 50703	Environmental Compliance	3
	or	
ENSC 50693	Natural Resources Compliance	3
BIOL 60001	Scientific Presentation	1
	or	
ENSC 60001	Environmental Presentations	1

ENSC 60011	Literacy of Science Review	1
ENSC 60021	Oral Examination	1
ENSC 70980	Thesis	3
ENSC 70990	Thesis	3
Electives	Approved Electives	15

BIOL 60001 if major advisor is BIOL

ENSC 60001 if major advisor is ENSC or GEOL

Thesis (6 semester hours)

Students, in consultation with a faculty member, should select an appropriate research topic normally at the end of their first year of graduate work. At this time, students present and defend a thesis proposal to the faculty, where they show a grasp of the literature and have a well-defined rationale and set of objectives, a planned methodology, and an appropriate budget. If approved, students proceed with their research until submission of the thesis as per TCU guidelines. Each student will defend his/her thesis in an oral examination.

Electives (15 semester hours)

The electives are selected in consultation with the student's major professor and the director of the program. At least 12 hours of electives must be ENSC, BIOL or GEOL courses. Students may count up to 6 hours of Applied Projects (ENSC 50003) toward their electives, though further Applied Projects hours may be taken with the approval of the director of the program.

Environmental Management, MEM Requirements

The Master of Environmental Management is a two-year professional degree by coursework. This degree is designed to equip students with the skills needed to bridge the gaps between science, business and government, and for those individuals who plan to enter or re-enter the workforce upon graduation. The degree plan requires coursework in both the natural sciences and business, with a particular focus on the relationship between science, management and policy.

Students pursuing a Master of Environmental Management must complete at least 36 semester hours as follows:

Required (Core) Courses (30 semester hours)

The required core courses have been developed to account for a full range of physical, biological, societal, legal and economic principles essential for environmental problem solving. The core courses are generally designed to accommodate varying levels of knowledge.

BIOL 50103	Terrestrial Ecosystems	3
	or	
BIOL 50703	Ecology of Lakes and Streams	3
	or	
ENSC 50783	Environmental Chemistry	3
GEOL 50493	Physical Hydrology	3
ENSC 50693	Natural Resources Compliance	3
ENSC 50703	Environmental Compliance	3
ENSC 60011	Literacy of Science Review	1
ENSC 60021	Oral Examination	1
ENSC 60001	Environmental Presentations	1
ENSC 60203	Environmental Issues	3
ACCT 60010	Financial Reporting	1.5
ACCT 60020	Accounting for Managerial Planning and Control	1.5
MANA 60330	Engaging People	1.5
MANA 60340	Leading Teams and Organizations	1.5
MANA 60460	Business Ethics	1.5
MANA 70610	Essentials of Negotiation	1.5

Night option:

FINA 60013	Management of Financial Resources	3
	OR	

Day option:

FINA 70970	Special Problems in Finance	1.5
INSC 60060	Decision Models	1.5

Students may choose an alternative BIOL course in place of ENSC 50213 with the approval of the director of the program.

Substitutions for GEOL 50493, 50703 will not be allowed unless the student has had an upper-level equivalent course and the approval of the director of the program.

Students taking ACCT 60010 and ACCT 60020 must participate in a pre-semester workshop. Contact Neeley School Graduate Programs Office for information: 817-257-7991.

Night option is FINA 60013. Day option is FINA 70970 and INSC 60060

Specialization/Electives/Internship (6 semester hours)

In addition to the core courses, which are intended to provide a broad training in the field of environmental management, students choose two electives as part of their MEM degree plan. These electives may be grouped to form a "specialization," either within the sciences or business, but may include courses from other departments on the TCU campus. However, no more than three additional hours of business courses may be selected. The degree is restricted to a maximum of 15 hours of business courses.

In lieu of three hours of electives, students may choose to complete an internship with a company, government agency or national laboratory. The purpose of the internship program is to train and equip students for future careers as environmental professionals. It provides the opportunity for students to experience first-hand actual environmental challenges in government, industry, public interest groups and scientific research organizations. The program reaches beyond the campus to provide practical experience individually tailored to each student's academic goals and capabilities.

Part-time students who already work in their area of study may fulfill the internship requirement by working on a special project with their current employer. All projects require approval from the program director. At the conclusion of this internship, students must present a summary of their internship project(s) in both oral and written form.

Geology Requirements

Students may earn the Master of Science in Geology.

Prerequisites: A BA or BS from an acceptable college of university with an academic record meeting the standards of TCU.

Students who have majored in an area other than geology may be admitted if undergraduate deficiencies can be removed within a reasonable amount of time. An applicant's academic record should demonstrate knowledge both of the other sciences necessary to the field of concentration and of mathematics through differential and integral calculus. If these areas are deficient, the student may be counseled to take non-credit background courses.

Geology, MS Requirements

The Master of Science in Geology requires at least 30 semester hours with a thesis. These semester hours are made up as follows:

Required Courses:

GEOL 60710	Geology Seminar	3
GEOL 70980	Thesis	3
GEOL 70990	Thesis	3
Geology Electives		9
Electives	Approved Electives	12

The Master of Science in Geology requires a total of at least 30 approved hours, including at least 12 in geology (of which 3 must be in GEOL 60710); 6 in thesis, approved electives or 9-hour minor in a related graduate field may be substituted for geology courses. Students must maintain a minimum GPA of 3.0.

Mathematics, Ph.D.

Requirements

The Ph.D. in mathematics consists of coursework, examinations, and research, as specified below. In accordance with University policy, a GPA of at least 2.75 must be maintained with no more than two passing grades of "C+" or lower being utilized in satisfying the degree requirement.

Core Coursework (27 hours):

Coursework for the Ph.D. must include the following nine core courses:

MATH 50253	Abstract Algebra I	3
MATH 60263	Abstract Algebra II	3
MATH 50503	Real Analysis I	3
MATH 60503	Real Analysis II	3
MATH 60513	Multivariable Analysis	3
MATH 60223	Applied Linear Algebra	3
MATH 60313	Topology	3
MATH 60323	Algebraic Topology I	3
MATH 60413	Advanced Complex Analysis	3

Any or all of these courses may be waived for more advanced students by departmental permission.

Preliminary Examinations

The program requires substantial training in algebra, real analysis, topology, and complex analysis. The student must pass three of the following four preliminary written exams:

- Real Analysis Exam (based on MATH 50503 and MATH 60513)
- Algebra Exam (based on MATH 30224, MATH 50253 and MATH 60263)
- Topology Exam (based on MATH 60313 and MATH 60323)
- Complex Analysis Exam (based on MATH 50403 and MATH 60413)

The student must pass the Real Analysis Exam, the Algebra Exam, and either the Topology Exam or the Complex Analysis Exam. These exams are administered twice each year and must be passed by the end of the sixth semester.

Research-Specific Coursework

After passing the preliminary examinations, the student decides on his/her direction of research and dissertation advisor. Based on the recommendation of the department, the dean appoints a Ph.D. Advisory Committee of at least four members, including the dissertation advisor as chair.

Possible areas of research specialization include real analysis, complex analysis, functional analysis, algebraic geometry, differential geometry, number theory, topology, global analysis and K-theory.

Students must also take at least one semester of three hours of MATH 80880 Graduate Student Seminar, providing training in the oral presentation of research-level mathematics.

Qualifying Examination

The student and advisory committee agree on a detailed plan of study to prepare the student for mathematical research. They decide on a syllabus of qualifying topics; after due preparation, the student takes the oral qualifying exam on these topics, administered by the advisory committee. In accordance with University requirements, the exam can only be taken after passing the preliminary examinations and not before the second semester of the second year. If the exam is not passed, at most one re-examination is allowed.

Admission to Candidacy

The student advances to candidacy after passing the qualifying examination.

Research

The student performs research in his/her area of specialization, which leads to a dissertation, if successful.

Dissertation (at least 12 hours)

Admission to candidacy is the prerequisite to enrollment in dissertation research, consisting of an original research project directed by a graduate faculty member at TCU. 6 hours of MATH 90980 Dissertation and 6 hours of MATH 90990 Dissertation are required. According to University policy, the time allowed to complete the dissertation is at most six years after advancement to candidacy. Also in accordance with University rules, the student must submit an Intent to Graduate form at the beginning of the last semester, for which there is a non-refundable fee. For the student to be eligible for the degree, the Ph.D. Advisory Committee must approve the dissertation upon its completion. A final oral examination is required and is open to the public.

Mathematics

Mathematics is available on the Master of Arts in Teaching, Master of Science and Doctor of Philosophy degrees.

Prerequisites for the MAT: A baccalaureate degree with the equivalent of a major in mathematics consisting of courses through elementary calculus of one and several variables, linear algebra and at least eight hours of approved advanced courses.

Prerequisites for the MS: A BA or BS degree with a mathematics major or 24 semester hours of mathematics, including courses in elementary calculus of one and several variables, linear algebra and at least eight hours of departmentally approved advanced undergraduate courses in mathematics. Students deficient in any area of preparation may be required to take the necessary coursework during the first year of graduate study.

Scores on the GRE are used as an aid in the overall evaluation of the applicant's graduate potential.

Prerequisites for the Ph.D.: BA or BS with a mathematics major or 24 semester hours of mathematics, including courses in elementary calculus of one and several variables, linear algebra, abstract algebra and real analysis. Students deficient in any area of preparation may be required to take the necessary coursework during the first year of graduate study.

Scores on the GRE are used as an aid in the overall evaluation of the applicant's graduate potential.

Mathematics, MAT

Requirements

The Master of Arts in Teaching program includes 24 hours of graduate mathematics courses and at least nine hours of graduate education courses. The MAT Program totals 36 hours. The remaining three-hour course may be chosen in either graduate mathematics or education, with approval of the MAT graduate program director.

Mathematics coursework must include

MATH 50253	Abstract Algebra I	3
MATH 50503	Real Analysis I	3
MATH 60023	Survey of Mathematical Problems I	3

All 50000-level courses count towards the MAT degree, subject to University limitations.

Graduate education coursework shall include at least 9 hours from the following:

EDMT	Any EDMT 50000 level 3-hour course	3
EDSP 50663	Motivating and Managing Students in the Classroom	3
EDSP 58003	Methods for Students with Mathematics Learning Differences	3
EDSP 60233	Understanding Exceptional Children and Youth At-Risk	3
EDUC 50003	Diversity in American Education	3
EDUC 60213	Psychology of Thinking and Learning	3
EDUC 60253	Historical and Philosophical Foundations of Education	3
EDUC 60313	Educational Assessment	3
EDUC 60980	Advanced Clinical Teaching	6

*EDUC 60980 requires 6 hours.

Students seeking a secondary certificate in mathematics must independently apply to and be accepted by the Teacher Education Program in the TCU College of Education upon their enrollment in the MAT Program. Note that additional coursework is likely and will be determined by the College of Education, depending upon the student's background.

Mathematics, MS

Requirements

The Master of Science in Mathematics program consists of 36 hours of graduate coursework, from the three areas specified below. In accordance with University policy, a GPA of at least 2.75 must be maintained with no more than two passing grades of "C+" or lower being utilized in satisfying the degree requirement.

Core Coursework (15 hours)

Coursework for the MS degree must include the following five core courses:

MATH 50253	Abstract Algebra I	3
MATH 50403	Complex Analysis	3
MATH 50503	Real Analysis I	3
MATH 60513	Multivariable Analysis	3
MATH 60223	Applied Linear Algebra	3

An advanced student may be waived from any or all of these required courses by passing the corresponding Ph.D. preliminary exam(s) or otherwise showing proficiency in the material, as determined by the department.

Specialized Coursework (12 hours)

In addition to the five core courses, at least four courses are to be chosen from either the Pure Mathematics Option or the Applied Mathematics Option (refer to course listings below).

Pure Mathematics Option:

This track of the MS Program is intended to prepare students for careers in academia. Each student selecting this track will take at least four of the pure mathematics courses listed below:

MATH 50323	Differential Geometry	3
MATH 50703	Number Theory	3
MATH 60263	Abstract Algebra II	3
MATH 60313	Topology	3
MATH 60323	Algebraic Topology I	3
MATH 60413	Advanced Complex Analysis	3
MATH 60503	Real Analysis II	3
MATH 60523	Measure Theory	3
MATH	Any MATH 70000 level 3-hour course	3

Applied Mathematics Option:

This track of the MS Program is intended for students planning to use mathematics in careers outside academia. Each student selecting this track will take at least four applied mathematics courses from the list below:

MATH 50613	Partial Differential Equations	3
MATH 50623	Applied Mathematics I	3
MATH 60103	Graph Theory	3
MATH 60543	Numerical Analysis	3
MATH 60553	Modern Fourier Analysis	3
MATH 60603	Game Theory	3
MATH 60613	Differential Equations of Mathematical Physics	3
MATH 60633	Applied Mathematics II	3
MATH 60643	Dynamical Systems and Applications	3

Up to 6 hours of the applied mathematics courses may be substituted with graduate coursework taken in the departments of Biology, Chemistry, Computer Science or Physics & Astronomy, or from Geological Sciences or Environmental Sciences, with approval from the student's graduate advisor in the Department of Mathematics.

Master's Thesis or Electives (9 hours)

The student may choose either to write a master's thesis (three hours of MATH 70980 and three hours of MATH 70990) and complete three hours of approved elective coursework, or to complete nine hours of approved elective coursework. Based on the recommendation of the department, the dean appoints a Master's Advisory Committee of at least three members, including the thesis advisor as chair. For the student to be eligible for the degree, the Master's Advisory Committee must approve the thesis upon its completion. The thesis need not contain original research but must demonstrate a deep and thorough understanding of some area of mathematics.

Mathematics, Ph.D.

Requirements

The Ph.D. in mathematics consists of coursework, examinations, and research, as specified below. In accordance with University policy, a GPA of at least 2.75 must be maintained with no more than two passing grades of "C+" or lower being utilized in satisfying the degree requirement.

Core Coursework (27 hours):

Coursework for the Ph.D. must include the following nine core courses:

MATH 50253	Abstract Algebra I	3
MATH 60263	Abstract Algebra II	3
MATH 50503	Real Analysis I	3
MATH 60503	Real Analysis II	3
MATH 60513	Multivariable Analysis	3
MATH 60223	Applied Linear Algebra	3
MATH 60313	Topology	3
MATH 60323	Algebraic Topology I	3
MATH 60413	Advanced Complex Analysis	3

Any or all of these courses may be waived for more advanced students by departmental permission.

Preliminary Examinations

The program requires substantial training in algebra, real analysis, topology, and complex analysis. The student must pass three of the following four preliminary written exams:

- Real Analysis Exam (based on MATH 50503 and MATH 60513)
- Algebra Exam (based on MATH 30224, MATH 50253 and MATH 60263)
- Topology Exam (based on MATH 60313 and MATH 60323)
- Complex Analysis Exam (based on MATH 50403 and MATH 60413)

The student must pass the Real Analysis Exam, the Algebra Exam, and either the Topology Exam or the Complex Analysis Exam. These exams are administered twice each year and must be passed by the end of the sixth semester.

Research-Specific Coursework

After passing the preliminary examinations, the student decides on his/her direction of research and dissertation advisor. Based on the recommendation of the department, the dean appoints a Ph.D. Advisory Committee of at least four members, including the dissertation advisor as chair.

Possible areas of research specialization include real analysis, complex analysis, functional analysis, algebraic geometry, differential geometry, number theory, topology, global analysis and K-theory.

Students must also take at least one semester of three hours of MATH 80880 Graduate Student Seminar, providing training in the oral presentation of research-level mathematics.

Qualifying Examination

The student and advisory committee agree on a detailed plan of study to prepare the student for mathematical research. They decide on a syllabus of qualifying topics; after due preparation, the student takes the oral qualifying exam on these topics, administered by the advisory committee. In accordance with University requirements, the exam can only be taken after passing the preliminary examinations and not before the second semester of the second year. If the exam is not passed, at most one re-examination is allowed.

Admission to Candidacy

The student advances to candidacy after passing the qualifying examination.

Research

The student performs research in his/her area of specialization, which leads to a dissertation, if successful.

Dissertation (at least 12 hours)

Admission to candidacy is the prerequisite to enrollment in dissertation research, consisting of an original research project directed by a graduate faculty member at TCU. 6 hours of MATH 90980 Dissertation and 6 hours of MATH 90990 Dissertation are required. According to University policy, the time allowed to complete the dissertation is at most six years after advancement to candidacy. Also in accordance with University rules, the student must submit an Intent to Graduate form at the beginning of the last semester, for which there is a non-refundable fee. For the student to be eligible for the degree, the Ph.D. Advisory Committee must approve the dissertation upon its completion. A final oral examination is required and is open to the public.

Nutritional Sciences

Students may pursue the Master of Dietetics on the Combined BS/MS Dietetics Program.

Mission: The mission of the MS in dietetics is to support the missions of the University, college and department by providing a quality advanced academic curriculum with a concentration in nutrition education that prepares students to be scientifically competent, accountable and ethically responsible citizens who are prepared to be productive, self-educating leaders within the dietetics profession and the global community.

Dietetics, MS

(Inaugural Class Fall 2020)

Requirements

Program of Study

The MS in dietetics provides the opportunity to complete the necessary coursework and supervised practice hours after completing the TCU Bachelor of Science in Dietetics. Curriculum is based on educational standards mandated by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics. The Combined BS/MS in Dietetics offers the unique opportunity to acquire the required didactic instruction (lecture and laboratory courses) and supervised practice experience hours necessary to meet the Core Knowledge and Competencies for the Registered Dietitian Nutritionist as mandated by ACEND. Graduates receive verification and establish eligibility to write the Registration Examination for Dietitians.

Admission to TCU is required for all programs; however, admission to the University does not guarantee admission to the Combined BS/MS in Dietetics. Eligibility for admission to the Combined BS/MS in Dietetics is based on successful completion of at least 60 semester hours with a GPA of at least 3.0 for Nutrition (NTDT) classes and an Associated Requirements GPA of 2.75, 45 semester hours of required prerequisites and major courses, 200 hours of documented food or nutrition practical experience, and an application packet. Application packets for the Combined BS/MS in Dietetics must be received by Feb. 1 (typically of the sophomore undergraduate year), and applicants are notified of provisional acceptance by April 15 of the same year. Students who are accepted begin the program the following academic year in August. Final acceptance/enrollment in the Combined BS/MS in Dietetics depends on successful completion of work in progress and ongoing school prerequisites. Conditional admission to the MS is granted to applicants who have completed all admission formalities and have a sufficient and superior undergraduate record but who have not completed undergraduate requirements.

Conditional admission will be changed to unconditional admission when the necessary prerequisites and/or admission formalities have been fulfilled, in addition, students must abide by all program policies and procedures in order to continue in the MS in Dietetics program.

A student's continuation in the Combined BS/MS in Dietetics is contingent upon attainment of a strong academic record and successful completion of the program sequence. In order to earn the BS in Dietetics degree, the student must attain a minimum NTDT GPA of 3.0 and a minimum GPA of 2.75 in the Associated Requirements, plus earn a "C-" or better in all NTDT courses

and a grade of "C-" or better in all Associated Requirements. A student must earn at least a 300 on the Graduate Record Examination by Dec. of the last year in the BS portion of the combined BS/MS dietetic (typically the fourth year) to continue in the Combined BS/MS in Dietetics program and have graduate admission through the College of Science & Engineering by the spring of the final BS semester. A student who does not meet all of these requirements cannot continue in the combined BS/MS in Dietetics.

Students enrolled in the MS in dietetics who do not meet all of the requirements to graduate with an MS in dietetics have the option to pursue verification from the TCU Didactic Program in Dietetics in order to be eligible to pursue a dietetic Internship if they have earned a BS in dietetics from TCU. Further information about the Combined BS/MS in Dietetics is available in the undergraduate catalog.

Students can graduate with a BS in dietetics and begin the graduate program, but they will not earn verification to take the Registration Examination for Dietitians if they are unable to complete the graduate degree requirements and do not earn the MS in Dietetics degree. In order to earn the MS in Dietetics degree, the student must attain a minimum **graduate NTDT GPA of 3.0 and earn a "C-" or better in all NTDT graduate courses.** All final 50000- and 60000-level course grades will be included in the **computation of the graduate GPA, but no more than two grades of "C+" or lower** may be utilized in satisfying the degree requirements.

Students complete 12 hours of dual undergraduate/graduate credit during the fourth year of undergraduate study. At the end of the fourth year, assuming that all other undergraduate graduation requirements are met, the student earns his/her BS degree in dietetics. During the fifth year of the Combined BS/MS in Dietetics program, the student completes the remaining 20-22 graduate credit hours (10-12 hours of coursework, 10 hours of supervised practice) toward the MS in Dietetics degree. A minimum of 32 credit hours is required to graduate with the MS in Dietetics. Students intending to pursue the Combined BS/MS in Dietetics must earn a BS in dietetics from TCU. In addition, all 30000, 40000, 50000 and 60000 NTDT courses must be taken from TCU.

Students may choose to complete a thesis in the MS in Dietetics. In order to complete the thesis option, students must complete 3 hours of NTDT 70980 and three hours of NTDT 70990. Thesis students are required to complete all other coursework necessary for the MS in Dietetics.

Information about costs for tuition and University fees is available through the TCU Office of Admission or Financial Services. More detailed costs for students are outlined in the Combined BS/MS in Dietetics Student Handbook and include approximately \$1,000-\$1,500 per year for travel to supervised practice sites, vaccinations, lab fees, photocopying, school and office supplies, textbooks, lab coats, malpractice insurance and professional dues.

The TCU Combined BS/MS in Dietetics program is accredited by the Accreditation Council for Education in Nutrition and Dietetics of the Academy of Nutrition and Dietetics, 120 S. Riverside Plaza, Suite 2190, Chicago, Ill. 60606-6995, (312) 899-0040, ext. 5400, www.eatright.org/ACEND.

Course Requirements:

Fourth year:

NTDT 55343	Biochemical, Physiological, and Molecular Aspects of Human Nutrition	3
NTDT 55353	Experimental Food Science	3
NTDT 55363	Community Nutrition and Public Health	3
NTDT 55973	Nutritional Sciences Seminar	3

Summer fourth year:

NTDT 60303	Advanced Supervised Practice I	3
NTDT 60973	Nutritional Sciences Graduate Seminar	3

Fifth year:

NTDT 60020	Advanced Research Practice	1
NTDT 60313	Advanced Supervised Practice II	3
NTDT 60324	Advanced Supervised Practice III	4
NTDT 60443	Nutritional Genomics	3
NTDT 60453	Nutrition Ecology, Food, and Sustainability	3

Additional course requirements for thesis option:

NTDT 70980	Thesis	3
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NTDT 70990 Thesis 3

Physics & Astronomy

Students may pursue the Master of Arts, Master of Science and Doctor of Philosophy in Physics.

Prerequisites for the MA, MS or Ph.D. Degrees: BA or BS in Physics, or 24-semester-hour equivalent, including intermediate or advanced undergraduate courses in mechanics, electricity and magnetism, atomic and nuclear or modern physics or their equivalents. Twelve semester hours must be of junior or senior level. Required are mathematics through differential equations and a course in general chemistry.

Students deficient in any area of preparation may be required to take the necessary coursework during the first year of graduate study. Scores on the GRE are used as an aid in the overall evaluation of the applicant's graduate potential.

Teaching Requirement

As part of their professional training, full-time graduate students in physics are required to participate in the undergraduate teaching function of the department. This requirement is met by assisting in undergraduate labs, giving laboratory instructions, grading papers, conducting problem sessions or offering tutorial help. The assignment varies depending on the interest and experience of the student, and the degree of involvement in thesis or dissertation research. It usually amounts to 10 hours per week or less.

Physics, MA

Requirements

The Master of Arts in Physics requires 30 approved semester hours of graduate courses with a minimum of 18 semester hours in physics and knowledge of one foreign language. A thesis and a minor are optional. An oral exam over coursework and thesis, if any, is required.

Physics, MS

Requirements

The Master of Science in Physics requires 30 approved semester hours with a thesis or 36 semester hours without a thesis.

Course requirements for the degree are

PHYS 60303	Quantum Mechanics	3
PHYS 60403	Electrodynamics	3

Plus 3 courses from

PHYS 60313	Quantum Mechanics	3
PHYS 60203	Classical Mechanics	3
PHYS 60413	Electrodynamics	3
PHYS 60503	Solid State Physics	3
PHYS 60603	Statistical Physics	3
PHYS 60743	Astrophysics	3
PHYS 60803	Nonlinear Dynamics with Applications	3
PHYS 60823	Optical Spectroscopy and Fluorescence	3

Plus, a minimum of 6 additional semester hours in physics.

There is no foreign language requirement. An oral exam over coursework and thesis, if any, is required.

Physics, Ph.D.

Requirements

Completion of the following courses with a GPA of 2.75 or better:

PHYS 60303	Quantum Mechanics	3
PHYS 60313	Quantum Mechanics	3

Plus 4 courses from the following:

PHYS 60203	Classical Mechanics	3
PHYS 60403	Electrodynamics	3
PHYS 60413	Electrodynamics	3
PHYS 60503	Solid State Physics	3
PHYS 60603	Statistical Physics	3
	AND	
PHYS 60970	Research Problems	9
PHYS 90980	Dissertation	6
PHYS 90990	Dissertation	6

A minimum of 9 hours of PHYS 60970 Research Problems must be completed with an average grade of 2.75 or better.

Additional coursework may be required to ensure adequate preparation for the specified courses. Each full-time student is required to participate in departmental seminars, formally report yearly on their progress and present in a public forum at least once each academic year.

The course requirements for any course other than PHYS 60970 Research Problems may also be met by satisfactory performance on a written examination administered by the faculty over the subject matter of that course or by transfer of credit in an equivalent course from another institution.

Students are required to have completed an MA or MS degree in Physics or Astronomy as a requirement for the Ph.D.

There is no language requirement for the Ph.D. in Physics.

Advancement to Ph.D. Candidacy

The advancement to Ph.D. candidacy consists of completion of course work and the passing of two major exams:

1. Physics Evaluation Examination: The physics evaluation exam will be given each semester as needed. Incoming students will take a single four-hour written exam covering topics expected from a standard undergraduate physics degree. Students must pass the exam to be eligible to continue on to their second year of Graduate study. Incoming students who fail the exam are allowed to retake the exam once at the beginning of the semester following the semester they entered the program. Students who do not pass the exam will be dismissed at the completion of their second semester.
2. Dissertation Proposal Exam: The dissertation proposal exam will be taken in the spring semester of the second year and is comprised of:
 - a. A written proposal for the dissertation research, including a description of any research already completed, must be submitted to the graduate faculty of the department at least two weeks prior to the oral exam (c.). Details on the required format for the report are available from the department.
 - b. An oral presentation of the dissertation proposal to the department faculty on the subject of the written report.
 - c. A comprehensive oral exam administered by the graduate faculty of **the department to assess a student's readiness to carry out the dissertation research.** If the graduate faculty of the department attach a condition to passing the dissertation proposal exam, (e.g. revision of the predissertation report or submission of additional material), the additional work must be completed by no later than the beginning of the semester following the presentation. The removal of the condition is subject to the approval of the graduate faculty. Students who do not pass the examination are encouraged **to complete the requirements for a terminal master's degree if they have not already done so.**

The results of the competency exam, course work, the dissertation proposal, and other indications of research potential will all be considered by the departmental graduate faculty. Advancement to Ph.D. candidacy will be approved by a completion of the above requirements and a majority vote of the department graduate faculty.

Dissertation

Completion of a dissertation consisting of an original research project directed by a faculty member at TCU. Six hours of PHYS 90980 Dissertation and six hours of PHYS 90990 Dissertation are required. A final oral exam in defense of the dissertation is required and at least one paper based on the dissertation research must be accepted for publication in an appropriate scientific journal.

Physics/Astrophysics Option, (Ph.D.)

Requirements

Completion of the following courses with a GPA of 2.75 or better:

PHYS 60743	Astrophysics	3
PHYS 60303	Quantum Mechanics	3
PHYS 60403	Electrodynamics	3

Plus 3 courses from the following:

PHYS 60203	Classical Mechanics	3
PHYS 60313	Quantum Mechanics	3
PHYS 60413	Electrodynamics	3
PHYS 60603	Statistical Physics	3

A minimum of nine hours of PHYS 60970 Research Problems in Astronomy must be completed with an average grade of 2.75 or better. Students in the astrophysics option may also be required to take PHYS 70743 Advanced Topics in Astrophysics to ensure an adequate background for their dissertation research.

Except for the courses specified above, the remaining regulations concerning coursework, predissertation qualifying exam and dissertation are the same as those prescribed above for the Ph.D. in Physics.

Physics/Biophysics Option, (Ph.D.)

Requirements

Completion of the following courses with a GPA of 2.75 or better:

PHYS 60303	Quantum Mechanics	3
PHYS 60313	Quantum Mechanics	3

Plus 4 courses from the following:

PHYS 60803	Nonlinear Dynamics with Applications	3
PHYS 60823	Optical Spectroscopy and Fluorescence	3
PHYS 60403	Electrodynamics	3
PHYS 60413	Electrodynamics	3
PHYS 60603	Statistical Physics	3

A minimum of 9 hours of PHYS 60970 Research Problems in Biophysics must be completed with an average grade of 2.75 or better. Students in the biophysics option may also be required to take one or more additional courses from: PHYS 50753 Topics in Biophysics, PHYS 50763 Experimental Methods in Biochemistry and Biophysics, or PHYS 70753 Advanced Topics in Biophysics to ensure an adequate background for their dissertation research.

Except for the courses specified above, the remaining regulations concerning coursework, predissertation qualifying exam and dissertation are the same as those prescribed above for the Ph.D. in Physics.

Physics/Business Option, (Ph.D.)

Requirements

The Ph.D. in Physics is also available with a business option. Students entering the Ph.D. program with a BS are normally expected to complete the Ph.D. requirements within five years. At the end of the fourth year of graduate studies, a candidate for the Ph.D. in Physics who has demonstrated sufficient progress in research (dissertation), may submit a written request to the Department of Physics & Astronomy for admission to this program. Providing there is a clear indication that the student can reasonably be expected to complete all the requirements for the Ph.D. within five years, permission will be granted to apply to the director of admissions of the MBA Program of the Neeley School of Business. During the fifth year, the student is expected to continue with the dissertation on a reduced scale, and, if on departmental teaching assistantship, to perform designated departmental teaching duties. Students entering the Ph.D. program with advanced standing (MS degree or more) can request an accelerated program.

In addition to the course-work, qualifying examinations and dissertation requirements specified for the Ph.D. degree in Physics, the student will satisfy the following conditions specified by the Neeley School of Business:

1. Students electing to take the business option will take the 18 hours of MBA coursework over the course of two consecutive semesters (entering in the fall and finishing in the spring semesters).
2. Students are required to attend the START Workshop conducted by the Neeley School that occurs just before the start of the fall semester. Students are assessed a fee for the workshop.
3. The Neeley School will accept the results of the GRE.
4. The director of admissions has sole authority to admit physics Ph.D. candidates to the MBA program (whether they seek the MBA degree or the option).
5. Under the assumption that the students come to the program with a good background in statistics, they would take the following courses:

Fall Semester (15 hours)

ACCT 60010	Financial Reporting	1.5
FINA 60010	Financial Management I	1.5
MARK 60010	Marketing Management	1.5
INSC 60060	Decision Models	1.5
MANA 60330	Engaging People	1.5
BUSI 60050	Global Environment of Business	1.5
INSC 60020	Managing Operations and Processes	1.5
MANA 60340	Leading Teams and Organizations	1.5
BUSI 60070	Business Simulation	1.5

Plus 1 course from the following

FINA 70010	Financial Management II	1.5
MARK 70010	Marketing issues and Problems	1.5
INSC 70600	Supply Chain Analytics	1.5

Spring Semester (3 hours)

ACCT 60020	Accounting for Managerial Planning and Control	1.5
FINA 60020	Managerial Economics	1.5

1. The foregoing may be adjusted in the event of realignment in the sequence of courses in the MBA program.
2. Students who wish to continue their studies in the program after their first year of business courses and pursue the MBA degree
 - a. Will, with the approval of the director of the MBA Program, be permitted to transfer in for credit a total of six hours of 60000- or 70000- level graduate physics coursework. Transfer will be approved for a graduate-level course that is equivalent to DESC Statistics and other 60000- or 70000-level coursework taken in the Department of Physics and Astronomy
 - b. Will be required to complete such additional coursework as required of other MBA students and as is provided in the applicable *TCU Graduate Studies Catalog*. The student will work closely with the academic program director to plan his/her schedule.

Prospective candidates for the Ph.D. in Physics or the Ph.D. with Business Option should be advised that the maximum term of fellowship or assistantship support through the Department of Physics and Astronomy is five years, and support for MBA courses from the TCU Department of Physics and Astronomy fellowships or assistantship is limited to 18 hours. Financial support for additional hours required for completion of the MBA degree would be the student's responsibility; students would be eligible to apply for financial aid for the second year of MBA study from the Neeley School of Business.

Psychology

Students may earn the Master of Arts, Master of Science and Doctor of Philosophy in Experimental Psychology, or a Master of Science in Developmental Trauma. A minor in Quantitative Psychology is also available. Students who want only a master's degree in psychology and do not plan to complete the doctoral program at TCU are not typically accepted.

Prerequisites for the MA and MS Degrees in Experimental Psychology: BA or BS in Psychology or a 24-hour equivalent.

Prerequisites for the MS Degree in Developmental Trauma: The Developmental Trauma program is designed for students with background in psychology, child development or a related field.

Prerequisites for the Ph.D. Degree in Experimental Psychology: BA or BS in Psychology or a 24-hour equivalent.

Satisfactory scores on the GRE are required. Students with majors in other disciplines will be considered upon request, but may be required to make up any deficiencies in their undergraduate preparations.

National Honor Society

The Department of Psychology sponsors the TCU chapter of Psi Chi, national honorary society for psychology.

Psychology, MA/MS

Requirements

A pre-doctoral Master of Arts (available by special permission only) or Master of Science in Experimental Psychology requires a minimum of 30 approved semester hours, including at least six semester hours of thesis (MS). This program is recommended for students who plan to pursue doctoral-level graduate study in the Psychology Program at TCU.

The Master of Science in Psychology requires at least 30 semester hours with a thesis. These semester hours are made up as follows:

Students must pass (grade of "B-" or higher in each) six core courses from the following options:

1) Neuroscience/Learning

PSYC 60553	Conditioning and Learning	3
PSYC 50403	Advanced Neuroscience	3

2) Social/Evolutionary

PSYC 60663	Advanced Social Psychology	3
PSYC 60913	Evolutionary Social Psychology	3

3) Cognitive/Development

PSYC 50563	Developmental Psychology	3
PSYC 60583	Cognition	3

4) Quantitative

PSYC 50523	Experimental Design	3
PSYC 60623	Regression Analysis	3
	AND	

Thesis

PSYC 70980	Thesis	3
PSYC 70990	Thesis	3

Electives

Approved Electives	6
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Minimum Requirements:

*Students must take at least one course from each of 1, 2, and 3.

*Students must take at least one additional course from 1, 2, or 3.

*Students must take both courses in 4.

*A grade of less than B- in one course from 1, 2, or 3 may be replaced by at least a B- from either the same course or the alternative course in the corresponding area.

*A grade of less than B- in a course from 4 must be replaced by at least a B-

Developmental Trauma, MS

Requirements

The Master of Science in Developmental Trauma is designed to educate students about the scientific and applied aspects of complex developmental trauma. The goal is to prepare students for advanced academic study and/or professional practice. Students take a set of core courses in developmental trauma and are expected to choose elective courses to build expertise relevant to their career goals.

Required Courses (15 hours)

PSYC 50433	Vulnerable Child I: Theory	3
PSYC 50443	Vulnerable Child II: Practice	3
PSYC 50403	Advanced Neuroscience	3
PSYC 50563	Developmental Psychology	3
PSYC 60903	Developmental Trauma Capstone Course	3
PSYC 50423	Graduate Statistics	3
	OR	
PSYC 50523	Experimental Design	3
Electives	Approved Electives	12

12 hours of electives selected in consultation with adviser. In addition, student must take a minimum of 3 hours in experimental design or statistics.

Psychology, Ph.D.

Requirements

The program leading to the Ph.D. in experimental psychology has a research emphasis reflecting the study of psychology as a science rather than the therapeutic aspects of psychology. The term "research" should be interpreted broadly. The program is not limited to traditional experimental psychology, nor is it committed solely to laboratory-based methods. The department believes that a measure of specialized knowledge is built upon a firm but broad base of psychological principles and methods that constitute the best plan for most of its students. Although the graduate program leads to a Ph.D. in Experimental Psychology, the student is expected to pursue a specialized area of research. For information about areas of research interests of the faculty, contact the Department of Psychology or visit www.psychology.tcu.edu. Students who enter the Ph.D. program having completed a thesis-based master's degree at an accredited institution can request, on first entering the program, that the graduate faculty design a course sequence tailored to their individual needs, which might include different courses than those listed below.

All other entering students must pass (grade of "B-" or higher in each) six core courses from the following options

1) Neuroscience/Learning

PSYC 60553	Conditioning and Learning	3
PSYC 50403	Advanced Neuroscience	3

2) Social/Evolutionary

PSYC 60663	Advanced Social Psychology	3
PSYC 60913	Evolutionary Social Psychology	3

3) Cognitive/Development

PSYC 50563	Developmental Psychology	3
PSYC 60583	Cognition	3

4) Quantitative

PSYC 50523	Experimental Design	3
PSYC 60623	Regression Analysis	3
	AND	

PSYC 90980		6
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PSYC 90990		6
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Minimum Requirements:

*Students must take at least one course from each of 1, 2, and 3.

*Students must take at least one additional course from 1, 2, or 3.

*Students must take both courses in 4.

*A grade of less than B- in one course from 1, 2, or 3 may be replaced by at least a B- from either the same course or the alternative course in the corresponding area.

*A grade of less than B- in a course from 4 must be replaced by at least a B.

Beyond those required courses, each student takes all courses required by his/her area committee. Successful completion of the Ph.D. requires completing the course requirements, successfully defending a master's thesis if required by the faculty, passing the preliminary evaluation vote by the full faculty, passing a qualifying examination that has both written and oral components in order to advance to doctoral candidacy, and defending a Ph.D. dissertation.

The usual timeline involves completing the six core courses as described above by the end of the second year; completing the master's thesis, when required, by the end of the second year; continuing to take any additional courses required by the area committee; passing the preliminary evaluation vote by the end of the third year; passing the qualifying examination to advance to doctoral candidacy by the end of the third year, and successfully defending the Ph.D. dissertation within six years after advancing to doctoral candidacy.

Graduate Quantitative Psychology Minor

The minor in quantitative psychology provides graduate students enrolled in the Ph.D. program in experimental psychology advanced training in the application of psychometric, methodological and state-of-the-art statistical procedures. It equips graduate students with quantitative methods that will improve the quality of research in their substantive areas while providing the statistical credentials that facilitate favorable placements in academic and non-academic positions upon graduation. The Graduate Quantitative Psychology minor (GQPM) is also open to graduate students from other programs and departments. Students in pursuit of the minor are required to complete two core and three elective courses with a grade of "B-" or higher.

Requirements

Required Courses (6 semester hours)

PSYC 50523	Experimental Design	3
PSYC 60623	Regression Analysis	3

Electives (9 hours)

PSYC 50213	Interactive Data Analysis	3
PSYC 60633	Generalized Linear Models	3
PSYC 60643	Structural Equation Models	3
PSYC 60653	Multilevel/Hierarchical Models	3
PSYC 60673	Advanced Structural Equation Modeling	3
PSYC 60743	Longitudinal Data Analysis	3

Admission Requirements

Students will have achieved a master's degree in their respective programs before applying for the Graduate Quantitative Psychology Minor (GQPM.) For **students who enter the program with a master's degree or have taken** comparable courses elsewhere, the minor requirements can be modified at the discretion of the psychology faculty.

The courses required for the GQPM are intended to supplement, rather than **compete with, students' training in substantive areas of research.** Therefore, the GQPM requires only 15 credits of statistics coursework. 6 credits are earned by successful completion of the two required courses in the quantitative psychology sequence (PSYC 50523/60623), which graduate students in the Department of Psychology usually complete within the initial two years in the program. Students must successfully complete three additional courses (9 credits) beyond the two required for the graduate program, which may also count as departmental electives.

Graduation Requirements

Completion of the GQPM requires a minimum of 15 credit hours with no

grade below a "B-". A course with a grade below a "B-" can be retaken only once. If you make two grades of less than "B-", either in the same or two different courses, you will be automatically dismissed from pursuing the minor.

Students declare their intention by completing a "form for the proposed minor," which is given to the graduate director to be kept on file. Upon completion of the proposed coursework, the "form for the request to certify completion of the minor" is completed with the indicated signatures, and this form goes to the psychology graduate director.

Directory Information

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An educational corporation chartered by the state of Texas on April 11, 1874, Texas Christian University is controlled by a Board of Trustees. The trustees shall consist of not less than twenty-four nor more than fifty members, at least five of whom shall be members in good standing of the Christian Church (Disciples of Christ). The trustees nominate and elect their own members as terms expire or vacancies occur. Members serve a four-year term. The roster in June 2016:

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 Diane Snow, B.S., M.S., Ph.D.—Dean of the John V. Roach Honors College

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Institutional Effectiveness

Catherine Wehlburg, B.S., M.Ed., Ph.D.—Associate Provost

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Christopher M. Del Conte, B.A., M.Ed.—Director of Intercollegiate Athletics
 Monica Ray-Goth—Executive Assistant to the Athletics Director
 Gretchen Bouton, B.S., M.S.—Sr. Associate Athletics Director / Compliance and Student Services
 Jeremiah Donati—Associate Athletics Director / Development
 Jack Hesselbrock, B.S., M.B.A.—Sr. Associate Director of Athletics
 Kimberly N. Johnson, B.S., M.A., M.S.—Sr. Associate Athletics Director/SWA
 T. Ross Bailey, M.Ed.—Sr. Associate Athletics Director
 Scott Kull, B.B.A., M.A.—Sr. Associate Athletics Director
 Mike Siquefield, B.G.S.—Associate Athletics Director
 Ike Ukaegbu—Assistant Athletics Director for Compliance
 Jessica Hazard, B.A., J.D.—Compliance Coordinator
 Brent Cunningham, B.S., M.S.—Compliance Coordinator
 Mark Cohen, B.A.—Assistant Athletics Director for Director of Media Relations
 Matt Hoover, B.S., M.S.—Associate Director Media Relations
 Brandie Davidson, B.S., M.L.A.—Assistant Director of Media Relations
 Kyle Seay, B.S., M.L.A.—Assistant Director of Media Relations
 Abigail Norman, B.S.—Assistant Director of Media Relations
 Drew Martin, B.A.—Assistant Athletics Director for Marketing
 Julie Austin, B.A., M.Ed.—Assistant Director of Marketing

Jackie Torda, B.S., M.Ed.—Assistant Director of Marketing
 Rory Rutledge, B.A., M.A.—Assistant Director of Marketing
 Lindsay Shoulders, B.A.—Spirit Coordinator
 Tommy C. Love, B.A.—Athletics Business Manager
 Shawn Worthen, B.B.A., M.Ed.—Assistant Athletics Director for Academic Services
 Ray Walls, B.S., M.Ed.—Associate Director of Athletics Academics Services
 Rosie Tarnowski, B.S.—Academic Advisor
 Kristen Price, B.A., M.S., Ed.S., M.B.A.—Learning Specialist
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 Chris Hall, B.S., M.L.A.—Assistant Athletics Director of Sports Medicine
 David Gable, B.S., M.S.—Associate Director of Sports Medicine
 Valerie Hairston, B.S., M.S.—Assistant Athletics Trainer
 Mike Baum, B.S., M.A.—Assistant Athletics Trainer
 Zach LaCross, B.S., M.S.—Assistant Athletics Trainer
 Lauren Crawford, B.S., M.Ed.—Assistant Athletics Trainer
 Ashley Stone, B.S., M.S.—Assistant Athletics Trainer
 Patricia Jamison, B.S., M.L.A.—Assistant Athletics Trainer
 Brian Coutras, B.S.—Assistant Athletics Director for Equipment
 Victor Ignatiev, B.A., M.A.—Assistant Equipment Manager
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 Sean Conner, B.S.—Assistant Athletics Director for Ticket Office Operations
 Chip Heiss, Jr., B.S.—Ticket Office Customer Service Manager
 Deron Irons, B.S.—Assistant Manager of Athletics Tickets
 Jeremy Martin, B.S.—Assistant Manager of Athletics Tickets
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 Zachariah Dechant, B.S.—Assistant Strength and Conditioning Coach
 Todd Kensler, B.S.—Assistant Strength and Conditioning Coach
 Stephen Gephardt, B.S., M.Ed.—Assistant Strength and Conditioning Coach
 Mike Maples, B.A.—Video Coordinator
 Tim Allmon, B.A.—Assistant Video Coordinator

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 Rob Muggleston, B.S., M.B.A.—Sr. Account Executive
 John Finch, B.S.—Account Executive
 Laruen Frazier, B.S.—Partner Services Coordinator

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 Bil Mosiellio, B.A.—Associate Head Coach, Baseball
 Kirk Saarloos, B.A.—Assistant Baseball Coach
 Meredith Montgomery—Director of Operations

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 Kwanza Johnson, B.A., J.D.—**Assistant Men's Basketball Coach**
 Chris Tift, B.S., M.Ed.—**Assistant Men's Basketball Coach**
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 Robert Wright, A.A., B.S.—Director of High School Relations
 Raegan Pebley, B.S.—**Head Women's Basketball Coach**
 Hanna Howard, B.S.—**Associate Head Women's Basketball Coach**
 Edwina Brown
 Crystal Robinson, B.S.—**Assistant Women's Basketball Coach**
 Angela Gonzaga, B.S., M.A.—**Director of Operations, Women's Basketball**

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 Doug Meacham, B.S.—Assistant Football Coach
 Sonny Cumbie, B.A.—Assistant Football Coach

Jarrett Anderson, B.A., M.L.A.—Assistant Football Coach
 Demontie Cross
 Paul Gonzales, B.A, M.L.A.—Assistant Football Coach
 Rusty Burns, B.S., M.Ed.—Assistant Football Coach
 Dan Sharp, B.A., M.L.A.—Assistant Football Coach
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 Nelly Gonzalez—Assistant Director of Football Operations
 Zarnell Fitch, B.A., M.L.A.—Director of High School Relations
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Eric Russell, B.A.—Sr. Analyst, Special Teams

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Ryan Higginbotham, B.S.—Associate Head Soccer Coach

Sebastian Vecchio—Assistant Soccer Coach

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David Roditi, B.A.—Head Men's Tennis Coach

Devin Bowen, B.A.—Assistant Men's Tennis Coach

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Sara Matthews, B.S., M.A.—Assistant Volleyball Coach

Brian Wright, B.A.—Assistant Volleyball Coach

ShaDare McNeal, B.S.—Assistant Sand Volleyball Coach

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Ashley Edwards, B.S., M.S.—Academic Adviser

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Sharon Kassler, B.B.A., M.B.A.—Disabilities Specialist

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Michael Glynn—Admission Counselor

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Debbie Mar—Graduate Senior Financial Aid Adviser

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Jenny Dick, B.B.A.—HRIS Manager

Diane Edwards—Compensation Analyst

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David Upton, Ph.D.—Wellness Coordinator

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Kim Weber, B.S.—Project Manager

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Information Technology

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Andrew Hamer, B.S.—IT Coordinator, Music

Tammy Smetters—Assistant to the CTO

Technical Services

Travis Cook—Deputy Chief Technology Officer

Darlene Housewright, A.B.A.—Administrative and Telecommunications Assistant

Hollis Mitchell, B.G.S.—Computer Operator

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Tony Fleming, B.S.—Associate Director, Network Services

Craig Baugh—Network Engineer

Paul Bibbins—Network Engineer

Caleb Eaton, B.A.A.S.—Network Engineer

Warner Kimbrell—Network Engineer

John Saxton—Network Engineer

Infrastructure Services

Patti Sellers—Associate Director, Infrastructure Services

Stephanie Polly—Sr. Network Project Coordinator

Glenda Boche, B.S.—Network Projects

Terri Robinett—Communications System Specialist

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Bob Goode—Manager, Printing Services

Cindy Matthews—Administrative Program Specialist

Brandi Carroll—Digital Copy Operator

Howard Horne—Pre-Press Specialist

Tim Ybarra, H.S.—Printing Cert Offset Press Operator

Hardware and Purchasing

Joseph Lopez, B.S.—Computer Hardware Supervisor

Kevin Buchanan—Computer Hardware Technician

Austin Counts, B.A.—Computer Hardware Technician

Ken Do—Computer Hardware Technician

Terrie Harbour—Purchasing Specialist

Information Security Services

James Mayne, B.S., B.A., B.S., M.S.—Director, Information Security Services

David Kinch, B.A.—Information Security Engineer

Lenelda Pennington, B.S.—Information Security Engineer

Enterprise Application Services

Joshua Harmon, B.A.—Director, EAS

Richard Yantis, B.B.A.—Associate Director, EAS

Stephen Carr, B.A., B.S.—Applications Developer

Ben Crenshaw, B.S.—Applications Developer

Susie Davis, B.B.A., M.B.A., C.P.A.—Applications Developer

Faina Feldman, B.S., M.S.—Application Developer

Cindy McPherson, B.F.A., M.L.A.—Applications Developer

Michael Perales, B.B.A.—Applications Developer

Michael Selman, B.B.A., M.B.A.—Applications Developer

Joel Smith, B.A., M.B.A., J.D.—Applications Developer

Shawn Spangler, B.S.—Applications Developer

Jeffrey Stanley, B.S.—Applications Developer

Steve Taylor, B.S.—Applications Developer

Huy Tran, B.A.—Applications Developer

Yolanda Winston, B.B.A., M.L.A.—Applications Developer

Toby Leonard, B.S.—Applications Developer

Computer Systems

Craig Carlson, B.B.A.—Associate Director, Computer Systems

Ann Bailey, B.B.A, M.L.A.—Manager of Systems Labs

Mark Cook, B.S.—Client Server Administrator

Jon Eidson, B.S., M.B.A.—Sr. Database Administrator

Sean Gillaspay, B.S.—Administrator, Systems Labs

Jim Gribble, B.S.—Administrator, Systems Labs

Thomas Guidry, B.B.A.—Systems Administrator

Philip Howell—Systems Administrator

David Jewett—System Administrator

Josiah Miller, B.A.—Systems Administrator

Aaron Munoz, B.A., B.S.—Server Security Administrator

Brian Nevius—Systems Administrator

Stephen Meyers—Systems Administrator

Tommy Riley, B.B.A.—Database Administrator

Shelley Shuga, B.B.A. – Systems Administrator

IT Support

Joshua Tooley, B.S.—Associate Director, IT Support

Rob Allen, B.A, M.A.—Customer Services Consultant

Karen Bowerman, B.S.—Sr. Customer Services Consultant

Carlene Coover, B.A., M.B.A.—IT Technical Trainer

Alan Crume, A.A., B.S., D.D.—Customer Services Consultant

Cathleen Dawson-Jackson, A.A.—Sr. Customer Services Consultant

Charles Dewar, M.B.A.—IT Coordinator, Harris

Coleman Gee, B.S.—Sr. Customer Services Consultant

Jonathan McNair, B.S. – IT Coordinator, Student Affairs

Matt Coffer, B.A.—IT Support, Athletics

Rebecca Glass, B.S.—Sr. Customer Services Consultant

Michael Glass, B.A., B.A.—Frontline Operations Coordinator

Lori Russell, B.A.—Customer Services Consultant

Susan Bartlett, B.B.A., M.L.A.—Customer Services Consultant

Matthew Thomas, B.S.—IT Coordinator, AddRan/Education

Institute of Behavioral Research

Patrick M. Flynn, Ph.D.—Director and Professor of Psychology and Saul B. Sells Chair of Psychology

Jennifer Edwards Becan, Ph.D.—Associate Research Scientist

George W. Joe, Ed.D.—Associate Director for Process and Outcome Studies

Danica Kalling Knight, Ph.D.—Senior Research Scientist

Kevin Knight, Ph.D.—Deputy Director

Wayne E.K. Lehman, Ph.D.—Senior Research Scientist

Roxanne Muiruri, M.P.H.—Research Associate

Jennifer Pankow, Ph.D.—Associate Research Scientist

Grace A. Rowan, Ph.D.—Research Scientist

Amy M. Johnson, B.S.—Operations Coordinator

Institutional Research

Cathan L. Coghlan, A.B., M.S.S.W., Ph.D.—Director

Lindsey Millns, M.B.A.—Assistant Director, Reporting & Operations

Melissa Reeves, B.S.W., M.S.S.W.—Assistant Director, Data Analytics & Governance

TBD — Reporting Specialist

Instructional Services

Larry E. Kitchens, B.S., M.Ed.—Director

Intensive English Program - Directory

Kurk Gayle, B.A., M.A., Ph.D.—Director

—Assistant Director

—Coordinator

Barbara Alvarez, B.S., M.A., M.B.A.—Instructional Staff

Shannon Burnham, B.S., M.A.—Instructional Staff

Dustin Dirickson, B.A.Ed., M.Ed.—Instructional Staff

Jana Nolan, B.A., M.Ed.—Instructional Staff

—Instructional Staff

International Studies: TCU Abroad - Directory

Jane Kucko, B.S., M.S., Ph.D.—Director

Tracy Williams, B.A., M.A., Ph.D.—Associate Director

Susan Layne, B.A., M.A.—Study Abroad Advisor

Jesica Severson, B.A., M.S.—Study Abroad Coordinator

Marketing and Communication

Tracy Syler-Jones, B.A., M.B.A.—Vice Chancellor

Margaret Kelly, B.A.—Executive Director of Community Projects

Norma Martin, M.S.—Director of Editorial Services

Rick Waters, B.S.—Assistant Director of Editorial Services

Dee Dodson, B.A.—Senior Director of Advancement Communications

Ma'lisha Yost, B.S.—Assistant Director of Advancement Communications

Lisa Albert, B.S.—Director of Strategic Communications Management

Holly Ellman, B.S.—Assistant Director of Strategic Communications Management

Sandra Hawk Record, B.A.—Internal Strategic Communications Manager

Katherine Polenz, B.A., M.A.—Strategic Communications Management Specialist

Megan Murphey, B.A., B.S.—Strategic Communications Management Coordinator

Victor Neil, B.S.—Director of Web site Management

Elaine Tubre, B.A., M.S.—Assistant Director of Web Site Management

Jennifer Zarate, B.F.A.—Web Services Coordinator II

Amy Peterson, B.A.—New Media Specialist

Austin Price, B.A.—Social Media Specialist

Mayra Perales, B.A.—Web Services Developer

Jennifer McAlister, B.A.—Web Designer

Elizabeth Rainwater, B.S.—Director of Admission Marketing

Gorland Mar, B.F.A.—Director of Graphic Design

Liz Parks, A.A., B.A.—Assistant Director of Graphic Design

John K. Maddox, B.A.—Senior Art Director

Tracy Bristol, B.F.A.—Art Director

Mary Couts Burnett Library - Directory

June Koelker, B.A., M.L.S., M.B.A., Ph.D.—Dean

Cari Alexander, B.A., B.A., M.M., M.L.S.—Head, Music/Media Library

Charles Bellinger, B.S., M.A., Ph.D., M.S.L.S.—Brite Librarian

Walter Betts, B.M., M.L.S.—Systems Librarian

Diana Boerner, B.A., M.L.I.S.—Research Librarian: Business, Economics, Journalism, Strategic Communication and Ranch Management

Jeffrey Bond, B.S., B.M.E., M.L.S., M.S.—Scholarly Communication Librarian & Science Research Liaison

Kerry Bouchard, B.A., M.F.A., M.L.S.—Director of Library Systems

Jacob Brown, B.A., M.A., M.L.I.S.—Digital Services Librarian

Shelda Dean, B.A.—Marketing and PR

Sara Dillard, B.A., M.A., M.S.L.S.—Catalog Librarian

Stephanie Folse, B.A., M.A., M.L.I.S.—Web Services Librarian
 Dennis Gibbons, B.A., M.L.S.—Head, Collection Development
 David Hamrick, B.A., M.M., Ph.D., M.S.L.S.—Music/Media Catalog Librarian
 Ammie Harrison, B.A., M.A., M.L.I.S.—Humanities and Theatre Librarian
 Boglarka Huddleston, B.A., B.A., M.A., M.S.—Health Sciences Liaison & Assessment Librarian
 Tracy Hull, B.A., M.A., M.S.L.I.S.—Associate Dean
 Michael Lampley, B.A., M.L.I.S.—Electronic Serials Librarian
 James Lutz, B.A., B.A., M.S.L.S.—Director of Library Administrative Services
 Dennis Odom, B.A., M.L.S.—Head, Acquisitions
 Roger Rainwater, B.A., M.A., M.L.S.—Special Collections Librarian
 Robyn Reid, B.A., M.L.I.S., M.Ed.—Social Sciences Librarian
 Laura Ruede, B.M., M.L.S.—Dance Librarian and Van Cliburn Archivist
 Mary Saffell, B.A., M.A., M.L.I.S., C.A.—Senior Archivist
 Alysha Sapp, B.A., M.L.I.S.—Nursing & Nurse Anesthesia Librarian
 Cheryl Sassman, B.S., M.B.A.—Head, Circulation
 Kristen Sharp, B.S., M.L.S.—Access Services Librarian
 Laura Steinbach, B.F.A., M.F.A., M.L.S.—Art and Design Librarian
 Brad Trussell, A.A., A.S., BAAS, M.S.—Innovation Collaborator

Physical Plant

Todd S. Waldvogel, P.E., B.S., M.E.—Associate Vice Chancellor for Facilities
 Richard T. Bryan, B. Arch, M.U.P.—Director of Operations
 Harold J. Leeman, Jr., P.E., LEED AP, B.S., M.S.C.E. (2)—Director, Facility Planning and Construction
 David C. Mestemaker, B.S., M.A.—Assistant Director of Physical Plant, Resources
 Hollis Dyer, B.S., CEFP—Assistant Director of Physical Plant, Building Maintenance
 Robert Sulak, B.S.—Assistant Director of Physical Plant, Landscaping and Grounds
 Rex Bell, A.A.—Assistant Director of Physical Plant, Mechanical Systems
 George Bates, P.E., B.S., E.E.—Assistant Director of Physical Plant, Electrical Systems
 Shelton Riley, CEFP, LEED Green Associate, B.A.F.—Assistant Director, Facility Services
 Joseph Laster—Director, Facility Services
 Paul Alan Hood, CIE, B.S. Eng. Tech.—Project Engineer
 David Hoyler, A.I.A., LEED AP, B.S. Arch.—Project Architect
 Donald W. Bruner, Architect—Project Manager
 Jesus Rangel, Jr., P.E., LEED Green Associate, B.S., M.B.A.—Project Manager
 Patrick Mucker, LEED AP, B.S., M.B.A.—Project Manager
 Lisa Aven, RID, IIDA, LEED Green Associate B.S.—Interior Designer
 Stephanie McPeak, RID, IIDA, LEED Green Associate B.S. Interior Design—Interior Designer
 Roger Fuller, B.A., M.L.A.—Director of Purchasing

Provost's Office

R. Nowell Donovan, B.Sc., Ph.D.—Provost and Vice Chancellor for Academic Affairs
 Susan Mace Weeks, B.S., M.S., D.N.P. —Vice Provost for Academic Affairs
 Wendy Bell—Academic Program Specialist
 Terri Gartner—Executive Assistant to the Provost and Vice Chancellor
 Cindy Odiorne—Faculty Coordinator for Academic Affairs
 Amanda Gonzales—Administrative Assistant

Risk Management

Jonathan G. Brown, B.S.—Environmental Health and Safety Coordinator
 Randal L. Cobb, B.S.—Director of Safety

Paul F. Fox, B.S.—Director of Risk Management
 Jonathan Roark, B.S.—Director of Emergency Planning & Business Continuity

Sponsored Programs

Linda S. Freed—Director
 Teresa Miles Hendrix, M.P.A.—Assistant Director
 Laurie Heidemann—Administrative Program Specialist

Student Affairs Directory

Alcohol and Drug Education

Kimberly "Sparkle" Greenhaw, B.S., M.Ed., Ph.D.—Director of Alcohol and Drug Education
 Yvonne Lin Giovannis, B.A., M.Ed.—Assistant Director
 Caroline Albritton, B.S., M.Ed.—Program Specialist

Assessment

Angela Taylor, B.S., M.S., Ph.D.—Director of Student Affairs Quality Enhancement

Campus Life

David S. Cozzens, Ph.D.—Associate Vice Chancellor for Student Affairs, Dean of Campus Life
 Glory Robinson, B.S., M.Ed.—Associate Dean of Campus Life
 Leah B. Carnahan, B.A., M.Ed.—Assistant Dean of Campus Life
 Nick Whitesell, B.S., M.Ed.—Assistant Dean of Campus Life
 Jeremy Steidl, B.S., M.P.A.—Assistant Dean of Campus Life
 Jamie Dulle, B.A., M.Ed.—Assistant Dean of Campus Life
 Karen Bell, B.S., M.P.H.—Assistant Dean of Campus Life for Health Promotion

Campus Police

Steve McGee, B.B.A., J.D.—Chief
 J.C. Williams—Assistant Chief
 DeAnn Jones—Coordinator of Parking and Traffic Services

Campus Recreation

Jay Iorizzo, B.S., M.S.—Director
 Mary Ellen Millam, B.S., M.S.—Associate Director
 Cristina Carpenter, B.S., M.A.—Associate Director
 Sheldon Tate, B.S., M.S.—Assistant Director, Intramural Sports
 Aubrey Kettrick, B.S., M.S.—Assistant Director, Aquatics
 Ryan Keller, B.S., M.S.—Assistant Director, Fitness
 Cameron Potter, B.S., M.S.—Assistant Director, Outdoor Programs
 Michael Warren, B.A., B.F.A., M.B.A.—Assistant Director for Marketing

Career Services

Jessica Cates, B.A., M.S.—Interim Executive Director
 Susan Nethery, B.A., M.B.A.—Director of Student Affairs Marketing
 Diana Selman, B.F.A., M.F.A.—Marketing Coordinator
 Kimberly Satz, B.S., J.D.—Associate Director, Employer Development
 Celeste Lindell, B.S., M.B.A.—Employer Development Manager
 Camille Sholars —Employer Recruitment Coordinator
 Laura Chaney—Administrative Assistant
 Terrence Hood, B.B.A., M.S.—Interim Associate Director, Career Development
 Amanda Duvall, B.A., M.P.A.—Career Consultant
 Christopher D'Auria, B.A., M.S.—Career Consultant
 Terrence Hood, B.B.A., M.S.—Career Consultant
 Gabriela Pineider, B.A., M.Ed.—Career Consultant
 Jill Whitfield, B.S., M.S.—Career Consultant
 Cheri Massey—Operations Coordinator
 Chrysteen Gabbert—Administrative Program Specialist
 Jessica Cates, B.A., M.S.—Director, Alcon Career Center
 Kathryn Bishop, B.A., M.A.—Career Consultant
 Julie Reynolds—Administrative Assistant, Alcon Career Center

Counseling Center

Linda Wolszon, Ph.D.—Director

Eric Wood, Ph.D.—Associate Director

Daralynn Deardorff, D.O.—Consulting Psychiatrist

Cathy Elrod, LCSW, ACP—Licensed Clinical Social Worker

Cortney Gumbleton, MSSW—Suicide Prevention Outreach Coordinator

Kristin Harris-McDonald, Ph.D.—Psychologist

Amanda Swartz, Psy.D.—Psychologist

Matthew Johnson, Ph.D.—Licensed Professional Counselor

Culture, Community and International Services

Darron Turner, B.S., M.S., Ed.D.—Associate Vice Chancellor for Student Affairs and Title IX Coordinator

Leigh Holland, B.S.—Ad EEO/AA Program Specialist

Cheryl Taylor, Ph.D.—EEO/AA Statistical Analyst

Fraternities and Sorority Life

Brooke Scogin, B.F.A., B.S., M.A.—Director of Fraternity & Sorority Life

Evan Konecky, B.A., M.S.—Coordinator, Fraternity and Sorority Life

Gaius George, B.A., M.S.—Coordinator for Fraternity and Sorority Life

Devin Gregory, B.A., M.A.—Coordinator for Fraternity and Sorority Life

Health Center full and part-time providers

Jane Torgerson, M.D., F.A.C.E.P.—Physician

Evelyn Tobias-Merrill, M.D.—Staff Physician

Leigh Dixon, M.D.—Physician

Kerri Waldron, M.D.—Staff Physician

Beth Wieser, D.O.—Staff Physician

Johnnie Ireland, R.N.C., W.H.N.P.—Nurse Practitioner

Amy De La Rosa, P.A.C.—Physician's Assistant

Kelle Tillman, M.S.N., R.N.—Associate Director

Health Services

Jane Torgerson, M.D.—Director

Kelle Tillman, M.S.N., R.N.—Associate Director

Housing and Residence Life

Craig Allen, B.S., M.A.—Director

Dave Cooper, B.S., M.S.—Associate Director of Residence Life

Mindy Hollan, B.A., M.A.—Assistant Director of Administration

Rachel Anne Hopper, B.A., M.Ed.—Associate Director of Residence Life

Jason Titus, B.S., M.A.—Assistant Director of Residence Life

Rachel Siron, B.A., M.Ed.—Assistant Director of Residence Life

Richard Oliver, B.G.S.—Assistant Director of Facilities

Inclusiveness and Intercultural Services

April Brown, B.S., M.Ed.—Assistant Director of IIS

Tamika Gordon, B.A., M.S.—Assistant Director of IIS

Vacant—Program Coordinator

Maleta Hill, B.S.—Administrative Program Specialist

International Student Services (ISS)

John Singleton, B.A., M.Ed.—Director of International Student Services

Liz Branch, B.A., M.L.A.—Assistant Director of ISS

Jim English, B.A.—International Student Immigration Coordinator

Office for Community Engagement

Rosangela Klier Boyd, B.A., M.Ed., Ph.D.—Director

Irene Arrellano, Ph.D.—Assistant Director

Rochelle Smith, M.S.—Program Coordinator

Office of Religious and Spiritual Life

Angela Kaufman, B.A., M.Div.—Minister to the University and
Denominational Church Relations Officer

Todd Boling, B.A., M.Div.—Associate Chaplain

Allison Lanza, B.A., M.Div.—Associate Chaplain

Student Activities

Kim Appel Turner, B.B.A., M.S.Ed.—Director of Student Activities

Brad Thompson, B.S.—Assistant Director of Student Activities and Marketing
Coordinator

Alyssa Stowe, B.A., M.A.—Student Activities Coordinator

Student Development Services

Barbara Brown Herman, B.A., M.A., Ph.D.—Associate Vice Chancellor for
Student Affairs and Dean of Student Development

Kay Higgins, B.A., M.A., Ph.D.—Associate Dean of Student Development and
Director of Parent Program

Thomas Studdert, B.A., M.Ed., Ed.D.—Assistant Dean of Student
Development

Robin Williamson, B.S., M.Ed., Ph.D.—Assistant Dean of Student
Development

Keri Cyr, B.A., M.Ed.—Director, Sophomore/Junior Year Experience

Charles Dunning, B.A., M.Ed.—Director, Senior Year Experience

Dede Williams, B.B.A., M.B.A.—Director, TCU Leadership Center
Rachael Capua, B.S., M.Ed.—Assistant Director, Sophomore/Junior Year
Experience

Tyler Fisher, B.S., M.Ed.—Assistant Director, TCU Leadership Center

Lindsay Knight, B.A., M.Ed.—Assistant Director, First Year Experience

Trung Nguyen, B.A., M.A.—Assistant Director, First Year Experience

Ebony Rose, B.A., M.A.—Assistant Director, TCU Leadership Center

Laura Shaw, B.S., M.Ed.—Operations Coordinator

University Unions

Michael Russel, B.S., M.Ed., M.B.A., Ed.D.—Assistant Vice Chancellor for
Student Affairs

Natalie Boone, B.S., M.S.Ed.—Assistant Director of University Unions

Shawn Wagner, B.S.—Coordinator of Events University Unions

Kent Mire, B.S., M.S.—Coordinator of University Union Night Operations

Yearbook

Mallory Burkett, B.A.—Publications Coordinator, Student Affairs

TCU Press

Dan Williams, Ph.D.—Director

Kathy Walton, B.A.—Editor

Sue Hicks, B.A.—Associate Editor

Melinda Esco, B.A.—Production Manager

Rebecca Allen, B.A.—Marketing and Promotions Coordinator

University Advancement

Donald J. Whelan, Jr., B.S., EMIB—Vice Chancellor

Nancy Petruso, B.A., M.A.—Associate Vice Chancellor and Chief of Staff

Advancement Operations

Roby V. Key, B.S., M.Ed., Ed.D.—Associate Vice Chancellor of Advancement
Operations

Travis Soyer, B.S., M.B.A.—Technology Transition Manager

Yvonne Mann, B.B.A.—Director of Special Projects

Veleria Cowsen—Documentation and Training Manager

Michele Anders, B.S.—Gift and Data Entry Manager

Trey Lawyer, B.G.S.—Technical Services Manager

Troy Lewis—Technical Services Analyst

Martha Freeman, B.B.A.—Technical Services Analyst

Mark Rice—Technical Services Analyst

Anne Quevreaux, B.G.S.—Technical Services Analyst

Corina Cervantes, B.J.—Business Systems Analyst

Kristi Kolpanen, B.B.A.—Web Services Manager

Daniel Carver—Web Developer/Technical Support

Stacey Childress, B.S.—Graphic Designer/Web Developer

Alice Carter, B.A., M.A.—Director of Advancement Research

Andrea Heitz, B.A., M.S., M.T.S.—Research Officer

Virginia Schmidt, B.A.—Research Officer

Robin Richey—Research Officer

Alumni Relations

Kristi Hoban, B.S., M.S.—Associate Vice Chancellor, Alumni Relations

Jenny Cox, B.A.—Director, Alumni Relations

Carrie Brown, B.S., M.L.A.—Assistant Director of Alumni Relations

Laura Gore, B.S.—Assistant Director, Alumni Relations

Kalyn Baldwin, B.S.—Assistant Director, Alumni Relations, New Media

Melissa Austin-Weeks, B.S.N.—Coordinator of Senior Adult Programming

Athletic Fund-Raising (Frog Club)

Davis Babb, B.S.—Associate Athletic Director for Development

John Denton, B.A.—Director of Major Gifts, Athletics

Jeremiah Donati, B.A.—Executive Director, Frog Club

Greg Blackwell, B.A.—Director, Lettermen's Association

Glenda Clausen—Manager, Frog Club Membership

Jessica Cervantez, B.S.—Athletic Development Officer

Jessica Cung, B.S.—Athletic Development Officer

Michael Levy, B.S.—Athletic Development Officer

Donor Relations and Special Projects

Julie Whitt, B.B.A.—Assistant Vice Chancellor of Donor Relations

Nancy Madsen, B.S., M.A.—Director of Donor Relations

Blair Moore, B.B.A.—Assistant Director of Donor Relations, Event Coordinator

David Ferrell, B.A.—Assistant Director of Donor Relations, Endowed Fund Stewardship

Samantha Suttle, B.S.—Assistant Director of Donor Relations, Scholarship Coordinator

Ashley Sutton, B.S.—Assistant Director of Donor Relations, E-Stewardship Coordinator

University Development

David Nolan, B.A., M.A.—Associate Vice Chancellor of University Development

Dennis Alexander, B.S.—Director of Foundation Relations

Penny Bishop, B.S.—Director of Parent Giving

Jason Byrne, B.S., M.S.—Director of Corporate Relations

Michelle Franke, B.S.—Director of Prospect Management

Merrilee Kuylen, B.A., C.P.A.—Senior Director of Gift Planning

Steve Shineman, B.A., M.B.A.—Director of Gift Planning

Beth Cardwell, B.B.A.—Associate Director of Gift Planning

Adam Baggs, B.A., M.P.A.—Assistant Vice Chancellor of College and Regional Development

David Dibble, B.A., M.A.—Development Director of Business

DeVonna Tinney, B.B.A.—Development Director of Nursing and Health Sciences

Matt Bethea, B.S.—Development Director of AddRan

Yvette Wilhite-Hanshaw, B.S., M.A.—Development Director of Communication

Valerie DeSantis, B.A., M.Ed.—Development Director of Science and Engineering

Chandler Smith, B.S.—Development Director of Fine Arts

Mike Edwards, B.A., M.S.—Development Director of Central U.S. and West Texas

Diane Murray—Development Director of Metroplex and East Texas

Elizabeth Deegan, B.A.—Development Director of Eastern U.S. and Houston

Kenton Watt, B.A.—Development Director of Western U.S. and Austin

Janine Kraus, B.S., M.Ed., Ph.D.—Assistant Vice Chancellor of Annual Giving Programs

Jerome Douglas, B.A., B.B.A.—Director of Phonathon

Harmonie Farrow, B.F.A., M.S.—Director of Student and Young Alumni Programs

Elyse Menger, B.S.—Assistant Director of Student and Young Alumni Programs

William H. Koehler Center for Teaching Excellence Directory

Romana Hughes, B.A.A.S., M.L.A.—Assistant Provost

Kate Marshall, B.A., M.A.—Director of Distance Learning

Amanda Irvin, Ph.D.—Assistant Director

Kerrie Conover, B.F.A.—Manager Instructional Design

Nora Thompson, M.A.Ed.—Faculty Developer

Joanna Schmidt, M.S.—Classroom Integration Developer

Cecilia Lunt—Koehler Center Projects

William L. Adams Center for Writing

Steven Sherwood, B.S., M.F.A., Ph.D.—Director

Cheryl Carithers, B.A., M.A.—Assistant Director

Cynthia Shearer, B.A., M.A.—Assistant Director

Sidney Thompson, B.A., M.F.A., Ph.D.—Instructional Staff

Lindsay Dunn, B.A., M.A.—Ph.D

Office of Religious and Spritual Life

Angela Kaufman, B.A., M.Div.—Minister to the University

Jeremy Albers, B.S., M.Div.—Associate Chaplain and Disciples Campus Minister

Jake Hofmeister, B.A., M.Div.—Associate Chaplain

Brittney Smith, B.A., M.A.—Chapel and Special Events Coordinator

Women and Gender Studies

Jeannine Gailey, B.A., M.A., Ph.D.—Director

Nino Testa, B.A., M.A., Ph.D.—Associate Director

Faculty

Neeley School of Business at TCU Directory

O. Homer Erekson, *John V. Roach Dean*

William C. Moncrief III, *Senior Associate Dean*

William L. Cron, *Associate Dean, Graduate Programs*

Mark Muller, *Assistant Dean, Finance and Administration*

Peggy Conway, *Director, Graduate Admissions*

LaTanya Johns, *Director, Graduate Career Service Center*

Ed Riefenstahl, *Director, MBA Experiential Learning*

Linda Smith, *Director, Graduate Programs Administration*

Jerry Turner, *Director, Master of Accounting Program*

Nancy W. Nix, *Executive Director, Executive MBA Program*

Accounting

ANNE ALBRECHT, *Assistant Professor*. Ph.D. (University of Missouri-Columbia)

ZEYUN (JEFF) CHEN *Assistant Professor*. PhD (University of Houston)

SHANA M. CLOR-PROELL, *Associate Professor*. Ph.D. (Cornell University)

GEORGE DRYMIOTES, *Assistant Professor*. Ph.D. (University of Florida)

IN-MU HAW, *Wilson Professor*. Ph.D. (University of Alabama)

STEVE LIM, *Associate Professor*. Ph.D. (University of Pennsylvania)

STEPHEN LUSCH, *Assistant Professor*. Ph.D. (University of Arizona)

KAREN K. NELSON, *M.J. Neeley Professor*. Ph.D. (University of Michigan)

MARC NERI, *Assistant Professor of Professional Practice*. Ph.D. (University of North Texas)

RENEE M. OLVERA, *Professor of Professional Practice and Director Master of Accounting and Professional Program in Accounting*. Ph.D. (University of North Texas)

RAY J. PFEIFFER, JR., *Professor and Associate Dean for Undergraduate Programs*. Ph.D. (University of North Carolina at Chapel Hill)

ELIZABETH PLUMMER, *Professor*. Ph.D. (University of Texas at Austin)
 CHAD A. PROELL, *Assistant Professor*. Ph.D. (Cornell University)
 MARY HARRIS STANFORD, *Duncan Fellow, Professor and Chair*. Ph.D. (University of Michigan)
 PATRICIA DORAN WALTERS, *Associate Professor of Professional Practice*. Ph.D. (New York University)
 XIAOYAN (WINNIE) WEN, *Assistant Professor*. Ph.D. (Carnegie Mellon University)
 WILLIAM WEMPE, *Associate Professor*. Ph.D. (Texas A&M University)
 MARK WILLIS, *Instructor of Accounting and Assistant Director of the Master of Accounting and Professional Program in Accounting*. M.Acc. (University of West Georgia).

Finance

*JACK BIZJACK, *Professor and Robert L. and Maria Lowdon Chair in Business Administration*
 STANLEY B. BLOCK, *Professor and Stan Block Endowed Chair*. Ph.D. (Louisiana State University)
 ROBERT BOATLER, *Associate Professor*. Ph.D. (Cornell University)
 JOSEPH B. LIPSCOMB, *Professor and Director of the Luther King Capital Management for Financial Studies*. Ph.D. (University of Houston)
 PETER LOCKE, *Professor*. Ph.D. (Texas A&M University)
 LARRY J. LOCKWOOD, *Professor and C.R. Williams Professor of Financial Services*. Ph.D. (Purdue University)
 ANTONIO MACIAS, *Assistant Professor*. Ph.D. (Purdue University)
 STEVEN C. MANN, *Associate Professor*. Ph.D. (University of Utah)
 VASSIL MIHOV, *Associate Professor*. Ph.D. (Purdue University)
 THOMAS MOELLER, *Assistant Professor*. Ph.D. (University of Texas at Austin)
 MAURICIO RODRIGUEZ, *Professor and Chair*. Ph.D. (University of Connecticut)
 IRA SILVER, *Associate Professor of Professional Practice*. Ph.D. (City University of New York)
 BARBARA WOOD, *Assistant Director of the Luther King Capital Management Center for Financial Studies and Assistant Professor of Professional Practice*. Ph.D. (University of Texas at Arlington)

Information Systems and Supply Chain Management

TYSON BROWNING, *Associate Professor*. Ph.D. (Massachusetts Institute of Technology)
 DANIEL CHEN, *Assistant Professor*. Ph.D. (University of Georgia)
 TERRY E. DIELMAN, *Professor*. Ph.D. (University of Michigan)
 BEATA M. JONES, *Associate Professor of Professional Practice*. Ph.D. (City University of New York)
 CHARLES W. LAMB, JR., *M.J. Neeley Professor of Marketing and Chair*. D.B.A. (Kent State University)
 JANE M. MACKAY, *Director of Business Information Systems Program and Associate Professor*. Ph.D. (University of Texas at Austin)
 LAURA MEADE, *Associate Professor of Professional Practice*. Ph.D. (University of Texas at Arlington)
 NANCY NIX, *Professor of Professional Practice*. Ph.D. (University of Tennessee)
 DAVID PRESTON, *Associate Professor*. Ph.D. (University of Georgia)
 RANGA V. RAMASESH, *Professor*. Ph.D. (Pennsylvania State University)
 JOE ROH, *Assistant Professor*. Ph.D. (Michigan State University)
 MORGAN SWINK, *James L. and Eunice West Chair in Supply Chain Management and Executive Director, Supply and Value Chain Center*. Ph.D. (Indiana University)
 TRAVIS TOKAR, *Assistant Professor*. Ph.D. (University of Arkansas)

Management

DAVID G. ALLEN, *Professor of Management and Associate Dean, Graduate Programs*. Ph.D. (Georgia State University)
 GARRY D. BRUTON, *Professor*. Ph.D. (Oklahoma State University)
 SUZANNE CARTER, *Associate Professor of Professional Practice*. Ph.D. (University of Texas at Austin)
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DIANE ACKALL HAWLEY*, *Associate Professor of Professional Practice*. Ph.D. (New Mexico State University)

CAROL HOWE, *Assistant Professor*. Ph.D. (University of Texas at Arlington)

LYNNETTE HOWINGTON*, *Assistant Professor of Professional Practice, and Director of Administrative and Clinical Affairs*. D.N.P. (Texas Christian University)

LINDA HUMPHRIES*, *Assistant Professor of Professional Practice*. D.N.P. (University of Texas at Arlington)

HOPE JACKSON, *Assistant Professor*. Ph.D. (University of Nebraska Medical Center)

MICHELLE KIMSEY, *Assistant Professor*. Ph.D. (University of Texas)

SUZY LOCKWOOD, *Professor and Associate Dean for Nursing; Interim Dean of Harris College of Nursing & Health Sciences*. Ph.D., (University of Texas at Arlington)

KENNETH LOWRANCE*, *Professor of Professional Practice and Director, Doctor of Nursing Practice and Clinical Nurse Specialist Programs*. D.N.P. (Texas Christian University)

KIMBERLY POSEY*, *Assistant Professor of Professional Practice and Director, Nurse Practitioner Programs*. D.N.P. (Texas Christian University)

JANIE ROBINSON, *Associate Professor*. Ph.D. (Southern University and A&M College at Baton Rouge)

MELISSA McINTIRE SHERROD, *Professor*. Ph.D., (Texas Woman's University)

CHARLES ALAN WALKER, *Professor*. Ph.D. (Texas Woman's University)

SUSAN MACE WEEKS*, *Professor and Vice Provost, TCU Academic Affairs*. D.N.P. (Texas Christian University)

JO NELL WELLS, *Professor*. Ph.D. (Texas Woman's University)

*Clinical graduate status

Social Work

NADA ELIAS-LAMBERT, *Assistant Professor and Director, MSW Program*. Ph.D. (University of Texas at Arlington)

LYNN JACKSON, *Associate Professor of Professional Practice, Director of Field Education and Assistant Dean for Strategic Initiatives, Harris College*. Ph.D. (Florida State University)

AESHA JOHN, *Assistant Professor and Director, BSW Program*. Ph.D. (Oklahoma State University)

JAMES PETROVICH, *Associate Professor and Chair of the Department*. Ph.D. (University of Texas at Arlington)

TEE TYLER, *Assistant Professor*. Ph.D. (University of Texas at Austin)

College of Science & Engineering Directory

Phil Hartman, *Dean*

J. Richard Rinewalt, *Associate Dean*

C. Magnus L. Rittby, *Senior Associate Dean*

Biology

GIRIDHAR R. AKKARAJU, *Professor*. Ph.D. (University of Pittsburgh School of Medicine)

MATTHEW CHUMCHAL, *Associate Professor and Director of the Pre-Health Professions Institute*. Ph.D. (University of Oklahoma)

MICHAEL CHUMLEY, *Associate Professor and Chair of the Department*. Ph.D. (University of Colorado)

MEREDITH CURTIS, *Instructor I*. Ph.D. (University of Washington)

MARK DEMAREST, *Instructor I*. Ph.D. (University of California)

RAY W. DRENNER, *Professor*. Ph.D. (University of Kansas)

AMANDA HALE, *Associate Professor and Director of Graduate Studies*. Ph.D. (University of Miami)

MATTHEW C. HALE, *Assistant Professor*. Ph.D. (University of Sheffield)

PHILIP S. HARTMAN, *Professor and Dean*. Ph.D. (University of Missouri)

JOHN D. HORNER, *Professor*. Ph.D. (University of New Mexico)

MARLO JEFFRIES, *Assistant Professor*. Ph.D. (University of Nebraska Medical Center)

CLARK A. JONES, *Instructor II*. Ph.D. (Southern Methodist University)

LAURA LUQUE, *Instructor II*. Ph.D. (University of Texas, Dallas)

SHAUNA M. MCGILLIVRAY, *Associate Professor*. Ph.D. (University of California)

MICHAEL J. MISAMORE, *Associate Professor*. Ph.D. (Louisiana State University)

MICHAEL SAWEY, *Instructor II*. M.S. (Texas Christian University)

DIANE SNOW, *Professor and Dean of the Honors College*. Ph.D. (Case Western Reserve University)

MIKAELA STEWART, *Assistant Professor*. Ph.D. (Texas A&M University)

DEAN WILLIAMS, *Associate Professor*. Ph.D. (Purdue University)

Chemistry & Biochemistry

ONOFRIO ANNUNZIATA, *Professor*. Ph.D. (Texas Christian University)

JEFFERY L. COFFER, *Professor*. Ph.D. (University of Wisconsin-Milwaukee)

SERGEI V. DZYUBA, *Professor*. Ph.D. (Texas Tech University)

JULIE FRY, *Instructor I*. Ph.D. (Texas Christian University)

KAYLA GREEN, *Associate Professor*. Ph.D. (Texas A&M University)

BENJAMIN JANESKO, *Associate Professor and Director of Graduate Studies*. Ph.D. (Carnegie Mellon University)

DAVID E. MINTER, *Professor*. Ph.D. (University of Texas at Austin)

JEAN-LUC G. MONTCHAMP, *Professor*. Ph.D. (Purdue University)

ROBERT H. NEILSON, *Professor*. Ph.D. (Duke University)

YOUNGHA RYU, *Associate Professor*. Ph.D. (Texas A&M University)

BENJAMIN D. SHERMAN, *Assistant Professor*. Ph.D. (Arizona State University)

ERIC SIMANEK, *Robert A. Welch Professor and Chair of the Department*. Ph.D. (Harvard University)

Computer Science

JAMES R. COMER, *Associate Professor*. Ph.D. (Texas A&M University)

LIRAN MA, *Associate Professor*. D.Sc. (George Washington University)

ANTONIO SANCHEZ-AGUILAR, *Associate Professor*. D.Sc. (George Washington University)

MICHAEL C. SCHERGER, *Associate Professor*. Ph.D. (Kent State University)

Engineering

ROBERT R. BITTLE, *Associate Professor*. Ph.D. (Iowa State University)

JOHN R. FANCHI, *Matthews Professor of Petroleum Engineering*. Ph.D. (University of Houston)

CUILING (SUE) GONG, *Associate Professor*. Ph.D. (Massachusetts Institute of Technology)

MORGAN KIANI, *Associate Professor*. Ph.D. (University of Texas at Arlington)

EFSTATHIOS E. MICHAELIDES, *W.A. "Tex" Moncrief Jr. Chair Professor of Engineering*. Ph.D. (Brown University)

TRISTAN J. TAYAG, *Professor*. Ph.D. (University of Virginia)

R. STEPHEN WEIS, *Professor*. Ph.D. (Georgia Tech University)

WALTON E. WILLIAMSON, *Professor and Chair of the Department*. Ph.D. (University of Texas at Austin)

Environmental Sciences

KRISTI ARGENBRIGHT, *Instructor I*. MS (Texas Christian University)

VICTORIA BENNETT, *Assistant Professor and Director of Graduate Studies*. Ph.D. (Leeds University)

BECKY JOHNSON, *Professor of Professional Practice*. MS (Texas Christian University)

RHIANNON G. MAYNE, *Associate Professor and Curator of the Oscar and Juanita Monnig Meteorite Collection, and Chair of Meteoritics and Planetary Science*. Ph.D. (University of Tennessee)

MICHAEL C. SLATTERY, *Professor, Chair of the Department and Director of the TCU Institute for Environmental Studies*. Ph.D. (Oxford University)

Geological Sciences

HELGE ALSLEBEN, *Associate Professor and Director of Graduate Studies*. Ph.D. (University of Southern California)

ARTHUR B. BUSBEY III, *Associate Professor and Chair of the Department*. Ph.D. (University of Chicago)

RICHARD A. DENNE, *Professor of Professional Practice and Hunter Enis Chair of Petroleum Geology*. Ph.D. (Louisiana State University)

MILTON ENDERLIN, *Assistant Professor of Professional Practice*. MS (Texas Christian University)

RICHARD E. HANSON, *Herndon Professor of Geology*. Ph.D. (Columbia University)

OMAR T. HARVEY, *Assistant Professor*. Ph.D. (Texas A&M University)

JOHN M. HOLBROOK, *Professor*. Ph.D. (Indiana University)

KEN M. MORGAN, *Professor and Director of the TCU Energy Institute*. Ph.D. (University of Wisconsin)

TAMIE MORGAN, *Associate Professor of Professional Practice*. MS (Texas Christian University)

XIANGYANG (CHEYENNE) XIE, *Associate Professor*. Ph.D. (University of Wyoming)

Mathematics

JOSE R. CARRION, *Assistant Professor*. Ph.D. (Purdue University)

ZE-LI DOU, *Associate Professor*. Ph.D. (Princeton University)

GREG FRIEDMAN, *Professor*. Ph.D. (New York University)

GEORGE T. GILBERT, *Associate Professor and Chair of the Department*. Ph.D. (Harvard University)

ERIC M. HANSON, *Instructor I*. Ph.D. (Colorado State University)

RHONDA L. HATCHER, *Associate Professor*. Ph.D. (Harvard University)

EMILY HERTZIG, *Instructor I*. Ph.D. (University of Texas, Dallas)

DENNIS LEDIS, *Instructor I*. Ph.D. (University of Florida)

SCOTT NOLLET, *Professor*. Ph.D. (University of California-Berkeley)

EFTON PARK, *Professor*. Ph.D. (SUNY-Stony Brook)

IGOR PROKHORENKOV, *Associate Professor*. Ph.D. (Rice University)

KENNETH S. RICHARDSON, *Professor and Director of Graduate Studies*. Ph.D. (Rice University)

LOREN SPICE, *Associate Professor*. Ph.D. (Towson University)

SUSAN G. STAPLES, *Associate Professor*. Ph.D. (University of Michigan)

DREW TOMLIN, *Instructor I*. Ph.D. (University of North Texas)

FREDERICO XAVIER, *John William and Helen Stubbs Potter Professor of Mathematics*. Ph.D. (University of Rochester)

QIAO ZHANG, *Associate Professor*. Ph.D. (Columbia University)

Nutrition and Dietetics

LYN DART, *Associate Professor*. Ph.D. (Texas Woman's University)

REBECCA DORITY, *Associate Professor of Professional Practice*. MS. (Tufts University)

GINA J. HILL, *Associate Professor*. Ph.D. (Texas Tech University)

SAMANTHA POWELL, *Associate Professor of Professional Practice*. MS. (Texas Woman's University)

JADA L. STEVENSON, *Assistant Professor*. Ph.D. (Texas Tech University)

ANNE VANBEBER, *Professor and Chair of the Department*. Ph.D. (Texas Woman's University)

Physics & Astronomy

KAT A. BARGER, *Assistant Professor*. Ph.D. (University of Wisconsin at Madison)

HANA M. DOBROVOLNY, *Associate Professor*. Ph.D. (Duke University)

PETER M. FRINCHABOY III, *Associate Professor and Director of Graduate Studies*. Ph.D. (University of Virginia)

ZYGMUNT (KAROL) GRZYCZYNSKI, W.A. "Tex" Moncrief Jr. Chair and Professor of Physics. Ph.D. (University of Gdansk)

DOUGLAS R. INGRAM, *Instructor II*. Ph.D. (University of Washington)

ANTON NAUMOV, *Assistant Professor*. Ph.D. (Rice University)

C. MAGNUS L. RITTBY, *Professor and Senior Associate Dean*. Ph.D. (Stockholm University)

YURI M. STRZHEMECHNY, *Associate Professor and Chair of the Department*. Ph.D. (City University of New York)

Psychology

TIMOTHY M. BARTH, *Professor and Interim Dean of Research and Graduate Studies*. Ph.D. (University of Texas at Austin)

GARY W. BOEHM, *Associate Professor*. Ph.D. (University of Connecticut)

CASEY D. CALL, *Assistant Professor of Professional Practice and Assistant Director of the Karyn Purvis Institute of Child Development*. Ph.D. (Texas Christian University)

TRACY CENTANNI, *Assistant Professor*. Ph.D. (University of Texas at Dallas)

BRENT G. COOPER, *Associate Professor and Chair of the Department*. Ph.D. (University of Utah)

CATHY R. COX, *Associate Professor and Director of Graduate Studies*. Ph.D. (University of Missouri)

DAVID R. CROSS, *Professor and Director of the Karyn Purvis Institute of Child Development*. Ph.D. (University of Michigan)

NAOMI V. EKAS, *Associate Professor*. Ph.D. (University of Miami)

PATRICK M. FLYNN, *Professor, Saul B. Sells Chair of Psychology and Director of the Institute of Behavioral Research*. Ph.D. (University of Miami)

SARAH E. HILL, *Associate Professor*. Ph.D. (University of Texas at Austin)

KEVIN KNIGHT, *Professor*. Ph.D. (Texas Christian University)

KENNETH J. LEISING, *Associate Professor*. Ph.D. (University of California at Los Angeles)

CHARLES G. LORD, *Professor*. Ph.D. (Stanford University)

MAURICIO R. PAPINI, *Professor*. Ph.D. (University of San Luis, Argentina)

ANNA INGEBOG PETURSDOTTIR, *Associate Professor*. Ph.D. (Western Michigan University)

S.K. UMA TAUBER, *Assistant Professor*. Ph.D. (Colorado State University)

Courses

ACCT - Accounting

ACCT 60010 - Financial Reporting (1.5)

1.5 credit hours. A study of the fundamental concepts of financial accounting and reporting by business entities in accordance with generally accepted accounting principles. The course approaches the material from the perspective of the financial statement user rather than the financial statement preparer. Therefore, emphasis is placed on the use and interpretation of information contained in business financial statements by managers, investors, and creditors.

ACCT 60020 - Accounting for Managerial Planning and Control (1.5)

1.5 credit hours. Prerequisite: ACCT 60010. A study of the basic concepts, measures, techniques, and approaches of managerial accounting. The emphasis is on understanding and developing accounting and economic concepts for decision making within profit-making and not-for-profit organizations related to such topics as short-term and long-term planning, performance measurement, transfer pricing, and traditional and contemporary product costing systems. The application of the basic concepts and approaches to small and large-sized domestic and global organizations is emphasized. Where appropriate, contemporary managerial accounting issues are stressed.

ACCT 65013 - Financial Reporting and Analysis (3)

3.0 credit hours. Prerequisites: Must be an EMBA candidate. A study of the fundamental concepts of financial accounting and reporting by business entities in accordance with generally accepted accounting principles. The course approaches the material from the perspective of the financial statement user rather than the financial statement preparer. Therefore, emphasis is placed on the use and interpretation of information contained in business financial statements by managers, investors, and creditors.

ACCT 65023 - Accounting for Managerial Planning and Control (3)

3.0 credit hours. Prerequisite: Must be an EMBA candidate. A study of the basic concepts, measures, techniques, and approaches of managerial accounting. The emphasis is on understanding and developing accounting and economic concepts for decision making within profit-making and not-for-profit organizations related to such topics as short-term and long-term planning, performance measurement, transfer pricing, and traditional and contemporary product costing systems. The application of the basic concepts and approaches to small and large-sized domestic and global organizations is emphasized. Where appropriate, contemporary managerial accounting issues are stressed.

ACCT 70013 - Advanced Financial Reporting (3)

3.0 credit hours. Prerequisites: ACCT 60010. In-depth study of topics and skills in financial accounting and reporting. The emphasis is this course is on acquiring sufficient understanding of financial accounting and reporting issues to effectively use financial reports by organizations in valuation and credit analysis as encountered in ACCT 70153.

ACCT 70020 - Strategic Cost Analysis (1.5)

1.5 credit hours. Prerequisite: ACCT 60020. An examination of the costing systems used to assign costs to products, services, and customers, and how the information produced by the systems is used by managers in their operational and strategic decisions. Topics covered include costing system fundamentals, activity-based costing, standard costing and variance analysis, non-financial performance metrics, and the use of costing systems and cost analysis to inform strategic managerial decision-making.

ACCT 70050 - Seminar in Current Financial Reporting Topics (1.5)

1.5 credits. Prerequisite: Enrollment in MAc program or instructor permission. In-depth study of current debates concerning financial reporting, including recent and pending SEC regulations, FASB standards, IASB standards, and other issues of current interest. Emphasis is on helping students gain a sophisticated understanding of current issues so as to be able to participate meaningfully in policy debates.

ACCT 70153 - Financial Statement Analysis (3)

3 hours. Prerequisite: Enrollment in the MAc program; or ACCT 60010; or student must have ACCL-MBA, ACCP-MBA, or ACCE-MBA degree plan; or instructor permission. The analysis and use of information contained in corporate financial statements by equity and credit analysts, management,

and auditors, including an understanding of the limitations and inadequacies of published financial statements.

ACCT 70220 - Advanced Accounting Information Systems (1.5)

1.5 credit hours. Prerequisites: Enrollment in the MAc degree or department permission. In-dept study of advanced accounting information system concepts and applications with an emphasis on the integration of internal controls in business processes and advanced technology in accounting systems.

ACCT 70253 - Business Combinations and Advanced Topics (3)

3 hours. Prerequisites: Enrollment in the MAc degree or departmental permission. Coverage of financial reporting issues associated with combinations of business organizations, including consolidations, inter-company transactions, and re-measurement of foreign-currency-denominated financial statements. This course also includes deeper investigation of financial reporting topics covered in previous courses as well as topics beyond the scope of previous courses.

ACCT 70260 - Accounting and Global Perspectives (1.5)

1.5 credits. Prerequisites: Enrollment in the MAc degree program or permission of the department. This course focuses on developing future accounting and business leaders with a global mindset from a variety of perspectives. Topics include the unique characteristics of the global trade environment, globalization of the economy, the role of culture in global business, and financial and regulatory implications for global business.

ACCT 70263 - Communication, Analysis, and Persuasion in Accounting (3)

3 hours. Prerequisite: Enrollment in the MAc degree program or permission of the department. This course integrates technical and diagnostic skills learned in other accounting courses with communication skills. Emphasis is placed on writing, presenting alternatives, gaining acceptance, and successful plan implementation in competitive situations.

ACCT 70270 - Financial Reporting Research (1.5)

1.5 hours. Prerequisite: Enrollment in MAc program or department permission. An introduction to research methods and applications as they are applied to addressing financial reporting and audit issues where there is no single clear correct answer using publicly available financial data, technical U.S. and international accounting and auditing standards and SEC regulations.

ACCT 70303 - Taxation of Business Entities (3)

3 hours. Prerequisite: Enrollment in MAc program or instructor permission. Provides an overview of the tax laws related to corporations and flow-through entities.

ACCT 70310 - Accounting for Income Taxes (1.5)

1.5 hours. Prerequisites: Enrollment in the MAc degree or department permission. Examines the financial accounting and reporting of income taxes. Topics include the calculation of current and deferred income taxes, an overview of book-tax differences, and the presentation and disclosure of income taxes in financial statements.

ACCT 70320 - Taxation of Flow-through Entities (1.5)

1.5 credits. Prerequisites: Enrollment in the MAc Degree or department permission. Provides an in-dept study of the federal income taxation of flow-through entities, including partnerships and S corporations, and their owners. Topics include the tax consequences associated with a flow-through entity's formation, operations, distributions to owners, and liquidation.

ACCT 70330 - Corporate Taxation (1.5)

1.5 credits. Prerequisites: Enrollment in the MAc Degree or department permission. Provides an in-depth study of the federal income taxation of corporations and their shareholders, including the tax consequences associated with a corporation's formation, operations, distributions, possible reorganization, and liquidation.

ACCT 70340 - Special Topics in Taxation (1.5)

1.5 credits. Prerequisites: Enrollment in the MAc degree or department permission. Provides an in-depth analysis of special tax topics, with application of research techniques to the topics discussed. Topics may include state and local taxation, the U.S. taxation of multinational

transactions, financial planning and wealth transfers, as well as topics that arise from tax legislation.

ACCT 70350 - Seminar in Current Tax Topics (1.5)

1.5 credits. Prerequisites: Enrollment in the MAC degree or department permission. Examines major features of US and international tax systems, and analyzes the tax proposals and policies that are likely to dominate debate in the next decade.

ACCT 70370 - Tax Research (1.5)

1.5 Credit hours. Prerequisite: Enrollment in the MAc Program or instructor permission. An introduction to research methods in taxation. Students learn to identify tax issues, formulate research questions, evaluate the relevant authorities, and communicate the research results.

ACCT 70400 - Business Law for Accounting Professionals (1.5)

1.5 hours. Prerequisite: Enrollment in MAC degree or departmental permission. An overview of business law relevant to the practice of public accounting, including: contracts, business organizations, debtor-creditor relationships, government regulation of business, property, negligence, fraud, and the Uniform Commercial Code.

ACCT 70410 - Professional Communication for Accounting (1.5)

1.5 hours. Prerequisites: Enrollment in the MAC degree or departmental permission. The objectives of this course are to further develop the broad range of communication-related skills necessary for a successful professional career in accounting. Specific topics to be addressed include business writing, organizing and delivering persuasive presentations, communication styles, providing feedback, managing resistance, and working in a diverse environment.

ACCT 70420 - Economic Foundations of Accounting (1.5)

1.5 credit hours. Prerequisite: Enrollment in the MAc degree or department permission. This course helps students to explore and understand the economic environment in which accounting exists. We introduce and illustrate how theories from economics help to explain the existence of accounting, its role in organizations and in the global economy, and the behavior of markets, organizations, and individuals within the system.

ACCT 70430 - Analysis and Persuasion (1.5)

This course integrates technical and diagnostic skills learned in other accounting courses with communication skills. Emphasis is placed on presenting alternatives, gaining acceptance, and successful implementation in competitive situations.

ACCT 70433 - International Financial Reporting and Global Markets (3)

3 credit hours. Prerequisite: Enrollment in the MAc degree or department permission. Study of international institutions, businesses, cultures, and financial reporting. Includes study-abroad component and business, government, and other institution site visits.

ACCT 70440 - Accounting and Public Policy (1.5)

1.5 credits. Prerequisites: Admitted to MAC program. An intensive study of accounting and public policy. Students travel to Washington D.C. Campus for a multi-day intensive study. Participants will gain understanding of the accounting profession's increasingly dynamic public affairs and public policy environment.

ACCT 70450 - Moral Reasoning in Accounting (1.5)

1.5 credits. Prerequisites: Enrollment in the MAc degree program or permission of the department. Addresses moral reasoning and decision making in an accounting context. Tools for addressing ethical dilemmas are addressed from a personal and organizational framework. Case studies are used to develop moral reasoning skills.

ACCT 70460 - Ethics for Accounting Professionals (1.5)

1.5 credit hours. Prerequisite: Enrollment in the MAc degree program or permission of the department. This course is designed to further enhance students' ethical decision-making in relation to issues faced by accounting professionals. The course focuses on ethical reasoning and decision-making, integrity, objectivity, independence, professionalism and other core values of the accounting profession.

ACCT 70510 - Valuation in Accounting Context I (1.5)

1.5 credit hours. Prerequisites: Enrollment in the MAc degree program or department permission. Business valuation theory, approaches, and methodology and their application to account settings where valuation is needed such as in applying tax laws, financial reporting standards, and auditing standards.

ACCT 70520 - Valuation in Accounting Context II (1.5)

1.5 credit hours. Prerequisite: Enrollment in the MAC degree program or department permission. ACCT 70510 recommended but not required as preparation. Putting foundational business valuation concepts into practice. Coverage of more specific valuation applications common in financial reporting and other areas.

ACCT 70610 - Energy Accounting (1.5)

1.5 credit hours. Prerequisites: ACCT 60010 or a Masters in Accounting student. This course focuses on accounting and reporting issues affecting the energy industry. The material covered includes a review of how accounting information impacts finance and operations from the local to the global level. Uniquely energy related topics include intangible development cost law, accounting for oil and gas exploration, reserve estimation, accounting for unproved property, accounting for development stages of wells, accounting for joint operations, and production and volume measurement. Capitalization and the impact of the depletion model on taxes, current and projected income, and cash flows are also covered. Other topics covered include environmental liabilities are discussed along with revenue accounting structures.

ACCT 70970 - Special Problems in Accounting (1.00-3.00)

Special Problems in Accounting.

ACCT 71273 - Advanced Audit and Assurance (3)

3 credit hours. Prerequisite: Enrollment in the MAC degree or department permission. Continuing study (beyond the undergraduate audit and assurance course) of current issues related to auditing, including topics such as risk assessment, incorporation of internal audit's work into the audit plan, consideration of fraud in a financial statement audit, and other issues affecting audit practice.

ANTH - Anthropology

ANTH 50623 - Advanced General Anthropology (3)

An overview of the field, including archaeology, linguistics, ethnology, and physical anthropology. Description and analysis of the profession, its history, theoretical foci, intellectual leaders and current ethical dilemmas. For advanced undergraduates and graduate students with opportunities to pursue individual interests within the field.

ANTH 50923 - Kinship and Social Organization (3)

Prerequisite: ANTH 20623 or permission of instructor. Principles of descent, kinship terminology and formation of descent groups, including an examination of specific terminological systems in relation to other features of social organization: the adaptive dynamics of family, groups, kinship, and extra-familial associations in simple and complex societies.

ANTH 60670 - Directed Readings or Research in Anthropology (1.00-6.00)

ARED - Art Education

ARED 60970 - Special Problems (1.00-21.00)

Special Problems (1-21 hours.)

ARHI - Art History

ARHI 60123 - American Art 1913 to the Present (3)

American Art from 1913 to the present.

ARHI 60133 - Art of the Aztecs (3)

This seminar focuses on the art and architecture of the Aztec empire.

ARHI 60143 - Gender in Mesoamerican Art (3)

This seminar focuses on the issue of gender in ancient Mesoamerican art.

ARHI 60153 - The Aztec, Maya, and Olmec: Ancient Mesoamerican Art (3)

This course examines the art and architecture of the major cultures of Pre-Columbian Mesoamerica.

ARHI 60163 - Maya Art and Architecture (3)

This course is an in-depth study of the art and architecture of the ancient Maya.

ARHI 60173 - Early Italian Renaissance Art (3)

Early Italian Renaissance Art

ARHI 60183 - High and Late Italian Renaissance Art (3)

High and Late Italian Renaissance Art

ARHI 60193 - Northern Renaissance Painting: Van Eyck - Bruegel (3)
Symbol and Reality: Renaissance art in northern Europe.

ARHI 60203 - 17th Century Italian and Spanish Art (3)
17th century Italian and Spanish art.

ARHI 60213 - Drawing as Artistic Invention (3)
The history and technique of drawings from the 15th through 18th centuries. Emphasis on Leonardo, Raphael, Michelangelo, Elisabetta Sirani, Rubens, and Rembrandt.

ARHI 60333 - Modern Art I: Romantic classicism to Impressionism (3)
Art in the Age of Revolution. Addresses major movements and issues in European art from 1789 to the 1880s.

ARHI 60343 - Modern Art II: Post-Impressionism to Surrealism (3)
Modernism in an Age of Change. Addresses major movements and issues in European art from the 1880s to the 1940s.

ARHI 60363 - 17th Century Flemish-Dutch Painting (3)
17th Century Flemish-Dutch Painting

ARHI 60500 - Special Topics in Art History (3)
Special Topics in Art History

ARHI 60603 - Art Since 1945 (3)
Art since 1945.

ARHI 60613 - Modern Architecture (3)
Modern Architecture: 1750 to the present.

ARHI 60623 - History of the Print (3)
History of the Print

ARHI 60823 - History of Photography (3)
History of Photography

ARHI 70003 - Art Historical Methods, Theories and Issues (3)
A seminar focusing on the historiography of art history and current methodologies and theories employed by the discipline. Topics include the origins of art history; research techniques employed to study the production and reception of the art object; the premises and results of contemporary modes of interpreting the art object, as well as current issues in the field.

ARHI 70013 - The Art Museum (3)
A seminar which assess a broad range of historical and contemporary issues, practices, and concerns of art museums, and which examines more specifically the collections and philosophies of the Amon Carter Museum, the Kimbell Art Museum, and the Modern Art Museum of Fort Worth. The class includes numerous museum-site sessions.

ARHI 70023 - Approaches to the Art Object (3)
A seminar on the physical characteristics of art works, focusing on the science/art of authenticating and identifying art works in terms of authorship and date. Information also on artistic techniques, condition, and conservation. The chronological emphasis of the course may vary, depending on the particular interests of the instructor.

ARHI 70100 - Museum Seminar (3.00-9.00)
This seminar offers students the opportunity to study an historical topic in depth, within an art museum environment. The course's specific topic varies, but the course always centers on actual works of art. Therefore, the seminar will meet the majority of the time in an art museum and include the participation of museum professionals. (3-9 semester hours)

ARHI 70300 - Special Topics Seminar (3.00-12.00)
A seminar that offers the opportunity to study various significant topics in depth. (3-12 semester hours)

ARHI 70983 - Internship (3)
Prerequisite: completion of the first year of the graduate program in art history. Students must apply and interview for an internship. A semester-long internship in an art museum.

ARHI 70990 - Thesis (3.00-6.00)
Prerequisite: Permission of a student's thesis advisor. May be repeated for up to 6 hours credit.

ARST - Studio Art

ARST 60100 - Life Studies (1.00-20.00)
Life Studies (may be taken for 1-21 hours.)

ARST 60120 - Graduate Critique (3.00-12.00)
Graduate Critique. 3-12 hours.

ARST 60140 - Painting (1.00-21.00)
Painting. 1-21 hours.

ARST 60160 - Printmaking (Intaglio) (1.00-20.00)
Printmaking (Intaglio) 1-15 hours.

ARST 60170 - Printmaking (Lithography) (1.00-20.00)
Printmaking (Lithography) 1-15 hours.

ARST 60180 - Printmaking (Screenprinting) (1.00-15.00)
Printmaking (Screenprinting) 1-15 hours.

ARST 60420 - Sculpture (1.00-20.00)
Sculpture

ARST 60553 - Zoo Animal Enrichment (3)
Prerequisites: Graduate in Biology, Environmental Sciences, Education or Studio Arts programs, or permission from the faculty. This team-taught course between Environmental Science and Studio Art. In this course students will explore the ecology and behavior of wild animals to provide insights into the types of stimuli they naturally encounter. These insights will then be used to develop and build objects and structures that will engage and enrich the lives of animals at the Fort Worth Zoo. Students will work in teams to study a specific species currently residing at the zoo and create objects and structures that will enhance their lives in captivity.

ARST 60903 - Seminar in Art Criticism (3)
Seminar in Art Criticism

ARST 60913 - Seminar in Art Professions (3)
Seminar in Art professions.

ARST 60970 - Special Problems (1.00-21.00)
Special Problems (1-21 hours.)

ARST 70991 - Thesis Exhibition (1)
Prerequisite: Admission to candidacy.

BIOL - Biology

BIOL 50103 - Terrestrial Ecosystems (3)
Three hours lecture per week. Prerequisite: BIOL 30403 or permission of instructor. Concepts, principles, and mechanisms of the function of terrestrial ecosystems, including ecophysiology of component species, nutrient cycling, energy flow, ecosystem stability and global ecology.

BIOL 50123 - Biostatistics (3)
Prerequisites: BIOL 30403 and 30603 or permission of instructor. Two hours lecture and two hours of computer lab per week. Students will gain knowledge and understanding of how statistical methods are applied to biological research. The course will emphasize hypothesis testing, study design, and the concepts, application, and interpretation of statistical results. Basic probability theory, parametric statistics, correlation, regression, analysis of variance, and non-parametric statistics will be introduced.

BIOL 50133 - Biochemistry I (3)
Prerequisite: CHEM 30133 and 40123 or permission of instructor. Three hours lecture per week. A general survey of structure and function of biologically important compounds with methods of analysis. (Crosslisted as BIOL/CHEM 50133.)

BIOL 50143 - Biochemistry II (3)
Prerequisite: BIOL/CHEM 50133. Biosynthesis, replication of DNA, synthesis and processing of RNA and proteins, and special topics e.g. brain and muscle functions, hormones and signal transduction, cancer, development, etc. (Crosslisted as BIOL/CHEM 50143.)

BIOL 50153 - Medicinal Chemistry (3)
Three hours lecture per week. Prerequisites: BIOL/CHEM 50143, or permission of instructor. Molecular mechanism of drug actions, and methods of drug design, discovery and development. (Crosslisted as BIOL/CHEM 50153.)

BIOL 50303 - Evolution (3)
Three hours lecture per week. Prerequisite: BIOL 10501, 10503 10511 and 10513. Concepts and principles of organic evolution. Topics include natural selection, adaptation, quantitative genetics, sexual selection, kin selection, life history characters, speciation, and phylogeny.

BIOL 50401 - Neurobiology of Aging (1)

Prerequisites: permission of instructor. The current literature associated with the neurobiology of aging, modern research techniques and recent developments in neuroscience and aging research are discussed. This is a participation course in which advanced undergraduate and graduate students will present manuscripts, explain research hypotheses and methodologies and explain results. Open discussion of these papers will include faculty from Biology and Psychology. Topics presented will differ by semester. The course may be repeated three times (taken a maximum of four semesters in all.) (Crosslisted as BIOL/PSYC 50401.)

BIOL 50463 - Functional Neuroanatomy (3)

Prerequisite: Graduate or senior standing or permission of instructor. The fundamentals of functional neuroanatomy and neurophysiology with an emphasis on experimental and theoretical analysis of the basic brain behavior relationships. (Crosslisted as BIOL/PSYC 50463.)

BIOL 50502 - Biochemistry Laboratory (2)

Two four-hour laboratory periods per week. Prerequisite: CHEM 50143 or concurrent registration. (Crosslisted as BIOL/CHEM 50502)

BIOL 50703 - Ecology of Lakes and Streams (3)

Prerequisite: BIOL 30403 or permission of instructor. Two hours lecture and one laboratory period per week. Study of the physical, chemical and biological factors affecting the ecology of lakes, ponds and streams.

BIOL 50903 - Tropical Biology (3)

Two hours lecture per week, one week of field work in the tropics and a terminal project. Prerequisites: Six semester hours in Biology; travel costs are exclusive of tuition; permission of instructors. This course provides an introduction to the animals, plants, and ecosystems of the New World tropics. Lecture topics will include tropical climate and ecosystems, evolutionary patterns in the tropics, and conservation of biodiversity. The field experience will expose students to coastal ecosystems (coral reefs, mangroves, and seagrass beds) as well as tropical, lowland rainforest.

BIOL 50910 - Biology Seminar (1)

1. The primary goal is to acquaint the student with the preparation and presentation (oral and/or written) of scientific information from the biological literature. May be repeated for credit with different topics to a maximum of 3 times (one semester hour per topic). 2. Acquainting the student with the preparation and presentation (oral and/or written) of scientific information from the biological literature. May be repeated for credit with different topics to a maximum of 3 times. (One semester hour per topic.)

BIOL 60000 - The Teaching of Biology (3.00-6.00)

Three to six semester hours. Seminar in methods of teaching Biology and supervised classroom and laboratory teaching. Open to students who are Teaching Assistants or National Science Foundation Trainees.

BIOL 60001 - Scientific Presentation (1)

The goal of this course is to acquaint the student with the organization, preparation and effective delivery of scientific seminars. ALL BIOLOGY GRADUATE STUDENTS ARE REQUIRED TO TAKE THIS COURSE.

BIOL 60111 - Graduate Teaching in Biology (1)

Prerequisites: Graduate Standing. One semester hour. The purpose of this course is to provide pedagogical training to Biology graduate students. In this course, different educational theories and classroom issues will be discussed. Students will gain experience in classroom management, teaching styles, assessment, exam composition, and creating a syllabus.

BIOL 60121 - Professional Development in Biology (1)

Prerequisites: Graduate Standing. One semester hour. The course focuses on building the professional skills necessary for graduate students to succeed, both at TCU and in their future careers. Topics covered include CV/resume preparation, professional communication and networking, conduct at scientific meetings, ethics, time management, and jobs in biology.

BIOL 60123 - Electron Microscopy (3)

Prerequisites: BIOL 50133, 50143 or permission of instructor. Cell ultrastructure with special emphasis on preparative techniques useful in the study of functional morphology of cells.

BIOL 60131 - Introduction to Scientific Research and Writing (1)

Prerequisites: Graduate Standing. This course is designed for first-year Biology graduate students pursuing thesis research. Students enrolled in the course will: 1) gain familiarity with research compliance at TCU, 2) be introduced to methods and techniques for finding and acquiring primary literature, 3) discuss strategies for effectively and efficiently reading and

understanding the scientific literature, and 4) become familiar with basic aspects of written scientific communication.

BIOL 60153 - Conservation Genetics (3)

Prerequisites: BIOL 10504, 10514, 30403, and 30603 or permission of instructor. Genetics plays an important and diverse role in the preservation of biological diversity. This course consists of two one-hour lectures and one three-hour laboratory each week and covers genetic theory and methods that are utilized in modern conservation efforts. Laboratory exercises focus on 1) the practical aspects of DNA extraction methods, molecular markers, PCR, sequencing, and capillary electrophoresis, and 2) analyzing the resulting genetic data.

BIOL 60163 - Avian Biology (3)

This course consists of two one-hour lectures and one three-hour laboratory each week. Lectures cover the evolution, anatomy and physiology, life histories, behaviors and conservation of birds. The laboratory portion of the course includes identifying birds with molecular methods and field trips to identify common species of Texas birds. Five Saturday morning field trips are required.

BIOL 60173 - Mammalogy (3)

Prerequisites: Six semester hours in Biology. Two hours of lecture and two hours of laboratory per week. This course introduces graduate students to mammals. Lectures will examine the major topics of mammalian biology including the evolutionary history, classification, adaptations, ecology, and natural history of mammals. Field techniques for the study of mammalian biodiversity and abundance will also be covered in this course. Field trips will be required. (Crosslisted as BIOL/ENSC 60173.)

BIOL 60220 - Skills and Techniques in Biology Seminar (1.00-3.00)

Prerequisites: Graduate Standing and permission of instructor. The primary goal of this course is to provide students with hands-on training relevant to various aspects of biological research. Topics to vary, but may include specific bench-top or field techniques, the use of specialized statistical programs or approaches, or advanced methods of scientific communication. May be taken for 1-3 credit hours, depending on the topic. May be repeated for credit up to a total of 6 credit hours.

BIOL 60224 - Developmental Biology (4)

Three hours lecture and one lab period per week. Mechanisms of developmental biology. Molecular, genetic, cellular, and morphological processes behind development.

BIOL 60243 - Advanced Immunology (3)

Three hours lecture per week. Prerequisite: BIOL 30303 20233, and 40253 or permission of instructor. Immunobiology and immunochemistry of the immune response, especially cell mediated reactions. Current literature, techniques and clinical applications.

BIOL 60320 - Graduate Research in Biology (1.00-6.00)

Prerequisites: Permission of instructor. May be taken for 1-6 credit hours per semester. A minimum of 9 hours of BIOL 60320 Graduate Research is required for the Ph.D.

BIOL 60353 - Wildlife Ecology and Management (3)

Prerequisites: Six semester hours in Biology. Two hour lectures and a three hour laboratory each week. This discussion-oriented course introduces graduate students to the general principles of wildlife ecology and how those principles can be applied to wildlife management and conservation. The objectives of this course are 1) to provide an introduction to the major concepts of Wildlife Ecology and Management and 2) to allow you to learn the application of the scientific method to ecological problems. Laboratory exercises are required. (Crosslisted as BIOL/ENSC 60353)

BIOL 60403 - Medical Microbiology (3)

Prerequisite: Permission of instructor. This course focuses on advanced topics in medical microbiology including disease mechanisms of major human pathogens, the host response, and antibiotic development and resistance. Scientific approaches used to investigate these topics are emphasized. This course includes reading and discussion of the primary literature.

BIOL 60603 - Virology (3)

Prerequisite: Six hours of biochemistry or permission of instructor. Fundamental properties of viruses and contribution of viral studies to molecular biology.

BIOL 60703 - Advanced Teaching in Biology (3)

Prerequisites: BIOL 60111 and permission of instruction. Three semester hours. The purpose of this course is to provide advanced pedagogical training to Biology graduate students. In this course, different educational

theories and classroom issues will be discussed, practiced, and observed. Students will gain experience in classroom management, teaching styles, assessment, exam composition, and creating a syllabus.

BIOL 60723 - Advanced Genetics (3)

Three hours lecture per week. Prerequisites: BIOL 30303, 40123, and 50133 or permission of instructor. Examination of research literature dealing with selected topics in genetics. Topics in molecular genetics are most common. May be repeated for credit one time with different topic.

BIOL 60910 - Biology Seminar (1)

Prerequisite: BIOL 60001 or permission of instructor. The primary goal is to acquaint the student with areas of study in the biological sciences not covered in detail in other courses.

BIOL 70771 - Non-Thesis (1)

Selected when enrolling only for non-thesis examination or preparation for the examination.

BIOL 70950 - Assigned Problems in Biology (1.00-20.00)

Limit 3 hours unless approved by graduate committee or department chair. Each of the assigned projects requires a minimum of 50 clock hours of field, laboratory or library work for each semester hour of credit.

BIOL 70980 - Thesis (3)

A minimum of 3 hours of BIOL 70980 Thesis is required.

BIOL 70990 - Thesis (3)

Prerequisite: BIOL 70980 and admission to candidacy. A minimum of 3 hours of BIOL 70990 Thesis is required.

BIOL 80703 - Teaching Practicum in Biology (3)

Prerequisites: BIOL 60703, admission to candidacy in Ph.D., and permission of departmental chair. Supervised curriculum development including but not limited to preparation and delivery of lectures, leading classroom discussions, and student assessment. This course is only offered P/NC. ALL BIOLOGY PH.D. STUDENTS ARE REQUIRED TO TAKE THIS COURSE.

BIOL 90980 - Dissertation (1.00-20.00)

Prerequisites: Admission to Ph.D. candidacy and permission of instructor. A minimum of 6 hours of BIOL 90980 Dissertation is required.

BIOL 90990 - Dissertation (1.00-20.00)

Prerequisites: Six hours of BIOL 90980 and permission of instructor. A minimum of 6 hours of BIOL 90990 Dissertation is required.

BUSI - Business

BUSI 50833 - Team Leadership Skills (3)

3 hours. Prerequisites: BUSI 30833 with a grade of at least C and must be a Business major. A developmental approach is taken in this course to build critical skills that support effective team leadership in today's organizations. This course will focus on introducing and cultivating skills such as team building, group process facilitation, dialogue, meeting management, and conflict resolution. Learning through active application and experiential exercises will be emphasized.

BUSI 50843 - The Leadership Challenge (3)

3 hours. Prerequisites: A business major, and BUSI 30843, and BUSI 40833 with at least a grade of C and departmental permission. This course is the capstone for the Leadership Emphasis program. It will cover content associated with what it takes to successfully lead change efforts. As such it will cover topics such as overcoming complacency creating and communicating new direction development support for leadership initiatives dealing with resistance among others. In addition students will be given a "leadership challenge" in an assigned field placement where they will be expected to use what they've learned in leadership courses to lead a project to a successful completion. Class sessions will help students relate their field experience to topic coverage in this course as well as to other courses in the Leadership emphasis program.

BUSI 60050 - Global Environment of Business (1.5)

1.5 credit hours. This course is designed to be an introduction to international business. As such, the student will be introduced to those strategic, managerial, organizational and/or legal implications of doing business overseas. In addition, the course will consider those international institutions and cultural differences that impact the conduct of the global firm.

BUSI 60070 - Business Simulation (1.5)

1.5 credit hours. This course helps students integrate concepts from the different business disciplines by involving them in a complex computer

simulation of realistic business situations. Teams of students are required to make business decisions involving a diverse set of business functions and activities over a series of rounds in which conditions change. Through successive phases of the simulation, students must respond to the actions of competing company teams represented by their classmates and are exposed to the consequences of their previous decisions. The course, which is taught at the end of the required core courses, requires students to draw on the material from those courses in making their decisions. Student performance in the simulation is reflected in a balance scorecard of multiple metrics. At the end of the simulation, students present their rationales for their decisions.

BUSI 65103 - Personal Leadership Development Process (3)

3 credit hour. The objective of this course is to enable each student to identify and strengthen leadership competencies critical to his/her success. Through a 360 degree survey, a learning agility assessment and working one-on-one with a leadership coach, the student will develop (1) an understanding of the leadership competencies critical to companies today, and to his/her current and future career success, (2) insights about the relative importance of these competencies in their work environment, and (3) understanding about his/her strengths and weaknesses with respect to the leadership competencies. Students will also reflect on the full set of leadership development experiences in the Neeley EMBA program (personal development experience working with leadership coach, coursework and teamwork) to help him/her become a more effective strategic leader. (This course is only offered as P/NC.)

BUSI 66100 - Career Management and Professional Development (1.5)

1.5 credit hours. Assesses and develops skills in the following areas: career management, intercultural dynamics, leadership, professional communication, and team building. Students must complete various assessments and attend feedback sessions, and complete the START workshop. Students must also complete several career management requirements and submit a career development plan for approval. Students enroll in this course on a pass/no credit basis.

BUSI 70173 - Introduction to Hedge Fund Strategies (3)

Students will work in conjunction with a Texas-based asset manager to gain an understanding of hedge fund investment strategies. Students will use their critical thinking ability and knowledge of macroeconomics, security analysis, and portfolio management to formulate an analysis on the feasibility of an alternative investment portfolio. Such strategies may include long/short equity, relative value/capital structure arbitrage, event driven/merger arbitrage, and global macro trading. The result is an understanding of investment theory that goes beyond the conventional buy-and-hold method prevalent in undergraduate and graduate investment course study. At the end of the semester, the team's analysis might be presented to a professional audience.

BUSI 70220 - Real Estate Valuation I (1.00-3.00)

Theory, methods and principles of valuation; cost, market and income approaches to value; the appraisal process applied both to residential and commercial property.

BUSI 70330 - Real Estate Valuation II (1.00-20.00)

Prerequisites: BUSI 70220. Theory, methods and principles of valuation; cost, market and income approaches to value; the appraisal process applied both to residential and commercial property. During the eight week session, students will be required to complete an appraisal project.

BUSI 70601 - Real Estate Property Law (1)

This course will cover the basics of real estate law, particularly land ownership and transfer of title, as well as the legal issues involved with both.

BUSI 70623 - Global Business Experience (3)

Prerequisites: Mana 60050. This course focuses on the opportunities and challenges of doing business outside of the United States. More specifically, this course focuses on developing an understanding of the issues and opportunities related to business in a defined country or geography. In addition to classes at TCU, students will travel to the country or countries and interact with businesses including identifying the standards, practices, and structures of business as appropriate to the focus of the course. In so doing, the role of history, politics, culture, social norms, and legal environment will be explored. Opportunities, challenges and risks associated with doing business in an international setting will be identified.

BUSI 70710 - Energy Commodities (1.00-20.00)

This course will focus on the commodity markets and how they affect the energy industry. We will gain an understanding of the differences between various markets (stock and commodity) while also learning the similarities. We will look at the instruments and uses of hedging in industry, and debate

the pros and cons of doing so. We will have conversations on speculation, Black Swan events and current topics, and how they relate to price.

BUSI 70711 - Land Title Issues

The class will attempt to cover the basics of searching land title, with particular attention to rights of mineral owners, royalty owners, and surface owners.

BUSI 70713 - Energy in the 21st Century (3)

This is an interdisciplinary, team taught course in four sections, that provides a broad based overview of energy: its exploration and production, its controversies, its geopolitics and the process by which it is provided.

BUSI 70720 - Land Title Issues (1)

The class will attempt to cover the basics of searching land title, with particular attention to rights of mineral owners, royalty owners, and surface owners.

BUSI 70970 - Special Problems – Energy in the 21st Century
Special Problems in Business. Enrollment in the MBA or MS-Supply Chain Management program.

BUSI 75970 - Special Problems in Business (1.00-20.00)
Special Problems in Business. Prerequisite: Must be an EMBA candidate.

BUSI 75974 - Managing in a Global Business Environment (4)
4 hours credit. Prerequisite: Must be an EMBA candidate. This course is the study and experience of managing in a global business environment. The course provides background learning in preparation for a study abroad opportunity that includes visits to companies (multinational and local), institutions (financial, educational, political), and cultural sites. Pre-trip classes provide the students an understanding of the risks, opportunities, and challenges of doing business across borders and the impact of differences in legal, political, cultural, social and institution frameworks in different countries. An opportunity analysis is completed and presented in the post-trip class period.

BUSI 77702 - International Internship (2)
Prerequisite: Enrollment in the MIM program. This is an international internship that exposes students to cross-country variations in business practices, cultures, work environments, regulatory settings, and other aspects of international business. Students are immersed in a work environment different from that of their native country. MIM students from TCU will intern in Mexican companies while MIM students from UDLA will intern in U.S. companies.

CHDV - Child Development

CHDV 50433 - Vulnerable Child I: Theory (3)
Prerequisite: Junior standing. The Vulnerable Child is a two-part series of multidisciplinary courses which investigate the challenges faced by families and professionals who work with children who have emotional, behavioral, and/or physiological challenges. The Vulnerable Child I: Theory will focus on the theory and research which is the basis of these challenges. If our Hope Connection summer camp for adopted children is taking place, both Vulnerable Child courses are required before students can work in it. (Crosslisted as CHDV/PSYC 50433.)

CHDV 50443 - Vulnerable Child II: Practice (3)
Prerequisites: PSYC/CHDV 50433 and junior standing. The Vulnerable Child is a two-part series of multidisciplinary courses which investigate the challenges faced by families and professionals who work with children who have emotional, behavioral, and /or physiological challenges. The Vulnerable Child II: Practice will focus on the training students need to evaluate and apply intervention strategies for these families and children based on the theory and research learned in the first course. Both Vulnerable Child I II are required for students wishing to apply for Independent Studies' hours to work in The Hope connection summer camp for at-risk adopted children. (Crosslisted as CHDV/PSYC 50443.)

CHDV 50533 - Case Studies in Child Development (3)
Prerequisite: Junior standing. This course is designed to present an integrated and comprehensive overview of numerous issues in child development as well as treatments/solutions for those issues. This diverse array of developmental problems will be presented in a series of case-studies by professors from several departments as well as by community professionals who specialize in children's issues. This course is a requirement for the Child Development Minor as well as an elective course in Psychology. (Crosslisted as CHDV/PSYC 50533.)

CHDV 60263 - Child Development Internship I (3)

Prerequisites: Graduate standing in the Developmental Trauma Master's Program. This course provides opportunities to work with children through internship positions. Service environments will provide experiential learning through which students will utilize their knowledge of child development and developmental trauma. Students can obtain their own positions (e.g., foster care and adoption agencies, residential treatment centers, child life specialist practicums/internships) or can take part in internships facilitated by the instructor (e.g., therapeutic summer camps). Students spend at least 96 hours at their internship site. Further, students attend regularly scheduled meetings to discuss their experience with peers and faculty and learn about working in helping professions.

CHDV 60273 - Child Development Internship II (3)

Prerequisites: Graduate standing in the Developmental Trauma Master's Program and CHDV 60263 Child Life Internship I. This course provides advanced opportunities to work with children through internship positions. Service environments will provide experiential learning through which the student will utilize their knowledge of child development and developmental trauma. Students can obtain their own positions (e.g., foster care and adoption agencies, residential treatment centers, child life specialist practicums/internships) or can take part in internships facilitated by the instructor (e.g., therapeutic summer camps). Students spend at least 96 hours at their internship site. Further, students attend regularly scheduled meetings to discuss their experiences with peers and faculty and learn about working in helping professions.

CHDV 60903 - Developmental Trauma Capstone Course (3)

This course is the capstone course for the Master of Science in Developmental Trauma program. Students complete a treatise and several professional development activities under the advisement of a faculty member in the program. (Crosslisted as CHDV/PSYC 60903)

CHEM - Chemistry

CHEM 50001 - Laboratory Safety

This course deals with the safe handling of chemicals, the inventory and safe disposal of chemicals, safe handling of radioactive materials and lasers as well as details of federal, state and city regulations that apply to safety in academic and industrial laboratories. (This course is only offered P/NC.)

CHEM 50111 - Laboratory Glassblowing (1)

One 4-hour laboratory period per week. An introduction to the preparation of laboratory research equipment constructed of sodium and borosilicate glass.

CHEM 50120 - Teaching of Chemistry

Prerequisite: Permission of instructor. Members of this class act as Chemistry laboratory assistants. Techniques of laboratory instruction are illustrated and the importance of laboratory safety is stressed. 1-3 semester hours.

CHEM 50133 - Biochemistry I (3)

Prerequisite: CHEM 30133 and 40123 or permission of instructor. Three hours lecture per week. A general survey of structure and function of biologically important compounds with methods of analysis. (Crosslisted as BIOL/CHEM 50133.)

CHEM 50143 - Biochemistry II (3)

Prerequisite: BIOL/CHEM 50133. Biosynthesis, replication of DNA, synthesis and processing of RNA and proteins, and special topics e.g. brain and muscle functions, hormones and signal transduction, cancer, development, etc. (Crosslisted as BIOL/CHEM 50143.)

CHEM 50153 - Medicinal Chemistry (3)

Three hours lecture per week. Prerequisites: BIOL/CHEM 50143, or permission of instructor. Molecular mechanism of drug actions, and methods of drug design, discovery and development. (Crosslisted as BIOL/CHEM 50153.)

CHEM 50162 - Advanced Inorganic Chemistry Laboratory (2)

One hour lecture and one 4-hour laboratory per week. Prerequisite: CHEM 50163 or concurrent registration. The laboratory emphasizes the synthesis, characterization and transformations of inorganic species.

CHEM 50163 - Advanced Inorganic Chemistry (3)

Three hours lecture per week. Prerequisite: CHEM 40123 or permission of instructor. A survey of topics in modern inorganic chemistry with emphasis on synthesis, bonding and the mechanisms of reactions.

CHEM 50182 - Biophysical Chemistry Laboratory (2)

Two 4-hour laboratory periods per week. Prerequisite: Prior or concurrent registration in CHEM 50183. Physical chemical principles applied to biochemical systems.

CHEM 50183 - Biophysical Chemistry (3)

Three hours lecture per week. Prerequisite: CHEM 40123 and prior or concurrent registration in CHEM 50143. Biological systems are discussed from the viewpoint of physical chemical theories and methods.

CHEM 50223 - Advanced Organic Chemistry (3)

Three hours lecture per week. Prerequisite: CHEM 30143, 30133 or permission of instructor. A detailed study of stereochemistry, important organic reactions and mechanisms, organic syntheses and fundamentals of synthetic design.

CHEM 50230 - Special Problems in Chemistry (1)

Advanced work in biochemistry, inorganic, organic and physical chemistry to be determined by the previous preparation and interests of the individual student.

CHEM 50263 - Physical-Organic Chemistry (3)

Three hours lecture per week. Prerequisite: CHEM 30133 and prior or concurrent registration in CHEM 40123. An introduction to modern structural theory and reaction mechanism. Includes a discussion of physical methods.

CHEM 50273 - Inorganic Reactions (3)

Three hours lecture per week. Prerequisite: CHEM 50163 or permission of the instructor. An advanced study of the preparative and derivative chemistry of important classes of transition metal and main group element compounds.

CHEM 50282 - Advanced Physical Chemistry (2)

Two hours lecture per week. Prerequisites: CHEM 40133. An introduction to Quantum Chemistry and Statistical Thermodynamics is presented. Continuation of Chemistry 40123-40133.

CHEM 50290 - Chemical Thermodynamics (1.00-6.00)

Prerequisite: CHEM 40133 or permission of instructor. An introduction to the applications of thermodynamics in chemistry. 1-3 hours of variable credit

CHEM 50303 - Chemical Kinetics

Three lecture hours per week. Prerequisite: CHEM 40133. Phenomenological and theoretical aspects of the subject are stressed. Emphasis is placed on the study of rates of reaction as a means of elucidating reaction mechanisms. The study of specific gas phase and solution reactions is undertaken to illustrate basic theoretical principles as well as to distinguish molecular, ionic and free radical pathways, applications of isotope effects, activation parameters, medium effects and linear free-energy relationships are considered. Selected topics in conventional and enzyme catalysis are discussed.

CHEM 50502 - Biochemistry Laboratory (2)

Two four-hour laboratory periods per week. Prerequisite: CHEM 50143 or concurrent registration. (Crosslisted as BIOL/CHEM 50502)

CHEM 50763 - Experimental Methods in Biochemistry and Biophysics (3)

Prerequisite: Permission of instructor. This course will introduce students to experimental techniques developed and used to investigate biological systems. It will discuss modern techniques used in the biomedical sciences, drug discovery and other biophysical and biochemical fields. The course includes lectures, demonstrations, and hands-on exercises in the TCU Biophysics Laboratory and on instrumentation at the Center for Commercialization of Fluorescence Technologies (CCFT) at the UNT Health Sciences Center campus. (Crosslisted as CHEM/PHYS 50763.)

CHEM 50783 - Environmental Chemistry (3)

Prerequisites: CHEM 10123 and 10122 or 10125 or 20123 or permission of instructor. Three hours lecture per week. Chemistry of water, soil, energy, and air as related to environmental problems. Subjects include: nutrients and eutrophication, fluorocarbons, sulfur and nitrogen oxides, Eh-pH relationship, natural carbonate reactions, and cation exchange phenomena. (Crosslisted as CHEM/ENSC/GEOL 50783.)

CHEM 50993 - Neurochemistry

Three lecture hours per week. Prerequisite: CHEM 50133 or permission of instructor. The elucidation of biomedical phenomena that subserves the characteristic activity of the nervous system or are associated with neurological diseases.

CHEM 60110 - Seminar (1)

Chemistry seminar. (This course is only offered P/NC.)

CHEM 60120 - Special Topics in Inorganic Chemistry (1.00-20.00)

Prerequisite: CHEM 50163 or permission of instructor. Significant advances in inorganic chemistry with emphasis upon material taken from recent literature. The subject matter will be fitted to the needs and interests of the class.

CHEM 60123 - Chemistry of Heterocyclic Compounds (3)

Prerequisite: CHEM 50223 or equivalent. The synthesis and reactions of the principle heterocyclic systems, including some related natural products.

CHEM 60130 - Special Topics in Biochemistry (1.00-20.00)

Prerequisite: CHEM 50143. Specialized aspects and new developments in the field.

CHEM 60140 - Special Topics in Organic Chemistry (1.00-20.00)

Prerequisite: CHEM 50223 or equivalent. Recent advances in theoretical and synthetic organic chemistry. Highly specialized areas of organic chemistry may be taken up according to the needs of the class.

CHEM 60150 - Special Topics in Physical Chemistry (1.00-20.00)

Prerequisite: Permission of instructor. Topics of current interest in physical chemistry. The subject matter will be selected to meet the needs and interests of the class.

CHEM 60240 - Graduate Research in Inorganic Chemistry (1)

Graduate research in inorganic chemistry.

CHEM 60260 - Graduate Research in Organic Chemistry (1)

Graduate research in organic chemistry.

CHEM 60270 - Graduate Research in Physical Chemistry (1)

Graduate research in physical chemistry.

CHEM 60280 - Graduate Research in Biochemistry (1)

Graduate research in biochemistry.

CHEM 60313 - Quantum Chemistry

Prerequisite: CHEM 50282. Differential Equations is recommended. A brief review of the physical and historical background of quantum theory. The mathematical formalism along with some exactly solvable problems. Considerable time is spent on the approximate methods which are most applicable to chemical systems and allow a qualitative understanding of delocalization energies, spectra and chemical reactivity.

CHEM 60323 - Quantum Chemistry

Prerequisite: CHEM 50282, Differential Equations is recommended. A brief review of the physical and historical background of quantum theory. The mathematical formalism along with some exactly solvable problems. Considerable time is spent on the approximate methods which are most applicable to chemical systems and allow a qualitative understanding of delocalization energies, spectra and chemical reactivity.

CHEM 60333 - Statistical Mechanics

Prerequisite: CHEM 50290. After a brief mathematical introduction, the equilibrium theory of statistical mechanics is developed and used to interpret the laws of thermodynamics from the molecular standpoint. A detailed study of the relationships between the thermodynamic functions of gases, liquids and solids and their structure on the molecular scale.

CHEM 60500 - Seminar in Chemistry of Behavior (1.00-20.00)

Prerequisite: Permission of department chair. Weekly discussions of current topics in the Chemistry of Behavior. (Crosslisted as CHEM/PSYC 60500.)

CHEM 70771 - Non-Thesis

Selected when enrolling only for non-thesis examination or preparation for the examination.

CHEM 70980 - Thesis (1.00-20.00)

A minimum of 3 hours of CHEM 70980 Thesis is required.

CHEM 70990 - Thesis (1.00-20.00)

Prerequisites: CHEM 70980 and admission to candidacy. A minimum of 3 hours of CHEM 70990 Thesis is required.

CHEM 90000 - Postdoctoral Research (1.00-6.00)

Postdoctoral Research.

CHEM 90980 - Dissertation (1.00-20.00)

Prerequisite: Permission department chair. A minimum of 6 hours of CHEM 90980 Dissertation is recommended.

CHEM 90990 - Dissertation (1.00-20.00)

Prerequisite: CHEM 90980 and admission to candidacy. A minimum of 6 hours of CHEM 90990 Dissertation is recommended.

CHIN - Chinese

CITE - Computer Information Technology

COMM - Communication Studies

COMM 50243 - "The Dark Side" of Interpersonal Communication" (3)
Prerequisites: COMM 20113. This advanced seminar is designed to provide an introduction to the various messages and message strategies that fall within the purview of the dark side of interpersonal communication. Students will examine a variety of interpersonal communication behaviors that problematize that is considered ethical moral and/or functional in healthy relationships including jealousy envy revenge conversational dilemmas fatal attractions deception infidelity and abuse among others.

COMM 50970 - Special Problems in Communication Studies (1.00-20.00)
Prerequisite: Senior or graduate standing. Specialized work in student's area of concentration. 1-6 semester hours, 3 hours maximum per semester.

COMM 60113 - Interpersonal Communication (3)
Review of advanced theoretical constructs and recent research related to interpersonal communication. Comprehension, critical evaluation and applications will be stressed.

COMM 60123 - Communication Education (3)
Review and analysis of communication theory and research in instructional settings.

COMM 60143 - Communication and Social Influence (3)
Explores issues of influence, compliance and resistance in interpersonal relationships from a social science perspective. Influence reciprocity and consequences to relationships are examined as effects of everyday social interaction.

COMM 60153 - Topics in Communication (3)
Examines communication in the context of various contemporary social issues. Course topics may vary. Course may be repeated for credit for up to 9 hours.

COMM 60163 - Organizational Communication (3)
Addresses advanced concepts, issues and research methodologies applicable to communication processes in contemporary organizations.

COMM 60173 - Communication Research Methods (3)
Introduction to philosophy of graduate research; study of inferential and descriptive analysis, as well as correlational and experimental methodology and design.

COMM 60183 - Communication Theory (3)
Examination and evaluation of social, psychological and linguistic theory applied to human communication behavior.

COMM 60193 - Advanced Research Methods in Communication Studies (3)
Application of communication principles to organizational practice and/or research projects.

COMM 60203 - Family Communication (3)
Examines current theoretical perspectives, concepts, and research methodologies applicable to communication processes in families.

COMM 60213 - Social Networking Sites and Personal Relationships (3)
Explores theory and research related to interpersonal uses of communication technology. Students will critically examine research and theory on both early and recent forms of mediated interpersonal communication.

COMM 60293 - Communication and Social Cognition (3)
Reviews theory and research related to the interaction between cognitive processes such as attention, perception and memory and the processing of verbal and nonverbal messages.

COMM 60970 - Directed Study in Communication Studies (1.00-20.00)
Opportunity for individual work in a specialized area of concentration within the Communication Studies discipline.

COMM 70970 - Research Problems (1.00-20.00)
Advanced research on special problems in Communication Studies. Content will vary according to the needs and interests of students and faculty.

COMM 70980 - Thesis (1.00-6.00)
Prerequisite: Permission of chair.

COMM 70990 - Thesis (1.00-6.00)
Thesis

COSC - Computer Science

COSC 50123 - Object-Oriented Design and Programming (3)
Prerequisite: COSC 30403 or permission of instructor. Introduction to object-oriented techniques including design methodologies and programming language support. Survey of new languages and extensions to existing languages which provide support for encapsulation, inheritance, and polymorphism.

COSC 50133 - Formal Languages (3)
Prerequisites: COSC 40603. Languages and grammars which can be characterized in formal terms, for the purpose of constructing models for artificial (computer) languages. Topics will include finite automata, push down automata, Turing machines, solvable and unsolvable problems, etc.

COSC 50970 - Special Topics in Computer Science (1.00-20.00)
Prerequisite: Permission of instructor. (1-6 semester hours).

COSD-Comm-Sciences-Disorders

COSD 50300 - Clinical Practicum in Speech-Language Pathology II (1.00-6.00)

Prerequisite: COSD 40300 with a grade of C or higher, senior standing, and a cumulative TCU GPA of 3.0 or higher, and a cumulative 3.00 GPA or higher in COSD course, MATH 10043, one physical science course, one social/behavioral science course and biological sciences.. Student must be recommended for enrollment by COSD faculty. A minimum of one semester required for undergraduate students. Supervised clinical experience in management of the most common speech and language disorders.

COSD 50323 - Counseling Special Populations and Their Families (3)
Prerequisite: Senior or graduate standing. Theories, principles and practices in counseling special populations and their families with a focus on the communicatively impaired. Appropriate counseling strategies and techniques are explored with practical application experiences included.

COSD 50342 - Advanced Aural Rehabilitation (2)
Prerequisite: Senior standing and COSD 30343 and 30363, both with a grade of C or higher, or graduate standing, or permission of instructor. Theories of assessment and intervention in identification and aural rehabilitation of hearing-impaired and deaf children and adults. Includes methods of evaluation and training in the areas of audition, amplification, speech, language, speech-reading, assistive listening devices, cochlear implants, and communication modes and strategies.

COSD 50350 - Clinical Practicum in Audiology (1.00-3.00)
Prerequisites: Senior or graduate standing. Students must be recommended for enrollment by the Communication Disorders CD faculty. Such recommendations are based on the student's: 1) performance in COSD coursework with a grade of C" or better expected in all COSD courses; and 2) previous clinical experience and performance with students expected to complete two semesters of COSD 40300 with a grade of "C" or better. A laboratory course in basic audiological testing techniques involving assessments and evaluation of the hearing function. 1-3 semester hours."

COSD 50363 - Seminar on Stuttering (3)
Prerequisite: Senior (with permission of instructor) or graduate standing. A study of fluency development and breakdown in children and adults. Descriptions and development of speech fluency, onset and development of stuttering, characteristics of stuttering and people who stutter and theories of stuttering are reviewed.

COSD 50383 - Voice and Resonance (3)
Prerequisite: Senior (with permission of instructor) or graduate standing. A study of the theories, classification systems and etiologies, with emphasis on respiration, phonation, resonance and articulation factors as they relate to disorders of voice, resonance and compensatory articulation.

COSD 50413 - Advanced Speech Sound Disorders (3)
Prerequisite: Graduate standing. A study of theories, diagnostic materials, etiologies, and intervention models with emphasis on the phonological productions of children with highly unintelligible speech, childhood apraxia or speech, and mild-moderate articulation errors.

COSD 50870 - COSD Study Abroad - Australia (1.00-20.00)
Prerequisites: permission of instructor(s) and meeting criteria, established by the TCU Center for International Studies. The purpose of this course is to

increase students' knowledge of and skills in evidence-based clinical practice (EBP) in the field of speech-language pathology. Course content includes background learning in preparation for study abroad followed by travel to Sydney, Australia and Christchurch and Wellington, New Zealand. Students will visit universities and a variety of practice sites conducting and implementing EBP with children and adults with communication disorders. Students must meet the criteria established by the TCU Center for International Studies as well as departmental requirements.

COSD 50970 - Directed Studies in Communication Disorders (1.00-6.00)
Prerequisites: Senior or graduate standing; permission of instructor. Directed study focusing on specialized topic in communication sciences and disorders. (1-6 semester hours.)

COSD 60213 - Teaching Spoken Language to Persons with Hearing Loss (3)

Prerequisite: Audiology with a grade of C or higher or permission of instructor. Advanced study of communication development in children with hearing loss. Topics include detailed study of spoken languages, including articulation, prosody and voice production in hearing impaired children and adults.

COSD 60223 - Clinical Lab in Teaching DHH Students I (3)

Prerequisite: COSD 50373 and 60213, both with a grade of C or higher, or permission of instructor. Observation and supervised clinical teaching of DHH children and adults in an individual setting.

COSD 60233 - Advanced Language Development for DHH (3)

Prerequisite: COSD 60233 with a grade of C or higher, or permission of instructor. Advanced study of language principles and language usage for intermediate and advanced levels with the deaf and hard of hearing.

COSD 60243 - Teaching Elementary School Subjects to DHH Children (3)

Prerequisite: COSD 60213 60233, or permission of instructor. Advanced study of curriculum materials and teaching methods for meeting specialized needs of deaf and hard of hearing children, in the learning of reading and developing concepts and relationships in arithmetic and science.

COSD 60300 - Practicum in Speech-Language Pathology (1.00-6.00)

Prerequisites: Graduate standing in speech-language pathology and permission of instructor. Advanced clinical practice and evaluation of speech and language disorders. One semester hour required for each semester a student performs clinical practice up to six hours.

COSD 60343 - Advanced Language Disorders in Children (3)

Prerequisites: Graduate standing in speech pathology and permission of instructor. Principles in the assessment and treatment of language disorders in infants, preschoolers, school-aged and adolescents.

COSD 60363 - Orofacial Pathologies/AAC (3)

Prerequisite: COSD 30303 or permission of instructor. This two-part course includes study of the pathology of structure and function of the speech mechanism as related to cleft palate followed by a study of the use of augmentative and alternative technology for individuals with severe communication disorders.

COSD 60383 - Advanced Study of Language and Language Development (3)

Intensive study and analysis of language in normal children at various developmental levels.

COSD 60390 - Seminar on Communication Disorders (1.00-20.00)

In depth study of a communication disorder. Seminar content may vary and may include such topics as dysphagia, organic disorders in children, assessment and treatment of voice disorders, and assessment and treatment of articulation disorders. Three hour maximum per semester.

COSD 60413 - Adult Neurolinguistic Disorders (3)

This course will assist students to understand the structure and function of central and peripheral nervous systems in relation to normal and disordered language and cognition.

COSD 60423 - Dysphagia (4)

This course will assist students in learning the theoretical and clinical bases for the differential diagnosis of neurologically based communication disorders in adults and assessment and treatment of dysphagia in adults and children. Case studies, videotaped analyses, and/or clinic stimulation exercises will be used in class and/or a required lab to facilitate application of knowledge to clinical practice.

COSD 60433 - Motor Speech Disorders (3)

Prerequisites: COSD 60423 with a grade of C or higher or consent of instructor. This course will assist students in learning the theoretical and clinical bases for the assessment and treatment of neurologically motor based communication disorders in adults. Case studies, videotaped analyses, and/or clinic stimulation exercises will be used in class to facilitate application of knowledge to clinical practice. Supporting

COSD 60443 - Multicultural Issues in Communication Disorders (3)

Prerequisites: Graduate standing in speech-language pathology and consent of instructor. Study of multicultural considerations for children and adults with communication disorders. Topics will include socio-cultural influences on speech and language development, educational considerations, non-biased assessment, and cultural and linguistic considerations in treatment planning. Issues of dialect, languages other than English, and bilingualism will be discussed.

COSD 60453 - Speech, Language, and Cognition in Bilinguals (3)

Prerequisites: Graduate standing in speech-language pathology or consent of instructor. Study of research related to cross-linguistic and multilingual speech and language development, neurolinguistics, psycholinguistics, and sociolinguistics. Includes current practices in the assessment and treatment of communication impairments in non-English speaking and bilingual adults and children.

COSD 60970 - Directed Studies in Communication Disorders (1.00-20.00)

Prerequisites: Permission of instructor. Advanced study of specialized topic in communication sciences and disorders.

COSD 70313 - Assessment and Treatment of Stuttering (3)

Prerequisites: COSD 50363; senior or graduate standing. A study of the assessment and treatment of stuttering in preschool, school-aged, and adults who stutter. Assessment issues including behavioral and attitudinal analyses are reviewed. Differential treatment is discussed in terms of current therapies.

COSD 70323 - Research in Communication Sciences and Disorders (3)

A review of research design and evaluation in communication sciences and disorders. Emphasis on improved skills in both consuming and producing research in the fields of speech science, speech-language pathology and audiology.

COSD 70980 - Thesis (1.00-6.00)

Thesis

COSD 70990 - Thesis (1.00-6.00)

Thesis

CRES - Comp Race and Ethnic Studies

CRES 60003 - Graduate Introduction to Comparative Race and Ethnic Studies (3)

Prerequisites: Admission to the CRES Graduate Certificate. This course aims to give students a broad, general understanding of the multifaceted field that has come to be known as Comparative Race and Ethnic Studies in the United States. Critical Race Theory serves as a central theoretical framework for students to understand the concepts of race and ethnicity, their intersections with other concepts such as gender, and their manifestations in society. The course traces the historical trajectory of the field from its founding to the current manifestations.

CRES 70001 - Portfolio (1)

Prerequisites: Completion of CRES 60003 and two CRES electives. This culminating course in the CRES Graduate Certificate aims to prepare students to complete a CRES capstone portfolio representing the student's work through the Graduate Certificate's course of study. The portfolio will demonstrate both the development of student learning as well as showcase items that are products of the student's learning in the CRES Graduate Certificate. The portfolio will be judged by a CRES core faculty committee.

CRJU - Criminal Justice

CRJU 61113 - Introduction to Online Learning and Critical Thought (3)

This introductory course orients students with the online environment and presents critical issues in criminal justice and criminology that serve as the basis for the online program. Students will learn practical as well as theoretical matters by navigating and interacting within the online environment, conduct in-depth literature reviews, learn program expectations, and analyze current empirical research that is fundamental to the discipline.

CRJU 61123 - Criminal Justice Systems (3)

An in-depth analysis of police, courts, and corrections highlights crucial issues affecting crime and policy. A holistic view is stressed, where students are expected to identify these issues, integrate independent research, and suggest crime control policies and strategies using empirical and theoretical support.

CRJU 61133 - Advanced Social Science Research Methodology (3)

Research methodologies and design in the social sciences are examined using three approaches: qualitative, quantitative, and mixed. Each methodology will begin with philosophical and theoretical assumptions before students engage in hands-on empirical research. Writing and presentation of methodologies tailored to each student's thesis will be heavily emphasized.

CRJU 61143 - Social Science Statistics and Probability (3)

This course gives students a fundamental understanding of statistics and probability in the social sciences. Students will learn and apply theoretical statistical models to calculate simple and more complex statistical models. This understanding will be used as a basis to run different tests of significance related to inferential statistics.

CRJU 61183 - Advanced Criminological Theory (3)

This course gives students in-depth understandings of criminological theories that serve as the basis for criminological research and scholarship. A variety of theoretical paradigms will be examined, critiqued, and applied towards empirical research. Each major theory will be analyzed, from its historic roots to its contemporary application in empirical research.

CRJU 61193 - Applied Research and Policy 1 (3)

This course focuses on applied criminological concepts and theories to real-world problems. Students will deconstruct complex problems related to the criminal justice system, particularly policies and strategies dealing with prisons, prisoner reentry, and crime prevention.

CRJU 61253 - Policing (3)

This course takes an in-depth and comparative analysis of policing in the United States. Key issues and strategies in contemporary policing will be contextualized historically and internationally. The police subculture, in particular, will be discussed in detail and used to analyze key reforms which lead up to contemporary strategies such as broken windows and community policing.

CRJU 61263 - Courts, Law, and Legal Procedure (3)

This course deconstructs and analyzes the American legal system. Students will learn legal procedure, reasoning, and functions of the courts, laws and legal actors. Moreover, students will examine a range of court cases that highlight critical issues. Landmark U.S. Supreme Court cases, in particular, will be used as models in order to understand advanced legal reasoning, legal theory, and the decision-making process.

CRJU 61273 - Corrections and Reentry (3)

This course takes a critical look at the correctional system in the United States and how prisoners re-entry society. A historic look at the development of corrections and punishment is framed within the context of legal and political frameworks, paying particular attention to crime control policies and their ramifications. Students will assess current prison conditions and critical reentry issues, including parole, reentry services, and societal conditions.

CRJU 61283 - Research Writing (3)

This course is designed to help familiarize students with the publication process in the social sciences. Students will learn the components of research, the writing process, and procedures with publication. The purpose of the course is to produce a publishable manuscript.

CRJU 61293 - White-Collar Crime (3)

This course examines white-collar crime using a theoretical and practical approach. Difficulties defining, identifying, and enforcing white-collar crimes will be emphasized by drawing from empirical research. The law and society theoretical framework will be used to examine societal perceptions and responses to white-collar criminals, paying particular attention towards systemic treatment of race and class in the American criminal justice and legal systems as well as society.

CRJU 61303 - Critical Issues in Law Enforcement (3)

Prerequisites: Acceptance to graduate program or certificate program. This graduate-level policing seminar explores controversial issues in policing ranging from police misconduct to community-police relations. The course will be contextualized in contemporary research. Students will explore the underlying reasons and root causes of policing issues to inform policies, training, and practices. In addition, future directions in policing and policing policy will be explored.

CRJU 61313 - Law Enforcement Management and Leadership (3)

Prerequisites: Acceptance to graduate program or certificate program. This graduate-level policing seminar explores management and leadership issues in policing. The course will be contextualized in criminal justice management and leadership research. Various leadership issues that affect police operations will be explored, ranging from organizational communication to organizational change.

CRJU 61323 - Legal Issues in Law Enforcement Management (3)

Prerequisites: Acceptance to graduate program or certificate program. This graduate-level policing seminar explores legal issues in policing. This course will be contextualized in criminological and legal research. Various legal issues that affect police operations will be explored, ranging from use of force to issues of searches and seizures. Different legal topics will be explored weekly. Legal nuances will be discussed in depth, including specific state and federal statutes, as well as in the context of larger Constitutional frameworks, such as privacy and equal protection.

CRJU 61333 - Law Enforcement Policy and Practice (3)

Prerequisites: Acceptance to graduate program or certificate program. This graduate-level policing course applies course material learned in various courses and applies them to police policies and practice. The course will be contextualized in contemporary research. Students will tailor their policies with their home department/agency and present their own policy-related issues for the class discussion. Students will incorporate the criminological research as well as published data on crime, crime prevention, and police.

CRJU 61393 - Applied Research and Policy 2 (3)

This course focuses on applied criminological concepts, theories, and research to real-world problems focused on the theme of technology and crime. Students will dissect complex and controversial issues in the use of technology in criminal justice and the problems created by technology in enforcing crime.

CRJU 70980 - Thesis (1.00-3.00)

This course is designed for independent thesis writing in consultation with the student's faculty advisor. Credits may be spread throughout the program to facilitate the thesis writing process.

CRJU 70990 - Thesis (1.00-3.00)

This course is designed for independent thesis writing in consultation with the student's faculty advisor. Credits may be spread throughout the program to facilitate the thesis writing process.

DANC-Classical-Contemporary-Dance

DANC 50100 - Ballet Technique and Artistry Level IV (.50-2.50)

Prerequisites: DANC 40100, SSCD major, or permission of instructor. Training in theory and practice of classical ballet at the advanced/professional level (.5-2.5 hours maximum per semester, course may be repeated.)

DANC 50303 - Dance Theory (3)

Prerequisites: DANC 40373 and 40383. This course surveys readings and topics in the theory and philosophy of dance. Specific topics are at the discretion of the instructor, and may include aesthetics of dance, dance historiography, dance and music, dance and feminism, dance and sexuality, and dance for the camera.

DANC 50313 - The Camera in Dance (3)

Prerequisites: Students must be a Dance major and have completed DANC 20333 or get permission from the instructor. The Camera in Dance offers a comprehensive introduction to various screen dance genres and a contextual overview of mediated dance while exploring the principles and techniques of dance for the camera.

DANC 60100 - Ballet Technique and Artistry (1.00-3.00)

Theory and practice of ballet. 3 hours maximum per semester. Total 9 hours maximum.

DANC 60200 - Modern Dance Technique and Artistry (1.00-3.00)

Theory and practice of modern dance. 3 hours maximum per semester.

DANC 60300 - Graduate Dance Production Practicum (1.00-3.00)

Practical experience working leadership positions involving the technical and production aspects of dance performances presented by the School for Classical Contemporary Dance. .5-3 hours per semester. May be repeated for up to 6 credits.

DANC 60333 - Lighting Design for Dance (3)

This design course equips the student with the advanced knowledge and skills necessary to effectively create lighting designs for dance.

DANC 60533 - Dance Pedagogy I: Practice and Analysis (3)
Practice and analysis of selected issues in dance instruction.

DANC 60553 - Graduate Choreographic Studies (3)
Graduate study of choreographic concepts, techniques, and applications. Course work includes research of style and form, development of choreographic material, and a public presentation of the work.

DANC 60603 - Issues and Analysis in Dance (3)
This course surveys readings and topics in dance theory, historiography, criticism, philosophy, and/or trends in the dance field. Specific topics are at the discretion of the instructor. 3 hours required.

DANC 60613 - Dance Research Methods (3)
Current methodologies and definitions in dance research.

DANC 60663 - Dance History: A Cultural Investigation (3)
Study of historical developments in dance seen from social, anthropological, political, philosophical and/or artistic perspectives.

DANC 60773 - Graduate Performance Analysis (3)
Graduate study of performance skills, development of artistry through the investigation of somatic performance techniques and their application to embodied performance.

DANC 70100 - Ballet Technique and Artistry (1.00-3.00)
Theory and practice of ballet. 3 hours maximum per semester.

DANC 70200 - Modern Dance Technique and Artistry (1.00-3.00)
Theory and practice of modern dance. 3 hours maximum per semester.

DANC 70300 - DanceTCU (1.00-9.00)
DanceTCU is a graduate level performance course, and as such students earn the opportunity - via audition - to perform in either a faculty or guest artist work. Through the performance experience, students utilize dance technique and artistry developed in ballet and modern dance courses. .5 - 9 hours credit. This course may be repeated for up to 9 hours credit.

DANC 70400 - Advanced Studio Practice (1.00-3.00)
Prerequisite: by permission only. An individualized course of daily studio practice designed in consultation with and at the discretion of the SSCDance faculty and available for returning professional dancers and those with high level skills and experience. This course may be repeated for up to 18 hours credit, 3 hours maximum per semester.

DANC 70533 - Dance Pedagogy II: Practice and Analysis (3)
Prerequisites: DANC 60533. An advanced pedagogy course using both seminar and praxis formats addressing selected issues and their applications to dance instruction.

DANC 70553 - Advanced Choreographic Studies (3)
Advanced graduate study of choreographic concepts, techniques, and applications. Course work includes research of style and form, development of choreographic material, and a public presentation of the work.

DANC 70570 - Graduate Directed Studies (1.00-3.00)
Individual study in dance practice, chosen in consultation with graduate advisor. 1-3 semester hours. May be repeated.

DANC 70603 - Research Problems (3)
Individual research and study in preparation for written thesis (DANC 70990.)

DANC 70980 - Concert Thesis (3)
Concert Thesis

DANC 70990 - Written Thesis (3)
Prerequisite: DANC 70603. Written Thesis

ECON - Economics

ECON 50453 - Macroeconomic Studies (3)
Prerequisites: A 'C-' or better in ECON 30233 or graduate standing in business. Analysis of current macroeconomic issues in theory and policy. Topics may include economic growth, fluctuations in business activity, investment behavior, consumption functions, macroeconomic planning, and the policy formulation process.

ECON 50463 - Perspectives in Macroeconomics (3)
Prerequisites: A 'C-' or better in ECON 30233 or graduate standing in business. Analysis of macroeconomic issues in theory and policy from the perspective of competing schools of thought. Special emphasis will be

placed on how each approach explains post-1970 business cycles, inflation, and unemployment in the U.S. economy.

EDAD - Education Administration

EDAD 60103 - Administrators, Schools and Districts (3)
Prerequisite: Must be admitted to Graduate Education. Relationships between different organizational patterns and administrative practices will be explored as well as the role of authority and decision making structures. Required of all majors in Educational Administration.

EDAD 60113 - Administrators and Teachers (3)
Prerequisites: Admitted to Graduate Education. It will include concepts and issues derived from leadership, supervision, and law.

EDAD 60123 - Administrators, Parents and Children (3)
Prerequisite: Admitted to Graduate Education. Foci will include community relations, communication, creating orderly, productive learning environments, and law.

EDAD 60133 - Trends and Issues in Educational Administration (3)
Prerequisite: Must be admitted to Graduate Education. The course will normally be taught collaboratively with practicing administrators.

EDAD 60143 - Administrative Life (3)
Prerequisite: Must be admitted to Graduate Education. This course is normally taken concurrently with EDAD 70200 Internship in Educational Administration. The course synthesizes prior course work, integrates new experiences from the Internship, and considers the alternatives each individual confronts in developing an administrative life, the jobs, technical and ethical demands, stresses and satisfactions.

EDAD 70001 - Doctoral Pro-Seminar (1)
This course may be taken twice for a total of 2 semester hours.

EDAD 70003 - Foundational Readings in Educational Administration (3)
Prerequisite: Admitted to Graduate Education. This course will examine the professional and intellectual history of educational administration.

EDAD 70013 - Legal and Social Environment of Education (3)
Prerequisite: Must be admitted to Graduate Education. Educational institutions operate within an environment that requires relationships with families, employees, and other private and public institutions. The primary focus of this course will be state and federal laws that regulate these relationships, with attention paid as well to social and political forces that influence the enforcement of laws.

EDAD 70023 - Theory and Management of Education Systems (3)
Prerequisite: Must be admitted to Graduate Education. High achieving districts are led by administrators that focus on academic programs, set attainable goals, continuously assess the curriculum, evaluate staff and teachers, and assess student achievement. This course will highlight the importance of instructional leadership and of developing effective evaluation processes as well as professional development opportunities.

EDAD 70033 - Ethical and Moral Dimensions of Educational Leadership (3)
Prerequisite: Must be admitted to Graduate Education. This course emphasizes enduring educational problems and fundamental philosophical issues, concepts that feature centrally in educational discourse, ethical standards and dilemmas, and conceptual analysis as a means for clarifying decisions regarding educational policy and practice.

EDAD 70043 - Educational Policy and Practice (3)
Prerequisite: Admission to doctoral studies or permission of the instructor. This course investigates the formation, implementation and evaluation of educational policy in educational systems. The leader's/administrator's role in creating/sponsoring, utilizing and adapting policy will be of core concern. The course will also focus on the political processes associated with policy practice.

EDAD 70053 - Applied Research: Economics of Education (3)
Admission to the Ed.D. Program or permission of the instructor. Empirical research on topics in education is frequently conducted using methods particular to the discipline of economics. Given the complex nature of the education process, it is not surprising that studies examining the same issue often reach different, often contradictory, conclusions. This course will systematically examine literature related to the economics of education.

EDAD 70063 - Data-Informed Decision-Making (3)

Prerequisites: Admission to the Graduate School at TCU and the College of Education Ed.D. program, or permission of the instructor. This course will explore various aspects of educational data use from a leadership perspective. Practitioner texts and peer-reviewed scholarship will be used to inform dialogue and class activities and assignments. The course will equip students with practical tools to address aspects of sustainable and effective data use in the now and will engage students in academic dialogues that help them address data-related issues still on the educational horizon.

EDAD 70073 - Capstone/Doctoral Seminar (3)

Prerequisites: Must be admitted to Graduate Education, and students registered for this course must have either completed doctoral coursework or be enrolled in final doctoral program classes. This culminating course is aimed at ensuring that students are fully prepared to begin work on the capstone project or dissertation and are able to demonstrate a range of skills and abilities, including an ability to frame a capstone project or dissertation; undertake an appropriate literature review; make decisions regarding design and implementation of the project or study, and, in other respects, complete the qualifying process.

EDAD 70200 - Internship in Educational Administration (1.00-6.00)

Prerequisite: Must be admitted to Graduate Education. Planned program of leadership responsibilities in an educational institution or agency, commensurate with the student's graduate program, certification objectives, and employment goals. Emphasis on research application in a field-based setting. Responsibilities and projects are under the direction of the academic advisor and on-site supervisor.

EDAD 80206 - Internship (6)

Prerequisite: Must be admitted to Graduate Education. A semester-long internship providing leadership experiences in an educational or corporate setting commensurate with the student's doctoral program. This course can be repeated three times for a total of 18 semester hours.

EDAD 90770 - Capstone Project (1.00-20.00)

Prerequisites: Completion of all Ed.D. coursework, including EDAD 70073, Capstone Doctoral Seminar and approval of doctoral advisory committee. Students will propose and execute an approved capstone project, submit the written documentation and publicly present the capstone project as directed by their doctoral advisory committee. The capstone project replaces the traditional dissertation. A minimum of 9 credit hours are required; more hours may be taken when necessary.

EDCS - Education - Curriculum Studies

EDCS 50001 - Colloquium Curriculum Studies (1)

Prerequisites: Admission into graduate studies or permission of instructor. Each semester, the colloquium addresses a different contemporary problem significant to curriculum studies. Through readings, discussions, and presentations of scholarly activities; student will explore the semester's theme, further their knowledge of curriculum studies, and develop academic talents within a community of scholars. Non-Curriculum Studies students may join the colloquium with permission of instructor.

EDCS 70011 - Colloquium in Curriculum Studies (1)

The Colloquium in the Profession of Curriculum Studies is designed as an introduction to the practical and theoretical issues of the field for all first semester graduate students. Class sessions may include presentations made by faculty or students; lectures by guest speakers; round table on specific educational issues; attendance at professional conferences; or informational meetings.

EDCS 70963 - Apprenticeship in Teaching

Prerequisites: Permission of advisor in Curriculum Studies and agreement with mentoring faculty. Students apprentice with faculty in the teaching of undergraduate and master-level curriculum studies courses. Apprenticing will include course design, lectures, facilitation, student interaction, and assessment as negotiated with the mentoring professor. Time requirements will include preparation before class, scheduled class periods and events, and follow-up responsibilities after class.

EDCS 70973 - Teaching Diversity (3)

Prerequisites: EDCS 70963. In Teaching Diversity, doctoral students join Curriculum Studies faculty for co-teaching and teaching under faculty supervision the course EDUC 50003: Diversity in American Education. Course work includes course design, lectures, facilitation, student interaction, and assessment. Time requirements will include preparation before class, scheduled class periods and events, and follow-up responsibilities after class.

EDEC - Education - Early Childhood

EDEC 50143 - Early Childhood Curriculum (3)

Prerequisite: Admission to the Teacher Education Program or written permission of the Dean, College of Education. The study of basic principles underlying curriculum construction and instructional practices in early childhood and primary education.

EDEC 60133 - Play and Creativity (3)

Research-based methods for creating experiences and environments for young children that support playful and creative learning opportunities. Current research and issues around appropriate practices with young children will be included.

EDEC 60173 - Practicum in Early Childhood Education (3)

All-day observation and supervised teaching for a period of six weeks in the public schools. Accompanying regularly scheduled class meetings on the campus for the entire semester for the purpose of developing competencies and professional growth.

EDEC 60223 - The Young Child (3)

Prerequisite: Admitted to Graduate Education. Study of research on behavior of young children and application to planned learning experiences.

EDEL - Education - Elementary

EDEL 60043 - Seminar in Elementary School Science

Advanced study of current issues in science education and of curricula, materials, and techniques utilized in the effective teaching of elementary school science.

EDEL 60813 - Infant/Toddler Development and Intervention

Prerequisite: Admitted to Graduate Education. Examines: the overall development of the infant and toddler from birth to three years; specialized services and early intervention; assessment strategies; collaboration skills; biomedical ethics and issues; care and collaboration of the medically fragile; methods and strategies to support and set up developmentally appropriate learning environments; federal rules and regulations of Part C under IDEA.

EDGU - Education - Guidance Counselor

EDGU 50223 - Helping Relationships (3)

Examination and practice of specific skills and processes essential to the development of helping relationships. Emphasis is placed on the development of interpersonal skills and professional ethics necessary to counseling.

EDGU 50323 - Small Group Dynamics (3)

Study of the group as an interactional system, including: group process, group roles, guidelines for group selection and guidance, techniques for facilitating interaction, strategies for building credibility in groups, and the impact of life styles on group needs.

EDGU 60003 - Counseling Diverse Populations (3)

Prerequisite: Admission to the Counseling program. A theoretical and skill development course for counselors to strengthen multicultural sensitivity, awareness, knowledge and skills. This class is designed to effectively prepare students for working in a diverse society by supporting appreciation of difference, acknowledging strengths and similarities among people, and learning to think and act ethically when delivering mental health services and advocating for clients.

EDGU 60113 - DSM: Diagnosis and Treatment (3)

Overview of DSM disorders, their prevention and treatment.

EDGU 60123 - DSM: Diagnosis and Treatment with Adults (3)

Diagnosis, assessment, and treatment of adults with consideration for biological, interactional, and systemic forces that contribute to or enhance treatment of mental disorders.

EDGU 60133 - Addictions Counseling (3)

Principles and practices of drug and addiction education and abuse prevention with special application to the functions of counselors. Students will learn about the impact of addictive substances on the brain, co-occurring disorders, models of addiction, levels of treatment, assessments used to identify substance abuse, and evidence-based practices in the field of addictions counseling. Students will also learn about the assessment and treatment of behavioral/process addictions, with specific attention paid to

the similarities and differences between substance and process addictions. Three credits.

EDGU 60143 - Counseling Interventions (3)

Prerequisite: EDGU 50223. Examination of techniques, strategies and methods of counseling; strategies to deal with resistant clients and acting out children; approaches to parent and professional consultation; crisis intervention issues and resources, and ethical and legal issues in the practice of counseling.

EDGU 60153 - DSM: Diagnosis and Treatment with Children (3)

Diagnosis, assessment, and treatment of children with consideration for biological, interactional, and systemic forces that contribute to or enhance treatment of mental disorders.

EDGU 60163 - Abnormal Human Development (3)

Diagnosis, assessment, and treatment of adults with consideration for biological, interactional, and systemic forces that contribute to or enhance treatment of mental disorders.

EDGU 60213 - Introduction to Marriage and Family Therapy (3)

Prerequisite: Admitted to Graduate Education. Examination of systems theory and the varying theoretical constructs, including strategic, structural, experiential, brief, and communication approaches.

EDGU 60223 - Pre-Practicum (3)

Prerequisites: Permission from instructor, completion of EDGU 50223 This course is designed to provide supervised experiences and critiques of recorded practice for the development of counselor presence and individual counseling techniques. Opportunities will be provided to discuss, observe, and demonstrate effective counseling behaviors.

EDGU 60233 - Career Development and Information (3)

Orientation to life planning and the world of work; theoretical models of career choice; examination of career information and resources and systems of career information utilization.

EDGU 60313 - Motivating and Managing Students (3)

Prerequisites: Admission into counseling program. Provide basic motivational and management procedures, which are applicable to a number of different educational environments. Emphasis is placed on the management of environments, instruction, and children behaviors, especially children with challenging behaviors.

EDGU 60323 - Assessment in Counseling (3)

The purpose of this course is to help counselors become better consumers of psychological and educational instruments designed to measure and assess those characteristics/factors necessary to assist clients in achieving optimal development. This course will instruct counseling students in the development, administration, scoring and interpretation of assessment measures.

EDGU 60383 - Counseling Theories and Techniques (3)

Prerequisite: Must be admitted to Graduate Education. Orientation to established theories of counseling by examining and evaluating each theory's philosophical background, goals, and techniques and conceptualizing cases based on one's theoretical approach; consider issues in crisis counseling; and discuss ethical issues as they apply to hypothetical cases.

EDGU 60403 - Theories of Student Development (3)

Prerequisites: Admission into counseling program. This course explores the cognitive, affective, social, and moral development of young adulthood with a special emphasis on developmental and contextual risks and resiliencies that affect best practices in higher education.

EDGU 60423 - Organization and Administration of Support Programs (3)

Prerequisite: Admission into counseling program. This course involves the study of the history and philosophy of student development programs; standards of practice; organization, management, and leadership theories; ethical standards and principles; and management of programs and services.

EDGU 60613 - Orientation and Programs in Guidance and Counseling (3)

Focus the development and implementation of school guidance programs, the services essential for effectiveness, coordination of pupil services with other elements of the educational program, strategies to build community resources and relationships, and program evaluation needs.

EDGU 70003 - Advanced Human Systems (3)

Prerequisite: EDGU 60213 or permission of the instructor. Study of theories using metaphors of systems, pattern, and context to describe human behavior and relationships, particularly the ideas of Gregory Bateson and other systems/cybernetics thinkers. Emphasis is on interrelationships

between mind, body, environment, and social aspects of behavior as they related to family and school systems.

EDGU 70013 - Language Systems (3)

Prerequisite: EDGU 60213 or permission of instructor. A close examination of solution-focused, narrative, collaborative, reflecting team, and other postmodern approaches to counseling, locating these practices of counseling within cultural, philosophical, and scientific domains. Used notions about the relational nature of language as a means to critique and further develop language-based systems approaches in therapeutic practice.

EDGU 70023 - Teaching Helping Relationships (3)

Prerequisites: Admission to the Counseling and Counselor Education program and permission of instructor. Development of theory and practice regarding skill and process training with beginning counselors. Emphasis is on didactic strategies, as the course includes teaching and mentoring. This course will be taught conjointly with EDGU 50223.

EDGU 70033 - Legal, Ethical, and Professional Issues in Counseling (3)

Prerequisites: Permission of instructor. Examination of accreditation and licensure organizations and the ethical codes they promote in counseling and related fields; review of therapists' legal responsibilities and liabilities in mental health and family law, insurance claims, and private practice management; overview of professional opportunities in public service and training programs.

EDGU 70043 - Philosophical Underpinnings of Psychotherapy (3)

Prerequisites: Admission to the Counseling and Counselor Education program and permission of instructor. Philosophical examination of psychotherapy, including classic and more recent models. Examination of theories and models of psychotherapy including the relationship among ontology, theories, models, and concepts.

EDGU 70103 - Practicum I (3)

Prerequisites: EDGU 50223, 60143, 60613 or 60423, and 50323. This course involves the supervised application of counseling and guidance approaches and techniques focusing on: students' videotape transcriptions and case studies, legal and ethical issues, and certification and licensure. A minimum of 160 hours is required of onsite experience, with a minimum of 80 hours in direct client contact.

EDGU 70143 - Teaching Counseling Interventions (3)

Prerequisite: Admission to the Counseling and Counselor Education program and permission of instructor. Development of theory and practice regarding training beginning counselors in the techniques, strategies, and methods of counseling. Special emphasis on brief and systemic therapy strategies, as the course includes teaching and mentoring. This course will be taught conjointly with EDGU 60143, Counseling Interventions.

EDGU 70203 - Practicum II (3)

Prerequisite: EDGU 70103, Practicum I. This course involves supervised application of counseling and guidance skills and concepts. A minimum of 160 hours is required of onsite experience, with a minimum of 80 hours of direct client contact.

EDGU 70223 - Supervision in Counseling (3)

Prerequisite: Permission from instructor. Provide supervision of counselors-in-training under the supervision of supervising professor in class, schools, or agencies; examination of helper-helpee relationships through audiotape, videotape, observation, and in-class performance; the development of personal theory and strategies based on established theories and best practices of supervision in counseling.

EDGU 70233 - International Practices of Counseling (3)

Prerequisites: Graduate status and permission from instructor. This course involves a cultural immersion experience designed to provide students with an understanding of the role culture plays in the practice of counseling, with a focus on counseling in another country. Students will participate in a faculty-led trip abroad, short term (not semester). Emphasis will be placed on personal reflection regarding multiculturalism in counseling and examination of how mental health service delivery in that country relates to clinical practices in the United States, as well as in relation to the larger global community.

EDGU 70303 - Internship (3)

Prerequisites: EDGU 70103. Internship is designed to meet the CACREP accreditation standards and is based on seminar-style class discussion, the presentation and discussion of cases, clinical group supervision principles, and didactic instruction. The course requires students to complete a supervised counseling internship of 300 clock hours, with a minimum of 120 hours per semester of direct counseling service with clients, which is to be fulfilled in an academic semester. Students should consider selecting

internship sites that offer opportunities to engage in both individual counseling and group work. The internship provides an opportunity for the student to perform, under clinical supervision, a variety of professional counseling activities that a regularly employed staff member in the setting would be expected to perform. (3 credit hours - may be repeated for total of 6 credit hours)

EDGU 70323 - Advanced Group Leadership (3)

Application of advanced methods in group leadership integrating current theoretical knowledge with parallel experiences in intervention and techniques. Use of creative processes to facilitate group exploration in small group dynamics class for counselor trainees.

EDGU 70383 - Advanced Study in Counseling Theories and Techniques (3)

Prerequisites: Prior course in counseling theories and techniques and permission of the instructor. This class explores the original and current writings and applications of major theorists and theories in individual counseling.

EDGU 70793 - Strength-Based Theories: Assessment, Research, and Practice (3)

Prerequisites: Acceptance into doctoral program and/or permission from the instructor. This class focuses the learner on the historical and current knowledge regarding strengths-based assessment, research, and practice from different disciplines and how these are and can be applied to current practice and program developments.

EDGU 70970 - Special Topics in Guidance and Counseling (1.00-20.00)

Focus on topics of interest to guidance counselors in schools and/or colleges and universities. Such topics might include sexual abuse, violence in dating and marriage, building resiliency in youth, family therapy, or other issues being raised by students, researchers, and/or society

EDGU 71103 - Field Experience in Student Affairs (3)

The field experience takes place in an approved student affairs setting under the supervision of the field experience coordinator (counseling faculty) and a qualified site supervisor. A minimum of 150 hours of work in the field and participation in a field experience seminar are required. This onsite training provides students with the opportunity to apply their counseling knowledge and develop an understanding of the relationship between theory and practice in the context of student affairs.

EDHE - Higher Education Leadership

EDHE 60133 - Legal Issues in Higher Education (3)

Prerequisites: Graduate status. This course will introduce some of the most pressing legal issues that confront colleges and universities and will acquaint students with how institutions handle them. The course will address a variety of topics but will focus on issues such as academic freedom and tenure; the authority of schools to discipline students for academic and behavioral misconduct; student privacy and well-being; affirmative action and other attempts to create a diverse student body; sexual harassment; sponsored research; and intellectual property issues in higher education.

EDHE 70113 - Academic Leadership and Governance in Higher Education (3)

This is a doctoral level course focusing on reading, classroom discussion, individual analysis, and writing to gather a full understanding of the academic enterprise in higher education. The centrality of the academic enterprise demands effective administration of academic programs to assure quality and effectiveness. The academic functions are wide ranging dealing with student issues, faculty concerns, admissions, diversity, curriculum, and resource development. This course will offer an in-depth analysis of these and other core academic function in higher education. Emphasis will be placed on the evolution and contemporary understanding of educational practice in the academy and likely future challenges.

EDHE 70123 - College President (3)

This course is designed to provide greater understanding of the leadership role of college and university presidents and the issues associated with the office of the presidency at the various types of American Institutions. The purpose/objective of this course is to help students become familiar with all aspects of the college and university presidency and how the leadership role has changed throughout history and the reasons for the change. In addition, the course will cover a broad range of the current issues facing higher education and the intricacies of leadership in higher education.

EDHE 70133 - History and Philosophy of Higher Education (3)

Higher education in the United States has been shaped and influenced by a variety of historical forces. American higher education needs to be examined through the lenses of varied historical and philosophical perspectives that provide a better understanding of the contemporary context and the nature of its future development. In addition, this course analyzes the role higher education has played in the development of American society, and might offer insights to administrators, instructional staff, or others responsible for higher education.

EDHE 70143 - Advanced Student Development Theory: Impact of College on Students (3)

Prerequisite: Admitted to Graduate Education. This is a graduate level course designed to show the effect of college on student intellectual, moral, and academic growth. It will also study impacts on career and other quality of life issues. Various subsets of the student population as well as the impact of institutional type will be examined. In examining college impact, this course will present classic theories and perspectives as well as current and emerging research. The course content is broad and touches on several topics related to college students.

EDHE 70153 - Organizational Behavior in Education Contexts (3)

Prerequisite: Admitted to Graduate Education. This is a doctoral level lecture, discussion and interactivity course. Through lectures, visiting presenters, student presentations, projects and readings, students will understand organizations in educational contexts and how culture affects the leadership, management and student experience.

EDHE 70163 - The Small College (3)

This is doctoral level program that focuses on the small college in its many forms. The small private college will be stressed. Emphasis will be on understanding the role of the small college plays in the diverse landscape of higher education

EDHE 70223 - Intercollegiate Athletics in Higher Education (3)

Intercollegiate athletics plays a significant role on American college campuses. The course will focus on the history of college athletics, governance, NCAA compliance rules and regulations, operations, finances, strategic planning, and critical issues and future trends that impact college sport. The course will also examine issues related to student athlete welfare with a focus on Women student athletes and student athletes of color. Finally legal issues affecting higher education will be studied and the effect on intercollegiate athletics management.

EDHE 70233 - Comparative Higher Education (3)

Prerequisites: Admission to Graduate School; Higher education has become a global industry. Effective leadership will require an understanding of the impact of educational policies and practices worldwide. This course will have a study abroad option as part of the course of study. While the course will focus on higher education worldwide, it will focus on the country or region that will be visited. This course has a required study abroad component.

EDHE 70253 - Assessment and Accreditation in Post-Secondary Education (3)

This course focuses on issues related to assessment of learning and program evaluation in colleges and universities. With increasingly difficult, diverse, and complex decision-making circumstances, it is essential that those in higher education examine assessment methodologies and how these approaches may be best used to improve and enhance learning for students in post-secondary education. Colleges and universities must use solid and meaningful evidence for planning curriculum, evaluating and assessing program results, and improving practices based on evaluation data.

EDHE 70263 - Finance in Higher Education (3)

Prerequisites: Admission to the Higher Ed doctoral program or permission of the instructor. This is a graduate level course designed to show the complexity of finance in higher education. The course will focus on the economics and finance of higher education. The perspective of the course will be from the point of view of senior administrators who would typically have responsibility for finance or some financial functions in an institution but would not be a senior financial officer, i.e. dean, provost, etc. The plan of this course is to develop new understandings of the nature of higher education finance by exploring financial challenges, what can be done to negotiate them, and how financial decisions impact educational quality, equity, accountability, and sustainability. The course will explore topics of financial policy, government support of higher education, financial aid, and economics of higher education, human capital theory, and privatization in higher education.

EDHE 70543 - Campuses and Capitols (3)

Prerequisites: Graduate standing and permission of instructor. This three-hour course explores the complicated connections between legislative bodies and the college or university campus. Keeping up with the issues, advocating for students and knowing the policies can be a full time job. This course is designed to introduce students to the process of legislating, advocating and responding to new educational policy. Also, the course will introduce students to fundamental questions regarding higher education public policy-the nature and purpose(s) of higher education, the capacity to communicate that purpose(s) to legislators to impact legislation and the leadership skills to establish campus policies that relate to public policy.

EDHE 70633 - Challenges in Higher Education: Student Affairs (3)
Prerequisites: Graduate standing. This course is designed to determine, investigate and suggest solutions to serious challenges in higher education. The course will focus on disputed issues such as diversity, ethics, finances, student learning, accountability, and student achievement. Effective handling of disputed issues will create an environment more likely to be a favorable to student growth, both intellectual and personal, and degree completion as well as meet the imperatives of institutional mission.

EDLE - Educational Leadership

EDLE 60013 - Leadership: Theory and Practice (3)
Prerequisites: Admission to a TCU College of Education Graduate Program. If not admitted to a graduate program in the College of Education, students must obtain permission of the Associate Dean for Graduate Studies in the College of Education and of the instructor prior to enrolling. Note: This course is designed to develop educational leaders. It is strongly advisable that students have a keen interest in leadership and in particular, an interest in pursuing the principalship or other significant role as an educational leader. This course will serve to develop insight into what constitutes an effective leader and the distinctions between management and leadership. Participants will explore the major aspects of leadership and school organizations. Opportunities to read about and interact with exceptional leaders will increase understanding of those personal qualities and the professional skill set required to mobilize people and move organizations through times of stability and change.

EDLE 60023 - Seminar: Trends in Teaching, Learning, and Leadership (3)
Prerequisites: Admission to a TCU College of Education Graduate Program. If not admitted to a graduate program in the College of Education, students must obtain permission of the Associate Dean for Graduate Studies in the College of Education and of the instructor prior to enrolling. A series of classes that explore a contemporary issue and/or trend in teaching, learning, and educational leadership and the scholars who have contributed to our current understanding of the selected topic. Each class in the seminar series will explore particular issues related to the topic, (e.g. historical underpinnings, researchers and writers, and contemporary expressions and issues.) Specific offerings will target critical current themes such as: information literacy in the role of contemporary education, the cognitive neuroscience of learning, and the like and will be listed as, for example, EDLE 70023: The evolving role of technologies in the PK12 classroom-- what it means for students, teachers, and leaders. Course may be repeated for credit once with a different topic/emphasis.

EDLE 60033 - Community Engagement and Culturally Responsive Practice (3)
Prerequisites: Admission to a TCU College of Education Graduate Program. If not admitted to a graduate program in the College of Education, student must obtain permission of the Associate Dean for Graduate Studies in the College of Education and of the instructor prior to enrolling. This course is recommended for all students who desire to be an education or community leader. It will enable leaders to interface with a variety of community members and organizations. Moreover, this course will address working with classrooms, schools, and the broader community in ways that align with culturally responsive practice. Schools exist as part of the very heartbeat of a community, interfacing with not only the students and families whom they serve, but virtually all other critical agencies and entities on a daily basis: businesses, business organizations, neighborhood associations, community organizations, charitable foundations, child service providers, city/governmental and public service/safety organization, and faith-based organizations. The increasing and evolving complexities imposed by economic need and social challenges/demands make the cohesive planning and collaboration of school and community leaders one of the 21st Century imperatives.

EDLE 60043 - Instructional Leadership A: Curriculum, Instruction, and Assessment (3)

Prerequisites: Admission to a TCU College of Education Graduate Program. If not admitted to a graduate program in the College of Education, student must obtain permission of the Associate Dean for Graduate Studies in the College of Education and of the instructor prior to enrolling. This course will teach theories of learning derived from philosophy, psychology and cognitive, neuroscience, and educational research. Students will learn how to use models of learning derived from these theories and how to develop effective curriculum and assessments. Additionally, students will learn how to lead the curriculum process: design, development, implementation and evaluation.

EDLE 60053 - Instructional Leadership B: Supervision (3)
Prerequisites: Admission to a TCU College of Education Graduate Program. If not admitted to a graduate program in the College of Education, student must obtain permission of the Associate Dean for Graduate Studies in the College of Education and of the instructor prior to enrolling. Students must have taken and successfully completed EDLE 60043 prior to enrolling in this course. This course focuses on supervision and instructional leadership and how these concepts connect to the complex relationships among teacher growth and development, professional development, and school and instructional improvement. The class builds on content of the prerequisite course, and draws from research on effective teaching to assist leaders in improving instructional practices.

EDLE 60063 - Law and Ethics in Educational Leadership (3)
Prerequisites: Admission to a TCU College of Education Graduate Program. If not admitted to a graduate program in the College of Education, students must obtain permission of the Associate Dean for Graduate Studies in the College of Education and of the instructor prior to enrolling. Prior to enrolling in this or Tier II courses, students must have completed 15 hours of Tier I courses. This course will explore various aspects of legal and ethical demands and impacts on educational systems, primarily from a school-level leadership perspective. We will focus on establishing a foundational understanding of legal and ethical standards and decision-making processes in the context of issues involving the application of these understandings, primarily in school-level leadership actions.

EDLE 60073 - Education Policy Studies (3)
Prerequisites: Admission to a TCU College of Education Graduate Program. If not admitted to a graduate program in the College of Education, students must obtain permission of the Associate Dean for Graduate Studies in the College of Education and of the instructor prior to enrolling. Prior to enrolling in this or Tier II courses, students must have completed 15 hours of Tier I courses. This course is designed to enable graduate professional students contemplating or engaged in careers in the education sector to explore concepts, theories, and perspectives in educational policy for use in educational practice. This course will explore various aspects of local, state, and federal policymaking as it pertains to K-16 education. Students will gain practical and theoretical understanding of the policy process from identifying political actors and stakeholders through agenda setting, policy implementation, and analysis.

EDLE 60083 - Data Use for Educational Leaders (3)
Prerequisites: Admission to a TCU College of Education Graduate Program. If not admitted to a graduate program in the College of Education, students must obtain permission of the Associate Dean for Graduate Studies in the College of Education and of the instructor prior to enrolling. Prior to enrolling in this or Tier II courses, students must have completed 15 hours of Tier I courses.

EDLE 60093 - Principal Practicum in Educational Leadership (3)
Prerequisites: Must be admitted to the College of Education Graduate Program in Educational Administration; have completed/credit for at least 24 hours of educational leadership coursework; and have arranged for a local certified administrator to serve as their site mentor. The administrative practicum is a two-semester (fall-spring) opportunity for the graduate student to apply skills and knowledge learned in the classroom and in other professional experiences to real world, field-based tasks under the guidance of a practicing onsite administrator and a TCU supervisor. The student will spend at least 160 clock hours engaged in the sheltered practice of administration under the guidance of certified onsite administrator performing collaboratively agreed upon tasks outlined in the practicum proposal and tied to the nine principal competencies of the state of Texas. (This course is only offered as P/NC.)

EDLE 70083 - Issues and Trends in :Superintendency (3)
Prerequisites: Admission to the doctoral program in Educational Leadership or written permission of the instructor and of the Associate Dean of Graduate Studies, College of Education. Due to the nature and focus of the course, it is strongly recommended students be currently serving in a responsible leadership role and/or have significant leadership experience. Permission of the instructor is required if status is otherwise, even for graduate students

who have been admitted to the doctoral program in Educational Leadership. School systems are among the most complex of all organizations demanding highly skilled and exceptionally well-prepared dynamic leadership in a rapidly changing world. This course is required for all students who desire to pursue Texas Superintendent Certification and is recommended for all students who plan to work in key leadership roles in PK-12 central administration. The course will examine the role of the superintendent and senior level leadership in light of all aspects of schools and school systems including: organizational theory, climate and culture, change management, board governance, leadership ethical considerations, instructional programs practices, law and policy, finance and facilities, human capital development, communication media relations and community involvement.

EDLE 70090 - Superintendent Practice in Educational Leadership (3.00-6.00)

Prerequisites: Be admitted to the College of Education Graduate Program in Educational Leadership; hold a valid Principal certificate (or the equivalent issued by another state), and have permission of instructor; have successfully completed EDLE 70083 or be concurrently enrolled in EDLE 70083 at the time of initial enrollment in EDLE 70093. The superintendent practicum is an intensive opportunity for the graduate student seeking certification as a superintendent to apply skills and knowledge learned in the classroom and in other professional experiences to real world, field-based tasks under the guidance of a practicing on-site administrator and a TCU supervisor. Students electing 3 credit hours must complete 80 clock hours of sheltered practice in the sheltered practice of district-level school leadership under the guidance of a certified on-site administrator performing collaboratively agreed upon tasks outlined in the practicum proposal and tied to the ten competencies outlined for superintendents by the state of Texas. Students electing 6 credit hours must complete 160 clock hours. Students may enroll in two concurrent semesters (3 credit hours per semester) or may opt for a summer-long intensive program (6 credit hours for the summer session). Any student seeking superintendent certification must complete the full practicum (160 clock hours), whether the student elects to do so in two consecutive semesters (3 credit hours per semester) or one summer-long, 6-credit hour experience.

EDMS - Education - Middle School

EDMS 50023 - Effective Teaching and Classroom Implementation (3)

Prerequisite: Admission to the Teacher Education Program; co-requisite: EDMS 41151, EDSE 41151, or EDUC 60980. As a part of the effective teacher model, this course will focus on instructional design and implementation, motivation of students to promote and enhance learning in the classroom; management issues pertinent to student behavior and learning outcomes; and preparation of a variety of formal and informal assessment strategies. (Offered as EDMS, EDSE or EDUC credit.)

EDMS 50153 - Literature for Adolescents (3)

Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. This course provides an overview of young adult literature (YAL), while also exploring issues related to the use of YAL in the middle/secondary English classroom. The course provides students with opportunities to study the critical and pedagogical theories that inform the study of adolescent literature. There is a field based teaching component in a middle or secondary English classroom.

EDMS 50173 - Development of Written Communication (3)

Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. This course is a study of the developmental process of written communication as it relates to literacy development in upper elementary, middle school and high school students. This course will present methods of increasing students' written communication skills.

EDMS 50223 - Practicum in Reading and ESL (3)

Prerequisite: Admission to the Teacher Education Program. This class provides opportunities to prepare lessons and teach in various TESOL and bilingual classroom contexts with cooperating teachers. Students will read about best practices for biliteracy development and have a chance to put this learning to practice, all with the goal of taking the on-going feedback and self reflection/assessment to grow as a teacher. The practicum requires candidates to work with emergent bilinguals over the span of the university semester.

EDMS 50553 - Methods for Teaching Middle School Science (3)

Prerequisites: Admission to the Teacher Education Program, corequisite: EDMS 41151 or EDUC 60980. Using guidelines set forth by the National Research Council, the American Association for the Advancement of Science and the State of Texas, the students will develop pedagogical content

knowledge for teaching middle science. Students will explore various aspects of the science teacher profession such as designing lessons/labs, aligning lessons to TEKS and frameworks, assessing student work, constructing assessment tools, classroom management techniques and best practices in teaching science. Peer-teaching and peer-evaluation will be used to help students identify their strengths and weaknesses to help them prepare for the teaching profession.

EDMS 50663 - Motivating and Managing Students in the Classroom
Prerequisite: Admission to the Teacher Education Program and co-requisite: EDMS 41151, EDSE 41151, or EDUC 60980. Research-based methods for creating positive classroom and school climates, organizing and managing classrooms, improving instruction, dealing with classroom discipline problems, and developing prosocial behaviors in children and youth. (Offered as EDMS, EDSE, or EDSP credit.)

EDMS 51103 - Assessment (3)

Prerequisites: Admission to the Teacher Education Program, EDMS 30123, EDMS 30113, EDMS 30603, EDMS 40213, and Content Area Methods course(s), and co-requisite EDMS 41151. This course provides students with a foundation for understanding the basic concepts and procedures of educational assessment and evaluation as they pertain to teaching in the middle/secondary classroom and informing instruction. Both formal and informal methods of gathering educational information and monitoring learners' progress will be integral parts of this course. Students will learn how to develop appropriate assessments; interpret assessment information for educational program planning; provide timely, high-quality feedback; respond flexibly to promote learning for all learners, including second language learners and students with disabilities; and communicate assessment information to parents and other professionals. (Offered as EDMS or EDSE credit.)

EDMT - Education - Mathematics

EDMT 50123 - Teaching Geometry and Measurement (3)

Prerequisites: Admission to the MEd in Mathematics Education Program or written permission of the Dean. Using the guidelines set forth by the National Council of Teachers of Mathematics and the State of Texas for mathematics instruction, students will develop pedagogical content knowledge for teaching geometry and measurement. The content will be explored from an inquiry perspective to expand upon students' conceptual understanding of the mathematics. Through class investigations and discussions, readings, and assignments, students will be exposed to best practices which promote the process standards (problem solving, reasoning and proof, communication, connections, and representations.) By gaining expertise with respect to the development of children's thinking in geometry and measurement and instructional and assessment practices that contribute to this development, students will be prepared to serve as teacher-leaders.

EDMT 50133 - Teaching Data Analysis and Probability (3)

Prerequisite: Admission to the MEd in Mathematics Education Program or written permission of the Dean. Using the guidelines set forth by the National Council of Teachers of Mathematics and the State of Texas for mathematics instruction, students will develop pedagogical content knowledge for teaching data analysis and probability. The content will be explored from an inquiry perspective to expand upon students' conceptual understanding of the mathematics. Through class investigations and discussions, readings, and assignments, students will be exposed to best practices which promote the process standards (problem solving, reasoning and proof, communication, connections, and representations.) By gaining expertise with respect to the development of children's thinking in data analysis and probability and instructional and assessment practices that contribute to this development, students will be prepared to serve as teacher-leaders.

EDMT 60103 - Teaching Number and Operations (3)

Prerequisites: Admission to the MEd in Mathematics Education Program or written permission of the Dean. Using the guidelines set forth by the National Council of Teachers of Mathematics and the State of Texas for mathematics instruction, students will develop pedagogical content knowledge for teaching number and operations. The content will be explored from an inquiry perspective to expand upon students' conceptual understanding of the mathematics. Through class investigations and discussions, readings, and assignments, students will be exposed to best practices which promote the process standards (problem solving, reasoning and proof, communication, connections, and representations.) By gaining expertise with respect to the development of children's thinking about number and operations and instructional and assessment practices that

contribute to this development, students will be prepared to serve as teacher-leaders.

EDMT 60113 - Teaching Algebraic Thinking (3)

Prerequisites: Admission to the MEd in Mathematics Education Program or written permission of the Dean. Using the guidelines set forth by the National Council of Teachers of Mathematics and the State of Texas for mathematics instruction, students will develop pedagogical content knowledge for teaching algebraic thinking. The content will be explored from an inquiry perspective to expand upon students' conceptual understanding of the mathematics. Through class investigations and discussions, readings, and assignments, students will be exposed to best practices which promote the process standards (problem solving, reasoning and proof, communication, connections, and representations.) By gaining expertise with respect to the development of children's algebraic thinking and instructional and assessment practices that contribute to this development, students will be prepared to serve as teacher-leaders.

EDMT 60143 - Teaching and Learning Mathematics with Technology (3)

Prerequisite: Admission to the M.Ed. in Mathematics Education Program or written permission of the Dean. Using the guidelines set forth by the National Council of Teachers of Mathematics and the State of Texas for mathematics instruction, students will develop technological pedagogical content knowledge for teaching and learning mathematics. The content will be explored from an inquiry perspective through the use of technologies commonly found in K-12 mathematics classrooms (e.g., calculators, graphing calculators, dynamic geometric software, and statistical software) to expand upon students' conceptual understanding of mathematics. Through class investigations and discussions, readings, and assignments, students will be exposed to best practices which promote the process standards (problem solving, reasoning and proof, communication, connections, and representations). By gaining expertise with respect to the development of children's mathematical thinking and instructional and assessment practices using technologies that contribute to this development, students will be prepared to serve as teacher-leaders.

EDMT 60153 - Fostering Discourse in the Mathematics Classroom (3)

Prerequisite: Admission to the M.Ed. in Mathematics Education Program or written permission of the Dean. Using the guidelines set forth by the National Council of Teachers of Mathematics and the State of Texas for mathematics instruction, students will develop strategies for fostering discourse in the mathematics classroom. The content will be explored from an inquiry perspective through the use and analysis of strategies that foster discourse to expand upon students' conceptual understanding of mathematics. Through class investigations and discussions, readings, and assignments, students will be exposed to best practices which promote the process standards (problem solving, reasoning and proof, communication, connections, and representations). By gaining expertise with respect to the development of children's mathematical thinking and instructional and assessment practices using discourse that contribute to this development, students will be prepared to serve as teacher-leaders.

EDMT 60513 - Practicum in Mathematics Education (3)

Prerequisite: Admission to the M.Ed. in Mathematics Education Program or written permission of the Dean. Practical experience in a mathematics educational setting designed to sensitize the student to the challenges of transforming theory into practice.

EDMT 70980 - Thesis in Mathematics Education (1.00-3.00)

Prerequisites: Advancement to candidacy. Three hours of EDMT 70980 is required.

EDMT 70990 - Thesis in Mathematics Education (1.00-3.00)

Prerequisites: Advancement to candidacy and EDMT 70980. Three hours of EDMT 70990 is required.

EDSC - Education - Science

EDSC 60023 - Education for Sustainability (3)

Prerequisite: Admitted to Graduate Education. Sustainability is a broad and complex topic that has recently been emphasized at TCU as an integral part of our mission statement to be ethical leaders and responsible citizens in the global community. Sustainability and Education exposes the overlapping and interwoven nature of a broad variety of disciplines such as economics sociology environmental science business religion history anthropology and ethics. Specifically this course explores how vastly different perspectives must be considered when teaching sustainability to a diverse audience. This course is designed for individuals who are seeking to develop their own understanding of sustainability.

EDSC 60033 - Academic Language Development in Science (3)

Prerequisite: Admitted to Graduate Education. Drawing from current research on inquiry-based science instruction and academic language development for English language learners, the focus of this course is on linking conceptual growth in science with language and literacy. It is designed for students who want to increase their understanding of the role of academic language in developing conceptual knowledge in science and to have firsthand experiences in developing language.

EDSC 60053 - Internship in Information Settings (3)

Prerequisite: Admitted to Graduate Education. Supervised educational endeavor in partnership with an informal science education site which emphasizes the unique science experiences found in informal science education sites such as zoos, museums, nature centers, and rescue centers.

EDSC 60063 - Intersection of Faith and Reason (3)

Prerequisite: Admission to MEd or PhD. Science Education program or instructor. This course will explore the intersection of two distinct ways of knowing: one based upon faith and the other based upon reason. We will explore contemporary views on how these two ways of knowing interact, how cultures value them differently, historical accounts of how conflicts have occurred between them, and the implications of this intersection for science educators.

EDSC 60333 - Theory and Pedagogy of Science Instruction (3)

This course considers the application of theories of teaching to the learning of science in school classrooms. As such, it utilizes a confluence of theory and evidence about how people learn science and how environments are best constructed to promote learning. This course examines current theories of science teaching in light of their assumptions and related empirical evidence.

EDSC 60810 - Seminar: Special Topics in Science Education (1.00-3.00)

May be repeated for up to 13 hours

EDSC 70011 - Colloquium in the Profession of Science Education (1)

Prerequisite: Admitted to Graduate Education. The Colloquium in the Profession of Science Education is a one-hour course designed as an introduction to practical and theoretical issues of the profession as well as an induction into the practice of science education research as is designed for all graduate students. Class sessions may take the form of presentations made by faculty or students; lectures by guest speakers; roundtable on specific education issues; attendance at professional conferences; or information meetings. Students are required to take EDUC 70011 each fall during their program of study.

EDSC 70033 - Scientific Inquiry and the Nature of Science (3)

The Nature of Science is a hybrid arena consisting of aspects of the philosophy, history and sociology of science along with elements of the psychology of scientific observations all targeting the complete understanding of how science actually functions. This course is designed for individuals who are interested in learning more about the methods and goals of science, the role of scientists and the place of science in society science and how philosophical issues can and should be reflected in science teaching and learning. We will read and discuss selections from the works of major philosophers of science and commentaries on science education from a philosophical perspective. Throughout this course we will explore the content of the nature of science and use that knowledge as a guide in improving science instruction and developing philosophically appropriate science curricula.

EDSC 70043 - Science and Science Education in the Global Community (3)

Science and Science Education in a Global Community will address different cultural, geographical, philosophical, and epistemological perspectives on educational reform. The history of ideas of science education as it has evolved in different contexts will be explored, along with the theories of educational change/reform and practical implications, which accompany varying perspectives.

EDSC 70053 - History and Philosophy of Science (3)

Prerequisite: Admission into a graduate program at TCU. Those interested in the philosophy of science may consider enrolling in this class. Philosophy of science examines questions and issues arising from the methods and results of science: questions and issues that are not themselves answerable by scientific methods. This course focuses on the nature of explanation in the sciences and the reason that scientific claims enjoy a special epistemic status. As a seminar course, the main class format will be discussion and debates over the nature of explanation, problems with accounts of explanation, competing criteria for good explanation, and difference between scientific explanation and other types of explanation.

EDSC 70980 - Thesis (1.00-20.00)
Prerequisite: Admission to Candidacy.

EDSC 70990 - Thesis (1.00-3.00)
Prerequisite: EDSC 70980. Thesis

EDSE - Education - Secondary

EDSE 50023 - Effective Teaching and Classroom Implementation (3)
Prerequisite: Admission to the Teacher Education Program; co-requisite: EDMS 41151, EDSE 41151, or EDUC 60980. As a part of the effective teacher model, this course will focus on instructional design and implementation, motivation of students to promote and enhance learning in the classroom; management issues pertinent to student behavior and learning outcomes; and preparation of a variety of formal and informal assessment strategies. (Offered as EDMS, EDSE or EDUC credit.)

EDSE 50153 - Literature for Adolescents (3)
Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. This course provides an overview of young adult literature (YAL), while also exploring issues related to the use of YAL in the middle/secondary English classroom. The course provides students with opportunities to study the critical and pedagogical theories that inform the study of adolescent literature. There is a field based teaching component in a middle or secondary English classroom.

EDSE 50173 - Development of Written Communication (3)
Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. This course is a study of the developmental process of written communication as it relates to literacy development in upper elementary, middle school and high school students. This course will present methods of increasing students' written communication skills.

EDSE 50213 - Teaching in Bilingual Classrooms (3)
Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. Methods and strategies in teaching the bilingual child; including English as a second language and Spanish as a first language. Observation and participation in bilingual classes required.

EDSE 50223 - Practicum in Reading and ESL (3)
Prerequisite: Admission to the Teacher Education Program. This class provides opportunities to prepare lessons and teach in various TESOL and bilingual classroom contexts with cooperating teachers. Students will read about best practices for biliteracy development and have a chance to put this learning to practice, all with the goal of taking the on-going feedback and self reflection/assessment to grow as a teacher. The practicum requires candidates to work with emergent bilinguals over the span of the university semester.

EDSE 50443 - Methods for Teaching Secondary School Mathematics I (3)
Prerequisites: Admission into College of Education; and corequisite: EDSE 41151 or EDUC 60980. Using the guidelines set forth by the national Council of Teachers of mathematics and the State of Texas for mathematics instruction, the students will develop pedagogical content knowledge for teaching secondary mathematics. The content (number and operations, algebra) will be explored from an inquiry perspective to build a conceptual understanding of the mathematics. Students will also be exposed to best practices which promote the process standards (problem solving, reasoning and proof, communication, connections, and representations) through class investigations and discussions, readings, and field placements. The process of developing units and lessons as well as assessment techniques for evaluating students' progress and teacher practice will be integrated into the coursework.

EDSE 50453 - Methods for Teaching Secondary Mathematics II (3)
Prerequisites: Admission to the Teacher Education Program, and corequisite: EDSE 41151 or EDUC 60980. Using the guidelines set forth by the National Council of Teachers of Mathematics and the State of Texas for mathematics instruction, the students will develop pedagogical content knowledge for teaching secondary mathematics. The content (geometry, measurement, and data analysis and probability) will be explored from an inquiry perspective to build a conceptual understanding of the mathematics. Students will also be exposed to best practices which promote the process standards (problem solving, reasoning, and proof, communication, connections, and representations) through class investigations and discussions, readings, and field placements. The process of developing units and lessons as well as assessment techniques for evaluating students' progress and teacher practice will be integrated into the coursework.

EDSE 50553 - Methods for Teaching Secondary Science (3)
Prerequisites: Admission to the Teacher Education Program, corequisite: EDSE 41151 or EDUC 60980. Using guidelines set forth by the National Research Council, the American Association for the Advancement of Science and the State of Texas, the students will develop pedagogical content knowledge for teaching secondary science. Students will explore various aspects of the science teacher profession such as designing lessons/labs, aligning lessons to TEKS and frameworks, assessing student work, constructing assessment tools, classroom management techniques and best practices in teaching science. Peer-teaching and peer-evaluation will be used to help students identify their strengths and weaknesses to help them prepare for the teaching professions.

EDSE 50663 - Motivating and Managing Students in the Classroom
Prerequisite: Admission to the Teacher Education Program and co-requisite: EDMS 41151, EDSE 41151, or EDUC 60980. Research-based methods for creating positive classroom and school climates, organizing and managing classrooms, improving instruction, dealing with classroom discipline problems, and developing prosocial behaviors in children and youth. (Offered as EDMS, EDSE, or EDSP credit.)

EDSE 51103 - Assessment (3)
Prerequisites: Admission to the Teacher Education Program, EDMS 30123, EDMS 30113, EDMS 30603, EDMS 40213, and Content Area Methods course(s), and co-requisite EDMS 41151. This course provides students with a foundation for understanding the basic concepts and procedures of educational assessment and evaluation as they pertain to teaching in the middle/secondary classroom and informing instruction. Both formal and informal methods of gathering educational information and monitoring learners' progress will be integral parts of this course. Students will learn how to develop appropriate assessments; interpret assessment information for educational program planning; provide timely, high-quality feedback; respond flexibly to promote learning for all learners, including second language learners and students with disabilities; and communicate assessment information to parents and other professionals. (Offered as EDMS or EDSE credit.)

EDSE 60073 - Seminar in Mathematics Education (3)
The primary purpose of this course is to help you learn how to teach mathematics in secondary and middle school classrooms. We will learn the appropriate content and pedagogy for the 8-12 students. The course will be based on the available research in how all people learn mathematics. Heavy emphasis is placed on a variety of strategies including cooperative learning, technology, manipulatives, and cultural influences in mathematics education. Participants in the course are required to explore the research on effective practices.

EDSP - Education - Special

EDSP 50013 - Literacy Methods in Special Education (3)
Prerequisite: Admission to a graduate program in the College of Education or permission from instructor. This course addresses research-based assessment and instructional methods in the area of literacy for students at-risk for failure and students receiving special education services.

EDSP 50273 - Technology for Diverse Learners (3)
Prerequisites: Undergraduate education majors: EDUC 30113 and EDSP 30603, or admission to a graduate education program. An overview of using Universal Design for Learning to meet the differing educational needs of all students, including those who have disabilities. Addresses legal requirements for assistive technology, technology selection, resource accessibility, differentiated instruction, and factors related to successful implementation of technology in inclusive classrooms.

EDSP 50663 - Motivating and Managing Students in the Classroom
Prerequisite: Admission to the Teacher Education Program and co-requisite: EDMS 41151, EDSE 41151, or EDUC 60980. Research-based methods for creating positive classroom and school climates, organizing and managing classrooms, improving instruction, dealing with classroom discipline problems, and developing prosocial behaviors in children and youth. (Offered as EDMS, EDSE, or EDSP credit.)

EDSP 58003 - Methods for Students with Mathematics Learning Differences (3)
Prerequisites: Admission into College of Education or permission of the Dean. This course is designed to provide students with research-based, effective methods and strategies for assessing, teaching, and monitoring the mathematical performance of students with high-incidence disabilities and/or learning difficulties. This course follows the principles and standards for school mathematics set forth by the national Council of Teachers of

Mathematics. It introduces research-based principles of mathematics instruction including explicit and systematic instruction, student practice opportunities, visual representations of mathematical ideas, and instructional scaffolding. It aims to prepare special education teachers to adequately facilitate skill acquisition, maintenance, retention, and generalization of students with mathematics learning difficulties.

EDSP 60233 - Understanding Exceptional Children and Youth At-Risk (3)
Prerequisite: Admitted to Graduate Education. Examination of the diverse characteristics of children and youth with learning and behavior problems and the impact of these characteristics on social and academic development.

EDSP 60313 - Critical Issues in Special Education (3)
Prerequisite: Admission to a graduate program in the College of Education or permission from instructor. This course addresses critical and sometimes controversial issues in the field of special education.

EDSP 60323 - Internship in Special Education (3)
Field experience under direct supervision of a certified special education teacher in public or private school setting. Minimum of 200 clock hours required.

EDSP 60333 - Academic Achievement and Evaluation (3)
Prerequisites: Successful completion of EDSP 30603 Study of the Exceptional Student or equivalent and acceptance into the TCU graduate school of education. This course focuses on individual achievement as measured through classroom-based evaluations and individualized achievement tests. The course includes instruction and clinical experience in the administration and interpretation of individual standardized achievement tests. Students will gain knowledge in selecting, administering, and interpreting standardized tests for individuals referred for special education services. Students will make relevant connections between standardization, validity, reliability, and the individual student. Students will also learn how to locate curriculum-based measures, administer these measures, and interpret results in order to plan instructional interventions for students who are referred to special education.

EDSP 60433 - Planning and Instruction in Academically Diverse Classrooms (3)
Prerequisites: Students accepted to the Special Education MEd program or those given instructor permission may enroll. A review of current research and practices concerning shared responsibility among regular and special educators that facilitates the success for all students within the least restrictive environment.

EDSP 60453 - Practicum in Educational Testing (3)
Prerequisite: Permission of course instructor. Administration and interpretation of evaluative instruments in education and/or guidance settings.

EDSP 60513 - Practicum in Special Education (3)
Prerequisites: Students must be in the Special Education 4/1 or Special Education Traditional M.Ed. Program or obtain permission from the instructor.

EDSP 60533 - Culturally Responsive and Language Based Assessment (3)
Prerequisites: Successful completion of EDSP 30603 Study of the Exceptional Student or equivalent and acceptance into the TCU graduate school of education. This course offers students the opportunity to explore assessment, instructional, and behavioral strategies for culturally and linguistically diverse learners. Course content will center on the importance of culture in student performance and student assessment and will cover topics related to the reduction of test bias and the use of culturally responsive instructional strategies. Graduate students will assess K-12 students, determine English language proficiency, and use these data along with other classroom-based information and products to make decisions about special education placement. Graduate students also will develop appropriate modifications and accommodations based on individual student's English language proficiency.

EDSP 60723 - Cognitive Assessment and Adaptive Behavior (3)
Prerequisites: Successful completion of EDSP 30603 Study of the Exceptional Student or equivalent and acceptance into the TCU graduate school of education. This course is a detailed exercise in individual intellectual and socio-emotional assessment, and includes instruction and clinical experience in the administration and interpretation of individual standardized intelligence test and behavior rating scales. Students will gain knowledge in selecting and administering standardized test, and interpreting standardized test results for individuals referred for special education services. Graduate students will make relevant connections between standardization, validity, reliability, and the K-12 student.

EDSP 70003 - Single Subject Research Design (3)
Prerequisite: Admission to a graduate program in the College of Education or permission from instructor and EDUC 70953 or similar foundational research course. This course addresses how to critically read and thoughtfully conduct single subject research designs in applied settings.

EDUC - Education - General

EDUC 50003 - Diversity in American Education (3)
Prerequisite: Admission to College of Education or written permission of the Dean, College of Education. This course will equip educators with the necessary skills for multiethnic school environments. It focuses on developing an awareness of how education is connected to wider structures of social, cultural, economic life and encourages not only critical examination, but also discussion of alternatives to the present reality.

EDUC 50023 - Effective Teaching and Classroom Implementation (3)
Prerequisite: Admission to the Teacher Education Program; co-requisite: EDMS 41151, EDSE 41151, or EDUC 60980. As a part of the effective teacher model, this course will focus on instructional design and implementation, motivation of students to promote and enhance learning in the classroom; management issues pertinent to student behavior and learning outcomes; and preparation of a variety of formal and informal assessment strategies. (Offered as EDMS, EDSE or EDUC credit.)

EDUC 50043 - Seminar in Children's Literature (3)
Prerequisite: Admission to Teacher Education Program or written permission of the Dean, College of Education. Advanced study of literature for children with special attention to principles of selection and use in the elementary school curriculum.

EDUC 50063 - Seminar in Teaching Gifted and Talented Children (3)
Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, School of Education. Advanced study of methods to identify, assess and teach exceptionally capable students. Major emphasis is on developing skills and teaching methods. Other aspects cover guidance counseling process, social/emotional needs, working with parents, and model school-district programs.

EDUC 50203 - Programs in Bilingual Education (3)
Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. The rationale for bilingual-bicultural education including a survey of current programs. Includes lab experiences in public school classes.

EDUC 50213 - Seminar in Bilingual Education (3)
Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. Methods and strategies in teaching the bilingual child; including English as a second language and Spanish as a first language. Observation and participation in bilingual classes required.

EDUC 50263 - Digital Communication and Collaboration in Education (3)
Prerequisites: EDMS/SE/UC 30113, Digital Literacy, Learning, and Citizenship in Education and admission to the Graduate Education Program or instructor permission. Educational applications of digital tools to support 21st century skills such as communication, collaboration, critical thinking, and creativity. Students will develop skills in locating organizing, analyzing, evaluating, designing and communicating digital information. Students will also learn fundamentals of data management and web development. In addition, they will consider ethical and societal issues related to digital communication and collaboration in education.

EDUC 50503 - Foundations of Language Acquisition (3)
Prerequisites: Admission to Teacher Education Program or written permission of the Dean, College of Education, and concurrent enrollment in EDMS/EDSE 50223 Practicum in Reading and ESL, or permission of the instructor. Course includes overview of language concepts, language learning research and theories, socio-cultural context for language development and program types. Overview of historic and current trends, policies and social issues affecting the education of linguistic minorities. Assessment procedures appropriate to second-language learners are introduced.

EDUC 50513 - Curriculum and Instruction in the Second Language Learning Classroom (3)
Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. Curricular and instructional principles and practices to meet the academic development needs of first and second language learners in the classroom. Emphasis on strategies for

providing content-area instruction and establishing learner-centered environments within various ESL settings. Texas requirements for second language learners are addressed. (Offered as EDEL or EDSE credit.)

EDUC 50643 - Reading in the Secondary School (3)

Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. Materials and methods for developing reading skills of the secondary school student in the various curriculum areas.

EDUC 50870 - Directed Study in Education (1.00-6.00)

Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, School of Education. Study of specialized topics in Education.

EDUC 50970 - Special Problems in Education (1.00-20.00)

Study of specialized topics in Education.

EDUC 50990 - International Experiences in Education (1.00-6.00)

Prerequisites: Meet admission requirements set forth by TCU Study Abroad. Permission of adviser and professor of record. The objective of the course is to gain first-hand knowledge of varying approaches to education. This course provides the opportunity to learn about unique educational practices in an international setting. Students will have opportunities to learn about, observe, and/or participate in educational facilities which focus on early childhood, middle childhood, and/or adolescence. This course may be taken for up to six hours credit.

EDUC 60013 - Curriculum Theory (3)

Addresses general principles and practices of curriculum development and curriculum change; organizational patterns for developing curriculum and implementing change.

EDUC 60023 - Analyzing Professional Literature and Writing Professionally (3)

Prerequisites: Early Childhood through sixth grade (EC-6) majors admitted to the 4/1 program or permission from instructor. The purpose of this course is to prepare students to conduct their own graduate research by providing instruction and guided practice in the areas of analyzing and writing research reports and other professional documents.

EDUC 60043 - Action Research (3)

Prerequisite: EDUC 70953 Action research is designed to bring about change in a locale such as a classroom, work site, or institution. This course is designed for students who want to study the theoretical and practical aspects of action research. A unique feature of action research is that the researcher is often simultaneously a participant in the study resulting in some significant differences from other types of quantitative research. Students will read various examples of action research and design an action research study.

EDUC 60053 - Advanced Study of Literacy Instruction (3)

Analyzes recent research, philosophies of instruction, curriculum development, literature, and assessments that can be used to improve students' reading, writing, and language abilities.

EDUC 60063 - Seminar in Elementary School Mathematics (3)

Advanced study of modern curricula, strategies and techniques utilized in teaching and upgrading mathematics instruction in the elementary school.

EDUC 60073 - Seminar in Elementary School Social Studies (3)

Advanced study of curricula, strategies, and techniques utilized in teaching and upgrading social studies instruction in the elementary school.

EDUC 60083 - Seminar in Language and Literacy (3)

This course is a series of seminar classes that explore pedagogical topics within literacy learning and teaching in K-12 education, with particular attention to teacher research. A seminar with a different thematic topic may be taken for a total of 6 hours.

EDUC 60120 - The Role of the In-service Teacher in Preservice Teacher Education (1.00-20.00)

Study of the role of the Cooperating Teacher in a teacher education conference. Includes clinical supervision, mastery learning, observation skills, conferencing skills and program design.

EDUC 60143 - Theories of Human Development (3)

Prerequisites: Admission to College of Education or written permission of the Dean, College of Education. Selected theories of human behavioral, social, and emotional development.

EDUC 60153 - Seminar in Promoting Literacy in the Subject Areas (3)

Instructional strategies include ways to integrate reading, writing, and study strategies.

EDUC 60203 - Curriculum and Instruction (3)

Prerequisites: Admission into a College of Education graduate program. Examination of relationships between curriculum theories and instructional practices in educational settings; investigation of principles relating to instructional design and implementation; exploration of historical and contemporary trends in curriculum and instruction.

EDUC 60213 - Psychology of Thinking and Learning (3)

Prerequisite: Previous coursework in either educational or developmental psychology or permission of instructor, and admission to Graduate Education. This course focuses on using learning theories and theoretical concepts that are an integral part of teaching and educational practices. Students will gain insights and skills for applying psychological principles to solve authentic problems drawn from personal experiences in education and from case studies and other course readings.

EDUC 60253 - Historical and Philosophical Foundations of Education (3)

Philosophic positions and the implications of these viewpoints on one's approach to and resolution of educational issues and questions will be examined.

EDUC 60263 - Applied Teaching, Learning and Technology (3)

Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. An examination of using educational technology for teaching, learning and professional productivity. Focuses on use of current and emerging technologies for teaching, assessment, research, communication, and collaboration in educational settings. Addresses topics such as finding and evaluating technology resources, designing print and multimedia products, collecting and analyzing data using technology, planning for technology-integrated instruction, and understanding issues and ethical practices related to technology use. Students will design a technology-integrated lesson plans for a school setting. Includes a field component TBA.

EDUC 60293 - Curriculum Workshop (3)

Prerequisite: At least one year's teaching experience, approval of instructor, and Admission to Graduate Education. Provides for development of curriculum materials and strategies for specific subject areas; application of curriculum theory to school and classroom situations.

EDUC 60313 - Educational Assessment (3)

Admission to the Teacher Education Program and an Accelerated Masters program. This course examines assessment and evaluation methods, strategies, and procedures within the classroom context. Both formal and informal methods of gathering educational information and monitoring children's progress will be integral parts of this course. Students learn how to develop appropriate assessment and interpret assessment information for educational program planning. Students also learn how to make modifications and accommodations for testing students who are English language learners and students with disabilities.

EDUC 60413 - Foundations of Literacy (3)

The study of the theoretical bases for literacy instruction. Research from linguistics, cognitive psychology, and sociology will be studied as related to recommendations for practices in literacy instruction.

EDUC 60513 - Practicum in Education (3)

Practical experiences in an educational setting designed to sensitize the student to the challenges of transforming theory into practice. This course may be repeated for credit.

EDUC 60613 - Analysis of Literacy Progress (3)

Theory and techniques for using a variety of assessment strategies related to literacy development. Discussion and practice will be based on the interpretation of elementary and secondary students' performance on a variety of literacy tasks.

EDUC 60810 - Seminar in Educational Research (1.00-3.00)

May be repeated up to 13 hours.

EDUC 60823 - Educational Program Evaluation (3)

Evaluation of programs, curriculum projects, accreditation standards, and personnel appraisal are explored using different approaches to evaluation. Other topics include purpose, qualitative and quantitative evaluation design and data-collecting methods, sampling techniques, and reliability and validity. Particular emphasis is placed on case study for the purpose of planning, conducting and writing the evaluation for presentation to stakeholders.

EDUC 60833 - Curriculum History in the United States (3)

This is graduate level course, which explores how curriculum is defined, debated, and applied to classrooms in the United States and the world. Furthermore, students will examine the various philosophical, cultural, sociological, political, and economic variables that affect issues of curriculum and the lived experience of schools. The research component of this course is intended for each student to explore an issue related to curriculum that is of interest to their further study and professional practice. It is important to note that this course is intended to be a threaded exposure to curriculum history curriculum theory and application to contemporary schools and will therefore require diligent attention to the texts and classroom conversation. It is hoped that you as a learner will engage with the concepts and questions raised by this course in thoughtful and critical ways that may or may not be resolved by the end of the semester. EDUC 60843: Contemporary Curriculum Theorizing is a companion course to EDUC 60833

EDUC 60843 - Contemporary Curriculum Theory (3)

Contemporary Curriculum Theory explores the curriculum studies field through key readings that shape(d) and chronicle the development of the field as in interdisciplinary intellectual diaspora. The course start with the Reconceptualization in the 1970s that transformed understandings of curriculum, considers Turns to the cultural and intellectual influences on the field (e.g. hermeneutic, postmodern, interpretive, narrative, critical turns), and attends to emerging approaches to curriculum. Because Curriculum Studies is an interdisciplinary field, the course is open to masters and doctoral students across the academy. EDUC 60833: Curriculum History in the United States is a companion course to EDUC 60843.

EDUC 60980 - Advanced Clinical Teaching (6)

Supervised experience which emphasizes the application of theories of curriculum and instruction in a field-based setting. Options include the introduction of innovative teaching practices into a school or other educational setting or research focused on instructional practices. Graduate students in Education who possess a bachelor's degree with a non-education major and who have completed the specified course work may choose to apply the internship for certification purposes with the approval of the department. (1-6 semester hours with no more than 6 semester hours applied to the Master's degree)

EDUC 70813 - Curriculum Studies Seminar (3)

Prerequisite: Must be admitted to Graduate Education. A series of seminars that explore issues in curriculum studies and the scholars who contribute to current understanding of the topic. Each seminar in the series explores particular issues, such as: postcolonial theory, cultural studies, neoliberalism, Noddings and care, race and education. Postmodern/structuralism feminist theory, and the like. Specific offerings will be listed as, EDUC 60813: postcolonial theory, for example. May be repeated for credit.

EDUC 70823 - Inquiry Seminar (3)

A series of seminar classes that explore issues in inquiry and research, their context and connections with learning and education and the scholars who have contributed to our current understanding. Each class in the series explores a different topic, theorist, or school of thoughts. Specific offerings will be listed as, for example, EDUC 70823: Ethnographies, EDUC 70823: Photovoice, EDSC 60813: Film and Documentary as Method. May be repeated for credit.

EDUC 70870 - Advanced Directed Study in Education (1.00-6.00)

Prerequisite: Admitted to Graduate Education. Advanced research on specialized topics in Education.

EDUC 70903 - Treatise (3)

Students complete a paper under the advisement of a faculty member in the department.

EDUC 70923 - Introduction to Applied Qualitative Methods (3)

Prerequisites: Be admitted to the College of Education Graduate Program in Educational Leadership or other TCU graduate program; have completed Research in Education (EDUC 70953) or the equivalent with a grade of B- or better. This course provides an introduction to qualitative methods used in educational research and by educational practitioners in leadership roles. The course assumes basic knowledge of educational research methods in general, and is intended to provide an overview of and in-depth experience with particular techniques related to research design, data collection, and data analysis commonly associated with qualitative research. The purpose of this course is to introduce graduate students to particular methods and practices related to qualitative inquiry so that they may be able to apply these methods and techniques in their own research and in their respective work contexts.

EDUC 70943 - Apprenticeship in Teaching (3)

Prerequisites: Permission of advisor and agreement with mentoring faculty. Students apprentice with faculty in the teaching of undergraduate and master-level courses. Apprenticing will include course design, lectures, facilitation, student interaction, and assessment as arranged with the mentoring professor. Time requirements will include preparation before class, scheduled class periods and events, and follow-up responsibilities after class.

EDUC 70953 - Research in Education (3)

Students are expected to gain an appreciation of the complexities of the research process, ways of conducting research, and a sense of the power and constraints of the various perspectives within which educational questions are pursued.

EDUC 70960 - Apprenticeship in Research (3)

Prerequisites: EDUC 70953, or permission of the instructor. Students engage in authentic research by apprenticing with one or more faculty members who have vigorous research agendas. A minimum of three hours of apprenticeship is required of all Curriculum Studies students. Course structure, requirements, readings, schedule, and grading criteria will be determined by mentoring faculty as relevant to research project.

EDUC 70963 - Qualitative Inquiry (3)

Prerequisite: EDUC 70953 or permission of the instructor. This course theoretically and practically explores qualitative inquiry as interpretive, constructivist, and naturalistic forms of research. The course will focus on understanding the philosophical assumptions and historical context of qualitative inquiry, and students will work on research projects throughout the semester in order to learn and practice research design, IRB proposal writing, data collection, data management, data analysis, and writing for research presentations and professional publication. Course assignments will assist students in developing the skills and talents necessary for qualitative researchers. The ethics of qualitative inquiry and the ways it attends to the positionality of researchers, research participants, and researcher-participant relationships will also be explored.

EDUC 70970 - Special Problems in Education (1.00-6.00)

Prerequisite: Approval of advisor and instructor in course.

EDUC 70973 - Advanced Qualitative Inquiry (3)

Prerequisite: EDUC 70963, Qualitative Inquiry. Students further develop the theoretical and practical skills and talents necessary for qualitative researchers by working on individual research projects. Students should enter the course with a developed research proposal so they can focus on data collection, analysis and writing. The course explores various forms of qualitative inquiry, which may include narrative inquiry, phenomenology, grounded theory, life history, and other forms, as well as the ethics of qualitative inquiry.

EDUC 70980 - Thesis (1.00-20.00)

Prerequisite: Admission to Candidacy.

EDUC 70983 - Introduction to Quantitative Research (3)

Prerequisite: Admission to a graduate program in the College of Education or permission from instructor and EDUC 70953 or similar foundational research course. This courses addresses how to critically read and thoughtfully conduct quantitative research in applied settings.

EDUC 70990 - Thesis (1.00-3.00)

Thesis

EDUC 90980 - Dissertation (1.00-6.00)

Dissertation. A maximum of six hours may be taken.

EDUC 90990 - Dissertation (1.00-6.00)

Dissertation. May be taken for a total of six semester hours.

ENGL - English

ENGL 50133 - Seminar in Literature and History (3)

Prerequisites: Junior standing with a minimum of 9 hours in literature, history, and/or political science, or graduate standing in English or History. Interdisciplinary study of society, culture, or politics through the literature and history of a given era (variable topic). Open to graduate students and to advanced undergraduate students. Students will receive instruction from both an English professor and a History professor n content (literary works, historical studies, primary documents in periodicals or archives) and discipline-specific research methods.

ENGL 50233 - Studies in Creative Writing (3)

Prerequisites: CRWT 10203, CRWT 20103, or CRWT 20133. Prior to enrollment, students are also strongly encouraged to take an upper-division creative writing course. Studied in Creative Writing is an intensive creative writing workshop open to students (graduate and advanced undergraduates) who have a strong background in literature and imaginative writing. Depending on the semester and the selected genre, this course will pay special attention to invention, point-of-view, voice, form, and genre-appropriate theory. Student cannot receive credit for ENGL 55143 and ENGL 50233.

ENGL 50243 - Teaching Writing (3)

Prerequisites: ENGL 10803, ENGL 20803, and at least one 10000- or 20000-level ENGL/WRIT course. A course for teachers of English combining theories of composition with practical pedagogy and classroom strategies for the teaching of writing. Not applicable toward degree requirements for the Ph.D. in English.

ENGL 50253 - Classical Rhetoric (3)

Prerequisite: Junior or senior standing, permission of instructor. This course examines the emergence of rhetoric in Antiquity and traces the impact of classical rhetoric up to the Middle Ages. A substantial amount of the course is devoted to learning about the relationship between oral and written discourse, the impact of literacy, and the adaptability of systems of communication to technology and society. The implications of such phenomena are examined in different periods in an effort to develop an historical perspective about the relationship between cognition and expression within cultural conditions. Student cannot receive credit for ENGL 55253 and ENGL 50253.

ENGL 50973 - Directed Study in English (3)

Prerequisites: ENGL 10803, ENGL 20803, and at least one 10000- or 20000-level ENGL/WRIT course. Directed Study in English. Student cannot receive credit for ENGL 55973 and ENGL 50973.

ENGL 55123 - Literary Criticism (3)

Prerequisites: ENGL 10803, ENGL 20803, and at least one 10000- or 20000-level ENGL/WRIT course. An historical study of major developments in the theory of literature since Plato. The first half of the course surveys representatives of the most important positions, the second half surveys how these positions remain influential in 20th century thought. Student cannot receive credit for ENGL 55123 and ENGL 40123.

ENGL 55133 - Creative Nonfiction Workshop II (3)

Prerequisites: ENGL/WRIT/CRWT 10203, ENGL/WRIT/CRWT 20103 or ENGL/WRIT/CRWT 20133. A creative nonfiction writing class for students with some experience in creative writing, this a craft/workshop course intended for advanced writers who have a committed interest in creative non-fiction (such as personal essay, literary journalism, travel writing, science writing, memoir, and other non-fiction genres) and are comfortable writing longer works of prose. As a workshop, students will work cooperatively to share and improve each others' work during the semester. Student cannot receive credit for ENGL 55133 and ENGL/WRIT/CRWT 40133.

ENGL 55253 - Classical Rhetoric (3)

Prerequisite: Junior or senior standing, permission of instructor. This course examines the emergence of rhetoric in Antiquity and traces the impact of classical rhetoric up to the Middle Ages. A substantial amount of the course is devoted to learning about the relationship between oral and written discourse, the impact of literacy, and the adaptability of systems of communication to technology and society. The implications of such phenomena are examined in different periods in an effort to develop an historical perspective about the relationship between cognition and expression within cultural conditions. Student cannot receive credit for ENGL 55253 and ENGL 50253.

ENGL 55413 - Studies in Medieval Literature and Culture (3)

Prerequisite: ENGL 10803, ENGL 20803, and at least one 10000- or 20000-level ENGL/WRIT course. Concentrated study of Medieval literature and culture, 500-1500. Topics, genres, authors, and approaches will vary by semester. May be taken more than once for credit under different subheadings. Student cannot receive credit for ENGL 55413 and ENGL 30413.

ENGL 55483 - Victorian Women Writers (3)

An intensive examination of Victorian women poets, novelists, and prose writers in the context of historical conditions and feminist theory. Student cannot receive credit for ENGL 55483 and ENGL 70483.

ENGL 55533 - Literature of Latina/o Diaspora (3)

Examination of seminal works of literature in multiple genres by U.S. Latina/o authors. Particular emphasis will be put on a comparative approach, exploring the literature of Puerto Rican, Cuban, Chicana/o, Mexican,

Dominican, and/or Nicaraguan Americans. Texts vary by semester. Student cannot receive credit for ENGL 55533 and ENGL 80533.

ENGL 55613 - Women's Rhetorics (3)

This course examines the histories, theories, and practices of women's rhetorics from the classical era through the present. Students will examine primary texts of women rhetors - essays, ordinary writing such as letters and autobiographies and speeches to name only a few - as well as secondary sources of those texts paying particular attention to the ways gender race class religion place sexual orientation and politics shape sense of audiences methods of invention arrangement choices of style form tone and genre. Student cannot receive credit for ENGL 55613 and ENGL 80613.

ENGL 55633 - Love, Sex, and Power in Renaissance England (3)

Prerequisites: ENGL 10803, ENGL 20803, and at least one additional 10000- or 20000-level ENGL/WRIT course. An advanced course on the subject of romantic love, gender relations, and sexuality in literature of the English Renaissance. This course examines the political, cultural, and aesthetic contexts of love and sex that shaped representations of desire in some of the Renaissance's most enduring works, including drama and poetry by Shakespeare and others. Student cannot receive credit for ENGL 55633 and ENGL 40633.

ENGL 55713 - Mexican American Culture (3)

The course examines expressive culture that reflects and shapes the way people think, behave, and give their lives meaning. The expressive culture includes history, literature, and lore considered as resources for people to address their needs and circumstances, especially in relation to social positions, gender, self-identification, politics, and ethics. Other topics include U.S. Mexico relations, social conflict, resistance movements, religion, and cultural poetics. Student cannot receive credit for ENGL 55713 and ENGL 30713.

ENGL 55733 - Children's Literature (3)

Prerequisites: ENGL 10803, ENGL 20803, and at least one 10000- or 20000-level ENGL/WRIT course. A study of the history and criticism of children's literature, with an emphasis on Anglophone works from the last 200 years. Student cannot receive credit for ENGL 55733 and ENGL 40733.

ENGL 55973 - Directed Study in English (3)

Prerequisites: ENGL 10803, ENGL 20803, and at least one 10000- or 20000-level ENGL/WRIT course. Directed Study in English. Student cannot receive credit for ENGL 55973 and ENGL 50973.

ENGL 60103 - Bibliography and Methods of Research (3)

History, materials and techniques of manuscript and book production; bibliographical description; use of libraries and bibliographical tools, introduction to textual analysis; thesis and dissertation problems and procedures.

ENGL 60113 - Introduction to Graduate Studies and the Profession of English (3)

Prerequisites: Admission to TCU graduate program in English or by permission. An introduction to the Profession of English Studies and its sub disciplines; study of the history of the development, changes, and current trends in the field; various disciplinary practices; opportunities for research, writing and publication in the field, including digital scholarship; resources and requirements for graduate study at TCU; variety of thesis and dissertation problems and procedures; job trends, career paths and basics of professionalization. Student cannot receive credit for ENGL 55003 and ENGL 60113.

ENGL 60123 - Introduction to Modern Critical Theory (3)

A seminar on major authors and issues in contemporary critical theory.

ENGL 60133 - Archival Scholarship (3)

Prerequisite: Admission to a TCU graduate program. Study of theories and promising practices for doing effective archival research; critical reading of influential examples from archival scholarship; use of traditional and digital archives; practice developing archival projects; examination of issues associated with archives and archival research today.

ENGL 60203 - Writing for the Professions (3)

A workshop for the student who wishes to learn how to write in a specific academic discipline or in a profession.

ENGL 60303 - Seminar in Medieval Studies (3)

An Introduction to Medieval literature through the study of Old and Middle English. Key writings will include Beowulf, and texts by Chaucer and the Pearl Poet.

ENGL 60413 - Chaucer (3)

Chaucer's language and poems with emphasis on *The Canterbury Tales* as a work of art and as a reflection of the age.

ENGL 60423 - Prose and Poetry of the English Renaissance (3)
The prose writers and poets of 16th and 17th century England in relation to the cultural circumstances influencing and being influenced by their works. Topics may include the prospect and enactment of censorship; the centrality of the patronage system; courts and courtiers; changing views of monarchy and obedience; religious controversy; issues of gender, ethnicity and class; literature and science; pseudo-nonfictional strategies; adaptations of the bible, history, and mythology; and early book production and circulation. Student cannot receive credit for ENGL 55153 and ENGL 60423.

ENGL 60433 - Renaissance Drama Exclusive of Shakespeare (3)
The study of the works of major Elizabethan and Jacobean playwrights.

ENGL 60443 - Seventeenth Century Poetry (3)
Study of the works of major seventeenth century poets including Donne and Marvell.

ENGL 60453 - The Long Eighteenth Century (3)
British literature of multiple genres (poetry, prose, drama, novel, memoir, diary, broadsheets and ballads) from 1660 to 1830. Themes vary by semester.

ENGL 60473 - British Novel I (3)
Major fiction to the early nineteenth (1832) century.

ENGL 60503 - Early American Literature (3)
American literature from first settlement through 1800, including the Puritan writers (Winthrop, Mather, etc.), the shapers of the American Republic (Paine, Jefferson, Franklin, the Federalist writers, etc.), and early writers of the New Nation (Brown, Dwight, Freneau, Rowson, etc.).

ENGL 60513 - Teaching College Composition (3)
Designed to support graduate instructors' teaching of English. Students in the course will explore theories and methods of syllabus construction, teaching, assigning, and grading student writing.

ENGL 60703 - Introduction to Composition Studies (3)
A survey of the major contemporary theoretical statements about composing and the teaching of composition. Student cannot receive credit for ENGL 55353 and ENGL 60703.

ENGL 60713 - Modern Rhetoric (3)
Major theories of rhetoric and important rhetoricians of the twentieth century. Student cannot receive credit for ENGL 55303 and 60713.

ENGL 60723 - Research Practices in Composition and Rhetoric (3)
History, practices, and methodological concerns; use of archives and information systems; publishing and disciplinary conventions; assessment; fieldwork; ethics, thesis and dissertation problems and procedures. Student cannot receive credit for ENGL 55313 and 60723.

ENGL 60733 - Language and Theory (3)
A study of the major authors and theories about language and its relationship to culture and technology from antiquity to the present day.

ENGL 60803 - Literature Pedagogy (3)
This course introduces graduate students to the history and theory of teaching literature and prepares them to teach in the undergraduate classroom. Student cannot receive credit for ENGL 55183 and ENGL 60803.

ENGL 70403 - British Novel II (3)
Major fiction from the early nineteenth to the early twentieth century.

ENGL 70413 - Romantic Poetry and Prose (3)
The study of works by Wordsworth, Coleridge, Byron, Shelley, Keats and others.

ENGL 70423 - Victorian Poetry and Prose (3)
The study of major works and authors, including Arnold, Browning and Tennyson.

ENGL 70433 - Modern British Novel (3)
The study of major fiction of the twentieth century.

ENGL 70443 - Modern British Poetry (3)
Study of twentieth century British poets.

ENGL 70453 - Modern British Drama (3)
The study of important plays and playwrights of the twentieth century.

ENGL 70463 - Modern British Literature (3)

Survey of major trends and writers in British literature since 1900.

ENGL 70473 - Twentieth Century Irish Writers (3)
Study of important Irish works, with emphasis on Yeats, Joyce and Synge.

ENGL 70483 - Victorian Women Writers (3)
An intensive examination of Victorian women poets, novelists, and prose writers in the context of historical conditions and feminist theory. Student cannot receive credit for ENGL 55483 and ENGL 70483.

ENGL 70493 - Nineteenth Century Studies in British Literature (3)
Selected topics in nineteenth-century British literature (variable emphasis each semester). Past offerings have included the Medieval Revival and Nineteenth-Century Literature and Rhetoric.

ENGL 70503 - American Novel I (3)
The American novel from its beginnings to 1890. Topics examined include the Gothic and sentimental novelists (Brown, Rowson), the early national novel (Cooper), the Romantics (Hawthorne, Melville), Realism and the Realists (Twain, James, Howells), and the early Naturalists (Norris).

ENGL 70513 - American Novel II (3)
The development of the American novel from 1890 to the start of World War II.

ENGL 70523 - American Novel III (3)
The development of the American novel from 1940 to the present.

ENGL 70533 - The American Short Story (3)
A study of short fiction in American literature.

ENGL 70543 - American Poetry I (3)
The development of American poetry from the beginnings to 1900.

ENGL 70553 - American Poetry II (3)
Major poets and works of the twentieth century.

ENGL 70563 - American Stagings: Culture, Theatre, Performance (3)
Dramas from U.S. literature will be read alongside other documents and literary texts in order to foreground the genre's relation to culture, historical, and social contexts. Attention will be given to related cultural phenomena and theoretical concepts, such as the history of U.S. theatre, theatricality in other venues, or performance theory.

ENGL 70573 - American Non-Fiction Prose (3)
Major documents of non-fiction prose in American literature.

ENGL 70583 - American Literature in a Global Context (3)
This course engages in comparative, cross-cultural study of American literature in a global context. Affirming the field's increasing commitment to extending the scope of American literatures beyond U.S. national borders readings and student research will explore a range of texts using one or more of these frameworks: hemispheric trans-Atlantic border-crossing inter-American. Students may repeat this course based on differing thematic and organizational approaches being used for the content of particular offerings.

ENGL 70593 - Authorship in American Literary Culture (3)
This course examines both shifting conceptions of authorship (e.g., writer versus author) and issues associated with authorial practices in American literary culture. Topics may include individual authors' careers and questions about how conditions in different time periods (e.g. the rise/fall of magazine culture or changes in the public's reading habits) have shaped literary careers. Students may repeat this course which could utilize diverse organizing principles in differing offerings (e.g. popular culture authorship versus "high art"; American authorship as seen in critical theory; factors promoting the shift from amateur activity to professionalization). Student cannot receive credit for ENGL 55193 and ENGL 70593.

ENGL 70703 - History of Rhetoric (3)
A study of the major authors and issues in the history of rhetoric from antiquity to the present day. Student cannot receive credit for ENGL 55363 and ENGL 70703.

ENGL 70713 - Rhetoric and Literature (3)
The applications and implications of rhetorical criticism for the study of literature. Student cannot receive credit for ENGL 55223 and ENGL 70713.

ENGL 70723 - Rhetoric and Criticism (3)
A study of classical and modern rhetorical theory, with emphasis on the uses of rhetoric in the study of modern communication.

ENGL 70733 - Image Studies and Multimodal Rhetorics (3)

A study of various non-discursive modes used to make meaning with emphasis on the rhetorical use of multisensory images.

ENGL 70771 - Non-Thesis (1)

Selected when enrolling only for non-thesis examination or preparation for the examination.

ENGL 70970 - Directed Studies (1.00-20.00)

Directed Studies in English.

ENGL 70980 - Thesis (1.00-6.00)

Thesis

ENGL 70990 - Thesis (1.00-20.00)

Thesis

ENGL 80123 - Seminar in Literary Theory (3)

A seminar in the theoretical problematics of literary language and in current trends within critical theory. Topics change each term; may be repeated for credit.

ENGL 80403 - Seminar in Spenser (3)

Seminar in Spenser.

ENGL 80413 - Seminar in Shakespeare (3)

Seminar in Shakespeare

ENGL 80433 - Seminar in British Literature of the Eighteenth Century (3)

Seminar in British literature of the eighteenth century.

ENGL 80443 - Seminar in British Literature of the Romantic Period (3)

Seminar in British literature of the romantic period. Variable emphasis each semester.

ENGL 80453 - Seminar in British Literature of the Victorian Period (3)

Variable emphasis each semester. (Past offerings have included The Brownings' Circle.) Student cannot receive credit for ENGL 55223 and ENGL 80453.

ENGL 80463 - Postcolonial Literature

Seminar in the cultural politics of countries formerly colonized by Great Britain. Topics vary: recent offerings have focused on India, Ireland, South Africa, Kenya and Zimbabwe.

ENGL 80473 - Renaissance Bodies (3)

Advanced graduate seminar in dramatic literature of the English Renaissance with a focus on the religious, political, aesthetic, and medical history of the body.

ENGL 80503 - Seminar in American Literature before 1900 (3)

Topics vary; recent offerings have included Emerson and His Circle" and "The American Renaissance."

ENGL 80513 - Seminar in American Literature since 1900 (3)

Seminar in American literature since 1900. Student cannot receive credit for ENGL 55213 and 80513.

ENGL 80523 - Race and Gender in American Literature (3)

Examination of race and gender in American literature in relation to recent developments in fields such as women's studies, gender studies, critical race studies, Native American studies, and/or African American studies. Themes will vary by semester.

ENGL 80533 - Literature of Latina/o Diaspora (3)

Examination of seminal works of literature in multiple genres by U.S. Latina/o authors. Particular emphasis will be put on a comparative approach, exploring the literature of Puerto Rican, Cuban, Chicana/o, Mexican, Dominican, and/or Nicaraguan Americans. Texts vary by semester. Student cannot receive credit for ENGL 55533 and ENGL 80533.

ENGL 80583 - Seminar in Contemporary African-American Literature (3)

This seminar provides graduate students with the opportunity to research and present theoretical approaches to representative contemporary fiction by African-Americans. Continuities will be established between theories shaped by the Black Arts Movement of the sixties and those shaped by post-modernist thinking. Representative writers may include Alice Walker, Toni Cade Bambara, Charles Johnson, Toni Morrison and Ernest Gaines. Student cannot receive credit for ENGL 55583 and ENGL 80583.

ENGL 80603 - Seminar in Kenneth Burke (3)

A study of the rhetorical theory and critical methods of Kenneth Burke. This course will include a careful consideration of Burke's major theoretical and literary work with particular emphasis on the ways in which his rhetorical/literary theory grew out of his own literary practice and his

engagement in modernist conversations about the function of art (and language, more generally) in culture.

ENGL 80613 - Women's Rhetorics (3)

This course examines the histories, theories, and practices of women's rhetorics from the classical era through the present. Students will examine primary texts of women rhetors - essays, ordinary writing such as letters and autobiographies and speeches to name only a few - as well as secondary sources of those texts paying particular attention to the ways gender race class religion place sexual orientation and politics shape sense of audiences methods of invention arrangement choices of style form tone and genre. Student cannot receive credit for ENGL 55613 and ENGL 80613.

ENGL 80703 - Seminar in Rhetoric (3)

A study of selected major figures and issues in the history of rhetoric. Student cannot receive credit for ENGL 55243 and ENGL 80703.

ENGL 80713 - Seminar in Literacy (3)

Exploration of major issues in literacy history, theory, and research. Topics may vary.

ENGL 80723 - Seminar in Composition (3)

A study of issues in composition research, practice, or theory. Topics may vary.

ENGL 80733 - Poststructural Rhetoric (3)

Prerequisites: ENGL 60123 or 60713 or 70703. An advanced, intensive study of those rhetorical and theoretical positions that often inform contemporary scholarship in composition studies, rhetoric, literature, and cultural studies. Reading will focus on those anglophone and European theorists most often of use to and in discussion with the whole of modern rhetoric and literary theory.

ENGL 80743 - Genre Theory (3)

A study of genre theory, with emphasis on the history, methods, and major theories of genre studies in rhetorical theory and literary studies.

ENGL 80813 - Rhetorics and Poetics of 1930s America (3)

A study of the 1930s American literacy and cultural debates that led to the establishment of New Criticism as the dominant critical theory in English studies and to the birth of modern rhetorical theory.

ENGL 80823 - Social Movement Rhetorics (3)

This course prepares graduate students for research and teaching related to protest and social movement rhetorics, tracing the emergence and development of work in this area from the 1960s to the present.

ENGL 80833 - Cultural Rhetorics (3)

An investigation into the connections between rhetoric, culture, and power in order to engage theories of race, class, ethnicity, gender, sexuality, disability, etc. The course will ask students to also practice sociocultural research methods such as, but not limited to ethnography.

ENGL 90980 - Dissertation (1.00-20.00)

Dissertation. (This course is only offered as P/NC.)

ENGL 90990 - Dissertation (1.00-20.00)

Dissertation. (Thiscourse is only offered as P/NC.)

ENSC - Environmental Science

ENSC 50003 - Applied Projects Partnership Program (3)

Prerequisites: Must have C or better in at least 9 hours of approved courses in the minor or degree, plus permission of instructor and program advisor. ENSC faculty will identify opportunities for students to partner with local businesses, industry and consulting firms to solve real-world problems and create professional deliverables. Students will be matched with the positions that are available, based on observed talents and the type of experience they seek. This is a student-lead project. ENSC faculty provide oversight and guidance but will NOT manage the project or direct the team.

ENSC 50233 - Urban Wildlife (3)

Prerequisites: one semester of biology and junior or higher standing. Through readings, discussions, lectures and two required Saturday field trips, students will gain an appreciation for urban wildlife habitat in its many forms by providing a foundation of knowledge regarding wildlife ecology and natural habitats and the ability to relate this knowledge to the urban environment.

ENSC 50333 - Energy Development and Wildlife Conservation (3)

Prerequisites: Three semester hours of biology. The quest for energy can cause problems for wildlife, but through effective use of Best Management

Practices (BMPs), the impact of energy development and distribution on wildlife can be limited. From site selection through production to reclamation, practical means exist to promote wildlife-friendly energy development. This course will feature BMPs that allow energy development and wildlife conservation to coexist.

ENSC 50403 - Rivers in the Landscape (3)

Prerequisites: Junior Senior, or graduate standing. In this course, students analyze modern principles of river processes and forms within a geographical perspective. The course examines the fundamental mechanics of fluvial channels with an emphasis placed on both qualitative and quantitative geographic and geologic evaluation of river processes and their products. The course emphasizes natural scientific perspectives and includes linkages to ecology, engineering, natural resources, and resources management/policy.

ENSC 50503 - Wetlands Delineation and Management (3)

Prerequisites: Major field of study within the College of Science Engineering, graduate enrollment, or permission of instructor. To develop a working understanding of the wetland delineation process using the 1987 U.S. Army Corps of Engineers Wetland Delineation Manual and regional supplements. Students will be taught how to measure the three parameters required for a jurisdictional wetlands. In addition, students will learn a basic understanding of wetland ecology. At the end of the course students will be able to use the manual to assist in delineating wetlands.

ENSC 50513 - Wetlands Restoration (3)

Prerequisites: Major field of study within the College of Science and Engineering, graduate enrollment or permission of instructor. To develop a working understanding of stream and wetland riparian ecology, methods to evaluate and categorize streams and wetlands, and methods to restore, enhance and create streams and wetlands. Students will be taught the various methods of stream/wetland evaluations and categorization and will apply these methods on an actual stream and wetland. Students will evaluate and develop a working plan for stream and wetland restoration. In addition, students will visit various restoration projects in the region.

ENSC 50523 - Introduction to Geographic Information Systems (3)

Prerequisites: GEOL/ENSC 30363. Basic introduction to Geographic Information Systems using ESRI-ArcGIS. Elements of spatial data, mapping, data representation, and geodatabases. Training in use of a GIS system to infer relationships among spatial features. (Crosslisted as ENSC/GEOL 50523.)

ENSC 50551 - Anthropogenic Disturbance of Wildlife (1)

Prerequisites: Six semester hours in Biology, and permission of instructor. This is a seminar class in which students will be introduced to both the direct and indirect ways humans impact wildlife. Students will review and discuss current literature related to this topic (e.g., road ecology and wind energy). This class comprises one fifty minute seminar per week.

ENSC 50613 - Chemical Analysis of Environmental Systems (3)

Prerequisite: CHEM 10113 or equivalent. This course covers analytical instrumentation and techniques used in chemical analysis of environmental systems including aquifers, streams, soils and the atmosphere.

ENSC 50693 - Natural Resources Compliance (3)

Prerequisites: Major field of study within the College of Science & Engineering. This course is designed to teach the basics of natural resources compliance for students seeking a career in either environmental consulting or environmental compliance for industry. At the completion of the course, students will understand the basics of the natural resources regulatory framework, how natural resources regulations interrelate, federal versus state or local regulatory agency authority, basic permitting processes, and the fundamentals of compliance. Students will have the opportunity to apply the knowledge they gain to real-life situations throughout the class.

ENSC 50703 - Environmental Compliance (3)

Prerequisites: Major field of study within the College of Science & Engineering with 60 hours of coursework completed; or graduate enrollment; or permission of instructor. This course is designed to teach the basics of environmental compliance for students seeking a career in either environmental consulting or environmental compliance for industry. At the completion of the course, students will understand the basics of environmental regulatory framework, how environmental regulations interrelate, federal versus state or local regulatory agency authority, basic permitting processes, and the fundamentals of compliance auditing. Students will have the opportunity to apply the knowledge they gain to real-life situations throughout the class.

ENSC 50713 - Phase I and Phase II Environmental Site Assessment (3)

Prerequisites: Major in College of Science & Engineering, with 60 earned hours or graduate enrollment. This course is designed to teach the basics of Phase I and Phase II Environmental Site Assessments for students seeking a career in environmental consulting. At the completion of the course, students will understand the basics of performing environmental site assessments, the environmental regulatory framework, and the fundamentals of site investigation. Students will have the opportunity to apply the knowledge they gain to real-life situations throughout the class.

ENSC 50723 - Water and Wastewater Technology (3)

Prerequisites: Major in College of Science & Engineering, with 60 earned hours or graduate enrollment. This course is designed to teach the basics of water and wastewater treatment technology, including regulations, for students seeking a career in environmental consulting. At the completion of the course, students will understand the basics of water and wastewater treatment, the regulations affecting water and wastewater treatment and pretreatment programs. Students will have the opportunity to apply the knowledge they gain to real-life situations throughout the class.

ENSC 50733 - Hazardous Waste Operations and Emergency Response (3)

Prerequisites: Must be a Science & Engineering major, graduate student, or have permission of instructor. This course is designed to teach the basics of worker protection for those who will work with hazardous substances during clean up operations and emergency response. The course is designed to meet the requirements of OSHA (Occupational Safety and Health Administration) regulations under 29 CFR 1910.120. At the completion of the course, students will understand the basics of hazardous materials/substances, routes of exposure, personal protective equipment, and permissible exposure limits. Students who complete the entire 40 hours of instruction will receive an occupational certification for the 40-hour initial course in accordance with 29 CFR 19101.120.

ENSC 50743 - Environmental Impact Statements (3)

Prerequisites: Major in College of Science Engineering, with 60 earned hours or graduate enrollment in SGEE. This course is designed to teach the basics of Environmental Impact Statements and the NEPA process for students seeking a career in environmental consulting. At the completion of the course, students will understand the basics of evaluating federally-funded development projects for impacts to the environment. Students will be able to evaluate if the project qualifies for a categorical exclusion, and perform environmental assessment (EA) and environmental impact state (IES). Students will have the opportunity to apply the knowledge they gain to real-life situations throughout the class.

ENSC 50763 - Groundwater Hydrology (3)

Prerequisites: GEOL 30443 and major field of study within the College of Science Engineering with 60 earned hours, or graduate enrollment, or permission of instructor. This course is designed to teach the basics of groundwater hydrogeology including hydrologic cycle, aquifers, groundwater flow, groundwater recharge, water chemistry and groundwater contamination. At the end of this course, students will be able to understand the relationship between surface water and groundwater, groundwater protection, field methods, and groundwater development. (Crosslisted as ENSC/GEOL 50763.)

ENSC 50773 - Introduction to Environmental Law (3)

Prerequisites: Major field of study within the College of Science & Engineering with 60 earned hours; or graduate enrollment. Students will be introduced to and will analyze selected federal statutes governing environmental remediation, discharge of pollution, and management of wastes, including the Comprehensive Environmental Response Compensation and Liability Act, the Resource Conservation and Recovery Act, the Clean Water Act, the Clean Air Act, the Endangered Species Act, and others, including the common law (nuisance, trespass, negligence.) Students will be introduced to the American legal system and the role of experts in lawsuits. Students will read and discuss in class statutes, case law, and related materials. (Crosslisted as ENSC/GEOL 50773.)

ENSC 50783 - Environmental Chemistry (3)

Prerequisites: CHEM 10123 and 10122 or 10125 or 20123 or permission of instructor. Three hours lecture per week. Chemistry of water, soil, energy, and air as related to environmental problems. Subjects include: nutrients and eutrophication, fluorocarbons, sulfur and nitrogen oxides, Eh-pH relationship, natural carbonate reactions, and cation exchange phenomena. (Crosslisted as CHEM/ENSC/GEOL 50783.)

ENSC 50793 - Environmental Sustainability (3)

Prerequisite: Major field of study within the College of Science & Engineering with 60 hours of coursework completed; or graduate enrollment; or permission of instructor. Includes global populations, resource consumption (water, waste, energy & pollution), environmental regulations, environmental

management systems, and an introduction to ISO14001. This course also introduces the concepts of return on investment (ROI) and building a financial case for sustainability.

ENSC 50863 - Spatial Analysis (3)

Prerequisites: MATH 10043 or equivalent, ENSC/GEOL 30363, and ENSC/GEOL 50523, or permission of instructor. Further development of GIS skills to include 3D data modeling, image analysis using Remote Sensing data, advanced GPS mapping, geoprocessing to infer relationships between spatial features, spatial statistics, model building and good cartographic design. (Crosslisted as ENSC/GEOL 50863.)

ENSC 50883 - Applied GIS (3)

Prerequisites: ENSC/GEOL 50523 and ENSC/GEOL 50863, or permission of instructor. Independent work in specially designed projects not covered by regular course offerings for students to continue to advance their basic GIS skills. The student is required to do independent research on a GIS problem, submit a paper with associated maps and give an oral presentation of the findings. A GIS faculty supervisor will be appointed for each research problem. (Crosslisted as ENSC/GEOL 50883.)

ENSC 50963 - GIS Internship (3)

Prerequisites: 2.75 GPA in major, completion of at least 6 hours of approved GIS courses and permission of instructor. Practical experience working in the GIS field. Must include a minimum of 260 work hours in approved practical experience situation with an organization or company approved by instructor. A weekly work journal is required for this course. This course is only offered on a P/NC basis. (Crosslisted as ENSC/GEOL 50963.)

ENSC 60001 - Environmental Presentations (1)

The goal of this course is to acquaint the student with the organization, preparation and effective delivery of scientific seminars. Full-time students should register for this course during their second semester. Part-time students should register for this course with permission from the graduate advisor.

ENSC 60011 - Literacy of Science Review (1)

Prerequisites: Candidacy for a Masters Degree in Environmental Science. The goal of this course is to acquaint the student with the demands of real-world projects and deadlines. The student will be given a topic within the realm of their environmental education, and will be tasked with writing a 2000-word research paper within 48-hours on the topic.

ENSC 60021 - Oral Examination (1)

Prerequisites: Candidacy for a Masters Degree in Environmental Science and completion of ENSC 60011 and ENSC 60203. The oral exam is the capstone of the Masters program and must be taken by all students during the final full semester. Oral exams test the student's knowledge in three areas: 1) coursework, 2) selected readings, and 3) general environmental issues and global concerns.

ENSC 60173 - Mammalogy (3)

Prerequisites: Six semester hours in Biology. Two hours of lecture and two hours of laboratory per week. This course introduces graduate students to mammals. Lectures will examine the major topics of mammalian biology including the evolutionary history, classification, adaptations, ecology, and natural history of mammals. Field techniques for the study of mammalian biodiversity and abundance will also be covered in this course. Field trips will be required. (Crosslisted as BIOL/ENSC 60173.)

ENSC 60203 - Environmental Issues (3)

Prerequisite: Graduate standing or permission of instructor. A graduate-level seminar on environmental issues. The framing of issues and their uses in shaping policy are introduced. About twelve issues are introduced in assigned readings. Each student creates a summary document of the issue, derived from the readings and personal research. Students are expected to arrive at class prepared for questions and discussion. Each student is also expected to summarize an issue using a poster or web portfolio.

ENSC 60313 - Environmental Issues in Costa Rica (3)

In this course, students spend three weeks in Costa Rica examining environmental issues and the case for environmental stewardship, defined as the need to make informed and responsible decisions with regard to the planet. Costa Rica provides a unique biological learning environment. It is one of the smallest countries in the Americas, yet has the most diverse selection of flora and fauna in the hemisphere. This diversity is now under threat from widespread habitat destruction, primarily through deforestation. At the same time, the country has one of the most enlightened and dedicated approaches to conservation in the world. Students get to experience first-hand the difficulties involved in working toward a balance between humans and nature, or development and the preservation of environmental quality. It is also a unique opportunity for students to engage

in critical and reflective thinking about our resources, the environment, and our place within it.

ENSC 60353 - Wildlife Ecology and Management (3)

Prerequisites: Six semester hours in Biology. Two hours of lecture and a three-hour laboratory each week. This discussion-oriented course introduces graduate students to the general principles of wildlife ecology and how those principles can be applied to wildlife management and conservation. The objectives of this course are 1) to provide an introduction to the major concepts of Wildlife Ecology and Management and 2) to apply the scientific method to ecological problems. Laboratory exercises are required. (Crosslisted as BIOL/ENSC 60353)

ENSC 60503 - Environmental Methods and Statistics (3)

This course is a laboratory and field-based course that presents essential general science and specific environmental methods, techniques, and theory. Students are exposed to the basic tools of environmental science - observation and notation, data gathering, using statistics, sampling, lab and field techniques, surveying, and safety. Specific environmental methodologies relating to soil, water, and ecological systems are explained. The course presents a wide cross-disciplinary range of techniques and information.

ENSC 60553 - Zoo Animal Enrichment (3)

Prerequisites: Graduate in Biology, Environmental Sciences, Education or Studio Arts programs, or permission from the faculty. This team-taught course between Environmental Science and Studio Art. In this course students will explore the ecology and behavior of wild animals to provide insights into the types of stimuli they naturally encounter. These insights will then be used to develop and build objects and structures that will engage and enrich the lives of animals at the Fort Worth Zoo. Students will work in teams to study a specific species currently residing at the zoo and create objects and structures that will enhance their lives in captivity.

ENSC 60603 - South African Biodiversity and Human Development (3)

This course aims to give students an immersive experience into South Africa's rapidly developing human population while the country simultaneously strives to preserve and conserve its natural heritage and biodiversity for future generations. The course will address the geopolitical and socio-economic aspects of South Africa's human development by visiting Soweto, the Apartheid museum, Voortrekker Monument and Isipho HIV/AIDS project. To experience firsthand wildlife preservation and conservation in practice, students will spend time in the Amakhala Game Reserve, Addo Elephant National Park, local nature reserves and villages. Here students will learn about current local, regional and international education programs, wildlife protection, active and passive management, eco-tourism and ongoing scientific research.

ENSC 70003 - Environmental Internship (3)

Students must spend at least 135 hours in approved practical work experience with an organization or company approved by the program director. (This course is only offered P/NC.)

ENSC 70351 - Publication Writing (1)

Prerequisites: Enrolled in the Environmental Sciences or Biology graduate program. One hours seminar per week for 15 weeks. Graduate students will learn how to produce a scientific research publication based on their own research. This seminar class will include an introduction to using Web of Science, available library resources, selecting the appropriate journal, manuscript structure and formatting, and using reference software (such as Endnote). Such skills will aid thesis development and potentially lead to the production of a submittable manuscript.

ENSC 70970 - Special Problems (1.00-20.00)

Field or laboratory problems for graduate students in various aspects of environmental science. Fifty clock hours of laboratory, field or library work for each semester hour of credit.

ENSC 70980 - Thesis (3)

A minimum of 3 hours of ENSC 70980 Thesis is required.

ENSC 70990 - Thesis (3)

Prerequisite: ENSC 70980 and admission to candidacy. A minimum of 3 hours of ENSC 70990 Thesis is required.

FINA - Finance

FINA 60003 - Economic Environment of Business (3)

A contemporary, real-world course focusing on the economic environment within which today's businesses operate taught from the perspective of the practicing manager. Content is both national and international in flavor.

Highlights include study of the general economy, market structure and public policy, economic analysis of industries and business cycles, and economics of the firm. International comparative advantage is stressed. The course is taught through the use of materials, tools, and databases readily available to the manager.

FINA 60010 - Financial Management I (1.5)

1.5 credit hours. Prerequisites: ACCT 60010, and must be an MBA or MAC student. Students who have passed the Level III CFA exam are granted a waiver of the Financial Management I. Financial Management I is the core MBA course in finance. It is the first part of a two-course introduction to financial decision making. The fundamental question in finance is how to determine value. To answer this question, in this course we will focus on how financial managers identify projects that create value to the firm (investment decisions.) The course topics will include cash flow valuation, bond and stock valuation, capital budgeting and project evaluation, and a brief introduction to the concepts of cost of capital.

FINA 60011 - Finance Fundamentals (1)

The course is designed to help bridge the gap between an undergraduate experience in Finance and a graduate level course. As such, there is less emphasis on memorization of terminology and much greater emphasis on critical thinking, analytics, and decision-making. This course will review some of the basic concepts, but a major emphasis will be placed on identifying and describing practical applications of key concepts by means of case studies and projects, with emphasis on the ambiguities and nuances occurring in applying theory to empirical projects. This is also supplemented by developing students' critical thinking skills through in-depth analysis of financial decisions from a managerial perspective. This course will help students better understand the key issues that managers face when they make investment decisions, including technical issues, such as knowledge of cash flows, time-value of money, valuation principles, but also big picture issues, examining what the sources of value creation are, how to deal with managerial biases and estimation uncertainty, and how investment decisions must fit with the strategic vision of the firm.

FINA 60013 - Management of Financial Resources (3)

Prerequisite: ACCT 60010, or concurrent enrollment in ACCT 60010. Cannot receive credit for FINA 60013 if credit has been received for FINA 60010, FINA 60011 or FINA 70010. A study of the acquisition and management of the financial resources of the firm. The emphasis is on developing and understanding decision making concepts related to such topics as valuation, cost of capital, capital budgeting, dividend policy, debt policy, and corporate control. The interaction between investment and financing decisions in the marketplace is emphasized in the context of risk-return considerations, and the obligation of management to security holders is considered. Where appropriate, the global environment of decisions is stressed.

FINA 60020 - Managerial Economics (1.5)

1.5 credit hours. Price and output determination in free markets is covered first. Then the relationship between the firm's production function and its cost structure is described. Costs and industry market structure and its importance to pricing strategies are discussed in detail. Public policy, such as anti-trust legislation and government price supports that affect firm/industry behavior are covered throughout the course. Actual business examples will be used to illustrate application of theory.

FINA 65000 - Economic Environment of Business (1.5)

1.5 Credit Hours. Prerequisite: Must be an EMBA candidate. A contemporary, real-world course focusing on the global economic environment within which today's businesses operate, taught from the perspective of the practicing manager. Content is both national and international in flavor. Highlights include study of the general economy, monetary/fiscal policy, business cycles, exchange rates, and economic indicators. The impact of domestic and international forces on business strategy is stressed. The course is taught through the use of materials, tools, and databases readily available to the manager.

FINA 65003 - Economic Environment of Business (3)

A contemporary, real-world course focusing on the economic environment within which today's businesses operate taught from the perspective of the practicing manager. Content is both national and international in flavor. Highlights include study of the general economy, market structure and public policy, economic analysis of industries and business cycles, and economics of the firm. International comparative advantage is stressed. The course is taught through the use of materials, tools, and databases readily available to the manager.

FINA 65010 - Managerial Economics for Executive Decision-Making (1.5)

1.5 Credit Hours. Prerequisite: Must be an EMBA candidate. This is an applied course intended to prepare executives to understand

microeconomic concepts, interpret economic data, and apply these tools in their working environment. In each section, fundamentals of economic theory will be introduced and then applied to equip executives to make strategic business decisions in a dynamic business environment.

FINA 65013 - Management of Financial Resources (3)

3.0 credit hours. Prerequisite: ACCT 65013, and must be an EMBA candidate. A study of the acquisition and management of the financial resources of the firm. The emphasis is on developing and understanding decision making concepts related to such topics as valuation, cost of capital, capital budgeting, dividend policy, hedging financial exposure, and corporate control. The interaction between investment and financing decisions in the marketplace is emphasized in the context of risk-return considerations, and the obligation of management to security holders is considered. Where appropriate, the global environment of decisions is stressed.

FINA 70010 - Financial Management II (1.5)

1.5 credit hours. Prerequisite: FINA 60010 or student must have ACCL-MBA, ACCP-MBA, or ACCE-MBA degree plan. Financial Management II is the second part of a two-course introduction to financial decision making. The fundamental question in finance is how to determine value. To answer this question, in this course will focus on how managers interact with capital markets in order to fund firm investments (financing decision.) The course topics will include risk and return in capital markets, long-term financial decisions and the capital structure of the firm, dividend policy, and will examine in detail the concept of cost of capital.

FINA 70100 - The Macroeconomic Environment of Business (1.5)

1.5 credit hour. Prerequisites: FINA 60020 or equivalent. A contemporary, real-world course focusing on the global economic environment within which today's businesses operate, taught from the perspective of the practicing manager. Content is both national and international in flavor. Highlights include study of the general economy, monetary/fiscal policy, business cycles, exchange rates, and economic indicators. The impact of domestic and international forces on business strategy is stressed. The course is taught through the use of materials, tools, and databases readily available to the manager.

FINA 70183 - Educational Investment Fund (3)

Prerequisite: FINA 70010 or 60013. By application. Participation in the operation of the Educational Investment Fund student managed investment portfolio. Students participating in the Educational Investment Fund are strongly encouraged to take six (6) additional hours of finance electives beyond the program requirements (with possible exception made in the case of extensive finance background).

FINA 70193 - Educational Investment Fund (3)

Prerequisite: FINA 70183. Participation in the operation of the Educational Investment Fund student managed investment portfolio. Students participating in the Educational Investment Fund are strongly encouraged to take six (6) additional hours of finance electives beyond the program requirements (with possible exception made in the case of extensive finance background).

FINA 70420 - Options and Futures Markets (1.5)

1.5 credit hours. Prerequisite: FINA 70010 or 60013. Must be a full-time second-year MBA student or equivalent. Introduction to derivatives - financial contracts that derive value from other instruments or prices. An in-depth study of the valuation of derivatives. Valuation techniques include methods such as binomials and Black-Scholes models."

FINA 70470 - Real Estate Finance and Investments (1.5)

1.5 credit hours. Prerequisite: FINA 70010 or 60013. An examination of mortgage markets and instruments, including an introduction to basic real estate law, mortgage calculations, loan underwriting, primary and secondary mortgage markets, and securitization.

FINA 70513 - Security Analysis (3)

Prerequisite: FINA 70010 or 60013. Theory of security selection focusing on its economic, financial and accounting aspects. Some attention directed to the role of technical analysis as an adjunct to the more traditional fundamentalist approach. Critical review of significant investment literature is included along with consideration of the Chartered Financial Analyst C.F.A. program and its professional objectives.

FINA 70520 - Risk Management and Financial Engineering (1.5)

1.5 credit hours. Prerequisite: FINA 70420. Study of current usage of derivative instruments in financial engineering. Financial engineering is the science of managing financial risk exposure through derivatives, as well as the construction of new financial products, such as SWAPS. Topics include corporate risk management, hedge fund strategies, and operation of derivative markets.

FINA 70523 - Financial Modeling (3)

Prerequisites: FINA 70010 or 60013 or equivalent. The emphasis of the course is on developing skills for financial modeling. After completion of this course, students will acquire the tools needed to build financial models, and design the analysis to create insights from the models.

FINA 70533 - Portfolio Management (3)

Prerequisite: FINA 70010 or 60013. A 'state-of-the-art' examination of the theory and practice of portfolio management. Current literature in leading journals introduces topics such as contemporary techniques of risk-return management, setting portfolio objectives and measuring performance and portfolio selection and revision. Consideration is given to the special problems encountered in management of institutional portfolios.

FINA 70543 - Advanced Financial Management (3)

Prerequisite: FINA 70010 or 60013. Applications of theory of corporate finance to real-world problems through case studies. Topics include financial analysis and planning, forecasting the financial needs of a firm, capital expenditure analysis, capital structure and distribution policies, merger and acquisition analysis, corporate restructuring, and risk management. Emphasis is placed on the effects of the firm's financial and operating decisions on the value of the firm's securities in financial markets.

FINA 70563 - International Finance (3)

Prerequisite: FINA 70010 or 60013. Financial management of the firm in an international context. The basis of international trade, the management of currency and interest rate risks, international investment decisions, international money and capital markets, financial policy decisions in an international setting. Development of theory via lectures and applications via case analyses.

FINA 70570 - Real Estate Finance and Investments II (1.5)

1.5 credit hours. Prerequisites: FINA 70470. A study of the analytical tools and decision-making processes necessary to maximize returns from investment in commercial, industrial and residential income producing real estate. Investment analysis, optimal financial management and portfolio selection of real estate under institutional constraints and in the complex tax environment are considered.

FINA 70573 - Real Estate Portfolios (3)

Prerequisite: FINA 70010 or 60013 or equivalent. Emphasis will be on real estate investing, particularly as it pertains to real estate portfolios such as REITs. Performance, risk and diversification, including property type and geographic diversity will be studied. Securitization of assets and other methods of financing will be considered.

FINA 70583 - Topics in Applied Financial Analysis I (3)

Prerequisites: FINA 70010 or FINA 60013 or equivalent. This course provides a comprehensive and integrated examination of fundamental topics related to financial analysis, using subject matter from the Candidate Body of Knowledge developed by the CFA Institute for the Chartered Financial Analyst (CFA) Level I program. Specific topics covered include ethics, economics, financial statement analysis, corporate finance, quantitative methods, portfolio management, equity analysis, fixed income analysis, and derivatives.

FINA 70593 - Topics in Applied Financial Analysis II (3)

Prerequisites: FINA 70583 or passing CFA Level I exam. This course provides a comprehensive integrated examination of advanced topics related to financial analysis, using subject matter from the Candidate Body of Knowledge developed by the CFA Institute for the Chartered Financial Analyst (CFA) Level II program. Specific topics covered include advanced applications in ethics, economics, financial statement analysis, corporate finance, quantitative methods, portfolio management, equity analysis, fixed income analysis, and derivatives.

FINA 70610 - Energy Macroeconomics (1.5)

1.5 credit hours. This course focuses on the fundamentals of global supply and demand for primary fuels - oil, coal, natural gas, hydroelectricity, nuclear and alternatives. The electric power generation industry and the transportation fuel industry is examined to determine the impact of newly discovered natural gas resources in the United States. The case for a long term US national energy policy is studied in detail. Finally, the impact of technology on improved energy efficiency and new energy supply is discussed.

FINA 70620 - Energy Corporate Finance (1.5)

1.5 credit hours. Prerequisites: ACCT 60010 and either FINA 60013 or both FINA 60010 and 70010; or student must have ACCL-MBA, ACCP-MBA or ACCE-MBA degree plan. This course focuses on corporate finance issues affecting the energy industry. The material covered includes a review of

macroeconomic view of energy supply, demand price and government policy for all forms of primary energy: oil, gas, coal, nuclear, hydroelectric, wind and other renewables. Capital structures are analyzed in the E&P, oil service, mid-stream and power sectors. Emphasis is placed on reserve based accounting and borrowing base determination in the oil and gas sector. Other topics covered include energy startups, IPO's, mergers, acquisitions and divestitures.

FINA 70970 - Special Problems in Finance (1.5)

Special Problems in Finance.

FINA 75543 - Advanced Financial Management (3)

Prerequisite: FINA 65013, and must be an EMBA candidate. Applications of theory of corporate finance to real-world problems through case studies. Topics include financial analysis and planning, forecasting the financial needs of a firm, capital expenditure analysis, capital structure and distribution policies, merger and acquisition analysis, corporate restructuring, and risk management. Emphasis is placed on the effects of the firm's financial and operating decisions on the value of the firm's securities in financial markets.

FINA 75970 - Special Problems in Finance (1.00-20.00)

Special Problems in Finance. Prerequisite: Must be an EMBA candidate.

FREN - French

FREN 50033 - The Teaching of Modern Foreign Languages (3)

Prerequisite: Junior standing, and FREN 30073 with a grade of C- or better, or concurrent enrollment. Analysis and consideration of values, objectives, content and methods, with special reference to the teaching of foreign languages in the high school. Demonstrations of modern techniques, use of audiovisual aids and realia, and operation of a foreign language laboratory. Required of students seeking Texas Public School Certification. Cross-listed under German 50033 and Spanish 50033.

FTDM-Film-Television-Digital-Media

FTDM 50400 - Advanced Studies in Radio, Television, and Film (3.00-6.00)

Prerequisites: Senior or graduate standing. Seminar in radio, television, and film. 3-6 semester hours; maximum 3 semester hours per semester.

FTDM 50970 - Special Problems in Film, Television and Digital Media (1.00-20.00)

Prerequisite: Senior or graduate standing. A conference course designed to give an individual student opportunities for additional specialized work in his or her area of concentration. (1-6 semester hours)

GEOG - Geography

GEOG 50970 - Special Studies in Geography (1.00-20.00)

Supervised reading, research, and preparation of a substantial paper focused on a specific regional analysis or topical subdiscipline of geography. Regional characteristics investigated may include economic, political, historical, and cultural components as well as topography, climate, and natural resources. Examples of topics include advanced studies in Urban Geography, Cultural Geography, Geopolitics, and Historical Geography.

GEOG 80900 - Seminar: Historical Geography of Latin America (1.00-3.00)

This seminar will investigate land and life in the Latin American Realm using geographical and historical methods. Topics may include, but are not limited to: Indigenous populations, human/environment interaction, agriculture, settlement morphology, diffusion, religion, cultural landscapes, and commerce and trade.

GEOL - Geology

GEOL 50233 - Optical Mineralogy and Petrography (3)

Prerequisite: Permission of instructor. Two hours lecture and one three hour laboratory period per week. Analysis of the behavior of light in crystalline substances, complete treatment of crystal optics and the identification of non-opaque, rock-forming minerals using immersion media and thin section techniques. Intensive use of the microscope required.

GEOL 50251 - Scanning Electron Microscopy (1)

Prerequisite: Permission of instructor. Use of the S.E.M. in geological applications.

GEOL 50341 - Interpreting Seismic Data (1)

Prerequisite: GEOL 30243. Three hours laboratory per week for five weeks. A practicum in interpreting seismic data. Prerequisites: GEOL 50331 or equivalent.

GEOL 50413 - Global Tectonics and Basin Analysis (3)

Prerequisite: Permission of instructor. Three hours lecture per week. Explores the relationship between plate motion and the evolution of sedimentary basins.

GEOL 50423 - Petroleum Geology (3)

Prerequisite: Permission of instructor. Origin, migration and entrapment of hydrocarbons, exploration and production techniques used in the petroleum industry.

GEOL 50493 - Physical Hydrology (3)

Prerequisite: GEOL 10113 and permission of instructor. Two hours lecture and two hours of laboratory per week. A study of the occurrence, movement, and exploitation of water in the hydrologic cycle including surface-atmosphere, groundwater, and surface water processes.

GEOL 50523 - Introduction to Geographic Information Systems (3)

Prerequisites: GEOL/ENSC 30363. Basic introduction to Geographic Information Systems using ESRI-ArcGIS. Elements of spatial data, mapping, data representation, and geodatabases. Training in use of a GIS system to infer relationships among spatial features. (Crosslisted as ENSC/GEOL 50523.)

GEOL 50543 - Sedimentary Environments and Facies (3)

Prerequisite: Permission of instructor. Three hours lecture per week. Facies analysis and facies models applied to the problem of interpreting stratigraphic sequences and reconstructing paleogeography.

GEOL 50553 - Integrating and Interpreting Subsurface Geological Data (3)

Prerequisites: GEOL 50331 and 50361, or permission of instructor. A workstation-based practicum on managing and integrating geologic data. Students will become familiar with one or more widely-used software packages for handling multiple data sets used in oil and gas exploration and field development.

GEOL 50563 - From Prospect to Production (3)

Prerequisite: Advanced standing in geology or permission of instructor. A broad overview of the geologic, engineering and business sides of the oil and gas industry. The course will acquaint students with all the steps in the production of oil and gas from developing a prospect to delivering a product: how geologists decide where to drill, how mineral rights are acquired, how contracts are structured, and how financing is obtained for oil and gas deals. Includes the study of drilling and completion operations and the technology required to produce oil and gas. Students will also be acquainted with the legal, regulatory and environmental issues encountered in drilling for oil and gas.

GEOL 50593 - Hydrologic Modeling (3)

Prerequisite: GEOL 50493, or permission of instructor. Elements of surface and ground water modeling with applications. Topics covered include: modeling procedures, selection of appropriate model, and presentation of results. Class consists of 2 hours lecture, and 2 hours hands-on computer modeling laboratory.

GEOL 50603 - Introduction to Geochemistry (3)

Prerequisite: CHEM 10113, 10122 and 10123 or permission of instructor. Three hours lecture per week. Application of basic chemical principles to understanding the origin, distribution and migration of chemical elements in the earth's lithosphere, hydrosphere, atmosphere and biosphere.

GEOL 50613 - Igneous and Metamorphic Petrology (3)

Prerequisite: GEOL 50233, or permission of instructor. Two hours lecture and one three hour laboratory period per week. Petrogenesis of igneous and metamorphic rocks based on field, petrographic, chemical and isotopic data. Inferences on the evolution and dynamics of the crust and mantle. Involves use of microscope.

GEOL 50623 - Volcanology (3)

Prerequisite: GEOL 50233, or permission of instructor. Two hours lecture and one three hour laboratory period per week. Types and processes of volcanic eruptions; characteristics of modern volcanic products; recognition and significance of ancient volcanic deposits in the stratigraphic record. Involves use of microscope. Field trip required.

GEOL 50713 - Environmental Geology (3)

Prerequisite: Permission of instructor. Two hours per week of lecture, and three hours per week of laboratory work. Geologic processes, earth resources and engineering properties of crustal materials in the activities of society.

GEOL 50731 - Remote Sensing Technology (1)

Prerequisite: Permission of instructor. Three hours lecture per week for five weeks. An introduction to the technology used in remote sensing, including MSS, TM and SPOT, thermal scanners and radar imaging.

GEOL 50741 - Image Processing (1)

Prerequisite: Permission of instructor. Three hours lecture per week for five weeks. An introduction to processing techniques used to enhance the display of remote sensing images with emphasis on those techniques useful in resource mapping.

GEOL 50751 - Image Interpretation (1)

Prerequisite: Permission of instructor. Three hours lecture per week for five weeks. Geologic and resource mapping and environmental monitoring using satellite images.

GEOL 50763 - Groundwater Hydrology (3)

Prerequisites: GEOL 30443 and major field of study within the College of Science Engineering with 60 earned hours, or graduate enrollment, or permission of instructor. This course is designed to teach the basics of groundwater hydrogeology including hydrologic cycle, aquifers, groundwater flow, groundwater recharge, water chemistry and groundwater contamination. At the end of this course, students will be able to understand the relationship between surface water and groundwater, groundwater protection, field methods, and groundwater development. (Crosslisted as ENSC/GEOL 50763.)

GEOL 50773 - Introduction to Environmental Law (3)

Prerequisites: Major field of study within the College of Science & Engineering with 60 earned hours; or graduate enrollment. Students will be introduced to and will analyze selected federal statutes governing environmental remediation, discharge of pollution, and management of wastes, including the Comprehensive Environmental Response Compensation and Liability Act, the Resource Conservation and Recovery Act, the Clean Water Act, the Clean Air Act, the Endangered Species Act, and others, including the common law (nuisance, trespass, negligence.) Students will be introduced to the American legal system and the role of experts in lawsuits. Students will read and discuss in class statutes, case law, and related materials. (Crosslisted as ENSC/GEOL 50773.)

GEOL 50783 - Environmental Chemistry (3)

Prerequisites: CHEM 10123 or 10124 or 10125 or permission of instructor. Three hours lecture per week. Chemistry of water, soil, energy, and air as related to environmental problems. Subjects include: nutrients and eutrophication, fluorocarbons, sulfur and nitrogen oxides, Eh-pH relationship, natural carbonate reactions, and cation exchange phenomena. (Crosslisted as CHEM/ENSC/GEOL 50783.)

GEOL 50813 - Meteorites, Asteroids, and Planets (3)

Prerequisite: GEOL 30213 or PHYS 30493, or permission of instructor. Three hours of lectures per week. An interdisciplinary course exploring the history and formation of the Solar System from the Big Bang through the formation and evolution of the planets. (Crosslisted as GEOL/PHYS 50813.)

GEOL 50863 - Spatial Analysis (3)

Prerequisites: MATH 10043 or equivalent, ENSC/GEOL 30363, and ENSC/GEOL 50523, or permission of instructor. Further development of GIS skills to include 3D data modeling, image analysis using Remote Sensing data, advanced GPS mapping, geoprocessing to infer relationships between spatial features, spatial statistics, model building and good cartographic design. (Crosslisted as ENSC/GEOL 50863.)

GEOL 50883 - Applied GIS (3)

Prerequisites: ENSC/GEOL 50523 and ENSC/GEOL 50863, or permission of instructor. Independent work in specially designed projects not covered by regular course offerings for students to continue to advance their basic GIS skills. The student is required to do independent research on a GIS problem, submit a paper with associated maps and give an oral presentation of the findings. A GIS faculty supervisor will be appointed for each research problem. (Crosslisted as ENSC/GEOL 50883.)

GEOL 50901 - Computer Applications in Geology (1)

Prerequisites: COSC 10403 or equivalent and permission of instructor. Three hours lecture per week for five weeks. The use of microcomputers in Geology.

GEOL 50912 - Statistical Applications for Microcomputers (2)

Prerequisite: GEOL 50901. Three hours lecture per week for ten weeks. Statistical treatment of directional data and the use of multivariate and special regression techniques, analysis of variance, discriminate function analysis and factor analysis in solving geologic problems.

GEOL 50922 - Mapping Applications for Microcomputers (2)

Prerequisite: GEOL 50901. Three hours lecture per week for ten weeks. Selecting and using mapping and drafting software.

GEOL 50963 - GIS Internship (3)

Prerequisites: 2.75 GPA in major, completion of at least 6 hours of approved GIS courses and permission of instructor. Practical experience working in the GIS field. Must include a minimum of 260 work hours in approved practical experience situation with an organization or company approved by instructor. A weekly work journal is required for this course. This course is only offered on a P/NC basis. (Crosslisted as ENSC/GEOL 50963.)

GEOL 60113 - Structural Geomechanics (3)

Prerequisites: GEOL 30423. Designed for science majors who wish to gain in-depth knowledge of advanced structural geology processes by understanding the response of rocks to stress. The course focuses on geomechanical principles such as rock failure/behavior, rock strength, 3D stress and the stress polygon, in situ stress, role of pore pressure, stress resolution on planes and reactivation of preexisting mechanical discontinuities. Particular emphasis is given to the determination of rock strength using micro mechanical tools and derivation of various petrophysical constraints from geophysical well logs.

GEOL 60213 - Environmental Analysis (3)

Two hours of lecture and one laboratory period per week. Techniques of analysis using X-ray, atomic absorption, differential thermal, infrared absorption, chromatography and liquid scintillation.

GEOL 60331 - Basic Seismics (1)

Prerequisite: Permission of instructor. Three hours of lecture per week for five weeks. An introduction to techniques of gathering, processing and interpreting seismic data.

GEOL 60351 - Seismic Stratigraphy (1)

Prerequisites: GEOL 60331. Three hours of lecture per week for five weeks. An introduction to the principles of seismic stratigraphy and their application in oil and gas exploration.

GEOL 60361 - Basic Well Log Interpretation (1)

Prerequisite: Permission of instructor. Three hours of lecture per week for five weeks. An introduction to the use of borehole geophysical logs in formation evaluation, correlation and subsurface facies analysis.

GEOL 60393 - Soils in the Environment (3)

Prerequisites: CHEM 10113 and 10125. Two hours lecture and one three hour laboratory per week. This course covers the formation, distribution, and classification of soils: major soil properties; field evaluation of soils; the use of soil survey information; and soil hydrology. The emphasis is on the study of soils as products of biophysical processes, and on soil properties of interest to geoscientists and natural resource managers.

GEOL 60413 - Advanced Map Interpretation (3)

Prerequisite: Permission of instructor. Three hours lecture per week. Techniques used in the analysis of geological structures.

GEOL 60423 - Overview of Petroleum Engineering (3)

Prerequisite: GEOL 50423. Petroleum engineering concepts and technology that are needed to find and produce oil and gas are discussed. This course focuses on drilling and production operations for non-engineers. Industry professionals will visit to discuss current technologies for producing hydrocarbon fluids. Graduate students will be expected to prepare and present a case study using current literature.

GEOL 60433 - Siliciclastic Sequence Stratigraphy (3)

Prerequisite: Permission of instructor. This course introduces sequence stratigraphy within the context of all stratigraphy and overviews the history of sequence stratigraphy. It includes an overview of sequence stratigraphy principles and reviews basic fundamental concepts of surface- and facies-based physical stratigraphy. Included are review of architectural element analysis, sequence stratigraphy in seismic, borehole expression of sequences and overview of subsurface stratigraphic techniques.

GEOL 60443 - Applied Reservoir Simulation (3)

Prerequisites: ENGR 40223 or GEOL 40423 or 60423. Oil and gas are essential sources of energy in the modern world. They are found in subsurface reservoirs in many challenging environments. Modern reservoir simulators are computer programs that are designed to model fluid flow in reservoirs.

Applied reservoir simulation is the use of computer programs to help understand and forecast the performance of oil and gas reservoirs. Students will learn how to apply a reservoir simulator to a variety of realistic oil and gas problems. Graduate students will be expected to prepare and present a case study using current literature.

GEOL 60493 - Hydrology (3)

Prerequisite: GEOL 50493 or permission of instructor. Two hours of lecture and two hours of laboratory per week. Principles of groundwater flow, aquifer analysis, chemical and physical properties of groundwater. Modeling of groundwater flow and contaminant transport.

GEOL 60513 - Carbonate Petrology (3)

Two hours lecture and one laboratory period per week. An examination of the chemical sedimentary rocks: limestones, dolomites, evaporites, chert, ironstones and phosphates, including their classification, genesis and diagenesis. The course has a large component of microscope study and fieldwork.

GEOL 60523 - Sandstone Petrology (3)

Two hours lecture and one laboratory period per week. Study of provenance, diagenesis and classification of sandstone using the petrographic microscope; consideration of the relationship between tectonics and sedimentation, especially sandstone composition.

GEOL 60710 - Geology Seminar (3)

Formal presentation and discussion of controversial topics with emphasis on geologic principles involved. For seniors with permission of instructor and graduate students.

GEOL 70771 - Non-Thesis (1)

Selected when enrolling only for non-thesis examination or preparation for the examination.

GEOL 70970 - Special Problems (1.00-20.00)

Field or laboratory problems for graduate students in various aspects of environmental science. Fifty clock hours of laboratory, field or library work for each semester hour of credit.

GEOL 70980 - Thesis (3)

A minimum of 3 hours of GEOL 70980 Thesis is required.

GEOL 70990 - Thesis (3)

Prerequisites: GEOL 70980 and admission to candidacy. A minimum of 3 hours of GEOL 70990 Thesis is required.

GRMN - German

GRMN 50033 - The Teaching of Modern Foreign Languages (3)

Prerequisite: junior standing, and GRMN 30063 with a grade of C- or better, or concurrent enrollment. Analysis and consideration of values, objectives, content and methods, reference to the teaching of foreign languages in the high school. Demonstrations of modern techniques, use of audiovisual aids and realia, and operation of a foreign language laboratory. Required of students seeking Texas Public School certification. Cross-listed under FREN 50033 and SPAN 50033.

GRMN 60063 - German for Reading Knowledge (3)

This course is designed specifically for graduate students who wish to acquire proficiency in reading German texts for research purposes without taking the time to master speaking and writing. Emphasis is on recognition of grammatical constructions, idioms and vocabulary. We will systematically cover major grammar points and representative readings. Students will demonstrate their understanding and command of the material by translating a variety of texts as well as taking vocabulary and grammar quizzes based on recognition rather than production.

HCHS - Harris College Health Sciences

HCHS 60021 - Research Seminar: Responsible Conduct in Research (1)

Prerequisites: Admission to PhD in Health Sciences program. This course will focus on principles, standards, policies, and regulations of responsible research. The course will consider the application of these domains to the conduct of research and explore decision-making processes that are needed based on situations that arise during human and animal research.

HCHS 60260 - Research Seminar: Skills and Techniques (1.00-2.00)

Prerequisites: Admission to PhD in Health Sciences program and permission of instructor. The purpose of this course is to provide Harris College Health Science Ph.D. students with a hands-on training in their respective unit

discipline. Topics to vary, but may include specific field techniques, the use of specialized analytical programs or approaches, or advanced methods of scientific communication. A product of these ongoing courses throughout the first two years of the PhD experience will be to gain advanced experience in a research lab/setting, narrow a well-developed research proposal, and articulate the focus of the student's dissertation project. May be taken for 1-2 credit hours, depending on the topic. May be repeated for credit up to a total of 6 credit hours.

HCHS 60712 - Learning and Instruction (2)

Prerequisites: Admission to PhD in Health Sciences program and permission of faculty. This course examines the teaching and learning theories used in education. Students will explore the role of the educator in various contexts and settings, and analyze applicable teaching strategies. Students will gain experience in classroom management, teaching styles, assessment, exam composition, and creating a syllabus.

HCHS 60783 - Teaching Practicum (3)

Prerequisites: NUED/HCHS 60712 and permission of faculty. This practicum experience enables students to apply knowledge and skills of education in varied learning settings. Students will incorporate multiple strategies for assessing, teaching, styles, assessment, exam composition, and creating a syllabus under the supervision of the professor of record.

HCHS 70112 - Philosophy of Science (2)

Prerequisites: Admission to PhD in Health Sciences program. This course provides a critical analysis of historical and current views of knowledge development as philosophies of science. Diverse approaches to knowledge development and their influence in the health sciences will be emphasized.

HCHS 70233 - Scientific & Grant Writing in the Health Sciences (3)

Prerequisites: HCHS 60021; HCHS 70112. This course is designed to provide students with instruction in the fundamentals of effective scientific communication, including manuscripts, grant applications, and poster and podium presentations. The course will be conducted using lecture, discussion, and in-class activity. In addition to a variety of smaller writing assignments, students will produce one major written product in the form of a manuscript, a research proposal, or a grant application.

HCHS 80100 - Special Topics in Health Sciences (1.00-3.00)

Prerequisites: HCHS 60021; HCHS 70112. This course is designed to expose doctoral students to current and emerging topics across domains of health sciences, including but not limited to communication sciences disorders, kinesiology, nursing, nurse anesthesia, and/or social work. Students will be exposed to different special topics related to either the physical health sciences track (eg., immunology, genetics) or social health sciences track (eg., public health policy, children, pain management). May be taken for 1-3 credit hours, depending on the topic.

HCHS 90980 - Dissertation (1.00-20.00)

Prerequisites: Admission to Ph.D. candidacy and permission of instructor. A minimum of 6 hours of HCHS 90980 Dissertation is required.

HCHS 90990 - Dissertation (1.00-20.00)

Prerequisites: Six hours of HCHS 90980 and permission of instructor. A minimum of 6 hours of HCHS 90990 Dissertation is required.

HIST - History

HIST 50080 - Archival Internship (1.00-20.00)

Supervised professional training at the Federal Archives and Records Center of Fort Worth, the Regional State Archives of Texas, the Amon Carter Library and the Manuscript Collection of Texas Christian University. Open only to students who are taking or have completed HIST 50070. Required of all students who select the Archives Studies option.

HIST 50133 - Seminar in Literature and History (3)

Prerequisites: Junior standing with a minimum of 9 hours in literature, history, and/or political science, or graduate standing in English or History. Interdisciplinary study of society, culture, or politics through the literature and history of a given era (variable topic). Open to graduate students and to advanced undergraduate students. Students will receive instruction from both an English professor and a History professor on content (literary works, historical studies, primary documents in periodicals or archives) and discipline-specific research methods.

HIST 50963 - Historiography and Bibliography (3.00-6.00)

The major historians of the past, changes in the interpretation and philosophies of history and the major bibliographic sources utilized in the writing of history.

HIST 50970 - Special Studies in History (1.00-20.00)
Special Studies in History. (NWH or WH)

HIST 70303 - Reading Seminar in European History (3)

A readings seminar in which students read widely in the important works on various issues and interpretations of European history.

HIST 70453 - Seminar in Asian History (3)

A readings seminar in which students read widely in the important works on various issues and interpretations of Asian history.

HIST 70603 - Reading Seminar in U.S. History (3)

A readings seminar in which students read widely in the important works on various issues and interpretations of United States history.

HIST 70703 - Reading Seminar in Military History (3)

A readings seminar in which students read widely in the important works on various issues and interpretations of Military history.

HIST 70771 - Non-Thesis (1)

Selected when enrolling only for non-thesis examination or preparation for the examination.

HIST 70803 - Reading Seminar in Vietnam War History (3)

A readings seminar in which students read widely in the important works on various issues and interpretations of Vietnam War history.

HIST 70813 - Reading Seminar in Hispanic American History (3)

A readings seminar in which students read widely in the important works on various issues and interpretations of Hispanic American history.

HIST 70903 - Reading Seminar in Latin American History (3)

A readings seminar in which students read widely in the important works on various issues and interpretations of Latin American history.

HIST 70980 - Thesis (1.00-20.00)

Thesis

HIST 70990 - Thesis (1.00-20.00)

Thesis

HIST 80083 - History as a Profession: Teaching, Research, and Service (3)

Covers all aspects of the teaching profession, including selection of readings, designing courses, preparation and delivery of class lectures, leading class discussions, preparing and grading exams, and professional expectations during and after graduate school.

HIST 80090 - Supervised Teaching at the College Level (0)

All teaching assistants who are assigned to teach undergraduate courses must enroll for this course.

HIST 80453 - Research Seminar in Asian History (3)

Research seminar in Asian History. Students will read widely around important historiographical issues in Asian history or conduct intensive research on a specific topic in Asian history.

HIST 80603 - Research Seminar in U.S. History (3)

Research Seminar in U.S. history.

HIST 80703 - Research Seminar in Military History (3)

Research Seminar in Military history.

HIST 80803 - Research Seminar in Vietnam War History (3)

Traces the history of China's social and military influence on Vietnam, the history of pre-European Vietnam, French conquest, Indo-China War, the roots of U.S. involvement, the course of the U.S. war, U.S. domestic developments and post-1975 Socialist Republic of Vietnam.

HIST 80813 - Research Seminar in Hispanic American History (3)

Research Seminar in Hispanic American history.

HIST 80903 - Research Seminar in Latin American History (3)

Research seminar in Latin American history.

HIST 90980 - Dissertation (1.00-20.00)

Prerequisite: Written permission of chairman of the department.

HIST 90990 - Dissertation (1.00-20.00)

Prerequisite: Admission to candidacy. Continuation of 90980. A minimum of 12 hours of dissertation credit is required.

INSC-Info-Systems-Supply-Chain

INSC 60010 - Statistical Models (1.5)

1.5 credit hours. This course teaches quantitative methods used in data analysis and business decision-making with an orientation towards regression analysis. This course presents the basic topics in regression including Statistical inference from regression output, limitations of regression models and the pitfalls involved in their use. Analysis of both cross-sectional data and time-series data will be discussed. Additional topics include aspects of statistical process control, ANOVA, chi-square tests and logistic regression. The course is taught from an applied perspective using computer software (Excel and Minitab) to perform statistical analyses.

INSC 60011 - Supply Chain Management Fundamentals (1)

The course is designed to bridge the gap between an undergraduate knowledge of operations and/or supply chain management and a graduate level course. As such, there is less emphasis on memorization of terminology and much greater emphasis on critical thinking, analytics, and decision-making. The course demonstrates how various processes and partnerships within a company's supply chain can be integrated to deliver value to customers. Students who do well in this course will learn to speak the language of supply chain management and they will understand fundamental supply chain strategies and tactics that can be used to gain competitive advantage.

INSC 60013 - Data Analysis for Managerial Decisions (3)

Prerequisites: students must have PMBA-MBA, ACCP-MBA, ENRG-MBA or ACCE-MBA plan. Examines statistical techniques helpful in making effective managerial decisions. Deals with applications from business. Topics include descriptive statistics, exploratory data analysis, basic probability concepts, estimation, hypothesis testing, analysis of variance, and regression analysis. The course is taught from an applied perspective using Excel to perform statistical analysis.

INSC 60020 - Managing Operations and Processes (1.5)

1.5 credit hours. Prerequisites: INSC 60600 or 60011. Develops concepts and analytical skills to address issues related to the efficient and effective management of work. Emphasizes the role of integrated processes as competitive weapons, including product and service development, and examines alignment of operational capabilities with firm strategy. Discusses the increasingly important role of process choice, design, analysis, integration, synchronization, and improvement, including lean and six sigma.

INSC 60023 - Manufacturing and Services Operations Management (3)

Prerequisite: ACCT 60010, and concurrent enrollment in INSC 60013 (for PMBA students) or concurrent enrollment in INSC 60010 (for FTMBA students). Develops concepts and analytical skills to address issues related to the creation and distribution of goods and services. Emphasizes the role of operations functions as competitive weapons and examines how operations strategy can be integrated with corporate strategy and other functional strategies. Discusses the increasingly important role of global competition, technology, and total quality. Other topics include process design, capacity planning, technology choice, planning and inventory control, and just-in-time systems. Technology is emphasized.

INSC 60040 - Managing Information Technology (1.5)

1.5 credit hours. An investigation of information technology as a facilitator of organizational strategy and business process redesign. The role of information in the evaluation and control of corporate uncertainty at the organizational and interorganizational levels is examined. Particular emphasis is placed on the successful design, implementation, and use of information technologies in both national and international organizations. Technology is emphasized.

INSC 60050 - Business Analytics (1.5)

1.5 credits. Prerequisites: Graduate standing. Students may not receive credit for both INSC 70600 and INSC 60050. This course is an introduction to the fundamentals of business analytics. Business analytics are enabled by business intelligence (BI) tools for the purpose of analytic decision making. BI systems combine gathering data, storing it, and analyzing it to present complicated company and competitive information to planners and decision makers. By providing wider visibility to plans and supporting data, analytical tools increase the return on existing organizational planning applications because they help companies understand where and how they deviate from their plan objectives. In addition, they provide shared data availability that encourages a global perspective on business performance. Real-world case studies will show students the ways organizations are using analytics to support both tactical and strategic decision-making.

INSC 60060 - Decision Models (1.5)

1.5 credits. This course is an introduction to decision modeling. The primary emphasis of this course will be on formulation and interpretation, thinking structurally about decision problems, making more informed decisions, and ultimately sharpening students' decision-making skills. It will introduce business students from a variety of backgrounds to some of the key techniques such as decision trees, linear programming, network models and simulation. The course will address models for a variety of applications such as: product-mix decision, portfolio management, product development and introduction, performance of production distribution networks, market share analysis, and investment strategy.

INSC 60600 - Concepts in Supply Chain Management (1.5)

1.5 credit hours. Effective Supply Chain Management (SCM) has become increasingly important to businesses. This course will provide an overview of the major concepts associated with SCM. Topics include logistics, transportation, procurement, demand forecasting, supply chain operations, information technology and global SCM.

INSC 65013 - Business Analytics for Managerial Decisions (3)

3 credit hours. Prerequisites: Must be an EMBA candidate. Examines statistical and analytical techniques to analyze data for effective managerial decisions. Deals with applications from business. Topics include description and summarization of data, exploratory data analysis, testing hypothesis, analysis of variance, regression analysis and forecasting, and fundamentals of decision theory.

INSC 65020 - Managing for Operational Excellence (1.5)

1.5 Credit Hours. Prerequisite: Must be an EMBA candidate. Operations Management (OM) is the systematic planning, design, operation, control, and improvement of business processes. The course is designed to examine the roles of operations management in creating and delivering value to customers, and thereby creating competitive advantage to the firm. Students will gain an understanding of strategic and tactical approaches for achieving excellence in along with an exposure to some of the latest tools and techniques for analyzing and improving operational processes.

INSC 65023 - Operations Management (3)

3 credit hours. Prerequisite: Must be an EMBA candidate. This course develops concepts and analytical skills to address the issues related to the creation and distribution of goods and services. It emphasizes the role of operations functions as a competitive weapon and examines how operations strategy can be integrated with corporate strategy and other functional strategies. It discusses the increasingly important role of global competition, technology, and total quality. Other topics include process design, capacity planning, technology choice, planning and inventory control, and just-in-time systems. Technology is emphasized.

INSC 70430 - Supply Chain Operations Management (1.5)

1.5 credit hours. Prerequisites: INSC 60600 or 60011. This course serves as an MBA elective. An in-depth study of the theory and practice of supply chain management function in manufacturing and service industries. Supply chain management is the integration of the activities associated with the flow and transformation of goods from the raw materials stage through to the end user, to achieve a sustainable competitive advantage. This course provides insights into the conceptual foundations and facilitates an understanding of the strategic concepts and tools necessary for meeting the challenges in the management of supply chains. Topics include management of logistics networks, material flows and the role of information systems technology.

INSC 70520 - Time Series Forecasting (1.5)

1.5 credit hours. Prerequisite: INSC 60010 or 60013. This course serves as an MBA elective. Presents extrapolative time-series forecasting techniques with applications to business and economic data. Techniques discussed include moving averages, decomposition, exponential smoothing and ARIMA models. Provides an understanding of the limitations of forecasting models and the pitfalls involved in their use. Qualitative forecasting is also discussed. Extensive use of computer software for time series forecasting. Applications to real business and economic data.

INSC 70600 - Supply Chain Analytics (1.5)

1.5 credit hours. Prerequisites: INSC 60600. This course is an introduction to the fundamentals of supply chain analytics. Supply chain analytics are enabled by business intelligence (BI) tools for the purpose of analytic decision making. BI systems combine gathering data, storing it, and analyzing it to present complicated company and competitive information to planners and decision makers. By providing wider visibility to plans and supporting data, analytical tools increase the return on existing supply chain planning applications because they help companies understand where and how they deviate from their plan objectives. In addition, they provide shared data availability that encourages a global perspective on business

performance. Real-world case studies will show students the ways organizations are using analytics in their supply chain to support decision-making.

INSC 70610 - Logistics and Transportation (1.5)

1.5 credit hours. Prerequisites: INSC 60600 or 60011. Logistics is a core business process that facilitates the creation of value for the external customer and helps to integrate the other functions and processes within the firm. Logistics is defined as that part of the supply chain process that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements. This course will cover many aspects of business logistics, including materials management, physical distribution, customer service, order processing, information flows, transportation, warehousing and inventory management.

INSC 70620 - Supply Chain Information Tools and Technologies (1.5)

1.5 credit hours. Prerequisites: INSC 60600 or 60011. Effective supply chain management is heavily dependent on integration of state-of-the-art information tools and technologies. This course will provide an understanding of supply chain models and practical tools for effective decision making and integrated supply chain management (for example ABC segmentation, demand forecasting and planning, inventory management, distribution management and multi-plant coordination). The emphasis will be on exploring tools and off-the-shelf software packages that have been proven effective in many industries, and on identifying and understanding implementation issues associated with the use of such tools.

INSC 70630 - Demand Forecasting Management (1.5)

1.5 credit hours. Prerequisite: INSC 60600 or 60011. This course provides an in-depth study of the processes that balance customer demands with production, procurement, and distribution capabilities. Accurate demand forecasting provides for added flexibility and visibility of inventory, and reduced variability in supply chain outcomes. Core conceptual areas include demand forecasting and management, synchronization of supply and demand, inventory capacity, balancing and positioning, inventory planning, sales and operations planning, and strategic order fulfillment issues.

INSC 70640 - Global Supply Chain Management (1.5)

1.5 credit hours. Prerequisites: INSC 60600 or 60011. This course will deal with (a) the diversity and complexity to be understood and managed in the globalization of supply chain activities, (b) unique characteristics of global transportation (ocean shipping, intermodal, and air) system, (c) legal and regulatory issues impacting global supply chain decisions, (d) import and export processes, (e) documentation requirements, and (f) challenges and integration issues with global supply chain management.

INSC 70650 - Strategic Sourcing and Procurement (1.5)

1.5 credit hours. Prerequisite: INSC 60600 or 60011. This course focuses on the key issues related to the strategic implications of sourcing of products, the purchasing of goods and services, and the role of purchasing in a supply chain context. Provides students with an understanding of purchasing processes, issues, and best practices. Emphasis areas include supplier quality, relationship management, and global sourcing.

INSC 70660 - Supply and Value Chain Strategy (1.5)

1.5 credit hours. Prerequisites: INSC 60600 or 60011. This course is designed to be the capstone course for the MBA with a concentration in Supply Chain Management. It will help students integrate all the elements of supply chain management, and examine how they might be applied to achieve strategic advantage for the firm. The course will use a combination of readings on supply chain strategy and case analysis.

INSC 70670 - ERP Systems in Contemporary Organizations (1.5)

1.5 credit hours. Prerequisite: Student must have SCMT-MS degree plan. This course is designed to introduce MBA students to the underlying need for business process integration in large organizations through ERP systems. Students will become acquainted with one particular software package (SAP ERP system), including its architecture and user interface, and will become knowledgeable about the issues and challenges in introducing such systems into large organizations.

INSC 70680 - Sustainable Supply Chain Management (1.5)

1.5 credits. This interactive class will explore what is happening in supply chains today through the lens of sustainability. After an introduction to the basics of sustainability and systems thinking students will explore sustainability challenges and opportunities in the various business functions with a focus on product design sourcing and procurement manufacturing and processing and logistics. Sustainable business strategies life cycle analysis recovery processes and sustainability metrics will be discussed.

INSC 70693 - Integrative Field Study (3)

This project oriented course provides integration and application of the MS SCM curricula. Each student will identify a field study opportunity, define the scope of a research/problem solving project, execute the project, and report on solution value and lessons learned.

INSC 70773 - Emerging Information Technologies for Decision Support (3)

Managerial perspective of emerging information technologies for problem solving and decision-making. Examination of decision factors that must be considered when using decision support technologies are examined. Formulation, development and evaluation of decision support systems, expert systems, neural networks, hypermedia, and user interface designs are discussed. Hands-on use of decision support technologies and field trips.

INSC 70793 - Global Supply Chain Experience (3)

3 credits. Prerequisites: Student must have SCMT-MS degree plan. This global immersion course provides students with an immersive experience in a region of the globe. The course typically involves travel to multiple countries within one of the major regions (Americas, Europe, Asia Pacific) where students will tour various supply chain operations. The focus of the course is challenges and opportunities associated with sourcing from and serving global markets. Topics include manufacturing capabilities and transportation infrastructures, labor availabilities, input cost and quality differences, and differences in national culture and business practices.

INSC 70970 - Special Problems in Information Systems and Supply Chain Management (1.00-20.00)

Special Problems in Information Systems and Supply Chain Management.

INSC 71003 - Project Management (3)

Prerequisite: INSC 60020 or 60011. Presents, discusses, and applies major concepts and techniques of project management. Familiarizes students with problems and issues confronting project managers and provides vocabulary, concepts, insights, and tools to address these issues. Topics include project planning, scheduling, budgeting, monitoring, metrics, control, scope, time, cost, quality, and risk. Tools include activity network scheduling, critical path method, design structure matrix, Monte Carlo simulation, and earned value management. Assignments include working with software tools, analyzing cases, and studying a real project. The course is also helpful for those seeking to attain the (external) Project Management Professional" (PMP) certification from the Project Management Institute."

INSC 71020 - Six Sigma Green Belt for Managers (1.5)

1.5 credits. Prerequisites: INSC 60010 or 60013, and INSC 60020. This course builds upon concepts and methods from other MBA courses and supplements these to complete the requirements for a Six Sigma Green Belt certification. Topics include the Six Sigma process (DMAIC), process definition and measurement, process analysis and improvement tools, process capability measures and statistical process control. Students will apply their skills to an improvement project in industry (a typical requirement for any Green Belt certification.) Upon successful completion of the course, students will receive a Green Belt Certification from the Neeley School. Students should also be sufficiently equipped to gain a similar certification from other sources.

INSC 71030 - Managing Risk & Uncertainty (1.5)

1.5 credit hours. Risk management (RM) is the art, science, and practice of making good business decisions in the face of consequential uncertainty. RM is essential to success in almost every area of management, but especially in the contexts of complexity, novelty, and uncertainty that characterize many contemporary endeavors. This course addresses the major concepts, basic techniques, and key challenges of RM. It aims to (1) familiarize students with the problems and issues confronting risk managers in several contexts and (2) provide students with the vocabulary, concepts, insights, and tools to address these issues. As a first course in RM, it provides an overview of several areas and knowledge of foundational tools (other than financial risk tools such as derivatives).

INSC 71050 - Leadership in Supply Chain Management (1.5)

This course addresses the challenges of leading supply chain management organizations in complex environments. Students will learn how to manage integrative, cross-functional relationships in dynamic business contexts. The specific focus will be developing business acumen, organizational leadership and communication strengths, and strategic thinking. Students will leave the course with a better understanding of the challenges being faced, how they as leaders need to approach those challenges, and how supply chain management contributes to business success.

INSC 71100 - ERP Simulation (1.00-20.00)

The ERP Simulation is an innovative learning by doing and "problem based" approach to teaching MBA students ERP concepts. During the game students will work on teams to run a business with a real-life SAP ERP system. The simulation places the students at the heart of a make to stock manufacturing company where they must operate the full business cycle (plan procure produce and sell) and in so doing experience the value of up and downstream information visibility.

INSC 71110 - Predictive Analytics with SAP (1.00-20.00)

Predictive analytics is the practice of extracting information from existing data sets with data visualization software in order to determine patterns and predict future outcomes and trends. The course will employ a learning-by-doing approach to teach students how to utilize the latest SAP analytics applications to analyze real-world Big Data sets to anticipate future behavior. In particular students will practice the three major areas that comprise predictive analytics (i.e. reporting visualization and prediction) through guided exercises and case studies.

INSC 71120 - Business Process Management (1.00-20.00)

This course provides an overview of Business Process Management (BPM) as both a management discipline and as a set of enabling techniques to analyze and design business operations. The course teaches the student the key concepts, terms, methodologies, techniques in BPM. It describes the nature of business processes and how to apply the tools and techniques to improve and reengineer business processes and procedures. Students will learn about the practices that are making process thinking a new approach to solving business problems and are continuously improving organizational performance. Students will learn how to apply critical success factors and discover the pitfalls to avoid. In addition students will practice key process measurement skills on case studies and apply these to their own organization through connection exercises.

INSC 71130 - Data Analytics Simulation: Process Design & Strategic Decision-Making (1.00-20.00)

This course in Data Analytics course utilizes Analytics simulations to explore concepts of process design and strategic decision-making. This course takes an analytical approach to allow MBA students to increase their intuition and understanding of core operational and performance concepts. The focus of this course is to: a) expose students to the core concepts in data and process analysis in a dynamic and experiential manner; b) increase student intuition regarding the interplay between the various elements of data analytics via toolkit-style exercises; c) give students the tools by which to understand data analysis via experimentation and proactive creation. These principles are examined via hands-on exercises, case studies, and class discussion.

INSC 72450 - Health Care IT and Data Analytics (1.5)

The purpose of this class is to introduce students to the various applications of IT and big data in health care. We will understand the broader policy context that has led to this deluge of information, such as the HITECH Act. We will explore different sources of health care data, such as Electronic Health Record data, social media databases, wireless sensor networks. For each of these data sources, we will review associated analytic techniques, such as Natural Language Processing (NLP) of free text from EHRs and social media. We will also explore the language of medicine as expressed in various coding systems, such as ICD9-CM, ICD10-CM, and SNOMED, and how complex medical jargon can be made more accessible to patients.

INSC 75663 - Supply Chain and Operational Strategy (3)

3 credit hours. Prerequisite: Must be an EMBA candidate. For many companies, supply chain management has become an important element of competitive strategy. However, to achieve a competitive advantage requires effective design and integration of operations, supply chain strategies, processes, and information technologies. Through an integrated simulation as well as selected readings and case analysis, this course will examine the linkages between supply chain strategy and competitive strategy, critical elements for effective supply chain management, and current trends in operational strategy.

INTR - Interdisciplinary

INTR 50903 - Indigenous Peoples of the South Pacific and the Global Flow

Prerequisites: permission of instructor. The course will focus on the potential and challenges of the global flow and indigenous peoples of the South Pacific. Students will travel to the South Pacific to conduct service learning activities with indigenous peoples.

JOUR - Journalism and Strategic Communication Courses

JOUR 50123 - Foundations

Seminar devoted to the analysis and discussion of significant issues in journalism and strategic communication with a focus on related literature, research areas and professional practice. Offered as STCO/JOUR 50123.

JOUR 50143 - Social and Cultural History of the Media

Seminar designed to explore the history of mass media. Issues discussed in this class will improve historical knowledge about the mass media and give a foundation for understanding the professional development of journalism and mass communication.

JOUR 50173 - International Reporting

Prerequisite: JOUR 30204, or permission of instructor. The course will critically analyze the coverage of international affairs by U.S. and other media. It will help the student develop competency in researching, analyzing and reporting about international issues, including the impact of international communication.

JOUR 50183 - Management and Leadership

This course will give students a survey of some of the latest management and leadership communication theories and practices, including a new sense of social responsibility. Students will apply theories to solve problems in existing case studies. Cross listed as JOUR 50183.

JOUR 50193 - Economics and Finance of the Media

The course will examine the economic environment and financial practices of the mass media, including the World Wide Web. The course will also examine how the media are affected by advertisers, competition, financial markets, and other economic forces. Understanding and structuring debt and equity, valuing media companies, and writing a business plan are included in the course work.

JOUR 50523 - Information Law and Policy (3)

Prerequisites: Open to graduate students in Journalism and Strategic Communication. Undergraduate students must have passed JOUR 40523 (Law and Ethics of Mass Communication) or STCO 46403 (Law) with a grade of C or higher and must have permission of the instructor. Advanced media law course for students focusing on contemporary challenges faced by journalism and strategic communication professionals. The course emphasizes how the law of mass communication has adapted to new and emerging technologies such as the Internet and social media, with a particular focus on privacy, access to information, and intellectual property. Students will learn and apply normative legal research methods to answer modern questions relevant to professional communicators. Cross listed as JOUR 50523.

JOUR 60113 - Research Methods (3)

Introduction to quantitative and qualitative methods commonly used in journalism and strategic communication. This course is offered for STCO or JOUR credit.

JOUR 60123 - Theory (3)

An introduction to the theories of advertising, public relations, journalism, and mass communication, with attention to how theories inform practice and practice informs theory. This course is offered for STCO or JOUR credit.

JOUR 60133 - Ethics (3)

Principles of media and strategic communication ethics, codes and practices. Provides students with theoretical foundation to identify and think critically about ethical issues in strategic communication and media, with focus on applying principles to contemporary issues and practices. Crosslisted as JOUR 60133.

JOUR 60143 - Literature of Mass Communication (3)

Examination of literary works in journalism and mass communication. The course is designed to connect a journalism education to broader social science concepts in a manner that should stimulate critical thinking about the role of the media in American and international societies.

JOUR 60153 - Project in Broadcast Journalism (3)

This course will allow the student to take a real-world problem or opportunity that has a strong research component and develop it for course credit and for application on the job. The course is designed to afford students interested in broadcast journalism the opportunity to identify and extensively research a community or a broadcast issue or problem.

JOUR 60163 - Project in Print/Internet Publications (3)

This course will allow students the opportunity to take a workplace problem that has a strong research element and develop it for application on the job. Such a project could be developing a proposal for a series of stories on a major issue, preliminary work on an investigative series using social science research techniques, performing a management case study, conducting research on readership, or identifying the type of sources used in stories.

JOUR 60183 - Global Strategic Communication (3)

This course examines the theories and practices of effective communication messaging for a global audience. Students will also learn how technology, culture, and social structures impact strategic communication in an international arena. Crosslisted as JOUR 60183.

JOUR 60970 - Special Problems: Journalism and Mass Communication (1.00-3.00)

A conference course designed to give an individual student or group of students opportunities for additional specialized work in a particular area of concentration. (Maximum of 3 hours credit per semester may be repeated for maximum of 6 hours credit.)

JOUR 70903 - Graduate Seminar (3)

Graduate capstone seminar that introduces the concepts used in developing a thesis or professional project. Includes guidance on formulating a proposal, necessary theoretical concepts and organizational structure of the project or thesis.

JOUR 70980 - Thesis (1.00-6.00)

Thesis.

JOUR 70990 - Thesis (1.00-6.00)

Thesis.

KINE - Kinesiology

KINE 50970 - Special Topics in Kinesiology (1.00-20.00)

Prerequisite: Approval of adviser and course instructor.

KINE 60103 - Research Methods in Kinesiology (3)

Emphasis is on the design and analysis of research projects and the writing of research papers.

KINE 60203 - Advanced Motor Development (3)

Prerequisite: KINE 30423 or consent of the department. Study of how and why the fundamental motor skills progress from inefficient to efficient patterns of movement. Emphasis on the interacting influence of mechanics, control and coordination on naturally developing systems.

KINE 60213 - Advanced Biomechanics (3)

Investigation of mechanical principles primary to understanding human movement performance. Special emphasis on application of mechanics to the analysis of human performance.

KINE 60423 - Advanced Motor Behavior (3)

Prerequisite: KINE 20503 or consent of the department. An in-depth study of the mechanisms and processes involved in the control of human motor activity. Focus on contemporary issues of motor control.

KINE 60433 - Curriculum Development in Physical Education (3)

Prerequisite: KINE 20403 or KINE 40513 or consent of the department. Theories and trends of curriculum construction in physical education. Emphasis on innovative programming in K-12 setting.

KINE 60443 - Behavior analysis in Sport and Physical Education (3)

The application of behavioral principles and systematic observation procedures and research to teaching physical education and coaching athletes.

KINE 60503 - Physical Activity for Individuals with Disabilities (3)

In-depth examination of the conceptual framework of adapting for individual differences in activity settings. The impact of inclusion, the Americans with Disabilities Act, and sport classification in fitness, recreation, and school physical activity settings will be discussed. Emphasis on practical application of knowledge.

KINE 60513 - Practicum in Adapted Physical Activity (3)

Hands-on practical experiences in a physical education/community based sports setting with a variety of individuals with disabilities. Activities will include assisting, teaching and supervising physical education and exercise classes, assessing present needs, developing and implementing an individualized program, teaching individuals as well as small and medium-sized groups, videotaping and observing teaching behaviors, learning to utilize volunteers and aides.

KINE 60523 - Assessment and Programming in Adapted Physical Activity (3)

Diagnostic-prescriptive process in adapted physical activity; identifying underlying components of various psychomotor assessment instruments; administering and interpreting assessments; developing appropriate programming strategies based on assessment results; and service delivery options for carrying out programming plans.

KINE 60613 - Physiology of Exercise (3)

Study of physiological responses and adaptations in physical activity germane to selected areas of physical education that are beyond the introductory level.

KINE 60623 - Cardiopulmonary Physiology (3)

Examination of the responses of the cardiovascular system to acute and chronic exercise. Emphasis on the effects of exercise on cardiac metabolism, hemodynamics, electrophysiology, pulmonary responses, gas exchange, gas transport, and renal function.

KINE 60633 - Laboratory Techniques in Exercise Physiology (3)

Prerequisite: KINE 60613 or consent of the department. Practical and theoretical knowledge of evaluation of physical performance. Emphasis on acquisition and analysis of data for research in exercise physiology.

KINE 60643 - Clinical Exercise Testing (3)

Practical and theoretical knowledge of clinical exercise testing. Emphasis on electrocardiography, health appraisal and risk assessment, guidelines and procedures, and pharmacology of cardiac medications.

KINE 60653 - Exercise Metabolism and Endocrinology (3)

Emphasis on metabolic and neuroendocrine control of bioenergetic pathways during acute and chronic exercise. Presentation of these areas will serve as the foundation for independent library and laboratory research.

KINE 60663 - Practicum in Cardiac Rehabilitation (3)

Practical experience in exercise testing and prescription in individuals with cardiopulmonary disease. Activities will include assisting in clinical exercise tests, conducting health risk appraisals, and developing, implementing, and supervising an individualized exercise program. All of these activities will be performed at a local hospital-based cardiac rehabilitation center.

KINE 60673 - Nutrition, Physical Activity and Disease (3)

A study of the roles that nutrition and physical activity play in chronic diseases, with an emphasis on prevention and treatment of chronic diseases by lifestyle modifications.

KINE 60683 - Obesity: Etiology, Pathophysiology, and Treatment (3)

This course will consist of four major parts: epidemiology of obesity and assessment of body fat, food intake, and energy expenditure; etiology of obesity; pathophysiology and social consequences of obesity; and prevention and treatment of obesity.

KINE 60713 - Sport Psychology (3)

The course content consists of an in-depth study of parameters of human behavior specifically related to sport including personality factors, expectancy effects, motivational techniques, team dynamics, leadership qualities, character development, and aggression.

KINE 60733 - Applied Sport Psychology (3)

Theoretical and practical knowledge of contemporary issues in applied sport psychology. Topics include confidence, arousal, stress, and anxiety, mental imagery, attentional control, goal setting, psychological rehabilitation, and career termination. Laboratory experiences will accompany each topical area.

KINE 60743 - Practicum in Sport Psychology (3)

Prerequisite: KINE 60733 or consent of the department. The course consists of practical experience in sport psychology interventions and consulting. Activities will include assisting in the administration of psychological assessment, creating and administering team discussions, performance enhancement interventions, and evaluation of program effectiveness. All of these activities will be performed in an athletic environment with a high school, college, or private team or individual sport setting.

KINE 60753 - Exercise Psychology (3)

This course will include a number of topics germane to the relationship between psychological processes and exercise behavior including adherence, mood, stress, and quality of life. Emphasis will be placed on theoretical perspectives in exercise psychology, related empirical research, and resultant practical implications.

KINE 60970 - Workshop in Health and Physical Education (1.00-20.00)

Prerequisite: Approval of advisor and course instructor.

KINE 70903 - Treatise (3)

Independent examination of an issue relative to Kinesiology. Students complete a paper under the advisement of a faculty member in the department.

KINE 70970 - Special Problems in Kinesiology (1.00-20.00)

Prerequisite: Approval of adviser and course instructor.

KINE 70980 - Thesis (1.00-3.00)

Prerequisite: Admission to candidacy.

KINE 70990 - Thesis (1.00-3.00)

Thesis

MALA - Master of Liberal Arts

MALA 60013 - Picturing Authority and Royalty in Europe (3)

Prerequisites: Students must be enrolled in the MLA program. This course will examine how visual representations of authority both shaped and reflected the political and cultural climates of Europe during the sixteenth through nineteenth centuries. This investigation will familiarize students with the visual rhetoric of power and help them develop understandings of the ways in which images relate to identity construction and socially and culturally-specific notions of gender, power, and authority in a variety of time frames, historical contexts, and geographic locations. Throughout the semester, students will explore how those in power used images to create, maintain, and promote their authority and manage their public personas while exploring the relationships between visual representations, society, and culture. By discussing historical precedents, this course will also raise issues pertinent to current cultural ideologies and visual rhetoric.

MALA 60033 - Outbreak: Infectious Diseases and World History (3)

A broad, integrated view of infectious disease in humans within the context of society and history. Development of medical science and technology, effects of disease in society, and conduct and limitations of historical inquiry will be examined.

MALA 60043 - Mass Media and Society (3)

As the presidential election campaign gets into full swing, the role of the media will become increasingly important as news coverage, presidential debates, and election advertising bring this important issue to the public. Mass Media and Society will examine not only the presidential campaign, but also the impact of media on individuals, institutions, and community. Participants in this course will probe how and why the media developed the way it did, where the media is today, and where the media seems to be heading in the age of information. The class will explore the cultural context and norms of major media industries such as newspapers, magazines, books, radio, films, television, music recordings, public relations and advertising.

MALA 60053 - The Asian Enigma: Modern China and Japan (3)

An analysis of the civilization, culture and values of contemporary China and Japan with a view to explaining why each nation reacted so differently to Western impact and what each portends for America and the rest of the western world. The course stresses traditional Chinese and Japanese values, how they are manifested in everyday life as well as national and economic decision-making, and how these values are different from those held by most Americans.

MALA 60063 - Literature of the American Southwest (3)

The course will investigate the idea of a 'sense of place' by working toward a definition of the American Southwest. We will examine how authors evoke a distinctive sense of place by reading and discussing nonfiction books of travel (e.g., John Graves' Goodbye to a River or Richard Shelton's Going Back to Bisbee) and a range of fictional works representing several literary modes, ethnicity, and Southwestern perspectives.

MALA 60073 - The Impact of Computers on Society (3)

This is a non-technical introduction to what a computer is, how it functions, and how they are used in today's society. In addition to learning about the impact of computers, students will learn to use a browser to access the Internet.

MALA 60083 - Superheroes Across Global Contexts (3)

Prerequisites: Students must be enrolled in the MLA program. This course examines the phenomenon of superheroes across global contexts. Exploring the representation of superheroes helps students grasp their potential cultural function, how religious themes may factor in to those functions whereby to satisfy certain needs, and how those functions and needs may have changed across time.

MALA 60093 - The Literature of Survival: What Tales Teach Us about Living and Dying (3)

Students will read literature and watch films about survival of both everyday crises and life-threatening situations. They will write three papers on topics related to survival of such ordinary crises as divorce or job loss, survival in the outdoors, and the prospects of long-term survival of the human species. Students will examine factors, including personality traits, which either impede or enhance a person's ability to survive a variety of circumstances that put his or her confidence, sanity, or soul in jeopardy.

MALA 60103 - Artists at the Movies (3)

Prerequisites: Student must be admitted to the Master of Liberal Arts Program. This class examines social and cultural constructions of the artist and the art world. Through viewing film adaptations of artist's biographies and films depicting artists' lives and works, this class offers students the chance to explore art history, the genre of biography, the roles of the artist and art enthusiast in popular culture, and film theory. Throughout the semester, students will explore how authors draw from stereotypical and culturally-specific understandings of artists' roles when constructing their narratives. In addition, students will improve their ability to critique texts through closely looking at images, written texts, and film. By discussing historical precedents, this course also raises issues pertinent to current cultural ideologies, popular culture, and visual rhetoric.

MALA 60113 - Myths and Legends: North American Indian Thought (3)

Luther Standing Bear declares, The Indian by the very sense of duty should become his own historian giving his account of the race - fairer and fewer accounts of the wars and more of statecraft legends languages oratory and philosophical conceptions. This course is a survey of the legends and myths and the cultural-agricultural practices of the North American Indian tribes and nations with a focus on the nature of the self (person; tribe) the world (nature; cosmos) and their interrelationship(s). These concepts are discussed and comparisons with Western philosophy are made when appropriate.

MALA 60123 - Global Persuasive Campaigns, Their Influence and Impact (3)

Global communications have created an international community exposed to persuasive campaigns, some advertising and some informational. This course will examine the influence and impact of global persuasive campaigns through an analysis of the structure of the campaign process and the use of images to create familiarity and experience. The ultimate impact and influence of such campaigns is highly variable, depending on the media in which they appear and the cultural context in which they are interpreted.

MALA 60133 - The Sociology of Deviant Behavior (3)

What is deviance? From a sociological perspective, deviance is a matter of social definition, interpretation, and reaction. This seminar examines the story of deviance, a story involving the struggle between rule breakers and those who seek to define them as outside normative boundaries. The goal is to introduce students to substantive topics and scholarly work within the sociology of deviance while providing an opportunity for discussion and critique. Special emphasis will be placed on the interactional dynamics involved in defining and managing deviance and the development of deviant careers.

MALA 60143 - Economics of Contemporary Issues (3)

Basic concepts and tools used by economists and applications of those tools to analyze contemporary economic and social issues will be discussed. Included among the issues will be drug prohibition, tax reform, Social Security, the minimum wage, and environmental protection.

MALA 60153 - Culture and American Cinema (3)

An exploration of cinema as a form of American social expression. As cultural artifacts, films are produced in specific historical contexts by and for cultural groups. Films produced for American audiences reflect American values, myths, and behavior and thus constitute an important form of social expression. We will examine movie genres and directors from the 1930s through present day to see how Hollywood's images of America changed over time.

MALA 60163 - American Film Genres (3)

This course examines Hollywood genre films from a cultural perspective. Genres such as the western, the musical, the science fiction film, and the crime film change over time, both reflecting and affecting the cultural attitudes of filmmakers and audiences. This course may be taught as an overview of several genres or as a specific analysis of one particular genre.

MALA 60173 - The Sacred and the Short Story (3)

Prerequisites: Enrollment in the MLA program. Participants in this class will read, discuss, and then appraise how selected creative writers use the short fiction genre to probe as well as investigate issues of religious meaning and

spiritual significance - what we might call "models of the sacred." This course will emphasize the history theology and practices of various and global religious traditions. Particular attention will be paid to how women and men imagine myth ritual and sacred power in the context of personal and social concerns. Students will tackle topics such as the meaning and endurance of faith; the problem of evil and suffering; the search for identity and integrity; and several other themes.

MALA 60183 - After Dictatorship: Can Latin American Nations Achieve Democracy? (3)

The course challenges the facile assumption that because guerrilla wars have ended and the generals have turned power over to civilians, Latin America will necessarily go democratic." The course focuses on the peace processes in selected Latin American countries in order to explore the serious challenges that confront nations seeking to democratize when they are saddled with deep legacies of authoritarianism."

MALA 60193 - High Civilizations of the Americas: The Aztecs, the Incas, and the Maya (3)

An examination of the beginning, development, and decline of the three major aboriginal cultures of the Western Hemisphere. The total culture of each civilization will be explored including religious, social, economic, and military factors. Post-conquest developments will also be examined.

MALA 60213 - Contemporary Indigenous Literature of Mexico (3)

A study of literary works by outstanding, contemporary writers hailing from a variety of Mexican indigenous (Indian) ethnic groups: Nahuatl Zapoteco Yucatec Mayan Mazateco Tzeltal among others. The pre-Hispanic roots of this new literature will be examined as will recurring themes and other ancient motifs which persist in today's writers. Short stories poetry and drama will be studied within their specific ethnic contexts and also within a broader literary analytical framework. Recent English translations by Dr. Frischmann and his personal research experiences will make this course accessible to all MLA students.

MALA 60223 - Creative Writing: Advanced Fiction Writing (3)

As an advanced course in fiction writing, students will be expected to produce two full-length short stories of about 35-50 pages in length, or roughly the equivalent from a longer work. Shorter, more focused exercises on setting, plot, characterization, and theme will also be required. Additionally, students will also be required to read and respond to assigned readings and to each other's fiction. Since the class will be run as a workshop, supportive and constructive response to student writing is essential. This is a content-varies course and may be repeated once for credit.

MALA 60233 - Controversial Environmental Issues (3)

Our relationship with the Earth is changing at an unprecedented rate. The pace of change is accelerating not only from our advancing technology, but also from world population growth, economic growth, and increasingly frequent collisions between expanding human demands and the limits of the Earth's natural systems. It appears that catastrophe looms ahead unless major changes are made in a short period of time. Or does it? Fortunately, human beings are capable of changing their behavior and values, which are then reflected in changes in national and international priorities. Such changes happen when people are confronted with new information or new experiences. This is a discussion and debate style course. The objective is to introduce students to controversies in environmental policy and science. The readings, which represent the arguments of leading environmentalists, scientists, and policymakers, reflect a variety of viewpoints and have been selected for their liveliness and substance. They are organized topically around major areas of study within environmental studies, and include environmental ethics, water resources, energy, global climate change, and population.

MALA 60253 - King Arthur Meets Queen Victoria: Arthurian Literature in the Victorian Age (3)

An examination of the roots of current American interest in Arthurian legend in Queen Victoria reign. Students will read important literary works, including Alfred Lord Tennyson's *Idylls of the King*, William Morris's *Defense of Guinevere* and Mark Twain, *A Connecticut Yankee in King Arthur's Court*, and explore the historical and political conditions surrounding the 19th-century medieval revival. The course concludes with a screening of *Excalibur* (1981) and discussion of its indebtedness to the Victorian era.

MALA 60263 - The US Economy: Analysis and Outlook (3)

The study of economics involves the learning of abstract theories about the workings of the economic system and the study of various policy tools that may be used to guide the economy toward specified targets. The course will focus on the historical development of the theories developed to explain our major economic issues, on the controversies surrounding these theories, and

on the different policy conclusions that arise from different theories. The major economic issues on which the course will focus include inflation, unemployment, business cycles, economic growth and development, international trade deficits and surpluses, federal government budget deficits and surpluses, income distribution, and globalization.

MALA 60273 - Economic Policy and Its Impact: A Simulation Approach (3)

Computer simulation models will be used to learn important economic concepts and to analyze current economic problems. Students will assume the role of economic policymakers and as such will initiate policy changes and examine their effects on various aspects of the economy, such as the national output level, the inflation rate, the unemployment rate, and the distribution of income. No prior computer experience is necessary.

MALA 60283 - A World of Weather: Fundamentals of Meteorology (3)

Do you have a fascination with the Weather Channel? Are you interested in a non-mathematical treatment of the principles of meteorology and climatology? In this course, you will be introduced to the excitement of weather as it happens, by working current weather data delivered via the Internet. The course objectives are to develop a working understanding of general meteorological and climatological processes, develop an understanding of the spatial and temporal variability of these processes, and begin to understand how these factors influence the climate of a region. The course covers the composition and structure of the atmosphere, the flows of energy to, from, and through the atmosphere, and the resulting motions produced from small to planetary scales. The physical principles of atmospheric phenomena are stressed in the understanding of weather's impact on humans, particularly with severe weather, as well as climate change.

MALA 60303 - Seminar in Women's Health (3)

Explores holistic women's health in the contexts of history, culture, science. Examines the influence of race, gender, age, and class on women's embodied experiences and women's health. Reviews effect of oppression and influence of power and privilege on systems and processes. Analyzes the impact of social construction of gender on women as consumers and providers of health care. Reframes contemporary systems to challenge prevailing social values and actions; suggests alternative practices and research agendas. Promotes women's ownership and self-agency in naming misogyny, understanding health behaviors and selected problems; identifying choices in prevention and care. Introduces global considerations in women's health.

MALA 60313 - A New American Foreign Policy? (3)

What foreign policy issues are on the horizon for U.S. policy makers? What should our foreign policy be as we enter the post 9/11 era? How should that foreign policy be made, and by whom? The domestic political environment facing U.S. foreign policy makers changed first after the Vietnam War and then again after the September 11th attacks. With the demise of the Cold War, the external political environment changed as well. This course will examine the U.S. foreign policy on both the domestic and external levels. Domestically, the course addresses the various governmental and non-governmental actors who combine to produce foreign policy. Externally, it examines problems that revolve around specific issues (like terrorism and homeland security, the promotion of democracy, foreign trade, etc.) or around particular countries (Afghanistan, Iraq, Russia, China, Mexico, Cuba, etc.).

MALA 60323 - The New South, 1877 - Present (3)

In this course the political, social and economic factors in the New South are examined with attention given to comparative regional history. Particular emphasis will be placed on historical interpretations, showing both the professional and lay image of the South in today's society. The economic modernization of the South will also be a major theme of the course.

MALA 60333 - War Stories: A Study Through Literature and Film (3)

Prerequisites: Enrollment in the MLA program From Homer's *The Iliad* to Tim O'Brien's *The Things They Carry* to Ben Fountain's *Billy Lynn's Long Halftime Walk*, we learn about humankind at war. We read of glory and victory. We read of death and destruction. We also gain insight into the hearts and minds of those involved, from the military men and women who fight and the family members who love them to the people in the societies caught in the center of the conflict. We see the struggles they face, hopefully, learning about not only history and the harsh realities of wartime but also the human condition. Thus, this class will focus on war stories, from the ancient past to the very present, fiction and non-fiction, from epic poems, novels, and films to narratives from the soldiers themselves. As we read the war stories and watch them emerge on film, we will analyze the content and discuss the impact not just on those involved but all of humanity.

MALA 60343 - Black Lives/White Law in American Literature (3)

Prerequisites: Enrollment in the MLA program. This course will examine how American literature from the 1800s to the present has explored the racial divide between African Americans and white authority. We will achieve a broad historical and political perspective by reading a range of genres, including fiction, nonfiction, and poetry composed by black, white, and biracial authors, with the purpose of using the literary tradition as a lens through which we assess the contradictory nature of American democracy and the vulnerable position of African-Americans within it. Our discussion will address slavery, abolition, segregation and Jim Crow laws, police brutality, the white gaze white privilege, white guilt, cultural appropriation, racial passing, faith as propaganda, and the commonplace assumptions and fears about race, law enforcement, and national identity that have helped perpetuate the constraints of institutional racism in the United States.

MALA 60373 - The Social Psychology of Crime and Victimization (3)

This course introduces students to the central ideas in the field of social psychology and the significance of these ideas in providing explanations for criminal behavior and related phenomena. Additionally, classic social psychological theory and research are examined and utilized to understand offenders, victims and criminogenic environments. The course emphasizes the integration and application of course content to understand contemporary criminological issues such as the youth crime and violence, treating and controlling sex offenders, victim recovery and well-being, media influence on violence and aggression, and the nature of serial, mass, and family murder.

MALA 60403 - Global Geopolitics (3)

In a world subject to war, ethnic conflict, and economic disruption, to what extent does geography explain the unfolding of global events? How do access to waterways, the level of economic development, the blessings of natural defenses, and proximity to other nations determine the stance a country presents to the outside world? Geographer Dr. Jeffrey Roet will introduce geopolitical concepts that help explain conflict and change and show how geography is indeed the stage upon which history is set. He will reveal centuries-old patterns behind the dynamics of war, economic competition, and other current global concerns.

MALA 60423 - Modern Mexico: A Nation in Crisis (3)

The emergence of Mexico from colonial status to hemispheric leader and major force among third-world" countries. Considerable attention is devoted to the Revolution of 1910 and the ongoing revolutionary process it initiated. The role of the United States in the emergence of modern Mexico is discussed in detail. The course concludes with an extensive examination of Mexico's role as a major oil producer and the current financial and economic crisis with which the country is contending."

MALA 60443 - Contemporary Issues in Human Health (3)

From the human genome project and cloning to hormone replacement therapy and antibiotic resistance, new issues involving human health as science discovers more about the causes and treatment of human diseases increasingly confront us. Our ability to manage our health depends on our understanding and appreciation of the biological concepts underlying these issues. This course will examine some of these contemporary issues and the underlying biological concepts through readings from a variety of Web resources.

MALA 60483 - How the Civil War Was Lost: Problems in the Confederate High Command (3)

This course examines the issues and problems involved within the Confederate government in selecting and using generals and in developing and implementing national strategy during the Civil War. Topics include the personal role of Jefferson Davis, the influence of Robert E. Lee, the problematic service of Braxton Bragg, P.G.T. Beauregard, and Joseph E. Johnston, among others. We will also explore the controversies among Confederate leaders between offensive and defensive strategy and between Virginia the western theater of the war.

MALA 60533 - American Revolution: A Blessing or a Curse? (3)

Today's headlines report the failure of revolutions with their civil wars, ethnic massacres, and palace coups. What constitutes a successful revolution? What lessons are there in the American experience? General Washington's startling words in 1783 express his anxiety for the problems of American state-building and give the title to a course that will examine the origins of those problems in the protest to British imperialism, the War for Independence, and the post-war challenges leading to the creation of the federal structure under the Constitution.

MALA 60553 - Dilemmas in American Politics: Freedom, Order, Equality (3)

The class will examine the perennial dilemmas between Freedom, Order and Equality especially as they pertain to political ideology and public policy. To

understand the dilemmas, we will examine the basic structure of our government with special attention paid to the structural tensions that augment this dilemma. Next we will look at how the dilemmas surface in contemporary debate among liberals and conservatives and how the dilemmas impact the definition of policies in the United States. We will be discussing and debating a number of current issues that pit these three valued ideals against one another to better understand the positions presented by advocates on both sides of the policy debates and to illuminate our personal positions and views.

MALA 60573 - Aesthetics of Film, TV, Radio Production (3)

Understanding how media texts are created. The course provides a behind-the-scenes look at film, television, and radio, guiding students to a thorough understanding of the technological and stylistic options available to producers and directors. These options, in turn, form the palate from which directors and others construct mediated texts--the images, sounds, and dramatic tensions necessary for the successful execution of theatrical film, television, and radio. Examples will be taken from current film, television, and radio programming. Aimed at an educated consumer of the media, this course requires no previous experience in the media arts.

MALA 60593 - Light, Color, and Space (3)

Human beings receive over 80% of their information about the spatial environment through vision. The mechanism by which this visual environment is revealed to us is light. It is the quality of that light, in all of its manifestations, that has inspired mankind for thousands of years. Ranging from the philosophical statement I see which has more to do with the act of understanding than the process of seeing, to the psychological aspects of certain three dimensional visual illusions that work, based solely upon stored mental information on the location of our sun and the resultant cast shadows; light has both inspired and guided our relationships with the world that surrounds us. So strongly interwoven is this relationship that it passes for the commonplace. This course seeks to explore and clarify the inter-relationship between man and light. Individual/team investigations will concentrate on the use of light and color to create sophisticated themed environments. The TCU Center for Lighting Education will be used to support the actual demonstration of and investigations into the use of various types of electric lighting devised, ranging from simple track fixtures to computer controlled fixtures that can change color, lighting position, and pattern.

MALA 60613 - Literature and Film: The Art of Adaptation (3)

Time and again filmmakers turn to literature for inspiration; we have become accustomed to seeing favorite works of literature translated for the screen. This course will ask you to move past the initial reaction--Is the film better than the book or vice versa?--to analyze the methods used in adaptation. How does each medium establish characters develop mood and atmosphere communicate emotions and thoughts? Furthermore the course will examine how adaptations have been influenced by factors such as changing cultural attitudes and censorship.

MALA 60633 - The Role of Capital: Business Cycles, the StockMarket, Federal Funding, and Economic Development (3)

This course explains the factors affecting domestic economic growth, the business cycle, the stock market, social security financing, federal debt financing, and third world development. It does so by focusing on a common theme throughout: the role of capital (physical and financial). As an economics course, emphasis is on policy questions rather than investment or business planning.

MALA 60643 - Contemporary Economic Controversies (3)

Prerequisite: admitted into MLA program. The ignorance surrounding economic issues in our country is frightening. One regularly sees misstatements in the press regarding such important concepts as Social Security, the national debt and deficit, unemployment, the business cycle, the stock market, and inflation. The goal of this course is to explain these and other economic phenomena in clear terms that the non-economist can easily understand.

MALA 60653 - The People's Choice: American Presidents (3)

A history of the issues, conflicts and personalities in the development of the American presidency. An examination of twelve selected presidential administrations from George Washington to the modern presidency will be conducted.

MALA 60673 - The Jerusalem Jackpot: Understanding Israeli-Palestinian Conflicts (3)

The struggle for control of Jerusalem and surrounding territories has made violence between Jews and Arabs a recurring phenomenon since the 1920s. The 1948 creation of an independent Israeli state only exacerbated the violence. This course examines contemporary conflict issues between Israelis

and Palestinians against the context of a history of past conflicts. Focal points for the course are the underlying reasons for these conflicts, their conduct and resolutions to date, and the various efforts to promote a more lasting peace between Israelis and Palestinians.

MALA 60693 - The Satiric Vision: From Jonah to Doonesbury (3)
Study of the literary art of satire, including forms of satire, angles of satiric vision and examination of chief satirists' works and techniques.

MALA 60713 - The History of War (3)
In this survey we will seek to understand the influence of war in human history from ancient times to the present. This course will trace the causes and effects of war, the evolution of military technology, and the role played by leadership. To highlight these, we will discuss decisive military battles throughout history. Hopefully, by examining this process we will be able to understand ourselves and our world a little better.

MALA 60793 - Public Health: Current Biological Issues (3)
The course examines current biological issues in Public Health through lectures, readings, class discussion and debate. Issues such as vaccines, food safety, use of genetically modified plant crops, environmental toxins, bioterrorism and emerging diseases are examined.

MALA 60803 - Pax Americana: United States Foreign Relations in the Twentieth Century (3)
Now that the Cold War is over and the 20th century is coming to a close, how well did the United States fulfill its destiny of making the past hundred years the American Century" that so many Americans predicted in the 1890s? This course offers some perspectives as answers by tracing the development of a global American foreign policy from the period following the Spanish-American War until the end of the Cold War. It also examines the forces - both foreign and domestic - that influenced those policies as the United States tried to formulate new diplomacies to meet each of the ever changing challenges in world affairs of this most dynamic century."

MALA 60903 - British Humor from the Goons to the Young Ones (3)
British humor as exemplified in popular culture by Monty Python's Flying Circus has gained recent acceptance in U.S. but is actually based on a long tradition that has its roots in the special love of wit puns paradoxes humor is expressed according to cultural differences and values of class education or special interest. Students in the course will look at British Humor on radio TV and film and attempt to define its unique attributes.

MALA 60953 - Modern Astronomy: From the Origin of the Universe to Black Holes (3)
A non-mathematical introduction to recent developments in astronomy and astrophysics: how the Universe began and how will it end, the age of the cosmos, the origin of galaxies, the birth, life and death of stars; stellar and galactic black holes, millisecond pulsars, supernovae, comets, and quasars, and the worlds of the solar system. Questions to be pondered include: Where and what is the missing mass? Is there intelligent life elsewhere in the Universe? Are we in danger from a comet or meteor colliding with earth? Where and how did life originate? The latest discoveries by the Hubble Space Telescope, Cassini-Huygens, and other space missions are also discussed.

MALA 60970 - Special Problems (3)
Special problems in Liberal Arts.

MALA 61013 - Themes in Prehistory: Fossils, Dinosaurs and Humans (3)
Dinosaurs have held the public imagination for almost 200 years now. Beyond an intrinsic interest in animals that lived in an unimaginably distant time, dinosaurs and dinosaur paleontology figured greatly in the development of concepts of geologic time and biology from the Renaissance on and are still centered in the public's appreciation of 'science'. This course will take students through a tangled web of emergent concepts of time, organisms and 'public relations' through the last 300 years or so, focusing on the tangible and intangible impressions that dinosaurs have made on modern civilizations.

MALA 61023 - The Abortion Debate (3)
Abortion has been a highly controversial subject in American culture since the 1960's, and it will remain so for the foreseeable future. This course will examine this complex issue from various angles: medical, psychological, philosophical, legal, and religious.

MALA 61033 - Dilemmas in American Politics: Freedom, Order, Equality (3)
The class will examine the perennial dilemmas between Freedom, Order and Equality especially as they pertain to political ideology and public policy. To understand the dilemmas, we will examine the basic structure of our government with special attention paid to the structural tensions that

augment this dilemma. Next we will look at how the dilemmas surface in contemporary debate among liberals and conservatives and how the dilemmas impact the definition of policies in the United States. We will be discussing and debating a number of current issues that pit these three valued ideals against one another to better understand the positions presented by advocates on both sides of the policy debates and to illuminate our personal positions and views.

MALA 61043 - Chinese Foreign Policy (3)
This course will examine China's foreign relations from the founding of the People's Republic of China (PRC) in 1949 to the present. We will explore the theories and concepts involved in the study of foreign policy, followed by an in-depth examination of the domestic factors shaping China's foreign policy goals and implementation.

MALA 61053 - Parapsychology: Weighing the Evidence (3)
The field of parapsychology includes phenomenon such as telepathy, clairvoyance, psychokinesis, ghosts and hauntings, spirit communication, and near-death experiences. The claim by many parapsychologists is that these paranormal occurrences have been studied with rigorous research methods, and that there is considerable evidence to support their existence. This course will weigh the evidence for parapsychology by tracing the history of psychical research from the dawn of spiritualism to the present day use of the ganzfeld technique. We will discuss the careers of famous psychics as well as the contributions of many noted parapsychologists. The methods and results from parapsychological studies will be evaluated in the context of the approaches used by researchers in the natural sciences. This course will address the following important issues: are testimonials useful evidence to support the existence of these phenomena; do fraudulent claims preclude acceptance of the field; can parapsychological research findings be replicated; do probability and chance help explain paranormal events; how have magicians and skeptics affected the perception of parapsychology in the scientific community and the general public. The objective of this course is to present perspectives from both believers and "skeptics" such that in the end each student can make up his/her own mind as to the strength of the evidence.

MALA 61063 - Light, Color, and Space (3)
Human beings receive over 80% of their information about the spatial environment through vision. The mechanism by which this visual environment is revealed to us is light. It is the quality of that light, in all of its manifestations, that has inspired mankind for thousands of years. Ranging from the philosophical statement I see which has more to do with the act of understanding than the process of seeing, to the psychological aspects of certain three dimensional visual illusions that work, based solely upon stored mental information on the location of our sun and the resultant cast shadows; light has both inspired and guided our relationships with the world that surrounds us. So strongly interwoven is this relationship that it passes for the commonplace. This course seeks to explore and clarify the inter-relationship between man and light. Individual/team investigations will concentrate on the use of light and color to create sophisticated themed environments. The TCU Center for Lighting Education will be used to support the actual demonstration of and investigations into the use of various types of electric lighting devised, ranging from simple track fixtures to computer controlled fixtures that can change color, lighting position, and pattern.

MALA 61073 - The Supreme Court's Greatest Hits (3)
The Supreme Court's Greatest Hits is an online course featuring student/professor analyses of selections from the most important decisions of the United States Supreme Court in the last fifty years. The topics to be covered during the term include: 1) Freedom of expression 2) Freedom of religion 3) Reproductive Freedom 4) Discrimination based on gender 5) Discrimination based on sexual orientation 6) Pornography and the legal test for obscenity and 7) Highlights from the criminal justice system. Student discussion leaders will be assigned to lead threaded discussions for each of the cases we study.

MALA 61083 - The Wild West (3)
Was the west wild? When? To whom? Who tamed it? This course will wrestle these and other questions by surveying the history of the trans-Mississippi West from contact to the present (possibly into the future) and considering the significance, or insignificance, of frontiers in American History. Students will read a textbook and analyze the West through extensive use of web sites and popular cultural artifacts.

MALA 61093 - Profiles in Courage: Cinematic Studies of Greatness (3)
This MALA course capitalizes on great films to investigate the lives of people who achieve greatness. Films such as Amadeus, Braveheart, Glory, Lawrence of Arabia, Patton, and Schindler's List are used as laboratories for studying the principles of greatness as played out in the lives of heroes, creators,

commanders, and statesmen. Although the domains of greatness vary, from music to politics to the battlefield, many of the essential ingredients are the same. Chief among these is courage, which Ernest Hemingway defined as grace under pressure. (Note: Students enrolled in this eCollege course must have access to a video source either a library or a video outlet such as Blockbuster.)

MALA 61103 - Psychology of Sex, Violence and Aggression (3)

Teaches students how to think critically about psychological research on sex, violence, and aggression. The course goal is to educate intelligent consumers of media information and misinformation, teaching them to separate scientifically valid from invalid claims that such factors as genetics, biochemistry, socialization practices, sex differences, ambient temperature, alcohol, television, movies, and video games affect interpersonal violence and aggression.

MALA 61113 - American Stages: A History of Theatre in the United States (3)

The United States has a rich theatrical and dramatic heritage often hidden in the shadow of our colonial connection to England and dismissed by the Puritan ideology and ethics that formed the basis of our government. This web-based course shall explore that rich heritage through an in-depth look at the people, historical situations and the drama literature that reflected the growth of this country from our colonial beginning to its maturity as a world leader in the 20th century.

MALA 61123 - Global Persuasive Campaigns, Their Influence and Impact (3)

Global communications have created an international community exposed to persuasive campaigns, some advertising and some informational. This course will examine the influence and impact of global persuasive campaigns through an analysis of the structure of the campaign process and the use of images to create familiarity and experience. The ultimate impact and influence of such campaigns is highly variable, depending on the media in which they appear and the cultural context in which they are interpreted.

MALA 61133 - Aspects and Issues: Health Care Delivery (3)

The course examines the various aspects of health care delivery in the United States and other countries. The course will provide the student with a critical analysis and overview of health care delivery focusing on factors impacting its access, quality and cost.

MALA 61143 - Mass Media and Society (3)

As the presidential election campaign gets into full swing, the role of the media will become increasingly important as news coverage, presidential debates, and election advertising bring this important issue to the public. Mass Media and Society will examine not only the presidential campaign, but also the impact of media on individuals, institutions, and community. Participants in this course will probe how and why the media developed the way it did, where the media is today, and where the media seems to be heading in the age of information. The class will explore the cultural context and norms of major media industries such as newspapers, magazines, books, radio, films, television, music recordings, public relations and advertising.

MALA 61153 - Texas Political Leadership: Case Studies from the 20th Century (3)

During the 20th Century and now into the 21st, Texas provided a large share of national leadership in the United States and had some groundbreaking participants in the political change of that century. In this class, we will examine ten of those political figures, including the five chamber leaders of the House from Texas (Speakers Garner, Rayburn, and Wright and Majority Leaders Arney and DeLay), the three presidents from Texas (Johnson, Bush, and Bush) and the two Supreme Court associations (Associate Justice Tom Clark and prospective Justice, as of this writing, Harriet Miers). We will also examine the politics of the 1960's and early 70's as Texas made the transition from a one party Democratic state to a Republican dominated state. The focus will be on techniques of political leadership and how they changed over the course of the 20th Century and into the 21st.

MALA 61163 - Ethnicity and Language (3)

Prerequisites: Enrollment in the MLA program. 'Sticks and stones may break my bones but words will never hurt me.' Words do hurt as we full know because language is neither innocuous nor value neutral, especially in the process of constructing identities. Language's form as stereotype constructs and relects the representations of others. Its discourse of difference and humiliation as an ethno-typing strategy presumes superiority of one ethnic group (e.g. Israel and Euro-American) over another. And these stereotypes proliferate throughout culture and time via diverse media, including the Bible, itself a cultural artifact. Probing the seams of the representation strategy of stereotyping in its diverse media, however, reveals the identity of 'self' reflected within 'other' while simultaneously ascribing a voice often left

silenced to the 'other' in its own identity construction. This course explores the representation process through stereotyping by means of paired ethnic groups, past (e.g. Edomites, Moabites, Ammonites, and Samaritans) and present (e.g. Native, Latina/o, Asian, and African Americans).

MALA 61173 - Troubled Neighbors: US and Latin America (3)

This course focuses on the imbalance of power that has existed historically between the United States and Latin America and the hemispheric problems that have resulted from that imbalance. From the Monroe Doctrine in 1823 to the military intervention in Haiti in 1994, the United States has asserted a leadership role in the hemisphere, often with little understanding of the impact its actions had on the less-powerful nations of Latin America. Most of the course is devoted to the 20th Century, and major issues are examined from both the U.S. and Latin American perspectives.

MALA 61183 - Red, White and Green: United States Environmental History (3)

This course will examine American history from the perspective of the complex relationships between humans and their environment from pre-literate times through the 21st century. Geographically, the course will be bounded by the limits of the present United States. During the term, we will address the following questions: How did the environment shape American history and influence various American societies? How have conceptions of the environment changed? Do humans interact with the environment any differently now than they did 600 years ago? How have environmental concerns shaped politics and political movements?

MALA 61193 - Health Care and the Quality of Life (3)

The course will examine the state of health care in the United States and explore how quality is defined in light of it. A brief overview of the structure and processes of health care delivery will be presented followed by a review of the various methods for defining and establishing quality in health care in our society. The role and influence of health care providers (medical and insurance companies) on individual choices will also be examined. Specific issues facing society related to health care decision-making will be reviewed and then related to how and who interprets the concept quality.

MALA 61203 - Romantic Attractions and Close Relationships (3)

Teaches students how to think critically about psychological research on romantic attraction and close relationships. The course goal is to educate intelligent consumers of media information and misinformation, teaching them to separate scientifically valid from invalid claims about the causes and consequences of initial romantic attraction, deepening close relationships, sex differences, problems that occur within close relationships, and effective versus ineffective strategies for resolving conflicts in close relationships.

MALA 61213 - Novel Writing 101:Form, Theory, and Practice of the Novel (3)

This course is for students who have wanted to write a novel for a long time (or who have recently come up with an idea for a novel) and who want to stop dreaming about it and start writing. Students who take this course will compose three chapters (15-20 pages each) of a first novel and do a detailed outline of the remaining chapters. Students will read selected work about creative writing, particularly about novel writing, including Ann Lamott's *Bird by Bird*:Some Instructions on Writing and Life, John Rember's *MFA in a Box*, and John Gardner's *On Becoming a Novelist*.

MALA 61233 - Controversial Environmental Issues (3)

Our relationship with the Earth is changing at an unprecedented rate. The pace of change is accelerating not only from our advancing technology, but also from world population growth, economic growth, and increasingly frequent collisions between expanding human demands and the limits of the Earth's natural systems. It appears that catastrophe looms ahead unless major changes are made in a short period of time. Or does it? Fortunately, human beings are capable of changing their behavior and values, which are then reflected in changes in national and international priorities. Such changes happen when people are confronted with new information or new experiences. This is a discussion and debate style course. The objective is to introduce students to controversies in environmental policy and science. The readings, which represent the arguments of leading environmentalists, scientists, and policymakers, reflect a variety of viewpoints and have been selected for their liveliness and substance. They are organized topically around major areas of study within environmental studies, and include environmental ethics, water resources, energy, global climate change, and population.

MALA 61243 - Ecological Principles of the Earth (3)

This course will explore many aspects of the ecology of the earth. Ecology is the study of the interaction of organisms with their environment. The environment includes both physical (global air patterns, soils, etc.) and biotic (competition, predation, etc.) parameters. Specifically, the course will

explore the paleohistory of the earth, biomes of the world, the physical forces of today's biosphere, the dynamics of natural communities and populations, and the global effects of man's presence on planet earth.

MALA 61253 - Creative Writing: Advanced Fiction Writing (3)

As an advanced course in fiction writing, students will be expected to produce two full-length short stories of about 35-50 pages in length, or roughly the equivalent from a longer work. Shorter, more focused exercises on setting, plot, characterization, and theme will also be required. Additionally, students will also be required to read and respond to assigned readings and to each other's fiction. Since the class will be run as a workshop, supportive and constructive response to student writing is essential. This is a content-varies course and may be repeated once for credit.

MALA 61263 - The US Economy: Analysis and Outlook (3)

The study of economics involves the learning of abstract theories about the workings of the economic system and the study of various policy tools that may be used to guide the economy toward specified targets. The course will focus on the historical development of the theories developed to explain our major economic issues, on the controversies surrounding these theories, and on the different policy conclusions that arise from different theories. The major economic issues on which the course will focus include inflation, unemployment, business cycles, economic growth and development, international trade deficits and surpluses, federal government budget deficits and surpluses, income distribution, and globalization.

MALA 61273 - Ethics, Mental Health & Society (3)

Contemporary approaches to the study of mental health emphasize disorders of the brain as the source for abnormal thinking and behavior. This course examines the ethical considerations inherent in this approach as it applies to the development of new treatments. The major objectives of the course include: an understanding of the journey from basic to clinical research; a familiarity with the ethical issues surrounding animal and human clinical research; the challenges that come with industry-sponsored research; and the ethical concerns with proposed treatments for psychological disorders in the future that may include cloning, gene-therapy, and stem cell research.

MALA 61283 - A World of Weather: Fundamentals of Meteorology (3)

Do you have a fascination with the Weather Channel? Are you interested in a non-mathematical treatment of the principles of meteorology and climatology? In this course, you will be introduced to the excitement of weather as it happens, by working current weather data delivered via the Internet. The course objectives are to develop a working understanding of general meteorological and climatological processes, develop an understanding of the spatial and temporal variability of these processes, and begin to understand how these factors influence the climate of a region. The course covers the composition and structure of the atmosphere, the flows of energy to, from, and through the atmosphere, and the resulting motions produced from small to planetary scales. The physical principles of atmospheric phenomena are stressed in the understanding of weather's impact on humans, particularly with severe weather, as well as climate change.

MALA 61293 - Leadership: An Historical and Literary Study (3)

This course examines a broad spectrum of leadership issues through the study of historical and literary (both fictional and non-fictional) leaders in a wide variety of societies and historical eras. The study uses movies to provide multiple contexts in which to understand and apply academic leadership theories. By doing so, the course challenges the student to view leadership from multiple perspectives (theoretical, as well as contextual.) Be aware that this is a totally on-line course, but it is NOT self-paced. Each week, there are activities that must be completed by specific due dates. Students are required to choose their preferred method of accessing movie (e.g., Netflix, Amazon, iTunes, etc.) The TCUGlobal site does not provide access to the movies. Students are advised to make plans, early in the semester, for access to the required movies to ensure they have access when the required movie is scheduled.

MALA 61303 - Vietnam in War and Revolution (3)

This course examines the causes and consequences of war and revolution in 20th century Vietnam. Concentrating on major events such as the Vietnamese anti-colonial movement, the 1945 August Revolution, Ho Chi Minh and Vietnamese Communism, the Franco-Viet Minh War, the roots of the U.S. involvement and the American War in Vietnam, students explore modern Vietnamese history from a variety of perspectives: Vietnamese, American, French, and Chinese. Course requirements include assigned readings, book and film critiques, a webliographic essay, and participation in threaded discussion.

MALA 61323 - The New South, 1877 - Present (3)

In this course the political, social and economic factors in the New South are examined with attention given to comparative regional history. Particular emphasis will be placed on historical interpretations, showing both the professional and lay image of the South in today's society. The economic modernization of the South will also be a major theme of the course.

MALA 61333 - Terrorism at Home and Abroad (3)

This course introduces the graduate students to the practices of terrorism--international and domestic--along with the history and motivations behind it. Particularly, the course will provide insight into terrorism from a historical, geographical, cultural, and ideological basis. Strategies to combat terrorism will also be explored. After completing this course, students will not only be familiar with a variety of terror groups and terrorist acts that have made the news, but will also have a deeper understanding of the hostilities and conflicts which give birth to terrorism around the world and at home.

MALA 61373 - The Social Psychology of Crime and Victimization (3)

This course introduces students to the central ideas in the field of social psychology and the significance of these ideas in providing explanations for criminal behavior and related phenomena. Additionally, classic social psychological theory and research are examined and utilized to understand offenders, victims and criminogenic environments. The course emphasizes the integration and application of course content to understand contemporary criminological issues such as the youth crime and violence, treating and controlling sex offenders, victim recovery and well-being, media influence on violence and aggression, and the nature of serial, mass, and family murder.

MALA 61383 - The Politics of Emergency Management (3)

This course will introduce students to the impact of natural and man-made disasters on society, as well as the principles and practices of modern emergency management efforts in the United States. This includes efforts in planning for disasters, mitigating disasters, responding to them, and recovering from them. An emphasis is placed on the role that FEMA and the Department of Homeland Security play in the process.

MALA 61393 - The Literature of Survival: What Tales Teach Us about Living and Dying (3)

Students will read literature and watch films about survival of both everyday crises and life-threatening situations. They will write three papers on topics related to survival of such ordinary crises as divorce or job loss, survival in the outdoors, and the prospects of long-term survival of the human species. Students will examine factors, including personality traits, which either impede or enhance a person's ability to survive a variety of circumstances that put his or her confidence, sanity, or soul in jeopardy.

MALA 61423 - Modern Mexico: A Nation in Crisis (3)

The emergence of Mexico from colonial status to hemispheric leader and major force among third-world" countries. Considerable attention is devoted to the Revolution of 1910 and the ongoing revolutionary process it initiated. The role of the United States in the emergence of modern Mexico is discussed in detail. The course concludes with an extensive examination of Mexico's role as a major oil producer and the current financial and economic crisis with which the country is contending."

MALA 61523 - Importance of Plants in Our World (3)

Aspects of plants that make them useful to people from an economic and social perspective. The structure, chemistry, genetics and ecology of plants are examined. Products derived from flowers, seeds, fruits, stems, leaves and roots are analyzed in light of past, present and future needs of the world community.

MALA 61533 - American Revolution: A Blessing or a Curse? (3)

Today's headlines report the failure of revolutions with their civil wars, ethnic massacres, and palace coups. What constitutes a successful revolution? What lessons are there in the American experience? General Washington's startling words in 1783 express his anxiety for the problems of American state-building and give the title to a course that will examine the origins of those problems in the protest to British imperialism, the War for Independence, and the post-war challenges leading to the creation of the federal structure under the Constitution.

MALA 70013 - Men, Women and Society: A New Definition of Roles (3)

An examination of new ideas, data and theories to interpret changing roles of men and women in contemporary society.

MALA 70063 - Light and Human Health (3)

This course examines the relationship between light and human health. Topics will include: the aging visual system, light and the circadian system,

yellow jaundice, vitamin D deficiency. A specific focus of the course will be hands on" experiences of light as it is used for human health."

MALA 70073 - Energy Resources, Alternatives, and Environmental Issues (3)

A study of the distribution of the world's energy resources and a look at alternative sources of energy such as wind, tides, geothermal, synfuels, solar and nuclear power. Environmental issues including air and water pollution, solid waste, pesticides, toxic substances, etc., will be addressed as will new techniques for finding and evaluating earth resources utilizing satellite data and the internet.

MALA 70113 - Native Peoples of the American Southwest (3)

An overview of the Native Americans of the region from pre-contact times to the present. Relations and differences among native groups are emphasized as well as interactions with non-Indian groups. Efforts to whiten" the native population ranging from Spanish missionary activities in the 16th century to the federal government's "termination policy" in the 1950s are analyzed."

MALA 70133 - Contemporary Mexican Novels and Their Film Versions (3)

This course examines three contemporary Mexican novels--The Old Gringo (1985), Like Water for Chocolate (1989), and Esperanza's Box of Saints (Santitos) (1999) and the film version of each book. We will discuss how the works treat crossing borders, and how society is presented differently in the two mediums--novel and film. Each work also studies the similarities and differences of the two countries (cultures) that seem destined to coexist, according to Alan Riding, as distant neighbors."

MALA 70183 - Mass Media and Perceptions of Reality (3)

The complexity of our society makes it necessary for us to draw what we know, or think we know, from information about events, trends, and even people from the mass media. Yet few people are trained as consumers of information produced by the media. This course examines the various perceptions of reality that the mass media create, exploring some of the reasons why these perceptions occur.

MALA 70233 - Rise of American Business (3)

The evolution of the American business system is examined with emphasis on four basic themes: the impact of technological and managerial change, the interaction between business and society, the position of the businessman and businesswoman in society, and the constantly-changing relationships between business and government. Special attention is devoted to the contemporary business scene.

MALA 70253 - War To Peace: Political Change in Cuba and Central America in the 1990s (3)

An examination of the dramatic but low profile political transition taking place in countries that only recently were torn by revolution and by counterinsurgency wars. The original causes of those revolutions, including the Cold War ideological divisions that formed the international environment in which they took place will be discussed. We will examine the tentative, fragile steps that are presently being taken to overcome the authoritarian and violent political legacies of the past and to build a more inclusive, democratic political future.

MALA 70373 - Modern American Society: Global Power since World War II (3)

This period course in American history reviews major political economic social cultural and diplomatic events: World War II the Truman administration and post-war America the Eisenhower administration and the consensus of the 1950s the Kennedy administration Lyndon Johnson and the Great Society the civil rights movement the Republican ascendancy and the rise of southern power.

MALA 70393 - Religion and Violence (3)

This course explores the highly ambiguous relationship between religion and violence. It provides an overview of situations in the world today that are examples of this ambiguous relationship. Ethical teachings regarding violence in Judaism, Christianity, and Islam are examined. Students are exposed to authors who seek to comprehend violent behavior using explanatory theories. Responses to 9/11/2001 written by a Jew, a Christian, and a Muslim are encountered. The goal is to allow students in the course to develop an understanding of various dimensions (ethical, social, psychological, political, and theological) of the relationship between religion and violence.

MALA 70453 - Religious Cults, Sects, and Millennialism (3)

This course provides cross-cultural perspectives on the rise, growth, decline, and societal impacts of a variety of historical and modern religious movements. Class discussions, readings, and audiovisuals focus on selected cases of religious movement in various regions of the world. Topics include

the roles of movement prophets, movements' processes of resocialization, and how cults and sects relate to broader struggles over meaning and social identity. The student will gain critical insights into five major areas of inquiry into religious movements: 1) Conditions that lead to the rise of new religions, 2) how beliefs in end-of-the-world" (millennialist) scenarios evolve 3) dynamics of recruitment and conversion 4) daily life inside religious movements and 5) problems of doing research in the absolutist sectarian setting."

MALA 70473 - Sinatra and Popular Culture (3)

This course focuses on the cultural importance of Frank Sinatra, one of the most influential figures in 20th century entertainment. The course examines the Sinatra of recorded music, radio, Hollywood movies, and Las Vegas, politics, and organized crime. Through music, movies, and documentaries, the course explores the changing cultural landscape in the US from the 1930s through the 1980s.

MALA 70493 - Do the Right Thing: Ethics in International Politics (3)

The course examines the central question in international politics: What is the 'right' course of action in a given situation? Thus it considers various approaches to the study of ethics and morality as well as the ends pursued, the means used, and the importance of the decision-making strategies employed by policy makers.

MALA 70543 - Fossils and Man: The Impact of the Fossil Record (3)

Students will become acquainted with the impact that fossils and paleontology have had on the history of the earth. It was the fact that fossils were finally accepted as a record of ancient life that began to change the way that 17th century naturalists looked at the world. The fundamental notions of change and evolution of natural systems has forever affected man's view of the world and fossils, which, in particular, document worlds before man. The history of interpretation of fossils in the argument for evolution and the use of fossils in modern biology and geology will be examined.

MALA 70583 - Understanding Laughter: Humor in Theory and Practice (3)

Students who take this course will explore not only the theories that purport to explain why people laugh but also a number of practical, social, rhetorical, and psychological uses for wit and humor. The work of the course will revolve around readings of works about humor, analyzing works of humor, and writing essays related to this topic, including one essay in which students attempt to write humorously and then, using several theories of humor, analyze to what extent they have succeeded or failed.

MALA 70613 - History Through Literature and Film: Latin America (3)

This course covers both colonial and national periods of Latin American history through a combination of historical readings, fiction, and full-length feature films and videos. It aims at providing an overview of the past from the late fifteenth century to the recent present. Important institutions, processes, and themes will be studied. Students are presumed to have little or no knowledge of Latin American history and knowledge of the Spanish language is not required. Students will read both primary and secondary accounts of the events covered in the films and will be asked to assess the films in light of historical facts and interpretation and poetic license.

MALA 70653 - The Second World War: Its Impact on the Contemporary World (3)

A focus on the impact of World War II as the seminal event of the 20th century that gave rise to or influenced most major contemporary global issues. By examining the war in a broader perspective, issues such as the East-West balance of power, the end of traditional imperialism, the upheavals in the third world, and the proliferation of technology, the effect of the war 50 years later can be better understood and interpreted.

MALA 70673 - American Cinema: Film Noir and the Detective Film (3)

This course examines the cultural, narrative and critical impact of literary and cinematic forms of Film Noir and the Detective Film in the United States. The course introduces the student to the technical and aesthetic processes used in developing the style and form found in the American Cinema since 1941.

MALA 70683 - The American Recording Industry: Technology and Cultural Impact (3)

This course explores how the American popular music and recording industries and American popular culture have intersected in the years since the invention of audio recording and the impact of recorded music on the culture.

MALA 70693 - Creative Writing:Life Writing (3)

Students who take this course will write three full-length pieces (8-12 pages each) of creative nonfiction based on incidents that have occurred in their

lives. Students will read selected works of creative nonfiction and from three textbooks on writing (Ann Lamott's *Bird by Bird: Some Instructions on Writing and Life*, Phillip Lopate's *The Art of the Personal Essay*, and Mary Catherine Bateson's *Composing a Life*.) The work of the course will revolve around writing the three pieces, reading and responding to fellow students' pieces online, and analyzing reading assignments from the textbooks.

MALA 70703 - American Music and Culture: From Jazz to Tin Pan Alley (3)

A study of the historical evolution of jazz styles in the United States from the 1890s through the contemporary scene, including American popular music Tin Pan Alley, protest music, and motion picture/television music. Included is an examination of the correlation of musical styles and cultural changes in America.

MALA 70713 - Physical Fitness as a Lifestyle (3)

The physiological changes that take place in the body as a result of acute and chronic exercise. Specifically, the concepts of physical fitness, conditioning programs, wellness, body composition, nutrition, risk factor reduction and the influence of exercise on disease and aging are investigated.

MALA 70733 - Science, Scientists and Society (3)

Science, Scientists and Society is a cross-disciplinary course in the natural sciences. It will acquaint you with the workings of science and scientists by examining recurring themes and selected episodes of science. We will consider the nature of the scientific enterprise and how science differs from or is similar to other areas of human endeavor, such as art, religion, philosophy, economics, etc. After taking this course you will have a better understanding of science and how it works and of the complex relationship between science and the intellectual, cultural and social milieu in which it is practiced. You will learn the nature of scientific explanation and the limits of scientific understanding.

MALA 70743 - Creative Writing: Advanced Poetry Writing (3)

This is an advanced poetry workshop that focuses primarily on the students' own work. Special attention is paid to invention, point-of-view, voice, form, metaphor, and dramatic development. In addition, students will read and discuss historical and contemporary poetry. This a content-varies course and may be repeated once for credit.

MALA 70753 - Poetry and Contemporary American Culture (3)

This course focuses on the major developments in American poetry from 1945 to the present to address these central questions: How well does poetry address the needs, concerns, and anxieties of contemporary American culture? Have international crises, domestic political and cultural shifts, and the proliferation of electronic media rendered poetry obsolete, or does poetry still hold particular promise in terms of its ability to shore crumbling values or, better, to envision a new ethics, one more responsive to the complexity of our times?

MALA 70763 - Geopolitics and World Communications (3)

The study of global communications in the context of world politics. Overview of world mass media characteristics, impact of British colonialism, role of the United Nations, the New World Information Order, ownership of communication technology, issues in monopoly of knowledge, analysis of information flow and world economy and role of image-makers.

MALA 70773 - History of Media Sex and Violence (3)

This course examines the history of sex and violence in film and on television. topics that may be covered include efforts to regulate or restrict film and television program content, how formerly taboo topics relating to sex and violence have been presented in film or on television, how media companies attempt to profit by presenting sex and violence in film and on television, what the manner in which sex and violence are presented in film and on television tell us about the society of the time, and how the First Amendment limits government regulation of film and television content.

MALA 70783 - History of Television and Television Programming (3)

Prerequisites: Open to MLA students only. An intensive overview of the history of television and related electronic media from the 1920s to the present. Topics include the rise of the network system, programming, rating and audience research, regulation, and the evolution of television technology. Viewing of significant programming in television history.

MALA 70813 - The Cold War at Home and Abroad (3)

From the end of the Second World War in 1945 until the collapse of the Soviet Union forty-five years later, the Cold War dominated the domestic and foreign affairs of the United States. This course examines the origins of the Cold War and some of the consequences, including the development and application of the containment policy, McCarthyism, the wars in Korea and Vietnam, various other interventions, the debates over diplomatic issues, and

the various strategies employed by different presidential administrations. Students will have a chance to do some reading on these subjects and to discuss them. Also they will view episodes from CNN's production, *The Cold War*". The requirements consist of short weekly papers based on the readings and also a kind of term project a five-seven page critique of John Lewis Gaddis' book *We Now Know*. The others readings are T.G. Paterson and J.G. Clifford *America Ascendant: U.S. Foreign Relations since 1939* and R.J. McMahon and T.G. Paterson *The Origins of the Cold War* 4th ed.

MALA 70843 - The Ethics of Communication (3)

An examination of contrasting models and standards of communication ethics. Students apply these perspectives to specific situations involving freedom of expression, political campaigns, interpersonal communication, advertising and writing.

MALA 70853 - Creative Writing: The Manuscript (3)

This is a reading and writing intensive class; a willingness to work hard and think creatively and critically about writing is necessary. The class is concerned with the revision and arrangement of writing (Creative Non-Fiction, Fiction, or Poetry) into a final manuscript. The class emphasizes workshopping student writing with this concern in mind and includes the study of contemporary writing selections.

MALA 70863 - Creative Writing: Advanced Creative Nonfiction (3)

Advanced Creative Nonfiction is a craft/workshop course. This class is intended for writers who have a committed interest in creative writing and are comfortable writing longer works of prose. This workshop will explore the range of narrative possibilities available under the umbrella term "Creative nonfiction." We'll be looking at questions of structure and technique in a number of subgenres including the personal essay literary journalism travel writing science writing and memoir. "Workshop" implies that the products of our minds as well as the writing process are our chief concerns - concerns that will encourage a persistent questioning of everyday assumptions about creative-non-fiction meaning structure form voice one etc. Student work will be discussed in both workshops and conferences. In class we will do thought and writing experiments share work and discuss problems and possibilities of the imagination and creative writing. At the semester's end students will turn in a portfolio with several polished pieces.

MALA 70873 - Garage Sale History (3)

The course explores 20th century American culture through examining the ordinary objects of our lives, from A-1 Sauce to Zippo lighters, studying how, when, and why ordinary objects rise from the culture and in turn, give shape and character to both culture and personal identity.

MALA 70903 - Preparing for the Challenges of the Twenty-first Century (3)

This course presents an analysis of political, economic, and cultural dimensions of globalization. The emergence of an increasingly interconnected global economy marked by increasing economic integration and creation of a borderless world has posed new challenges for global governance and the autonomy of nation states. Hence another dimension of our nuanced world is that the manifestations of new primordial loyalties and cultural and identity anxieties threaten to tear the world apart. At no other juncture in modern history was the world so connected yet so divided by strife and conflict. The emergence of global problems such as environmental degradation spread of infectious diseases such as AIDS the lingering problem of global hunger and genocide are among the pressing issues of the new century. These developments would have an indelible impact on the emerging society of the 21st century. This course is designed to provide a forum for analysis and discussion of these issues. While the attempt is to dissect these issues primarily on their own terms we would also discuss the challenges they pose to the United States and the global community.

MALA 70923 - Islam and Politics in the Middle East (3)

Since there is no separation between state and church in Islam, no study of politics in the Muslim World is complete without analyzing the pervasive role of Islam in cultural and political life. The course, however, does not concentrate on Islamic theology; rather, the focus is on politics of Islam and how it molds political discourse and agenda. After the study of origins and historical development of Islamic political theory, the focus would shift to explaining the use of post-World War II Islamic revival. In this connection, the rise of Islamic militancy, the discourse of the Jihadi movement the challenges before US foreign policy and global community and the problematics of democratization in the Muslim world and the prospects for Islamic governments are discussed.

MALA 70933 - Food and Philosophy (3)

Philosophical examinations of moral, aesthetic, ontological, and epistemological issues concerning food are topics studied and discussed in this course. Such issues as vegetarianism: ethical issues regarding food

additives, food politics and feminism; food as art; food as a metaphor of life; cultures (e.g., Mayan and Japanese) characterized by their cuisine; and recipes as a model of justified rational procedures are covered during the semester. One of the key concepts developed to handle these issues effectively is foodmaking as a thoughtful practice, where practice" is understood by the American pragmatists Peirce and Dewey.

MALA 70943 - Ancient Mysteries: Real and Imagined (3)

In addition to providing an overview of Ancient Mediterranean and Near Eastern History from the Paleolithic age to the fall of Rome, this course explores in some detail various controversial topics that have generated popular interest and often engendered misinformation. These topics are analyzed in a scholarly manner in order to solve the mystery" or expose common mis-perceptions and pseudo-scholarship. Typical topics include the following: the fall of Rome the historical Jesus other Biblical topics the pyramids the Neanderthal problem and the search for the Trojan War.

MALA 70953 - Mayan Ritual and Drama: Pre-Hispanic Times to the Present (3)

This course will examine the frequently intertwined traditions of ritual and drama among Mayan peoples of Southern Mexico and Central America, from pre-Hispanic times to the present. The course will combine a historical perspective beginning with pre-Columbian documents and Spanish colonial chronicles. Twentieth-century manifestations will be particularly highlighted, based on the instructor's first-hand research; special emphasis will be given to the work of performance groups based in Yucatan and Chiapas, Mexico. Extensive video material will complement textual analyses.

MALA 70963 - Of Virgins and Goddesses, from Mesoamerica to Modern Mexico (3)

Students will develop a better understanding of contemporary culture and society in Mexico and Latin America by examining belief systems from pre-history to pre-Hispanic Mesoamerica, especially regarding female deities, and their modern-day counterpart, the Virgin of Guadalupe. At the end of the course, students will be familiar with recent archaeological research and scholarship and will be able to identify anthropological similarities among mythic-symbolic female images of pre-history from the around the world and understand the pivotal and primal role of the feminine in belief systems of all ancient cultures and their impact on modern traditions, including Mexico's.

MALA 70973 - Law and Society (3)

This course examines the relationship between legal institutions and social processes. Course readings and discussion will focus on the social and political nature of law; the creation and organization of law in modern societies; social functions of law, the limits of law as an instrument of social change; the legislation of morality; democracy, individualism and law; criminal behavior and individual rights; and the use of scientific information in law.

MALA 70983 - Indigenous People of the Andes (3)

A study of the indigenous inhabitants of the Andes, especially Peru and Bolivia, through archaeological and ethnographic data. Focus is on the development of agriculture and early population centers, particularly the Incas. The course ends with a study of contemporary Quechua and Aymara peoples, and discussion of current political and economic issues.

MALA 70993 - Critical Issues in Criminal Justice (3)

The major controversies that exist in law and criminal justice today are discussed with emphasis on the development of critical thought concerning these issues. Both empirical evidence and grounded theory is discussed in such a manner as to help the student formulate thoughtful opinion concerning the selected topics. Topics include but are not limited to: The Death Penalty, Gun Control, The Insanity Defense, Drug Legalization, Prison Privatization, Drunk Driving Laws, Myths of Organized Crime, Crime and the Media, Fetal Endangerment Statues, and The Jury System.

MALA 71393 - Religion and Violence (3)

This course explores the highly ambiguous relationship between religion and violence. It provides an overview of situations in the world today that are examples of this ambiguous relationship. Ethical teachings regarding violence in Judaism, Christianity, and Islam are examined. Students are exposed to authors who seek to comprehend violent behavior using explanatory theories. Responses to 9/11/2001 written by a Jew, a Christian, and a Muslim are encountered. The goal is to allow students in the course to develop an understanding of various dimensions (ethical, social, psychological, political, and theological) of the relationship between religion and violence.

MALA 71693 - Creative Writing:Life Writing (3)

Students who take this course will write three full-length pieces (8-12 pages each) of creative nonfiction based on incidents that have occurred in their lives. Students will read selected works of creative nonfiction and from three textbooks on writing (Ann Lamott's *Bird by Bird: Some Instructions on Writing and Life*, Phillip Lopate's *The Art of the Personal Essay*, and Mary Catherine Bateson's *Composing a Life*.) The work of the course will revolve around writing the three pieces, reading and responding to fellow students' pieces online, and analyzing reading assignments from the textbooks.

MALA 71733 - Science, Scientists and Society (3)

Science, Scientists and Society is a cross-disciplinary course in the natural sciences. It will acquaint you with the workings of science and scientists by examining recurring themes and selected episodes of science. We will consider the nature of the scientific enterprise and how science differs from or is similar to other areas of human endeavor, such as art, religion, philosophy, economics, etc. After taking this course you will have a better understanding of science and how it works and of the complex relationship between science and the intellectual, cultural and social milieu in which it is practiced. You will learn the nature of scientific explanation and the limits of scientific understanding.

MALA 71813 - The Cold War at Home and Abroad (3)

From the end of the Second World War in 1945 until the collapse of the Soviet Union forty-five years later, the Cold War dominated the domestic and foreign affairs of the United States. This course examines the origins of the Cold War and some of the consequences, including the development and application of the containment policy, McCarthyism, the wars in Korea and Vietnam, various other interventions, the debates over diplomatic issues, and the various strategies employed by different presidential administrations. Students will have a chance to do some reading on these subjects and to discuss them. Also they will view episodes from CNN's production, *The Cold War*". The requirements consist of short weekly papers based on the readings and also a kind of term project a five-seven page critique of John Lewis Gaddis' book *We Now Know*. The others readings are T.G. Paterson and J.G. Clifford *America Ascendant: U.S. Foreign Relations since 1939* and R.J. McMahon and T.G. Paterson *The Origins of the Cold War* 4th ed.

MALA 71843 - The Ethics of Communication (3)

An examination of contrasting models and standards of communication ethics. Students apply these perspectives to specific situations involving freedom of expression, political campaigns, interpersonal communication, advertising and writing.

MALA 71903 - Preparing for the Challenges of the Twenty-first Century (3)

This course presents an analysis of political, economic, and cultural dimensions of globalization. The emergence of an increasingly interconnected global economy marked by increasing economic integration and creation of a borderless world has posed new challenges for global governance and the autonomy of nation states. Hence another dimension of our nuanced world is that the manifestations of new primordial loyalties and cultural and identity anxieties threaten to tear the world apart. At no other juncture in modern history was the world so connected yet so divided by strife and conflict. The emergence of global problems such as environmental degradation spread of infectious diseases such as AIDS the lingering problem of global hunger and genocide are among the pressing issues of the new century. These developments would have an indelible impact on the emerging society of the 21st century. This course is designed to provide a forum for analysis and discussion of these issues. While the attempt is to dissect these issues primarily on their own terms we would also discuss the challenges they pose to the United States and the global community.

MALA 71943 - Ancient Mysteries: Real and Imagined (3)

In addition to providing an overview of Ancient Mediterranean and Near Eastern History from the Paleolithic age to the fall of Rome, this course explores in some detail various controversial topics that have generated popular interest and often engendered misinformation. These topics are analyzed in a scholarly manner in order to solve the mystery" or expose common mis-perceptions and pseudo-scholarship. Typical topics include the following: the fall of Rome the historical Jesus other Biblical topics the pyramids the Neanderthal problem and the search for the Trojan War.

MALA 71973 - Law and Society (3)

This course examines the relationship between legal institutions and social processes. Course readings and discussion will focus on the social and political nature of law; the creation and organization of law in modern societies; social functions of law, the limits of law as an instrument of social change; the legislation of morality; democracy, individualism and law; criminal behavior and individual rights; and the use of scientific information in law.

MANA - Management

MANA 60023 - Legal and Social Environment of Business (3)
Corporations operate within an environment that is comprised of relationships with customers, investors, employees, competitors, and suppliers. The primary focus of this course will be to examine those federal and state laws that regulate these relationships. Appropriate attention will be paid to the various social, ethical, and political forces that influence the development and enforcement of laws. Additionally, the course will highlight aspects of the international legal environment of business.

MANA 60230 - Legal Env of Business (1.5)
1.5 credit hours. Corporations operate within an environment that is comprised of relationships with customers, investors, employees, competitors, and suppliers. The primary focus of this course will be to examine those federal and state laws that regulate these relationships. Specifically, the course will examine various torts that arise in business, contract law, agency law, intellectual property law and employment discrimination law.

MANA 60330 - Engaging People (1.5)
1.5 credit hours. Development of knowledge, skills, and perspectives needed for engaging employees. Topics include decision making, employee engagement and performance management. Written and oral communication skills are emphasized.

MANA 60340 - Leading Teams and Organizations (1.5)
1.5 credit hours. Development of knowledge, skills and perspectives needed for leading groups, teams, and organizations. Topics include leadership foundations, the role of trust in organizations, organizational culture, leading in complex environments, group and team dynamics, leadership ethics, global and cross-cultural issues, leveraging diversity, and leading organizational change initiatives. Written and oral communication skills are emphasized.

MANA 60350 - Competitive Advantage through People (1.5)
1.5 credit hours. Students must have PMBA-MBA, ACCP-MBA, ENRG-MBA, ACCE-MBA or SCMT-MS degree plan. This course is designed to give the student an understanding of the role that people play in producing long-term sustainable business success. As such it will focus on organizational effectiveness. Topics will include forms of organization and work design that fit dynamic, competitive environments, corporate culture, work motivation, teams leadership and change. While this course provides a holistic view of how people contribute to sustainable competitive advantage, it will also focus on skills that leaders can employ to support this goal.

MANA 60460 - Business Ethics (1.5)
1.5 credit hours. Managing Business Ethics addresses moral reasoning and decision making in a business context. Tools for addressing ethical dilemmas are addressed from a personal, managerial, and organizational framework. Case studies are used to develop moral reasoning skills.

MANA 60630 - Strategic Management (1.5)
1.5 credit hours. Student must have BUAD-MBA or ACCL-MBA degree plan. A final integrative course in contemporary global strategic management that integrates the basic business functions. Comprehensive cases deal with global competition in complex changing environments within which the organization seeks to achieve a sustainable competitive advantage. Issues of strategy formulation and implementation are addressed. Technology and communication skills are emphasized.

MANA 60670 - Strategy Formulation (1.5)
1.5 credit hours. Student must have PMBA-MBA, ENRG-MBA, ACCP-MBA, or ACCE-MBA degree plans. This course examines the main issues involved in company strategic management, including how to formulate strategies for achieving competitive advantage in a single industry, and when and how to consider expansion through related and unrelated diversification, vertical integration or international expansion. Topics include: industry analysis, strategic positioning, business portfolio composition and portfolio change via alliances, mergers and acquisitions, or internal development.

MANA 60680 - Strategy Implementation (1.5)
1.5 credit hours. Prerequisites: MANA 60670. Many sound company strategies fail in their implementation. This course examines the building blocks of successful strategy implementation, include: interactive formulation and implementation; broad participation; appropriate organization structures, integrating devises and incentives; effective evaluation and control mechanisms; and frequent feedback for course correction. Topics include the difficulty of changing an organization, typical

structure and control changes as organizations grow, managing in different structures, plus turnarounds and strategic renewal.

MANA 65000 - Strategic Vision and Analysis (1.5)
1.5 Credit Hours. Prerequisite: Must be an EMBA candidate. This course sets the stage for an integrative EMBA experience by providing students with an overall perspective of Strategy and Strategic Leadership from the standpoint of the general manager. Students will examine the role of the strategic visionary and explore how strategic choices are identified and decisions made. Strategic management tools providing insight into competitive and industry analysis and organizational resource and capabilities identification/appropriation will be emphasized.

MANA 65023 - Legal and Social Environment of Business (3)
3.0 credit hours. Prerequisite: Must be an EMBA candidate. Corporations operate within an environment that is comprised of relationships with customers, investors, employees, competitors, and supplies. The primary focus of this course is to examine those federal and state laws that regulate these relationships. Appropriate attention is paid to the various social, ethical, and political forces that influence the development and enforcement of laws. Additionally, the course highlights aspects of the international legal environment of business.

MANA 65033 - Building High Performance Work Systems (3)
3.0 credit hours. Prerequisite: Must be an EMBA candidate. High performing organizations gain competitive advantage by putting people first. This course examines via case study discussion and readings how these performance, people-centered organizations focus on: aligning people management with strategy, selective staffing, training as investment, building effective teams, sharing information, and designing effective reward systems.

MANA 65063 - Strategy in a Dynamic Environment (3)
3.0 credit hours. Prerequisite: Must be an EMBA candidate. This final course in contemporary global strategic management integrates the basic business functions. Comprehensive cases deal with global competition in complex changing environments within which the organization seeks to achieve a sustainable competitive advantage. Issues of strategy formulation and implementation are addressed. Technology and communication skills are emphasized.

MANA 65160 - Leadership in a Complex World (1.5)
1.5 credit hours. Prerequisite: Must be an EMBA candidate. This course addresses the challenges of leading in today's complex environments. Students will learn how changing business contexts are placing new demands on leaders for innovation, adaptability, learning and growth. The specific focus will be on how societal and environmental advances require different ways of conceptualizing and practicing leadership relative to strategy, power, relationships and communication. Students will leave the course with a better understanding of the challenges being faced, how they as leaders need to approach those challenges, and what organization need to do to develop more effective leadership.

MANA 65260 - Leading for Innovation and Results (1.50-3.00)
1.5 credit hours. Prerequisite: Must be an EMBA candidate. This course focuses on the specifics of leading for innovation and results in organizations. Students will learn how organizational systems and structures enable or inhibit leaders' efforts to drive innovation and change for productivity. They will then explore their own leadership styles and teamwork behaviors relative to the administrative system, the entrepreneurial system and enabling adaptive space. During the course students will identify strategies and practices they can use to be more effective in managing and leading organizational adaptability and performance. They will leave the course with a specific action plan for continuing their own leadership development and for growing other leaders in the organization.

MANA 65460 - Ethical Business Decision Making (1.5)
1.5 Credit Hours. Prerequisite: Must be an EMBA candidate. This course examines ethical challenges frequently faced by business leaders and explores ethical decision-making from both a business and philosophical perspective. We will focus on ethics from both personal and organizational perspectives and look for the best arguments for various positions. We will read and discuss what some of the best minds in Western history have thought about various issues and learn various frameworks that can be useful for ethical decision-making. Students will learn how to think about deep ethical concerns more thoroughly and carefully and make sound ethical business decisions.

MANA 70353 - Private Equity (3)

Prerequisites: Open to MBA and MAc students: this elective course provides the theoretical background and practical application of private equity in the United States and the world. The principle focus of the course will be early stage venture capital. However, other elements of private equity such as leveraged buyouts and corporate venturing will also be reviewed. To ensure that a realistic perspective of private equity occurs in the class, cases and projects provided by active private equity professionals will be employed to illustrate material.

MANA 70513 - Venture Ideas (3)

The course provides an in-depth overview of the challenges involved in identifying and systematically evaluating opportunities for creating new ventures across a wide range of contexts, including startups, social enterprises, and large, established corporations. As such, the focus of the course is centered on what should be done before writing a business plan and embarking on the development and launch of a new venture.

MANA 70523 - New Venture Planning (3)

The course focuses on providing practical experience associated with the business start-up process. Specifically, students working in teams will take an identified business opportunity and develop a proposed new business centered on a product or service. Additionally, discussions centered on the challenges and opportunities associated with new venture creation will be conducted. The overarching goal of the course is to provide students with an understanding of the entrepreneurial process, and the implications of entrepreneurial management for business leaders.

MANA 70603 - Human Resource Management (3)

Prerequisite: MANA 60033 or MANA 60330 and 60340. The study of programs and activities pertaining to personnel management systems. Major topics include fair employment practices, job analysis, human resource planning, performance appraisal, selection and staffing and training and development.

MANA 70610 - Essentials of Negotiation (1.5)

1.5 credit hours. Prerequisite: MANA 60033, or MANA 60330 and 60340, or MANA 60350 or student must have ACCL-MBA or ACCP-MBA or ACCE-MBA degree plan. Study of distributive, integrative/principled, and intraorganizational negotiation. Includes coverage of negotiation strategies, tactics, preparation, errors, cognitive biases, social structure, ethics, and international negotiations.

MANA 70620 - Energy Legal and Regulatory Issues (1.5)

1.5 credit hours. This course focuses on legal and regulatory issues unique to the U.S. energy industry. Key legal topics covered include ownership rights, kinds of interests, protection of rights, creation and transfer of rights, creation and transfer of interests, essential clauses of modern energy leases, taxation, and energy contracts. Additionally, clean energy regulation will be discussed within the context of these energy topics. Specific clean energy topics include energy policy, renewable options, tax benefits of clean energy, and clean energy standards and the potential for qualifying energy sources.

MANA 70640 - CEO Forum (1.5)

1.5 credit hours. Prerequisites: MANA 60350 or MANA 60330 or student must have ACCL-MBA or ACCP-MBA or ACCE-MBA degree plan. This course is designed to help students learn directly from successful leaders who are serving as Chief Executive Officers in their organizations. Upon completion of the course students will have more than an intellectual understanding of leadership. They will understand the requirements for self-leadership and leading others. They will also learn what is necessary to successfully lead an organization. The course involves class presentations by CEOs; active verbal interaction and engagement by students; submission of written analyses or reflections on the approaches, styles, and knowledge gained from CEO presenters, and in-depth written reports and presentations on a prominent CEO.

MANA 70650 - Energy CEO Forum (1.5)

1.5 credit hours. Prerequisites: FINA 70610. In recent years, major changes in the environment in the energy sector have led to much more interest in effective leadership. This course is designed to help you to learn directly from successful leaders who are serving as the Chief Executive Officers in their energy organizations. When you complete this course, you will leave with more than an intellectual understanding of what leadership is. You will learn what it takes to lead yourself and then what is required to lead others. You will also learn what is necessary to lead a successful energy organization.

MANA 70663 - Global Experiences - Energy (3)

Prerequisites: Student must have ENRG-MBA or ACCE-MBA degree plan. With increasing per capita incomes around the world, the global community will demand higher levels of more efficient, cleaner, and environmentally less obtrusive energy services. The central issue addressed in this course is what kind of companies will supply energy services, and how, around the globe.

MANA 70740 - Managing Conflict for Results (1.5)

1.5 credit hours. Prerequisite: Graduate business student or permission of instructor. This course is designed to give students an understanding of how to manage conflict and confront others in difficult interpersonal situations. A developmental approach is taken in this course to build critical skills that will lead to positive results and stronger performance. We will focus on introducing and cultivating skills necessary for preventing unnecessary conflict, managing emotions, generating resolution alternatives, and other competencies important for confrontational interactions. Learning through active application and experiential exercises will be emphasized.

MANA 70760 - Transformational Leadership (1.5)

1.5 credit hours. This course is designed to give students an understanding of leadership processes that underlie the survival, effective functioning and self-determination of organizations in the 21st century. To this end, we will examine a number of relevant topics that reflect the nature of the challenge being faced, key people and organizational issues in meeting this leadership challenge, and how organizations can select, nurture and develop future leaders.

MANA 70773 - Consulting Applications (3)

Prerequisites: admission by application; permission of instructor. This course is designed to provide students with an opportunity to be engaged in a real consulting project for an external client. The goal is to provide students with an experiential opportunity that allows them to understand what it means to work in the service of a client's needs. In addition, students will develop a grounded understanding of consulting and consulting processes that will allow them to organize and generalize their learning from the project work.

MANA 70780 - Management Consulting (1.5)

1.5 credit hours. Prerequisite: MANA 60350; or MANA 60330 and 60340; or student must have ACCL-MBA or ACCP-MBA or ACCE-MBA degree plan. This course will examine critical issues associated with effective management consultation. Topics will include clarifying the role and types of management consultation, developing a sound understanding of the consultation processes, and identifying key capabilities associated with effective consultation. In addition, this course will explore consulting from the perspective of external consultants (both boutique and large consulting firms) and internal consultants (e.g., who tend to work for large corporations). Finally, we will address key business issues for independent consultants and the factors needed to create, grow and sustain a successful consulting business.

MANA 70783 - Practice and Profession of Consulting

Prerequisites: MANA 60330 or MANA 60350 or student must have ACL-MBA or ACCP-MBA or ACCE-MBA degree plan. This course examines key issues and challenges in the business and process of consultation, as well as in consultation as a career field. The goals are to help students understand the business side of consulting by exploring the structure and scope of the consulting industry and to begin developing the core skills necessary to be successful in the practice of consulting. Students will be exposed to academic and professional theory associated with successful consulting skills and practice, and they will have the opportunity to interact with practicing consultants who reflect different backgrounds and perspectives-e.g., working for a large consulting company, working as an internal consultant, starting/running a boutique consulting practice/business.

MANA 70800 - White Collar Crime (1.5)

Prerequisites: Graduate business student or permission of instructor. This course takes a managerial perspective to white collar crime, assuming that criminal activities and corrupt practices occur frequently enough that managers are likely to encounter them at some point during their careers. White-collar professionals are often silently involved in false advertising, health care fraud, political corruption, price fixing, telemarketing fraud, computer crimes, and a plethora of consumer scams affecting our social and economic well-being. Students will analyze these and other illegal and corrupt practices that managers are likely to encounter. In so doing, they will learn how to detect and distinguish between proper and improper practices. They will consider criminal activities and related practices through an ethical lens, exploring associated costs (for individuals, organizations, and society), preventative approaches, and appropriate organizational responses.

MANA 70803 - White Collar Crime

Prerequisites: Graduate business student or permission of instructor. This course takes a managerial perspective to white collar crime, assuming that criminal activities and corrupt practices occur frequently enough that managers are likely to encounter them at some point during their careers. White-collar professionals are often silently involved in false advertising, health care fraud, political corruption, price fixing, telemarketing fraud, computer crimes, and a plethora of consumer scams affecting our social and economic well-being. Students will analyze these and other illegal and

corrupt practices that managers are likely to encounter. In so doing, they will learn how to detect and distinguish between proper and improper practices. They will consider criminal activities and related practices through an ethical lens, exploring associated costs (for individuals, organizations, and society), preventative approaches, and appropriate organizational responses.

MANA 70870 - Practice and Profession of Consulting (1.5)

Prerequisites: MANA 60330 or MANA 60350 or student must have ACCL-MBA or ACCP-MBA or ACCE-MBA degree plan. This course examines key issues and challenges in the business and process of consultation, as well as in consultation as a career field. The goals are to help students understand the business side of consulting by exploring the structure and scope of the consulting industry and to begin developing the core skills necessary to be successful in the practice of consulting. Students will be exposed to academic and professional theory associated with successful consulting skills and practice, and they will have the opportunity to interact with practicing consultants who reflect different backgrounds and perspectives-e.g., working for a large consulting company, working as an internal consultant, starting/running a boutique consulting practice/business.

MANA 70970 - Special Problems in Management (1.00-9.00) Special Problems in Management.

MANA 72410 - Health Care in the U.S. (1.5)

This course introduces the intricacies of the health industry that represents 17% of US GDP, and growing. Rather than an in-depth study of one particular segment, the topics are selected to give the student a general overview of multiple parts of the industry to include providers, payers, historical developments and efforts to reform the system, quality care, and the Accountable Care Act. (Note: this course will only focus on the US system, and will not focus on global health issues).

MANA 72420 - U.S. Health Care Policy (1.5)

What is population health and why does it matter? How does the U.S. health care system compare to health systems in other countries? Why are U.S. health care costs so high? How is the U.S. health system financed? What are the basic principles of health insurance? What is the state of U.S. health care reform? financing accessibility and accessibility of care. It is critical that health care professionals be able to answer these questions. This course will answer these questions through an introduction to the areas of Health Policy concerned with the delivery quality and costs of health care for individuals and populations. The course will examine the history and possible futures of U.S. health care policy with respect to health services

MANA 72430 - Population Health (1.5)

In this course we will use managerial epidemiology as a healthcare management tool. Successful healthcare management in the future must simultaneously aim to improve population health, deliver excellent quality of care, and reduce per capita cost. We will apply the

MANA 72440 - Legal Issues in Health Care (1.5)

This course is a study of the fundamental legal issues, including structural and operational issues affecting health care providers and payers. Discussions will cover federal and state fraud and abuse issues, patient safety, patient rights and responsibilities, privacy, confidentiality, Medicare and Medicaid reimbursement issues, and medical records.

MANA 72453 - Health Care Capstone (3)

This capstone course is designed to allow students the opportunity to apply methods and techniques learned in the MBA for Health Care Professionals Program to a practical health administration problem. All students will participate as members of a team to conduct a project in partnership with a local healthcare organization and that is focused on a health administration problem or need. The capstone project consists of identification of a new service, product or innovative process within the current healthcare environment. Once identified, teams will create a business plan to implement this delivery of care.

MANA 75613 - Negotiations (3)

3.0 credit hours. Prerequisite: Must be an EMBA candidate. Study of distributive, integrative/principles, and intraorganizational negotiations. Includes coverage of negotiation strategies, tactics, preparation, social structure, ethics, and international negotiations. Errors and breakdowns are also covered along with other conflict resolution techniques such as mediation and arbitration.

MANA 75970 - Special Problems in Management (1.00-20.00) Special Problems in Management. Prerequisite: Must be an EMBA candidate.

MANA 75980 - Innovation and Entrepreneurship (1.5)

1.5 Credit Hours. Prerequisite: Must be an EMBA candidate. Creativity and innovation are key drivers for economic activity and wealth generation, as

well as for individual and community well-being. Entrepreneurs in growing business, large firms, the social sector and government are upsetting the status quo, altering accepted ways of doing things, transforming industries and finding meaning for themselves and those with whom they work. This course focuses on two key themes. One is creative and innovation and the other is the pursuit of opportunity, which considers the skills and know-how required to exploit opportunity and create social economic value. Students will learn to recognize their own creative talents, apply creative problem-solving techniques to tasks and challenges, (3) recognize and remove blocks to innovation, and (4) understand and apply the elements in the entrepreneurial process.

MARK - Marketing

MARK 60010 - Marketing Management (1.5)

1.5 credit hours. The purpose of this course is to introduce students to common marketing problems encountered by marketing managers and general managers. Emphasis is placed on the analysis, development, and implementation of the organization's marketing policy, strategy, and tactics. The goal of this course is to develop an overall framework for addressing marketing issues and problems in a variety of business settings.

MARK 60011 - Marketing Fundamentals (1)

Broadly speaking, this course is designed to help bridge the gap between an undergraduate experience in Marketing and graduate level course. As such, there is less emphasis on memorization of terminology and much greater emphasis on critical thinking, analytics, and decision-making. This course will review some of the basic concepts, but a major emphasis will be placed on identifying and describing practical applications of key concepts. In this way, the nuances and boundaries of concepts will be identified. This is also supplemented by developing students' critical thinking skills through in-depth analysis of classic marketing decisions from a managerial perspective. This course will help students better understand the key decisions that are made in developing a marketing plan. The course will take both a managerial and analytical perspective, emphasizing a graduate level approach to these topics. The course focus is on the big picture, examining both how marketing decisions must fit with the strategic vision of the firm and within the financial objectives of the firm. In other words, a good idea is tough to sell in an organization unless it can be shown to be financially viable.

MARK 65013 - Advanced Marketing Management (3)

3.0 credit hours. Prerequisites: Must be an EMBA candidate. This is an examination of the marketing function and how it relates to value creation, strategic corporate management and marketing decisions; the major phenomena underlying marketing strategy formulation and the component divisions of product planning, communication and channels of distribution, both theory and cases to develop a managerial perspective of marketing; linking marketing strategy to financial value.

MARK 70010 - Marketing issues and Problems (1.5)

1.5 credit hours. Prerequisites: MARK 60010 or MARK 60011, or permission of department chair. The purpose of this course is to examine in depth the marketing problems introduced in the first course, Marketing Management. Emphasis is placed on the analysis, development, and implementation of the organization's marketing policy, strategy, and tactics. On a more specific level, the coursework will illustrate how various decision-making tools apply to actual business situations. The goal of this course is to develop a disciplined process for addressing marketing issues and problems in a variety of business settings.

MARK 70100 - Integrated Marketing Communication (1.5)

1.5 credit hours. Prerequisite: MARK 60010 and 70010; or MARK 60011; or permission of department chair. The integrated planning and implementation of sales promotion, advertising, personal selling, public relations, and other communications tools in supporting the overall marketing strategy is the focus of the course.

MARK 70110 - Marketing Analytics (1.5)

1.5 credit hours. Prerequisites: MARK 60010 or 60011, or permission of department chair. This course focuses on helping students develop an analytical and systematic set of skills and processes for making marketing decisions. Marketing decision-making resembles design engineering - putting together concepts, data, analyses, and simulations to learn about the marketplace and to design effective marketing plans. Although many people view marketing as an art and others regard it as science, this course views marketing as a combination of art and science to solve specific problems. Students will learn concepts and will work hands-on with data and software tools for making decisions regarding segmentation and targeting, positioning, forecasting, new product and service design, and the

elements of the marketing mix. Through the course, students will learn to take advantage of the massive amounts of data available in most organizations, using that data to make informed decisions, and to create compelling evidence to persuade other executives to support those decisions.

MARK 70120 - Customer Insights (1.5)

1.5 credit hours. Prerequisite: MARK 60010 or 60011, or permission of department chair. The most complex aspect of marketing is understanding the mind and heart of the consumer. If consumer behavior was easy to explicate, then all products would sell as well as projected, all ads would be effective, economies would be efficient, and marketing would be a simple prospect. In actuality, consumers are frustrating and irrational and difficult to predict. This course focuses on providing the basic tools to gain insights into consumer behavior. It addresses both managerial and psychological applications of consumer behavior. We apply tools from psychology, economics, and other social sciences to particular marketing problems. The focus will be on specific results, such as what marketing strategies are likely to be effective given a certain consumer response.

MARK 70130 - Creativity and Innovation in Marketing (1.5)

1.5 credit hours. Prerequisite: MARK 60010 or 60011, or permission of department chair. This course will focus on methods and tools that facilitate creative problem solving. Students will develop skills that can be applied in any business or other decision-making context.

MARK 70140 - Managing Service Excellence (1.5)

1.5 credit hours. Prerequisite: MARK 60010 or 60011, or permission of department chair. To be competitive in today's marketplace, service organizations must provide a quality experience for their customers. This course identifies the key dimensions on which customer perceptions of service excellence are based, and describes strategies for offering superior customer service. Key course concepts include: (1) the drivers of service excellence, (2) reducing gaps in service performance, (3) measuring service quality, (4) service recovery and guarantees, and (5) internal marketing.

MARK 70200 - Customer Relationship Marketing (1.5)

1.5 credit hours. Prerequisite: MARK 60010 or 60011, or permission of department chair. This course focuses on the measurement and management of customer selection, customer acquisition, and customer value. Key concepts explored in the course include: (1) identifying and selecting customers, (2) understanding management of customer acquisition, (3) estimating the value of a customer, (4) linking customer value to shareholder value, and (5) understanding which marketing actions are most appropriate for growing the value of a customer segment.

MARK 70223 - Field Project in Managing Customer Relationships (3)

3 credit hours. Prerequisites: MARK 60010 or 60011, and 70110, 70120, 70200, and 70210; or permission of department chair. Individual or team projects solving real business problems for companies; situation analyses; research proposal composition; field research techniques; statistical analysis; oral and written presentations. Projects will focus on managing customer relationships.

MARK 70303 - Field Project in Managing Products and Brands (3)

3 credit hours. Prerequisites: MARK 70110, 70120, 70720, and 70730; or permission of department chair. Individual or team projects solving real business problems for companies; situation analyses; research proposal composition; field research techniques; statistical analysis; oral and written presentations. Projects will focus upon managing products and brands.

MARK 70380 - Social Media and Content Marketing (1.5)

1.5 credit hours Prerequisites: MARK 60010 or MARK 60011 or permission of department chair. Social media has disrupted communication channels and created challenges for marketing in the digital age. This has led to consumers having more and more control of brands. In this course, students will learn key aspects of owned and earned media particularly how to create compelling content and disseminate it along various social media platforms.

MARK 70400 - Pricing Strategy and Tactics (1.5)

1.5 credit hours. Prerequisites: MARK 60010 or 60011, or permission of department chair. This course focuses on the development of pricing strategies and tactics in a variety of industries and organizational settings.

MARK 70700 - Sales Strategy and Organization (2)

1.5 credit hours. Prerequisite: MARK 60010 or 60011, or permission of department chair. Students are introduced to issues in planning and organizing a sales force. Planning the sales force involves integrating sales strategy with overall promotion and marketing strategy, developing appropriate implementation methods, and developing proper control mechanisms. Organizing a sales force includes developing a selling mix and managing human and capital resources.

MARK 70720 - New Product Development (1.5)

1.5 credit hours. Prerequisite: MARK 60010 or 60011 or permission of department chair. This course provides in-depth knowledge relating to the management of product innovation and new product development strategy. New product development is considered in relation to market opportunity and competitive advantage. We will evaluate changes in competition, customer demands, and technology and their effects upon the product development process. We will employ research skills and methods relating to idea generation, prototype building and commercial production. Case studies of actual firms will be analyzed in order to examine successes and failures in the context of real product development scenarios. A managerial perspective will be taken. The primary emphasis is on understanding theoretical concepts relevant to the subject and applying them to a variety of real world marketing decision making scenarios. In keeping with current business realities, the course has both a technology and a global focus.

MARK 70730 - Brand Management (1.5)

1.5 credit hours. Prerequisite: MARK 60010 or 60011 or permission of department chair. A brand is often a company's most important asset and as such has received immense attention in recent years. This course will provide an overview about branding, and the ways that brands acquire and sustain value in the marketplace. This is a course with a decided point-of-view on the nature of brands and the skills and tasks this requires of the brand manager. We will consider brands as co-creations of consumers and marketers. If brand management is a collaborative process of meaning management, the job of the brand manager then becomes one of navigating the meaning making processes, attaining meanings that resonate therein, and to managing these meanings deftly through time so as to maximize brand value, capture opportunities, and diminish risk. Cases, as microcosm of brand management, deliver the power of real-world, applied setting and reveal concepts and frameworks that can inform management thoughts and actions.

MARK 70750 - International Marketing (1.5)

1.5 credit hours. Prerequisite: MARK 60010 or 60011, or permission of department chair. This course introduces the field of international marketing and provides a broad perspective from which to explore and examine various aspects of what changes when firms compete internationally.

MARK 70760 - Services Marketing Strategy (1.5)

1.5 credit hours. Prerequisite: MARK 60010 or 60011, or permission of department chair. Marketing a service is different than marketing a tangible good. To address these differences, this course focuses on the unique marketing strategies needed for service organizations. Topics covered include strategies for the service offering (i.e., product), pricing, promotion and distribution, among others.

MARK 70770 - Marketing Research (1.5)

1.5 credit hours. Prerequisites: MARK 60010 or 60011, INSC 60010 or INSC 60013; MARK 70120 (or concurrent enrollment); or permission of department chair. Marketing research is about providing relevant, accurate and timely information for marketing decisions. This includes information about competition, external environment and current as well as potential customers. Whether or not you ever work in a marketing research function, at some point in your business career, you most likely will need to deal with marketing research, either as a producer or as a user. The course is designed to provide an overview of marketing research and its use in making more effective marketing decisions. The primary emphases are designing research studies that are both valid and pertinent, and accurately interpreting analysis to guide managerial decisions.

MARK 70800 - Marketing Strategy (1.5)

1.5 credit hours. Prerequisites: MARK 60010 or 60011, or permission of department chair. An examination of current marketing problems and related problem-solving techniques.

MARK 70970 - Special Problems in Marketing (1.00-20.00)

Special Problems in Marketing.

MARK 75970 - Special Problems in Marketing (1.00-20.00)

Special Problems in Marketing. Prerequisites: Enrollment in the EMBA program.

MARK 77710 - Fieldwork in Customer Insights (1.5)

1.5 credit hours. Prerequisites: MARK 60010 or 60011, or permission of department chair. This course is designed to give students first-hand experience in observing and analyzing customer's behaviors through on-site store visits. Students will explore how customers interact with retail spaces, make product decisions and evaluate service encounters. Work will consist of applying at least three customer frameworks to experiential, on-site

exercises and include how technology is changing both customers' behavior and retail practices.

MARK 77720 - Strategic Marketing Simulation (1.5)

1.5 credit hours. Prerequisite: MARK 60010 or 60011, or permission of department chair. Professionals and MBA students demand a different kind of simulation: one that emphasizes a long term outlook, reflects more dynamic market realities, and enables them to make a wide array of strategic decisions. You and your group will be given a company and product portfolio to manage in a dynamic and interactive environment. You will be responsible for making decisions relating to all aspects of marketing, including positioning, product design, product pricing, advertising expenditures, sales force allocation, market forecasting, and research and development.

MARK 77730 - Brand Decisions Simulation (1.5)

1.5 credit hours. Prerequisite: MARK 60010 or 60011, or permission of department chair. Learn by doing as you take on the role of brand manager in a fast-paced packaged goods company. Using a computer simulation you will sharpen your brand strategy skills as you make decisions about new product launches, budgeting, and segmentation.

MATH - Mathematics

MATH 50073 - History of Mathematics (3)

Prerequisites: MATH 20524 with a C- or better. A survey of the history of mathematics from ancient times to contemporary times. The selection of topics may vary from semester to semester, but topics closely related to contemporary mathematics are usually emphasized.

MATH 50253 - Abstract Algebra I (3)

Prerequisites: MATH 30053 and 30224, both with a C- or better. Introduction to groups and rings. Homomorphisms, isomorphisms, subgroups, and ideals. Quotient and product structures.

MATH 50323 - Differential Geometry (3)

Prerequisites: MATH 30224 and 30524, both with a C- or better. Calculus on Euclidean space. Geometry of curves and surfaces.

MATH 50403 - Complex Analysis (3)

Prerequisites: MATH 30524 with a C- or better. Analytic functions, harmonic functions, and the Cauchy-Riemann equations. Conformal mappings. Cauchy's integral theorem and formula, with applications. Power series and analytic continuation.

MATH 50503 - Real Analysis I (3)

Prerequisites: MATH 30053 with a C- or better. A rigorous development of elementary limit processes. Continuity, sequences, series, differentiation, integration.

MATH 50613 - Partial Differential Equations (3)

Prerequisites: MATH 30613 and 30524, both with a C- or better. Basic theory of hyperbolic, parabolic, and elliptic partial differential equations.

MATH 50623 - Applied Mathematics I (3)

Prerequisites: MATH 30224, 30524 and 30613, all with a C- or better. Selected topics, such as linear and nonlinear systems, equilibria, Fourier series, computational graph theory, optimization and linear programming, calculus of variations, complex integration.

MATH 50703 - Number Theory (3)

Prerequisites: MATH 20123 and 30224, both with a C- or better. Properties of the integers. Divisibility, prime numbers, modular arithmetic, Chinese Remainder Theorem, Diophantine equations.

MATH 60003 - The Teaching of Mathematics (3)

Teaching methods, including both general principles and specific techniques, and supervised teaching. Focus is on teaching topics from upper secondary level and entry level college courses.

MATH 60023 - Survey of Mathematical Problems I (3)

Prerequisite: MATH 30224. Mathematical reasoning and proof techniques from various areas of mathematics such as Logic, Probability, Graph Theory, Number Theory, Cryptography and Constructibility.

MATH 60033 - Survey of Mathematical Problems II (3)

Prerequisite: MATH 60023. Mathematical reasoning and proof techniques from various areas of mathematics such as Game Theory, Set Theory, Limits, Functions, Plane Geometry and Extensions of the Real Numbers.

MATH 60053 - Foundation of Mathematics (3)

Naive set theory, including cardinality, the Axiom of Choice, Zorn's Lemma, and other topics.

MATH 60103 - Graph Theory (3)

Prerequisite: MATH 30224 or equivalent. Graphs, directed graphs and their representations, weighted graphs, shortest path, Hamiltonian and Eulerian circuits, spanning trees, matching, connectedness, flows, Euler's formula, planarity, duality, polyhedra, coloring theorems with applications to map coloring and scheduling problems. Ramsey theory, enumeration and random walks, if time allows.

MATH 60223 - Applied Linear Algebra (3)

Prerequisite: MATH 30224 or equivalent. Vector spaces and bases, linear transformations and operators, Jordan canonical form of a matrix, inner products, Hermitian and unitary operators, and topics selected from Fourier series and transforms, applications to ordinary and partial differential equations, applications to Markov processes.

MATH 60263 - Abstract Algebra II (3)

Prerequisite: MATH 50253. A continuation of MATH 50253. Introduction to field extensions and Galois Theory. Advanced topics in groups and rings.

MATH 60313 - Topology (3)

Introduction to the basics of point-set topology, including elements of set theory, topological spaces, open and closed sets, subspaces, product topologies, metric topologies, connectedness and compactness. Additional topics to be chosen by the instructor, such as classification of surfaces or elementary knot theory.

MATH 60323 - Algebraic Topology I (3)

Prerequisites: MATH 60313 and 50253. Basic topics in algebraic topology, including the fundamental group, covering spaces, and introduction to homology theory with applications to the study of topological spaces.

MATH 60403 - Higher Geometry (3)

Prerequisite: Graduate standing in mathematics. The foundations of geometry. The basic concepts of Euclidean and non-Euclidean geometry. Geometric transformation. Geometric constructions.

MATH 60413 - Advanced Complex Analysis (3)

Prerequisites: MATH 50403 and 50503, or equivalents. A rigorous development of the theory of complex analysis. Analytic functions, branches of functions, harmonic functions and Dirichlet problems. Complex integration, Cauchy's Integral Theorem, winding numbers, topology of the complex plane. Taylor series and Laurent series, singularities of analytic functions, and function theory on the extended plane. Conformal Mapping and Riemann Mapping Theorem.

MATH 60503 - Real Analysis II (3)

Prerequisites: MATH 50503. Metric spaces and their topology, Lebesgue measure and integration, Fourier analysis in Hilbert space. Other selected topics.

MATH 60513 - Multivariable Analysis (3)

Prerequisite: MATH 50503. Topology and geometry of Euclidean space, continuity and differentiation in several variables, multivariable Taylor's theorem, manifolds, inverse and implicit function theorems, differential forms and integration, multivariable fundamental theorems.

MATH 60523 - Measure Theory (3)

Prerequisite: MATH 50503 or equivalent. Introduction to measure theory and function spaces. Topics will include basic Lebesgue measure and integration theory as well as an introduction to Banach and Hilbert spaces.

MATH 60543 - Numerical Analysis (3)

Prerequisites: MATH 30613, or equivalent. Introduction to numerical methods for solving mathematical problems that arise in the sciences. Topics include floating point arithmetic, error analysis, interpolation, approximating solutions to nonlinear equations, numerical integration and differentiation, and other selected topics.

MATH 60553 - Modern Fourier Analysis (3)

Prerequisites: MATH 30224, 30524 and 30613, or equivalents. Fourier series and Fourier transform, discrete Fourier transform and numerical methods, convolution, signal processing, filtering, wavelet analysis.

MATH 60603 - Game Theory (3)

Prerequisites: MATH 30224, 30524 and 30803, or equivalents. Sequential move games, game trees, perfect information games and games of chance. Matrix games, dominated and mixed strategies, the mini-max theorem, linear programming. Continuous games, games of timing. Multi-player games and Nash equilibrium, cooperative games: core and stable sets,

bargaining, nucleolus. If time permits, special topics can include side payments, power indices, imperfect information and artificial intelligence.

MATH 60613 - Differential Equations of Mathematical Physics (3)
Prerequisites: MATH 30224, 30524 and 30613, or equivalents. Conservation laws, solutions to initial value problems to the diffusion, wave, and other partial differential equations in one or more dimensions. Laplace and Fourier transform methods. Solutions to physical boundary value problems using Fourier series and other orthogonal expansions. Finite element method of solving such equations numerically.

MATH 60633 - Applied Mathematics II (3)
Prerequisite: MATH 50623. Continuation of MATH 50623.

MATH 60643 - Dynamical Systems and Applications (3)
Prerequisite: MATH 30613, or equivalent. Dynamical systems on the line and on the circle, bifurcations, two-dimensional flows, linearization, limit cycles, Lorenz equation and chaos, logistic map, fractals, strange attractors, applications to physics, biology, and engineering.

MATH 60801 - Mathematics Internship (1)
Prerequisites: Must have taken at least 9 hours of graduate Mathematics courses with a grade of B- or higher in each course. Students must spend at least 90 hours in approved practical work experience with an organization or company approved by the graduate program director. Repeatable up to a total of 3 credit hours.

MATH 60970 - Special Topics (1.00-12.00)
Prerequisite: Graduate standing in mathematics. (1-12 semester hours)

MATH 70273 - Commutative Algebra (3)
Prerequisite: MATH 60263, or equivalent. The course will cover the fundamental concepts of commutative algebra. These include commutative rings and homomorphism, ideals and quotient rings, prime ideals, modules over a ring and associated constructions (tensor Product, direct sum), exact sequences, rings and modules of fractions, primary decomposition, Noetherian and Artinian rings, and dimension theory.

MATH 70283 - Algebraic Geometry (3)
Prerequisite: MATH 70273, or equivalent. Algebraic sets and the Zariski topology, projective varieties and their invariants, algebraic maps and linear systems, rational maps and blow-ups, smoothness and the Zariski tangent space, products and the Segre embedding.

MATH 70333 - Algebraic Topology II (3)
Prerequisites: MATH 60313 and 60323, or equivalents. Advanced topics in algebraic topology, continuing from MATH 60323. Topics include the fundamentals of homology and cohomology theory with applications to the study of the properties of topological spaces.

MATH 70373 - Topological K-Theory (3)
Prerequisites: MATH 60263 and MATH 60313, or equivalents. MATH 60323 is recommended as a prerequisite, but is not required. An introduction to K-theory of topological spaces. Topics include vector bundles, idempotents, projective modules, the Grothendieck completion of a group, the Bott periodicity theorem, the Thom isomorphism theorem, and application.

MATH 70423 - Differential Geometry (3)
Prerequisite: MATH 60513 and permission of instructor. Differential structures on manifolds. Differential forms and integration. Stokes' Theorem. Vector fields and flows. Poisson brackets and Lie derivatives. Affine connections and Riemannian metrics. Geodesics and completeness.

MATH 70553 - Global Analysis and Differential Geometry (3)
Prerequisite: Permission of instructor. This is an advanced reading course on special topics in global analysis and differential geometry intended for research level Ph.D. candidates. Topics will be chosen based upon the interests of the student and the instructor.

MATH 70643 - Operators in Hilbert Space (3)
Prerequisites: A knowledge of the Lebesgue integral and permission of instructor. Topology of Hilbert space. Projections and closed linear subspaces. General properties of normal, Hermitian and unitary operators. Compact operators. Spectral analysis of bounded and unbounded operators. Applications.

MATH 70653 - Functional Analysis (3)
Prerequisites: MATH 70553, and permission of instructor. Desirable: Three semester hours of topology. Linear topological spaces. Convex sets. Normed linear spaces. Banach spaces, and Hilbert spaces. Linear operators. Spectral analysis. Banach algebras and C^* -algebras.

MATH 70713 - Algebraic Number Theory (3)

Prerequisite: MATH 60263, or equivalent. Number fields. Dedekind domains. Valuations. Fractional ideals. Factorization, completions, extensions, and ramifications. Class numbers and class groups. Lattices and units. Quadratic and cyclotomic fields. Diophantine Equations. Function fields, adeles and ideles, as time permits.

MATH 70723 - Analytic Number Theory (3)
Prerequisites: MATH 60413, and either MATH 60263 or MATH 50703. Arithmetic functions. Groups and characters. Dirichlet series and Euler products. The Reimann zeta function, other zeta functions, and L-functions. The Prime Number Theorem. Primes in arithmetic progressions.

MATH 70771 - Non-Thesis (1)
Selected when enrolling only for non-thesis examination or preparation for the examination.

MATH 70980 - Thesis (1.00-3.00)
A minimum of 3 hours of MATH 70980 Thesis is required.

MATH 70990 - Thesis (1.00-3.00)
Prerequisites: MATH 70980 and admission to candidacy. A minimum of 3 hours of MATH 70990 Thesis is required.

MATH 80880 - Graduate Student Seminar (1.00-20.00)
Prerequisite: Permission of instructor. Student-presented lectures on various current mathematical topics, selected by the students and the instructor.

MATH 80970 - Advanced Topics (1.00-20.00)
Prerequisites: Permission of instructor. This is an advanced reading course on special topics intended for research level Ph.D. candidates. Topics will be chosen based upon the interests of the student and instructor.

MATH 90980 - Dissertation (1.00-6.00)
Prerequisite: Permission of department chair. A minimum of six hours is required. Enrolled students will pursue their dissertation research under the stewardship of their advisors.

MATH 90990 - Dissertation (1.00-6.00)
Prerequisites: MATH 90980 and admission to candidacy. A minimum of 6 hours required. Enrolled students will pursue their dissertation research under the stewardship of their advisors.

MEDA - Media Arts

MEDA 50113 - Producing for Film and Video
Seminar assesses the role of the producer in the film and video industry. All phases of production will be examined, including budgeting, financing, rights acquisition, and managing the production.

MEDA 50553 - The Full-Length Screenplay
Opportunity to develop, write, and revise a full-length original script. Includes theoretical models of scriptwriting, development of rough scenarios, beat outlines, first drafts, and revisions.

MEDA 50613 - Directing
This course explores video and film directing on an advanced level. Combines the examination of techniques used by feature film directors. All phases of the directing process are examined from selecting a script, rehearsal, principal photography, and post-production.

MEDA 60123 - Media Aesthetics and Culture
Prerequisite: Must be a MEDA graduate student. Seminar examines the fundamental elements of film style (composition, mise-en-scene, editing, narrative structure, sound), and the ways in which media aesthetics have developed in different cultural contexts.

MEDA 60143 - Theory and Practice of Media Literacy
Historical and theoretical development of "media literacy" as a practice of educating the public about the process, techniques, and impact of various media. Focuses on the knowledge base needed to continuously interact with media through understanding of how media work, how they produce meaning, and how they construct reality.

MEDA 60303 - Media Theory and Criticism
This course explores theoretical approaches to understanding media. Topics will include ideology, narrative theories, psychoanalysis, feminism, authorship, and other critical methods of analysis.

MEDA 60433 - Technology and Culture
Seminar analyzes the ways media technologies have affected and represented their socio-cultural contexts. Course emphasizes the relationship between technological development and ideology.

MEDA 60443 - Globalization of the Media Industries
Examines the increasingly international nature of the media industries. Investigates how films, television programs, music, and interactive media are distributed and marketed globally. Examines the perception that "globalization" equals "Americanization."

MEDA 60503 - Script Analysis
Incorporates theory and criticism to enable students to dissect and critique scripts written for the visual media. Students will develop the ability to analyze the basic structure of screenplay plots and their relation to character, thought, language, sound and spectacle.

MEDA 60513 - Research Methods in Media Arts and Communication
Seminar designed to introduce the various methods of media research. Focus on quantitative and qualitative approaches, including surveys, experiments, naturalistic inquiry, critical/cultural, historical and legal research.

MEDA 60743 - Media Law
Analysis of laws and policies affecting the media industries and the interests they were meant to serve. Structural and content regulation of broadcasting, cable, film, and the Internet. Introduction to legal research and writing.

MEDA 60803 - Media Industries and the Production of Culture
Explores the function of media institutions in the generation and circulation of meanings in society. Course addresses general theoretical issues relating to the production of culture, professional ideologies and work practices within media industries, and interaction of media institutions with the socio-political environment. Includes case studies of various media.

MEDA 60903 - Advanced Topics: Media Industries Studies
Seminar offering the opportunity to study various media industries in depth.

MEDA 60913 - Advanced Topics: Media and Culture
Seminar offering the opportunity for in-depth study of various significant aspects of the relationship between media and culture.

MEDA 60923 - Advanced Creative Topics
Seminars offering the opportunity to study in depth selected stages and in the creative process of media production.

MEDA 70001 - Graduate Seminar
Seminars that analyze and discuss significant issues and developments in media and communication. Allows both faculty and students to present work, attend guest presentations, collaborate, and prepare thesis project.

MEDA 70980 - Thesis
Thesis.

MEDA 70990 - Thesis
Thesis.

MUSI - Music

MUSI 50053 - Introduction to Voice Pedagogy (3)
Prerequisite: Appropriate undergraduate degree in Music or Music Education or permission of instructor. Introduction to science, methods, and materials of voice pedagogy. Acoustics, breathing, attack, registration, resonance, vowels, articulation, and coordination of singing.

MUSI 50063 - Comparative Voice Pedagogy (3)
Prerequisite: MUSI 50053 or equivalent and permission of instructor. Comparisons of research results and concepts of voice pedagogy across national styles, bel canto treatises, 19th century sources, contemporary methods, and artist statements. Students are encouraged to develop their own practical studio procedures in harmony with the common ideals of Western artistic voice culture.

MUSI 50081 - Business Practices for the Independent Music Teacher (1)
Prerequisite: Senior or graduate standing. The lecture course will address business practices needed to successfully establish and maintain an independent music studio. The course will discuss business models, self-employment issues, studio organization, record keeping, tax concerns, marketing, recruiting, and retaining students. Reading and research assignments and preparation of materials will provide the basis for learning.

MUSI 50203 - Musical Structure and Style (3)
Prerequisites: MUSI 30202. Study of musical style and structure through the analysis of music; organized chronologically from 1750 to the present.

MUSI 50212 - Choral Conducting (2)

Prerequisites: Senior or graduate standing, MUSI 30512 or 30522, keyboard facility or permission of instructor. Materials and techniques for the experienced choral director.

MUSI 50222 - Instrumental Conducting (2)
Prerequisite: MUSI 30522; keyboard facility; or permission of instructor. Baton technique and its application to selected works of symphonic and operatic literature.

MUSI 50303 - History of Sacred Music (3)
Prerequisite: Junior or Senior standing or graduate standing or permission of instructor. A historical survey of sacred music from ancient times to the twenty-first century.

MUSI 50403 - Symphonic Literature (3)
Prerequisite: Senior or graduate standing. Historical development of the orchestra and its repertoire, with emphasis on the symphony.

MUSI 50413 - Survey of Opera Literature (3)
Prerequisite: Graduate standing or approved seniors with Music 30613, 30623. Operatic masterpieces from 1600 to the present with emphasis on selected works of Mozart, Verdi, Wagner, Puccini, Britten and others.

MUSI 50423 - Choral Literature (3)
Prerequisite: Graduate standing or approved seniors with Music 30613, 30623. The various forms in the field of choral literature with detailed examination of representative works.

MUSI 50433 - Keyboard Literature I Pre-Baroque through Classical (3)
Prerequisite: Junior, senior or graduate standing. Historical development, structural and stylistic elements, as well as performance practices of music for keyboard instruments from the pre-Baroque through the Classical periods.

MUSI 50443 - Ethnomusicology (3)
Prerequisite: Senior or graduate standing. The study of various theories concerning the cultural function of music; exposure to the analytical methods of ethnomusicologists, and the examination of examples from diverse musical cultures.

MUSI 50453 - Music Criticism (3)
Prerequisite: Senior or graduate standing. Study of selected writings on music criticism and aesthetics from antiquity to the present.

MUSI 50463 - Topics in Music Since 1900 (3)
Prerequisite: Successful completion of MUSI 30623 or graduate standing. Variable topics in music of the 20th and 21st centuries.

MUSI 50473 - Survey of Song Literature (3)
Prerequisite: Senior or graduate standing. A socio-musical examination of the repertoire for solo voice from 1750 to the present, with emphasis on German Lieder, French melodie, and art songs in English. Also, a brief survey of art song literature in Spanish and Eastern European languages, including Russian.

MUSI 50483 - Chamber Music Literature (3)
Prerequisite: Graduate standing or approved seniors with Music 30613, 30623. Consent of instructor. The study of the development of chamber music from its beginnings to the present.

MUSI 50493 - Music in the United States (3)
Prerequisite: Senior or graduate standing in music. An examination of both cultivated and vernacular music in the United States from the Colonial Era to the present.

MUSI 50523 - Linear Analysis (3)
Prerequisite: Graduate standing or approved seniors. Development of structural learning through graphic analysis. Readings on Schenkerian concepts as applied to tonal music.

MUSI 50533 - Keyboard Literature II Romantic through Contemporary (3)
Prerequisites: Junior, senior or graduate standing. Historical development, structural and stylistic elements, as well as performance practices of music for piano in the 19th, 20th, and 21st centuries.

MUSI 50970 - Special Problems (.50-6.00)
Prerequisite: Permission of instructor. Specialized work in student's area of concentration. .50-6 hours.

MUSI 51081 - Artist Diploma Post-Baccalaureate Collaborative Piano (1)

Prerequisites: Acceptance to Artist Diploma Program, Post-Baccalaureate. Collaborative Piano course for the Artist Diploma Program in the School of Music.

MUSI 60000 - Music Pedagogy (1.00-20.00)
Methods and materials for teaching at various levels, to include supervised teaching.

MUSI 60010 - Wind Symphony (1)
1/2 semester hour.

MUSI 60020 - Percussion Ensemble (1)
1/2 semester hour.

MUSI 60030 - Choral Union (1)
1/2 semester hour credit and course may be repeated. The Choral Union is a non-auditioned ensemble open to all members of the TCU community (students, faculty and staff). Weekly rehearsals will focus on vocal, musical and ensemble development. The ensemble is designed to accommodate singers of all abilities.

MUSI 60040 - Concert Chorale (1)
1/2 semester hour.

MUSI 60041 - Voice Pedagogy Practicum (1)
Prerequisites: MUSI 50053. Experience in individual voice instruction under the supervision of a faculty advisor. Each student will teach two voice pupils weekly lessons for the semester and observe lessons taught by university faculty. A weekly class serves as a forum for pedagogical discussion and exchange of ideas. The course may be repeated for a maximum of three credit hours.

MUSI 60050 - Chapel Choir (1)
1/2 semester hour.

MUSI 60052 - Voice Repertoire Management (2)
Prerequisite: Knowledge of Italian, German and French dictions and the International Phonetic Alphabet (IPA) and some proficiency in piano accompanying. Survey of the repertoire for voice performance and its relationship to voice classification, age, technical level and performance situation. Students will learn to coach various national styles and performance practices.

MUSI 60060 - University Singers (1)
1/2 semester hour.

MUSI 60062 - Research in Singing (2)
Prerequisites: MUSI 50053, 50063 and permission of instructor. Surveys the literature of research in singing, including topics such as aerodynamics, vocal registers, vibrato, formants, intelligibility, voice classification, vocal abuse and misuse, fitness for singers and the psychology of singing. Students also become familiar with the instrumentation for physiologic and psychoacoustic studies and the principles of experimental design.

MUSI 60063 - Advanced Seminar in Voice Pedagogy (3)
Prerequisites: MUSI 50053, and concurrent enrollment in MUSI 60041. Examination of the techniques and practical aspects of teaching voice, including the psychology of teaching, lesson sequencing, vocalizes and their various applications, integration of repertoire into technical goals, and consideration of the teacher as vocal coach. The special needs of child, adolescent, and aging voices will also be covered.

MUSI 60070 - Vocal Jazz (1)
1/2 semester hour.

MUSI 60073 - Technology in Voice Teaching (3)
Prerequisites: Graduate standing in voice.

MUSI 60080 - Chamber Music (1)
1/2 semester hour.

MUSI 60090 - Woodwind Ensemble (1)
1/2 semester hour.

MUSI 60091 - Yoga for Musicians (1)
Prerequisites: Music major; prior experience or knowledge in the practice of any style of yoga is helpful, but not required. This course is a pass/no credit course. The course focuses on flexibility, balance, strength, and relaxation. Using postures and breathing exercise adapted to each person's individual level, students will develop improved alignment, breathing, and a balanced body/mind. Students will unite these elements to aid in performance anxiety, posture, phrasing, and other activities inherent to their particular instrument. Limited discussion may include ways to incorporate yoga

techniques into the students' daily activities, particularly in practice, rehearsal, and performance. This class is designed to accommodate both those who are new to yoga practice, as well as those with some experience.

MUSI 60100 - Opera Studio (1)
1/2 semester hour.

MUSI 60101 - Graduate Music History Survey (1)
Prerequisite: Graduate standing in music. This course is a one-semester survey of Western music history for Master's students whose performance on the Master's entrance exam indicates the need for a general survey.

MUSI 60103 - Bibliography and Research Techniques (3)
Prerequisites: Graduate standing. A course in the basic materials and methods of research in music. Acquaintance with primary source materials such as music lexicons, dictionaries, monuments, complete works of composers, periodical literature and evaluation of standard sources in all areas of music.

MUSI 60110 - Marching Band (1)
1/2 semester hour.

MUSI 60120 - Symphony Orchestra (1)
1/2 semester hour.

MUSI 60133 - Music Theory/Literacy Pedagogy (3)
Prerequisites: Limited to graduate students majoring in music theory or composition or having music theory or composition as a cognate on their TCU doctoral degree program. Participants in this course learn how to teach music literacy through observation of the instructor, interaction with other participants in model-teaching exercises, and review of test and assignments. A portion of the course is dedicated to the critical review of existing texts, instructional materials, and software.

MUSI 60140 - Frog Corps (1)
1/2 semester hour credit and course may be repeated. Frog Corps is a non-auditioned male ensemble that serves as a spirit group for the university campus. Performances include traditional concerts with other university ensembles, appearances at athletic events, and presentation at university and community social occasions.

MUSI 60150 - New Music Ensemble (1)
The ensemble performs mixed chamber music composed during the past 100 years with emphasis upon works of the past 25 years.

MUSI 60160 - Brass Ensemble (1)
1/2 semester hour.

MUSI 60162 - Techniques for the Singer-Actor (2)
Development of performance techniques unique to music theatre genre. Examination and practical application of skills and knowledge required for producing/directing music theatre.

MUSI 60170 - Piano Accompanying (1)
1/2 semester hour.

MUSI 60180 - Collegium Musicum (1)
1/2 semester hour.

MUSI 60182 - Piano Chamber Music Performance (2)
Prerequisite: Graduate standing in music. Intensive study of selected works of chamber music with piano. Emphasis on developing the musical and interactive skills needed for chamber music through rehearsal and performance. Weekly coaching with faculty.

MUSI 60190 - Jazz Ensemble (1)
1/2 semester hour.

MUSI 60191 - Vocal Coaching for Pianists (1)
Prerequisites: Graduate Collaborative Piano Majors. This is designed to train the pianist in vocal coaching techniques. It will include working with the pianist's vocal partner and giving lessons on vocal coaching one on one. There will be one individual coaching each week with the class meeting together every other week. The pianist will learn to give comments on the repertoire, including song translation, pronunciation and information on the composer and style.

MUSI 60203 - Graduate Piano Pedagogy and Practicum I (3)
The study of learning theories, methods, materials, curriculum development, and musical assessment for teaching piano with focus on group instruction at the college and university levels. Student teaching is required.

MUSI 60210 - Symphonic Band (1)

1/2 semester hour.

MUSI 60213 - Graduate Piano Pedagogy and Practicum II (3)
Prerequisite: MUSI 60203. The student of learning theories, methods, materials, curriculum development, and musical assessment for teaching piano with focus on the elementary and intermediate student. Student teaching is required.

MUSI 60220 - Special Studies in Conducting (1.00-4.00)
Prerequisite: Admission to the Master of Music in Conducting degree program and/or permission of the instructor. An intensive study of the technique and philosophy of conducting with the student's major professor. Required of all students in the Master of Music in Conducting degree during each semester of study in the program. One hour of credit each semester for a maximum of four credits.

MUSI 60223 - Current Trends and Research in Piano Pedagogy (3)
Reading and writing assignments which explore the body of knowledge in the field of piano pedagogy, with emphasis on recent research studies. Selection and development of a research topic for the lecture/recital.

MUSI 60230 - Internship in Teaching (1.00-6.00)
Observation and teaching in a specialized area chosen in consultation with the instructor.

MUSI 60232 - Score Reading (2)
Prerequisite: Admission into the Master of Music in Conducting degree program or permission of instructor. Further development of skills in the reading of all clefs and the most common transpositions and structured analysis of large scores. Score analysis and the simultaneous reading of multiple lines in both full and condensed scores.

MUSI 60233 - Teaching Intermediate and Advanced Piano Students (3)
Prerequisites: MUSI 60203 and 60213. A study of piano literature with a focus on curriculum development and strategies for teaching piano students at the intermediate through advanced levels.

MUSI 60243 - Piano Ensemble Teaching and Performance Literature (3)
Prerequisites: Graduate standing in music. A study of the teaching and performance literature for piano duet, two pianos, and multiple pianos, and teaching applications for the elementary through advanced levels.

MUSI 60300 - Special Problems in Music Education (1.00-20.00)
Special Problems in Music Education.

MUSI 60303 - History of Music Notation (3)
Prerequisites: grad standing in music. This course traces the history of music notation in the Western tradition from Ancient Greece to the end of the 16th century through readings, manuscripts, and prints. Students will gain practical transcription and editing experience.

MUSI 60350 - TCU Cello Ensemble (1)
Study and performance of music for cello ensemble.

MUSI 60360 - TCU Harp Ensemble (1)
The study and performance of music for harp ensemble

MUSI 60400 - Special Topics in Piano Pedagogy (1.00-6.00)
Prerequisites: Graduate standing in music; permission of instructor. Specialized work in student's area of concentration. (1-6 hours.)

MUSI 60413 - Seminar in Opera Literature (3)
Prerequisites: MUSI 50413. An intensive study of a specific area of opera literature, such as the works of a selected composer or of a specific genre of opera. Active research in the historical style and musico-textual relationship through reading, listening, and writing will lead to effective performance. The specific content of this course will change from semester to semester.

MUSI 60433 - Seminar in Keyboard Literature (3)
Prerequisites: Graduate standing in music. A study of a specific area of piano literature, such as the works of a selected composer or a specific genre. The specific content of this course will change from semester to semester.

MUSI 60453 - Musicians in Fiction (3)
Prerequisites: grad standing in Music (non-music majors welcome). This seminar will investigate the role of the musician in selected short stories and novels.

MUSI 60473 - Seminar in Song Literature (3)
Prerequisites: MUSI 50473. An in-depth study of a specific area of art song history and literature. Content will change from semester to semester. Active research on an aspect of solo voice repertoire development in the

musical treatment of the text through reading, listening, and writing, will lead to effective performance of the works studied.

MUSI 60483 - Instrumental Collaborative Piano Literature (3)
Prerequisites: This course is designed specifically for students enrolled in the Master of Music in Collaborative Piano degree or with permission of Instructor. The purpose of this course is to give students a deeper knowledge of the vast repertoire that exists in the realm of instrumental collaborative piano. The course is designed to survey both the standard repertoire as well as introduce more esoteric, yet substantial music. Instrumental duos, chamber works and orchestral reductions of all periods will be discussed and analyzed within an historical and theoretical perspective.

MUSI 60500 - Seminar in Musicology (1.00-20.00)
Prerequisite: Graduate standing in music, consent of instructor.

MUSI 60553 - Analysis of Music: 1880-1950 (3)
Prerequisite: Graduate standing. An analysis of 20th Century compositions, with emphasis on atonal music. Study of contemporary compositional techniques and pitch-class analysis. Readings on set analysis and recent developments in contemporary composition.

MUSI 60563 - Analysis of Music: 1950 to Present (3)
Prerequisites: Acceptance into the School of Music DMA program or consent of instructor.

MUSI 60630 - Composition (1.00-6.00)
Prerequisite: Permission of instructor. Study of compositional methods. The course may be taken twice for 6 total hours with a maximum load of 3 hours per semester.

MUSI 60643 - Computer Music (3)
Prerequisite: Permission of instructor. An investigation of basic acoustic and electronic principles, psychoacoustics, synthesis fundamentals, synthesis using distortion techniques, subtractive synthesis, speech synthesis, reverberation, auditory localization and other sound processing techniques, aleatoric and deterministic composition with computers and real-time performance of computer music.

MUSI 60700 - Special Studies in Music Theory (1.00-6.00)
Prerequisites: Graduate standing in music, consent of instructor. Special topics in the theory of music, affording students an opportunity to carry on individual programs of study.

MUSI 60800 - Seminar in Music Theory (1.00-20.00)
Seminar in music theory.

MUSI 60801 - Composition Seminar (1)
Prerequisites: Graduate standing in Music. These weekly meetings feature guest speakers, TCU faculty, and graduate students presenting on specific topics in music composition and presenting works for consideration and analysis.

MUSI 60913 - Psychology of Music (3)
The study of the sociological and psychological aspects of music as well as musical aptitude, human learning theory and theories of music learning.

MUSI 60923 - Philosophy of Music Education (3)
A study of the concepts involved in the philosophy of music education with respect to the place of music as a moral, social and cultural force.

MUSI 70203 - Analysis for Performance (3)
Prerequisites: MUSI 50203. In this course students learn to apply analytical techniques learned in MUSI 50203, Musical Structure and Style to performance of musical works. Students will be required to analyze works, articulate the implications for performance suggested by these analyses, critique performance editions and performances in terms of these analyses, and apply their finds to performance and the production of performance editions.

MUSI 70220 - Doctoral Conducting (1.00-3.00)
Prerequisites: must be a DMA conducting student. Advanced conducting lessons for doctoral (DMA) students.

MUSI 70630 - Doctoral Composition (1.00-3.00)
Prerequisites: must be a doctoral student in Music Composition. Private lessons in composition are dedicated to the student application of advanced techniques in the field through the creation of new works. In doctoral level lessons the student is expected to use the aforementioned techniques in the context of developing his or her own creative voice.

MUSI 70771 - Non-Thesis (1)

Selected when enrolling only for non-thesis examination or preparation for the examination.

MUSI 70903 - Music Theory Treatise (3)

Prerequisites: Doctoral student in music. Students do intensive study in the area of musical analysis and produce a significant document related to this study by semester's end.

MUSI 70950 - Special Problems in Musicology (1.00-20.00)

Prerequisite: Graduate standing in music; consent of instructor. Special topics in the history of music, affording students an opportunity to carry on individual programs of study.

MUSI 70971 - Recital I (1)

Recital I.

MUSI 70972 - Lecture Recital (2)

Preparation and delivery of a lecture-recital on a pedagogical topic. Culminates in a major paper and a large-scale workshop presentation.

MUSI 70980 - Thesis I (1.00-20.00)

Thesis I

MUSI 70981 - Recital II (1)

Recital II.

MUSI 70990 - Thesis II (1.00-20.00)

Thesis II

MUSI 80971 - Doctoral Pedagogy Workshop I (1)

Prerequisites: MUSI 60203 and 60213. The preparation of a public workshop for piano teachers at least five hours in length addressing topics related to teaching techniques, teaching materials, and piano literature.

MUSI 80981 - Doctoral Pedagogy Workshop II (1)

Prerequisites: MUSI 80971. The presentation of a public workshop for piano teachers at least five hours in length addressing topics related to teaching techniques, teaching materials, and piano literature.

MUSI 90970 - DMA Document (1.00-6.00)

Requisites: Doctoral students in music. DMA Document. May be repeated for credit: 6 hours required.

MUSI 90980 - DMA Composition Dissertation (1.00-6.00)

Prerequisites: Doctoral student in Music. Capstone document in Music composition. This will be a musical composition or set of compositions of major scope.

MUSI 90990 - DMA Composition Dissertation (1.00-6.00)

Prerequisites: Doctoral student in Music. Capstone Document in Music Composition. This will be a musical composition or set of compositions of major scope.

MUSP - Music Performance

MUSP 50210 - Artist Diploma Lessons (1.00-6.00)

Prerequisites: Acceptance to Artist Diploma program, Post-Baccalaureate.

MUSP 50961 - Artist Diploma Recital I (1)

Prerequisites: Acceptance to Artist Diploma Program, Post-Baccalaureate. First recital in a sequence of four required for the Artist Diploma program in the School of Music.

MUSP 50971 - Artist Diploma Recital II (1)

Prerequisites: Acceptance to Artist Diploma Program, Post-Baccalaureate. Second recital in a sequence of four required for the Artist Diploma program in the School of Music.

MUSP 50981 - Artist Diploma Recital III (1)

Prerequisites: MUSP 50971. Third recital in a sequence of four required for the Artist Diploma program in the School of Music.

MUSP 50991 - Artist Diploma Recital IV (1)

Prerequisites: MUSP 50971. Fourth recital in a sequence of four required for the Artist Diploma program in the School of Music.

MUSI 60141 - Collaborative Piano Practicum

Prerequisites: Graduate Collaborative Piano Majors. This course is a laboratory course designed to give the student practical experience in collaborating with vocalists and instrumentalists, large ensemble collaboration i.e. opera, choir, music theater, orchestra, wind symphony, continuo and early music accompanying. Students will be expected to play in studio lessons, studio performance classes, recitals, and juries while

adhering to a consistent rehearsal schedule with his/her assigned partner/partners. This practicum trains students in a full range of professional skills. May be repeated for credit.

MUSP 60110 - Voice (1.00-6.00)

Voice

MUSP 60120 - Vocal Coaching Graduate (1.00-2.00)

Prerequisites: Enrollment in Studio Voice MUSP 60110. Individual instruction providing an introduction to professional methods used in opera companies and music theatre for aspiring professional vocalists. Students will concentrate on in-depth study of details of text and style, ensuring authentic sounding diction and appropriate stylistic interpretation. Repertoire studied will be assigned by the studio teacher along with repertoire being prepared for performance on campus and off. Course may be taken for 1 or 2 credits and repeated for credit.

MUSP 60130 - Applied Voice Technology (1.00-2.00)

Concurrent enrollment in MUSP 60110. This elective course teaches the student to employ the Kay-elementrics Computerized Speech Lab, the Voce Vista program (with electroglottography), and video and recording equipment in furthering the development of their own vocal technique and in devising strategies for the teaching studio by applying measurable analyses to the coordination of vocal-fold vibration, airflow and resonance factors. Students may examine recordings from their studio lessons and compare technical strategies of recorded professional singers. Research projects may be developed.

MUSP 60210 - Piano (1.00-6.00)

Piano

MUSP 60220 - Organ (1.00-6.00)

Organ

MUSP 60230 - Jazz Piano (1.00-6.00)

Jazz Piano

MUSP 60240 - Harpsichord (1.00-6.00)

Harpsichord

MUSP 60310 - Violin (1.00-6.00)

Violin

MUSP 60312 - Applied Collaborative Piano (2)

Prerequisites: This course is designed specifically for students enrolled in the Master of Music in Collaborative Piano degree or with permission of Instructor. This course provides the student with instruction in the learning of collaborative repertoire as well as instruction in the performance practice of stage collaboration with other musicians. The exact course content will vary according to the specific repertoire the student is working on in his/her collaborative activities, such as choral, chamber and private instrumental/vocal studios. Repertoire will also be determined from the professor's assessment of the student's developmental stage and needs. Additional requirements may include engaging in outside work in the vocal and instrumental studios or ensembles.

MUSP 60320 - Viola (1.00-6.00)

Viola

MUSP 60330 - Violoncello (1.00-6.00)

Violoncello

MUSP 60340 - Double Bass (1.00-6.00)

Double Bass

MUSP 60350 - Viola da Gamba (1.00-6.00)

Viola da Gamba

MUSP 60360 - Jazz Bass (1.00-6.00)

Jazz Bass

MUSP 60410 - Flute (1.00-6.00)

Flute

MUSP 60420 - Oboe (1.00-6.00)

Oboe

MUSP 60430 - Clarinet (1.00-6.00)

Clarinet

MUSP 60440 - Saxophone (1.00-6.00)

Saxophone

MUSP 60450 - Bassoon (1.00-6.00)

Bassoon

MUSP 60460 - Jazz Saxophone (1.00-2.00)

Advanced study and performance of saxophone in the jazz style. Emphasis will be placed on maintaining an authentic sound, style and interpretation of jazz repertoire dating from the 1940's to the present. Instruction consists of one on one interaction between faculty and student and is offered for one or two credit hours.

MUSP 60510 - French Horn (1.00-6.00)

French Horn

MUSP 60520 - Trumpet (1.00-6.00)

Trumpet

MUSP 60530 - Trombone (1.00-6.00)

Trombone

MUSP 60540 - Baritone (1.00-6.00)

Baritone

MUSP 60550 - Tuba (1.00-6.00)

Tuba

MUSP 60560 - Euphonium (1.00-6.00)

Euphonium

MUSP 60610 - Percussion (1.00-6.00)

Percussion

MUSP 60620 - Jazz Drumset (1.00-6.00)

Jazz Drumset

MUSP 60710 - Harp (1.00-6.00)

Harp

MUSP 60810 - Guitar (1.00-6.00)

Guitar

MUSP 60910 - Jazz Guitar (1.00-6.00)

Jazz Guitar

MUSP 70110 - Doctoral Voice (1.00-3.00)

Prerequisite: DMA students only. Advanced study in voice for DMA students.

MUSP 70220 - Doctoral Organ (1.00-3.00)

Prerequisite: DMA students only. Advanced study in organ for DMA students.

MUSP 70310 - Doctoral Violin (1.00-3.00)

Prerequisite: DMA students only. Advanced study in violin for DMA students.

MUSP 70320 - Doctoral Viola (1.00-3.00)

Prerequisite: DMA students only. Advanced study in viola for DMA students

MUSP 70330 - Doctoral Violoncello (1.00-3.00)

Prerequisite: DMA students only. Advanced study in violoncello for DMA students.

MUSP 70340 - Doctoral Double Bass (1.00-3.00)

Prerequisite: DMA students only. Advanced study in double bass for DMA students.

MUSP 70410 - Doctoral Flute (1.00-3.00)

Prerequisite: DMA students only. Advanced study in flute for DMA students.

MUSP 70420 - Doctoral Oboe (1.00-3.00)

Prerequisite: DMA students only. Advanced study in oboe for DMA students.

MUSP 70430 - Doctoral Clarinet (1.00-3.00)

Prerequisite: DMA students only. Advanced study in clarinet for DMA students.

MUSP 70440 - Doctoral Saxophone (1.00-3.00)

Prerequisite: DMA students only. Advanced study in saxophone for DMA students

MUSP 70450 - Doctoral Bassoon (1.00-3.00)

Prerequisite: DMA students only. Prerequisite: DMA students only. Advanced study in bassoon for DMA students

MUSP 70510 - Doctoral French Horn (1.00-3.00)

Prerequisite: DMA students only. Advanced study in French Horn for DMA students.

MUSP 70520 - Doctoral Trumpet (1.00-3.00)

Prerequisite: DMA students only. Advanced study in trumpet for DMA students.

MUSP 70530 - Doctoral Trombone (1.00-3.00)

Prerequisite: DMA students only. Advanced study in trombone for DMA students.

MUSP 70550 - Doctoral Tuba (1.00-3.00)

Prerequisite: DMA students only. Advanced study in tuba for DMA students

MUSP 70610 - Doctoral Percussion (1.00-3.00)

Prerequisite: DMA students only. Advanced study in percussion for DMA students.

MUSP 70971 - Recital I (1)

Recital I

MUSP 70981 - Recital II (1)

Recital II

MUSP 71971 - Collaborative Piano Recital I (1)

Prerequisites: Completed at least one semester of classwork toward the MM in Collaborative Piano. This is the first of two required degree recitals that include string, brass, woodwind, vocal and/or chamber works between the two recitals. The recital is approved by hearing of the recital committee four weeks prior to the recital.

MUSP 72971 - Collaborative Piano Recital II (1)

Prerequisites: Completed at least one semester of classwork toward the MM in Collaborative Piano. This is the second and final of two required degree recitals that include string, brass, woodwind, vocal and/or chamber works between the two recitals. The recital is approved by a hearing of the recital committee four weeks prior to the recital.

MUSP 80961 - DMA Lecture Recital (1)

Prerequisites: Limited to doctoral students in music. A lecture/performance employing a synthesis of scholarship and performance skills in the examination of a topic related to the candidate's area of performance

MUSP 80971 - DMA Recital I (1)

Prerequisites: Doctoral student in Music only. A public recital presented by the doctoral student in music.

MUSP 80981 - DMA Recital II (1)

Prerequisites: Must be a Doctoral student in music. A public recital presented by the doctoral student in music.

MUSP 80991 - DMA Recital III (1)

Prerequisites: Must be a doctoral student in music. A public recital presented by the doctoral student in music.

NAPN - Nursing Advanced Practice Nurse

NAPN 84201 - Prescribing for Advanced Practice Registered Nurses (1)

Prerequisites: NURS 50022; NURS 50053 (or concurrent enrollment). This course focuses on the prescribing guidelines for advanced practice registered nurses (APRNs) including opioids and other controlled substances. Emphasis is placed on safe prescribing practices and federal and state regulatory guidelines. ER/LA Opioid Risk Evaluation and Mitigation Strategy (REMS) resources are discussed.

NAPN 84202 - Promoting Health and Wellness in Primary Care (2)

Prerequisites: NURS 50022. This course focuses on the role of the nurse practitioner in promoting wellness in the primary care setting, and communities. Principles of health promotion, disease prevention, and behavioral modification for individuals, aggregates, and populations are integrated. The environmental, socioeconomic, epidemiological, and cultural context of health behaviors will be explored. Population health models and frameworks used for health program planning and initiatives will be examined.

NAPN 84212 - Business and Legal Aspects for the Nurse Practitioner (2)

Prerequisites: NURS 50022. This course focuses on the business and legal aspects surrounding nurse practitioners. Incorporated are concepts of legal and ethical parameters of practice, business management, models of practice, and risk management. In addition, resources to measure practice outcomes and strategies for ongoing improvement will be discussed.

NAPN 84213 - Primary Care Adult-Gerontology I (3)

Prerequisites: NURS 50003; NURS 50013; NAPN 84201; NURS 50053; NAPN 84222 (or concurrent enrollment); NURS 50022. This course is taken

concurrently with NAPN 84282. This course focuses on the theoretical and clinical foundation of advanced practice nursing management of health care problems common to the adult-gerontology population across the lifespan including the older adult. Emphasis is placed on prevention, screening, diagnosis, and patient care management of selected acute and chronic conditions in the context of the primary care setting. Interprofessional collaboration among health care providers is promoted.

NAPN 84222 - Diagnostic Methods and Procedures for the Advanced Practice Registered Nurse (2)

Prerequisites: NURS 50003; NURS 50053. This course prepares the advanced practice registered nurse (APRN) for utilization, interpretation, and application of selected laboratory and diagnostic methods and procedures. Students will interpret objective diagnostic clinical data to develop critical thinking and decision-making skills necessary for advanced practice management of health problems across the lifespan. Wound care, suturing, and other common office procedures will be introduced.

NAPN 84282 - Primary Care Adult-Gerontology I Practicum (2)

Prerequisites: NURS 50003; NURS 50013; NAPN 84201; NURS 50053; NAPN 84222 (or concurrent enrollment); NURS 50022. This course is taken concurrently with NAPN 84213. This clinical practicum course focuses on the advanced practice nursing management of health care problems common to the adult and gerontology populations. Students participate in a direct patient care supervised practicum in an adult-gerontology care setting with a qualified preceptor. Application of evidence based clinical practice guidelines, tools and methods for promoting safe, patient-centered care will be emphasized.

NAPN 84323 - Primary Care Adult-Gerontology II (3)

Prerequisites: NURS 50003; NURS 50013; NAPN 84201; NURS 50053; NAPN 84222; NURS 50022; NAPN 84213; NAPN 84282. This course is taken concurrently with NAPN 84382. This course is the second of two courses that focuses on the theoretical and clinical foundation of advanced practice nursing management of health care problems common to the adult-gerontology population across the lifespan including the frail elderly. Emphasis is placed on prevention, screening, diagnosis, and patient care management of selected acute and chronic conditions in the context of the primary care setting. Interprofessional collaboration among health care providers is promoted.

NAPN 84333 - Primary Care of the Young Family (3)

Prerequisites: NURS 50003; NURS 50013; NAPN 84201; NURS 50053; NAPN 84222; NAPN 84213; NAPN 84282; NAPN 84323; NAPN 84382. This course is taken concurrently with NAPN 84392. This course focuses on the theoretical and clinical foundation of advanced practice nursing management of childrearing families including infants, children, adolescents and pregnant women within a family context as appropriate for the family nurse practitioner. Course content includes the principles of health promotion, disease prevention, prenatal care, diagnosis and management of common acute and chronic health problems, family dysfunction, and behavioral problems. Interprofessional collaboration and appropriate referral are integrated throughout the course.

NAPN 84382 - Primary Care Adult-Gerontology II Practicum (2)

Prerequisites: NURS 50003; NURS 50013; NAPN 84201; NURS 50053; NAPN 84222; NURS 50022; NAPN 84213; NAPN 84282. This course is taken concurrently with NAPN 84323. This clinical practicum course focuses on the advanced practice nursing management of health care problems common to the adult and gerontology populations. Students participate in a direct patient care supervised practicum in an adult-gerontology care setting with a qualified preceptor. Application of evidence based clinical practice guidelines, tools and methods for promoting safe, patient-centered care will be emphasized.

NAPN 84385 - Primary Care of the Family Practicum (5)

Prerequisites: NURS 50003; NURS 50013; NAPN 84201; NURS 50053; NAPN 84222; NURS 50022; NAPN 84213; NAPN 84282; NAPN 84323; NAPN 84382; NAPN 84333; NAPN 84392. This course is the final synthesis of the theoretical and clinical foundation of advanced practice nursing in the primary care management of individuals and families across the lifespan. Students participate in a direct patient care supervised practicum in a primary care setting with a qualified preceptor. Implementation of the Family Nurse Practitioner role in a collaborative practice model is emphasized. Related professional, ethical, and legal issues are addressed.

NAPN 84392 - Primary Care of the Young Family Practicum (2)

Prerequisites: NURS 50003; NURS 50013; NAPN 84201; NURS 50053; NAPN 84222; NAPN 84213; NAPN 84282; NAPN 84323; NAPN 84382. This course is taken concurrently with NAPN 84333-Primary Care of the Young Family. This clinical practicum course focuses on the health promotion, disease

prevention, and treatment of acute and chronic health problems in childrearing families including infants, children, adolescents and women. Students participate in a direct patient care supervised practicum in a primary care setting with a qualified preceptor. Application of evidence based clinical practice guidelines, tools and methods for promoting safe, patient-centered care will be emphasized. Collaborative care with the interprofessional team, community resources and appropriate referral are integrated into this clinical experience.

NAPN 85213 - Acute Care Adult-Gerontology I (3)

Prerequisites: NURS 50003, 50013, 50053, 50022, NAPN 84202, 84213, 84282, 85282 (or concurrent enrollment). This course focuses on assessment, diagnosis, and collaborative management of acutely ill physiologically unstable adolescents, adults, and elders with complex multisystem dysfunction. Content will focus on patients with selected acute and complex chronic illnesses, as well as related ethical, legal, and professional practice issues.

NAPN 85223 - Acute Care Adult-Gerontology II (3)

Prerequisites: NURS 50003, 50013, 50053, 50022, NAPN 84202, 84213, 84282, 85213, 85382 (or concurrent enrollment). This course integrates advanced practice nursing competencies with comprehensive assessment, diagnostic reasoning, analysis of differential diagnoses, and collaborative management of acutely ill physiologically unstable adolescents, adults, and elders with complex multisystem dysfunction. Course will build on Acute Care Adult-Gerontology I content and focus on patients with selected acute and complex chronic illnesses, as well as related ethical, legal and professional practice issues.

NAPN 85282 - Acute Care Adult-Gerontology I Practicum (2)

Prerequisites: NURS 50003, 50013, 50053, 50022, NAPN 84202, 84213, 84282, 85213 (or concurrent enrollment). This clinical practicum course focuses on the role of the Adult-Gerontology Acute Care nurse practitioner working with a multidisciplinary team to facilitate and accelerate the patient's return to optimal health. Clinical experiences in specialty practice and high acuity health care settings on managing adolescents, adults, and elders with acute, critical, and/or complex chronic illnesses.

NAPN 85382 - Acute Care Adult-Gerontology II Practicum (2)

Prerequisites: NURS 50003, 50013, 50053, 50022, NAPN 84202, 84213, 84282, 85213, 85282, 85223 (or concurrent enrollment). This continued clinical practicum course focuses on the role of the Adult-Gerontology Acute Care nurse practitioner working with a multidisciplinary team to facilitate and accelerate the patient's return to optimal health. Students apply critical thinking and evidence based clinical decision making skills to develop, implement, and evaluate management plans for adolescents, adults, and elders with acute, critical, and/or complex chronic illnesses in specialty practice and high acuity health care settings. Focus is on the provision of safe and effective advance practice nursing care to diverse populations.

NAPN 85384 - Acute Care Adult-Gerontology Advanced Practicum (4)

Prerequisites: NURS 50003, 50013, 50053, 50022, NAPN 84202, 84213, 84282, 85213, 85282, 85223 and 85382. Clinical supervised preceptorship course focuses on the role of the Adult-Gerontology Acute Care Nurse Practitioner working with a multidisciplinary team to facilitate and accelerate the patient's return to optimal health. Clinical experiences in specialty practice and high acuity health care settings on managing adolescents, adults, and elders with acute, critical, and/or complex chronic illnesses. Implementation of the Adult-Gerontology Acute Care Nurse Practitioner role in a collaborative practice model is emphasized. Related professional, ethical, and legal issues are addressed.

NCNL - Clinical Nurse Leader

NCNL 61113 - Leadership in Clinical Microsystems (3)

The course focuses on nursing leadership strategies at the microsystem level in the context of the clinical nurse leader role. Lateral integration of care through effective use of interdisciplinary teams is examined. Effective use of self as leader and the role of advocacy is analyzed. Issues involved with genetics are included.

NCNL 61123 - Care Environment Management (3)

Prerequisites: NCNL 61113. This course examines factors influencing team coordination such as delegation, group process, communication, and conflict resolution. Healthcare systems and organizations will be explored with emphasis on complexity theory, change theory, the role of informatics, and financial influences.

NCNL 61133 - Clinical Outcomes Management (3)

Prerequisites: NCNL 61113, 61123, and 61182. This course explores evidence-based strategies to improve client care and manage clinical microsystems. Ways to address nursing sensitive outcomes will be discussed. Outcomes evaluation following nursing interventions across the life span will be analyzed. Synthesis of genetic health problems and nursing care is discussed. Relevant theories will be explored to improve care outcomes.

NCNL 61182 - Clinical Nurse Leader Practicum (2)

Prerequisites: NCNL 61113 and NCNL 61123 (may be taken concurrently.) This precepted clinical course allows students to implement communication and decision making strategies in a clinical microsystem within a healthcare setting. Students will identify and begin work on the clinical project that will serve as their Capstone experience. (This course is only offered as P/NC.)

NCNL 61284 - Clinical Nurse Leader Residency (4)

Prerequisites: NCNL 61113, 61123, 61182, and 61133 (may be taken concurrently.) This clinical course allows students to implement communication, decision making, and advanced client care strategies in a healthcare setting. Students will complete the clinical project that will serve as their Capstone experience. (This course is only offered as P/NC.)

NCNS - Clinical Nurse Specialist

NCNS 60412 - Advanced Care of Adult-Gerontology Populations (2)

Prerequisites: NURS 50003, 50013, 50053, and 50022. This course is taken concurrently with NCNS 60482. This course emphasizes the patient/client domain of advanced nursing practice with adult-gerontology populations and synthesizes methods of population assessment and planning to construct population-appropriate interventions for health care delivery systems. The focus is on safe, quality, and culturally-appropriate advanced nursing practices to meet emerging global needs.

NCNS 60414 - Adult and Gerontologic Patient Concepts (4)

Prerequisites: NURS 50003, 50013, 60043, and 50053. This course emphasizes the patient/client domain of nursing practice. The health maintenance, health promotion, and illness prevention needs of adults and older adults, individually and collectively, are examined through the introduction and implementation of the outcomes management role. Content includes management of commonly encountered symptoms, functional problems, and risk behaviors commonly encountered in adults.

NCNS 60482 - Advanced Practice Nursing Practicum (2)

The course consists of supervised practicum experience focusing on advanced nursing practice with patients and families experiencing illnesses, injuries, or disease, or developmental transitions common to the selected population of study. The application of health maintenance, health promotion and illness prevention will be incorporated. Particular emphasis is placed on the management of symptoms, functional issues, and risk behaviors commonly encountered in the selected population of study. (This course is only offered as P/NC.)

NCNS 60492 - Advanced Care of Adult-Gerontology Populations Practicum (2)

Prerequisites: NURS 50003, 50013, 50053, and 50022. This course is taken concurrently with NCNS 60412. This course consists of supervised practicum experience focusing on advanced nursing practice with individuals in the selected population (adult-gerontology). The application of health maintenance, health promotion, illness prevention and developmental transitions will be incorporated. Application of evidence-based techniques, tools, and methods for promoting care of the selected population will be emphasized.

NCNS 60512 - The CNS and Professional Practice (2)

Prerequisites: NURS 50003, 50013, 50053, and 50022. This course is taken concurrently with NCNS 60582. This course explores the professional practice domain of the CNS role. Content is organized according to competencies related to identifying, defining, and collaborating on problems and opportunities in nursing practice. The CNS subroles of expert practitioner, educator, researcher, change agent, mentor, and consultant are examined.

NCNS 60513 - CNS Concepts II (3)

Prerequisites: NURS 60413 and 60482. Explores the nursing practice domain of CNS practice. Organized according to competencies related to identifying and defining problems and opportunities in nursing practice, identifying and articulating factors contributing to resource management needs and outcomes, developing innovative solutions, and evaluating the effect of solution strategies. Examines CNS sub roles of expert practitioner, educator,

researcher, change agent, and consultant within the nursing personnel sphere of influence.

NCNS 60582 - The CNS and Professional Practice Practicum (2)

Prerequisites: NURS 50003, 50013, 50053, and 50022. This course is taken concurrently with NCNS 60512. This course consists of supervised practicum experience in the professional practice domain of the CNS role integrating the CNS Spheres of Influence. The role of the CNS in supporting nursing personnel as expert practitioner, educator, research, change agent, mentor, and consultant are applied. Particular emphasis is placed on identifying and defining problems and opportunities in nursing practice, identifying and articulating factors contributing to resource management needs and outcomes, developing innovative solutions, and evaluating the effect of solution strategies.

NCNS 60583 - CNS Practicum II (3)

Concurrent: NURS 60513. Clinical care of adult patients experiencing common illnesses or injuries and nursing practice domain of CNS practice. Emphasizes identification and definition of problems and opportunities in nursing practice, identification and articulation of factors contributing to resource management needs and outcomes, development of innovative solutions, and evaluation of solution strategies. Explores CNS sub roles of expert practitioner, educator, researcher, change agent and consultant. (This course is only offered as P/NC.)

NCNS 60612 - The CNS and Systems Leadership (2)

Prerequisites: NURS 50003, 50013, 50053, and 50022. This course is taken concurrently with NCNS 60682. This course explores the systems/organizations domain of CNS practice. Content is organized according to competencies related to identifying and defining problems and opportunities in nursing practice, identifying and articulating resource management needs and factors contributing to outcomes, developing innovative solutions, and evaluating the effect of solution strategies.

NCNS 60613 - CNS Concepts III (3)

Prerequisites: NURS 60413, 60482, 60513, and 60583. Explores the systems/organizations domain of CNS practice. Organized according to competencies related to identification and definition of problems and opportunities in nursing practice, identification and articulation of factors contributing to resource management needs and outcomes, development of innovative solutions, and evaluation of solution strategies.

NCNS 60682 - The CNS and Systems Leadership Practicum (2)

Prerequisites: NURS 50003, 50013, 50053, and 50022. This course is taken concurrently with NCNS 60612. This course emphasizes the systems/organizations domain of CNS practice integrating CNS Spheres of Influence. The particular emphasis is placed on identification of problems and opportunities, resource management needs, desired outcomes, and development of innovative evidence-based solutions to meet organizational goals and priorities.

NCNS 60683 - CNS Practicum III (3)

Concurrent: NURS 60613. Clinical care of adult patients experiencing common illnesses or injuries; systems/organizations domain of CNS practice; capstone experience integrating CNS spheres of influence in last quarter of semester. Emphasizes organizational/network domain; identification and definition of problems and opportunities within organizations/networks, identification and articulation of factors contributing to resource management needs and outcomes within organizations/networks, development of innovative solutions within organizations/networks, and evaluation of solution strategies within organizations/networks. (This course is only offered as P/NC.)

NCNS 60712 - Advanced Care of Pediatric Populations (2)

Prerequisites: NURS 50003, 50013, 50053, and 50022. This course emphasizes the patient/client domain of advanced nursing practice with pediatric populations and synthesizes methods of population assessment and planning to construct population-appropriate interventions for health care delivery systems. The focus is on safe, quality, and culturally-appropriate advanced nursing practices to meet emerging global needs.

NCNS 60713 - Diagnostic Reasoning and Advanced Patient Management of the Adult-Gerontology Patient (3)

Prerequisites: NURS 50003, 50013, 50053, 50022, NCNS 60412 and 60482. This course is taken concurrently with NCNS 60783. This course emphasizes the diagnosis and management of the common acute and chronic disruptions of health experienced by adult and geriatric patients across the lifespan. Students will assimilate knowledge from advanced assessment, advanced pathophysiology, and advanced pharmacotherapeutics to develop diagnoses and treatment plans within their scope of practice to include development of prescribing skills.

NCNS 60723 - Diagnostic Reasoning and Advanced Patient Management of the Pediatric Patient (3)

Prerequisites: NURS 50003, 50013, 50053, 50022, NCNS 60742, 60492. This course is taken concurrently with NCNS 60793. This course emphasizes the diagnosis and management of the common acute and chronic disruptions of health experienced by pediatric patients across the lifespan. Students will assimilate knowledge from advanced assessment, advanced pathophysiology, and advanced pharmacotherapeutics to develop diagnoses and treatment plans within their scope of practice to include development of prescribing skills.

NCNS 60744 - Advanced Concepts in Parent-Child Nursing (4)

The course focuses on family-centered nursing care for childbearing and childrearing families. Areas of concentration include family systems, development and functioning, acute and chronic illness, evidence-based, family centered nursing assessment and intervention, and interdisciplinary collaboration.

NCNS 60782 - Advanced Care of Pediatric Populations Practicum (2)

Prerequisites: NURS 50003, 50013, 50053, 50022. This course consists of supervised practicum experience focusing on advanced nursing practice with individuals in the pediatric population. The application of health maintenance, health promotion, illness prevention and developmental transitions will be incorporated. Application of evidence-based techniques, tools, and methods for promoting care of the selected population will be emphasized. Students must be concurrently enrolled in NCNS 60742, Advanced Care of Pediatric Populations.

NCNS 60783 - Diagnostic Reasoning and Advanced Patient Management of the Adult-Gerontology Patient Practicum (3)

Prerequisites: NURS 50003, 50013, 50053, and 50022, NCNS 60412, NCNS 60482. This course is taken concurrent with NCNS 60713. This preceptored practicum allows students to gain skill in the diagnosis and treatment of individuals in their selected population (adult-gerontology). Students will work closely with a preceptor to gain knowledge and skill in clinical diagnosis and prescription of drugs and other therapies. Development of diagnostic reasoning and management skills will be emphasized.

NCNS 60793 - Diagnostic Reasoning and Advanced Patient Management of the Pediatric Patient Practicum (3)

Prerequisites: NURS 50003, 50013, 50053, 50022, NCNS 60412, 60482. This preceptored practicum allows students to gain skill in the diagnosis and treatment of patients in their specialty (pediatric). Students will work closely with a preceptor to gain knowledge and skill in clinical diagnosis and prescription of drugs and other therapies. This practicum is part of the coursework needed to meet state recognized requirements that allow students to obtain prescriptive authority.

NDNP - Nursing Practice

NDNP 81113 - Complexity and Innovation in Healthcare (3)

The purpose of this course is to examine complexity and innovation as they relate to healthcare systems, healthcare delivery, and population health. Areas of focus are systems, organizations, health disparities and ethical decision making. The course provides a broad foundation from which to approach resolution of complex clinical situations and improve practice environments.

NDNP 81123 - Biostatistics for the Advanced Health Practitioner (3)

This course provides a comprehensive overview of frequently used descriptive and inferential biostatistical methods. The course includes application of the theories of measurement, statistical inference, and introduction to epidemiology concepts which contribute to better clinical decisions and improved population health outcomes. Conceptual understanding, rather than computational ability of biostatistics, is the focus of the course.

NDNP 81233 - Decision Science and Informatics (3)

The purpose of this course is to examine the methods and applications of decision analysis in healthcare practice, information technology, and resource allocation. Areas of focus are systems, organizations, informatics, and different models/frameworks for decision making. The course provides a broad foundation from which to approach resolution of complex clinical situations and improve practice environments.

NDNP 81243 - Translational Research (3)

Prerequisite: Admission to the graduate program or permission of the instructor if in a graduate program in another department. This course provides the foundation for the application of evidence into clinical practice. Emphasis is placed on identification of practice/healthcare system queries

and a systematic approach to finding and critically evaluating the evidence for successful translation into practice. The course will prepare students to demonstrate advanced levels of clinical judgment, systems thinking, and accountability in designing, delivering, and evaluating evidence based care to improve population outcomes.

NDNP 81353 - Health Care Policy and Politics (3)

Prerequisite: Admission to the Graduate Program or permission of the instructor if in a graduate program in another department. Examines the current and future dilemmas of the healthcare system and how health plans, healthcare professionals, policymakers, and consumer groups can work together to find innovative solutions. Explores role of health politics in the work place, organization, government, and community with emphasis on involvement and advocacy. Also offered as NDNP 81353.

NDNP 81363 - Emerging Sciences for Advanced Practice (3)

This course provides an extensive overview of current and developing scientific and technological advances in the area of healthcare. The course will explore the impact of these advances and how they could be incorporated into current and future care of the complex client.

NDNP 82181 - Advanced Practicum I (1)

Prerequisites: Admission to the Doctor of Nursing Practice (DNP) Program. This course provides leadership experiences in a healthcare setting commensurate with the student's advanced practice area. It provides an opportunity for students to further synthesize learning gained through the program, effectively incorporating new knowledge and skills to expand his/her advanced practice. This course must be repeated at least four times to meet the expectations for program completion; however, a student may be required to register for more than four semesters of this course to meet program expectations. A minimum of 4 hours of NDNP 82121 is required to complete the program. (This course is only offered as P/NC.)

NDNP 82183 - Advanced Practicum I (3)

Prerequisites: NDNP 81113, 81123, 81233, 81243, 81353, 81363 (all didactic courses.) This course provides leadership experiences in a healthcare setting commensurate with the student's advanced practice area. It provides an opportunity for students to further synthesize learning gained through the program, effectively incorporating new knowledge and skills to expand his/her advanced practice. (This course is only offered as P/NC.)

NDNP 82272 - Advanced Practicum I (2)

Prerequisites: Completion of all doctoral course work or approval of the Division Director, Graduate Nursing. This course provides opportunities for students to synthesize and apply knowledge and skills gained through the program to effectively incorporate aspects of The Essentials for Doctoral Nursing Education for Advanced Nursing Practice.

NDNP 82282 - Advanced Practicum II

Prerequisites: NDNP 82181. This practicum is a continuation of the first Advanced Clinical Practicum course. Leadership experiences are focused on exploration and identification of innovative, solutions for complex healthcare issues, practices, programs, or populations. This course must be repeated at least twice to meet the expectations for the NDNP program; however, a student may be required to register for more than two semesters of this course if they have not completed all of the course objectives which includes completion of practicum hours. A minimum of 4 hours of NDNP 82282 is required to complete the program. (This course is only offered as P/NC.)

NDNP 82283 - Advanced Practicum II (3)

Prerequisites: NDNP 82183. This practicum is a continuation of the first Advanced Clinical Practicum course. Leadership experiences are focused on exploration and identification of innovative, solutions for complex healthcare issues, practices, programs, or populations. (This course is only offered as P/NC.)

NDNP 86612 - Foundations of Scholarly Inquiry (2)

Prerequisites: Admission to the Doctor of Nursing Practice program. This course serves as the foundation for developing advanced competencies to promote scholarly writing and to systematically search literature to facilitate success in the Doctor of Nursing Practice program.

NDNP 88062 - DNP Project I (2)

Prerequisite: Completion of all doctoral course work or approval of the Division Director, Graduate Nursing. This course provides the DNP student with opportunities to plan, implement, evaluate, and disseminate an evidence-based project to demonstrate attainment of the American Association of Colleges of Nursing's The Essentials for Doctoral Education for Advanced Nursing Practice. The student will focus on a project proposal which includes identification of an evidence-based intervention along with an implementation and evaluation plan.

NDNP 88072 - DNP Project II (2)

Prerequisites: Completion of all doctoral course work or approval of the Division Director, Graduate Nursing. This course provides the DNP student with opportunities to plan, implement, evaluate, and disseminate an evidence-based project to demonstrate attainment of the American Association of Colleges of Nursing's The Essentials of Doctoral Education for Advanced Nursing Practice. The student will focus on implementation and evaluation processes of the DNP Project.

NDNP 88082 - Advanced Project

This course emphasizes the synthesis, critical appraisal, and application of learning gained in the program to support quality clinical practice and organizational systems. The student, in consultation with a Faculty Adviser, proposes a project that begins with a thorough and scientific evaluation of a current healthcare issue requested by an approved healthcare entity. Following approval by the Faculty Adviser and committee member(s), the student will complete the doctoral project within two academic years as evidenced by the rendering of recommendation(s) or innovation in clinical practice or completion of a comprehensive systematic review. This course must be repeated at least twice to meet the expectations for program completion; however, a student may be required to register for more than two semesters of this course to meet program expectations. A minimum of 4 hours of NDNP 88082 is required to complete the degree program. (This course is only offered as P/NC.)

NDNP 88083 - Advanced Project (3)

Prerequisites: NDNP 81113, 81123, 81233, 81243, 81353, 81363. This course emphasizes the synthesis, critique, and application of learning gained in the program to support quality clinical practice and organizational systems. The DNP candidate, in consultation with their academic adviser, proposes a project that begins with a thorough and scientific evaluation of a current healthcare issue requested by an approved healthcare entity. Following approval of the proposal by the academic adviser and project committee, the DNP candidate will complete the doctoral project within two academic years as evidenced by the rendering of recommendation(s) or design of an innovative clinical practice or program solving an actual healthcare issue. (This course is only offered as P/NC.)

NDNP 88182 - DNP Project III (2)

Prerequisites: Completion of all doctoral course work or approval of the Division Director, Graduate Nursing. This course provides the DNP student with opportunities to plan, implement, evaluate, and disseminate an evidence-based project to demonstrate attainment of the American Association of Colleges of Nursing's The Essentials of Doctoral Education for Advanced Nursing Practice. The student will focus on completing the evidence-based translational project.

NONC - Nursing Oncology

NONC 60811 - Advanced Oncology Practicum I (1)

Co-requisites: NURS 60813. This course provides an opportunity to explore evidence-based practice guidelines and research and their application to promote healthy lifestyles, monitor cancer risk, address integrative oncology practices, facilitate access to care, and reduce health care disparities for populations at risk and diagnosed with cancer, and cancer survivors. This course is taken concurrently with NURS 60813.

NONC 60813 - Advanced Oncology Nursing I (3)

Prerequisites: NURS 50003, 50013, and 50053. This course provides an introduction to cancer epidemiology and pathophysiology, cancer genetics, prevention, risk assessment and reduction for specific cancers, screening techniques, and diagnostic procedures and criteria to support patients, caregivers, and communities. This course is taken concurrently with NURS 60811.

NONC 60821 - Advanced Oncology Nursing II: Practicum (1)

Prerequisites: NURS 60813, 60811. The emphasis of this course is on the development of advanced clinical decision making skills in identifying multiple alterations resulting from cancer and cancer therapy. The course is taken concurrently with NURS 60823.

NONC 60823 - Advanced Oncology Nursing II (3)

Prerequisites: NURS 60813, 60811. Principles of cancer treatment, associated responses and symptom management are presented. Emphasis is on the development of advanced clinical decision making skills in identifying multiple alterations resulting from cancer and cancer therapy. Concurrent with NURS 60821.

NONC 60832 - Advanced Oncology Nursing Residency (2)

Prerequisites: NURS 60813, 60823, 60811, and 60821. Emphasis is on the application of critical thinking and diagnostic reasoning skills in advanced clinical decision making. Students assess, diagnose, and manage the care of oncology patients with a variety of cancers. The delivery of care and evaluation of role effectiveness across the full spectrum of the cancer care continuum are examined.

NONC 60834 - Palliative and End of Life Care (4)

Prerequisites: NURS 60823, 60821, or with permission of the faculty. This course provides students with advanced knowledge in the care of patients/families experiencing life-limiting progressive illness. Students will explore current and emerging models of care delivery ranging from palliative care, hospice care, and family support services in bereavement. Students will engage in holistic assessment of pain and quality of life for patients with advanced illnesses in a variety of settings under the direction of a skilled clinician in palliative care. New trends, advances, and issues in home management of complex conditions, innovative delivery systems, legal, ethical and policy considerations will be explored.

NRAN - Nurse Anesthesia

NRAN 60113 - Research in Nurse Anesthesia (3)

Emphasizes the evaluation and use of a variety of theories and research methods as a foundation for advanced practice in nurse anesthesia. Includes application of theory and research to improve practice and patient outcomes and identification of outcome studies needed to improve practice. Incorporates legal and ethical foundations of practice and policy.

NRAN 60123 - Physical Science in Nurse Anesthesia (3)

Introduction to structural recognition and nomenclature of organic compounds. Includes an introduction to amino acids, lipids, membranes, protein structure and function, and overview of the bioenergetics of the cell. (Includes experiences with the human patient simulator.)

NRAN 60134 - Advanced Pharmacology (4)

Study of the principles of pharmacology, including pharmacodynamics, pharmacokinetics, and pharmacogenetics as related to various classes of pharmaceutical agents encountered in anesthesia practice. Application of principles as they pertain to various organ systems is emphasized. RNs seeking a graduate level course must obtain permission of the Director if not an admitted nurse anesthesia student.

NRAN 60146 - Advanced Anatomy, Physiology, and Pathophysiology I (6)

Study of structure and function in health and disease of human nervous, endocrine, and excretory systems including fluid, electrolyte and acid-base balance.

NRAN 60213 - Advanced Anatomy, Physiology and Pathophysiology III (3)

Study of structure and function of health and disease in the human cardiovascular system.

NRAN 60224 - Pharmacology of Anesthesia Agents (4)

This course is designed to provide an in-depth understanding of the classification, mechanism of action, pharmacokinetics, pharmacodynamics, clinical uses, and interactions of the drugs commonly used in the practice of both general and regional anesthesia. This will include the intravenous sedative-hypnotics, opioids, local anesthetics, inhaled agents, and the muscle relaxants. Also discussed are other drugs necessary to the practice of anesthesia, including vasoactive medications, antiemetics, anticholinergics and pertinent antibiotics.

NRAN 60235 - Advanced Anatomy, Physiology and Pathophysiology II (5)

Study of structure and function of health and disease in the human respiratory, gastrointestinal tract, and endocrine systems.

NRAN 60316 - Principles of Anesthesia Practice I (6)

Prerequisites: Progression to third semester Phase I. This course presents the basic concepts of anesthesia and also introduces the student to procedures and principles of nurse anesthesia. Principles presented include monitoring and assessment skills, airway management (including endotracheal intubation), the anesthesia machine and related current technology. Students are also provided with a clinical simulator component which includes fundamental patient interaction under the direct supervision of an instructor.

NRAN 60416 - Principles of Anesthesia Practice II (6)

Prerequisites: NRAN 60316. This course is intended to provide the student with basic principles of regional anesthesia, selected disease states and their

anesthetic implications, basic principles of patient assessment, preparation and interpretation of preoperative data in obstetrics. Emphasis is placed on the physiologic response to surgery, medications, and disease. Students are also provided with a clinical simulator component which includes fundamental patient interaction under the direct supervision of an instructor.

NRAN 60572 - Advanced Pathophysiology and Clinical Management I (2)

Prerequisites: Successful completion of Phase I. An integrated series of lectures, clinical conferences, and seminars designed to provide the clinical resident with an in-depth education in the anesthetic management and considerations of various surgical procedures on patients with diverse pathological conditions. Emphasis is placed on the pathophysiologic aspects and their anesthesia implications. Topics include respiratory, thoracic, neurological, cardiovascular, regional, pediatric, and special areas of anesthesia. Integrates legal and ethical foundations from practice.

NRAN 60583 - Clinical Residency I (3)

Initial exposure to the clinical arena. Provides the opportunity to develop the basic skills and master the course objectives. The nurse anesthesia resident is responsible for the objectives as they pertain to American Society of Anesthesiologists' Classification I, I-E, and II patients and any assigned specialty rotations. (This course is only offered as P/NC.)

NRAN 60672 - Advanced Pathophysiology and Clinical Management II (2)

Prerequisites: NRAN 60572, 60583. An integrated series of lectures, clinical conferences, and seminars designed to provide the clinical resident with an in-depth education in the anesthetic management and considerations of various surgical procedures on patients with diverse pathological conditions. Emphasis is placed on the pathophysiologic aspects and their anesthesia implications. Topics include respiratory, thoracic, neurological, cardiovascular, regional, pediatric, and special areas of anesthesia. Integrates legal and ethical foundations from practice.

NRAN 60683 - Clinical Residency II (3)

Builds on theoretical knowledge acquired in Phase I. A formative period allows the nurse anesthesia resident to learn the new skills required in this practicum. The nurse anesthesia resident is responsible for the following objectives as they pertain to American Society of Anesthesiologists' Classification I, I-E, II, II-E, III, and III-E patients and any assigned specialty rotations. (This course is only offered as P/NC.)

NRAN 60782 - Clinical Residency III (2)

Builds upon theoretical knowledge acquired in Phase I. A formative period allows the acquisition of new skills required in this residency. The nurse anesthesia resident is responsible for the following objectives as they pertain to ALL American Society of Anesthesiologists' Classifications of patients and assigned specialty rotations. (This course is only offered as P/NC.)

NRAN 60972 - Clinical Concepts (2)

Overview of selected topics from Phase I and Phase II, integrating research, basic sciences and anesthetic problems.

NRAN 60983 - Clinical Residency IV (3)

Builds upon the previous residency and the theoretical knowledge acquired in Phase I. A formative period is not included in this residency. The nurse anesthesia resident is responsible for the objectives as they pertain to all classes and types of patients and any assigned specialty rotation. (This course is only offered as P/NC.)

NRAN 81123 - Biostatistics for the Advanced Health Practitioner (3)

This course provides a comprehensive overview of frequently used descriptive and inferential biostatistical methods. The course includes application of the theories of measurement, statistical inference, and introduction to epidemiology concepts which contribute to better clinical decisions and improved population health outcomes. Conceptual understanding, rather than computational ability of biostatistics, is the focus of the course.

NRAN 81153 - Emerging Sciences, Complexity & Innovation in Health Care (3)

The purpose of this course is to examine complexity and innovation as they relate to healthcare systems, emerging sciences, and healthcare delivery. Areas of focus are systems, organizations, individuals, with a focus on current and developing scientific and technological advances, health disparities and ethical decision making. The course provides a broad foundation from which to approach resolution of complex clinical situations and improve practice environments.

NRAN 81233 - Decision Science and Informatics (3)

The purpose of this course is to examine the methods and applications of decision analysis in healthcare practice, information technology, and

resource allocation. Areas of focus are systems, organizations, informatics, and different models/frameworks for decision making. The course provides a broad foundation from which to approach resolution of complex clinical situations and improve practice environments.

NRAN 81243 - Translational Research (3)

Prerequisite: Admission to the graduate program or permission of the instructor if in a graduate program in another department. This course provides the foundation for the application of evidence into clinical practice. Emphasis is placed on identification of practice/healthcare system queries and a systematic approach to finding and critically evaluating the evidence for successful translation into practice. The course will prepare students to demonstrate advanced levels of clinical judgment, systems thinking, and accountability in designing, delivering, and evaluating evidence based care to improve population outcomes.

NRAN 81353 - Health Care Policy and Politics (3)

Prerequisite: Admission to the Graduate Program or permission of the instructor if in a graduate program in another department. Examines the current and future dilemmas of the healthcare system and how health plans, healthcare professionals, policymakers, and consumer groups can work together to find innovative solutions. Explores role of health politics in the work place, organization, government, and community with emphasis on involvement and advocacy. Also offered as NDNP 81353.

NRAN 81443 - Advanced Health Assessment:Anesthesia Focus (3)

An integrated series of lectures and laboratory experiences designed to provide the anesthesia student with an in-depth education in providing a comprehensive history and physical assessment. Included within the course is the history, physical, and psychological assessment of signs and symptoms, pathophysiologic changes, and psychosocial variations of a patient. The assessment includes an evaluation of the body and its functions using inspection, palpation, percussion, auscultation and advanced assessment techniques, including diagnostic testing, as appropriate. (Includes experiences with the human patient simulator.)

NRAN 82111 - Comprehensive Pain Management Clinical Practicum-I (1)

Prerequisites: Admission to the Pain Management Fellowship. This course is the first of three related supervised clinical practicums to address the hands-on skills required to perform a focused neuromuscular examination and provide various image-guided neuraxial, muscular, and joint injections. This course will also offer an orientation to the organization, set up, functional operation, and management of various types of pain clinics. Incorporated into the course is the Jack Neary Advanced Pain Management Workshop II, which provides 20 hours of the required 80 hours of clinical practicum.

NRAN 82121 - Pain Psychology (1)

Prerequisites: Admission to the Pain Fellowship. This course focuses on the psychological aspects of the chronic pain experience in humans. These aspects include, but are not limited to: sensory, affective, cognitive, social, developmental, cultural and spiritual. Topics will include measurement of pain, opiates, addiction, and motivation in pain patients. Treatment discussions will include, but are not limited to: medications, counseling, and mindfulness practices.

NRAN 82123 - Advanced Theoretical Foundations of Pain (3)

Prerequisites: Admission to the Pain Fellowship. This course is essentially about shifting perspectives." A change in perspective can occur - if one is willing - when a person understands what has formed their current perspective and realizes other perceptual options. Most CRNAs are trained in and function from an allopathic understanding of disease and treatment. This perspective needs to be examined and evaluated in light of advanced practice nursing pain management and the future directions of health care. This course focuses on the exploration of varying philosophies of the pathophysiology of disease and treatment as well as the role of epigenetic factors in personal and communal health."

NRAN 82133 - Imaging and Radiation Safety (3)

Prerequisites: Admission to the Pain Fellowship. This course focuses on the use of radiologic imaging for interventional pain management techniques. It also incorporates the principles of radiation safety requirements.

NRAN 82211 - Comprehensive Pain Management Clinical Practicum-II (1)

Prerequisites: NRAN 82111, NRAN 82121, NRAN 82123, NRAN 82133. This course is the second of three related supervised clinical practicums to address the hands-on skills required to perform a focused neuromuscular examination and provide various image-guided neuraxial, muscular, and joint injections. This course will also offer an orientation to the organization, set up, functional operation, and management of various types of pain clinics.

NRAN 82221 - Spiritual Aspects of Health (1)

Prerequisites: NRAN 82111, NRAN 82121, NRAN 82123, NRAN 82133. A fundamental goal of the Pain Management Program is the development of an authentic holistic lens that the CRNA pain practitioner sees through. This course focuses on presenting a spiritual perspective that articulates with and builds from the material presented in the Theoretical Foundations course. Drawing up the primacy of consciousness, further comprehension of integral medicine is developed in a way that joins into a unified oneness seemingly disparate models of disease and treatment. This is accomplished by presenting an integration of underlying metaphysics of all models based upon quantum physics.

NRAN 82223 - Pain Evaluation and Treatment (3)

Prerequisites: NRAN 82111, NRAN 82121, NRAN 82123, NRAN 82133. This foundational course is intended to impart and help the participant internalize and understanding of the changes in normal mechanical, physical, and biochemical functions, caused by disease, trauma, or a dysfunctional physiological process. Specifically, how these alterations produce pain and present to the clinician. Comprehensive knowledge of the pathophysiology associated with pain is the foundation of outstanding pain management.

NRAN 82233 - Pharmacology for Pain Management (3)

Prerequisites: NRAN 82111, NRAN 82121, NRAN 82123, NRAN 82133. Pharmacology Strategies course will discuss the pharmacologic management of the patient with chronic pain. This course will provide valuable information regarding the medications that are often prescribed for chronic pain.

NRAN 82311 - Comprehensive Pain Treatment Clinical Practicum III (1)

Prerequisites: NRAN 82111, NRAN 82121, NRAN 82123, NRAN 82133, NRAN 82211, NRAN 82221, NRAN 82223, NRAN 82233. This course is the third of three related supervised clinical practicums to address the hands-on skills required to perform a focused neuromuscular examination and provide various image-guided neuraxial, muscular, and joint injections. This course will also offer an orientation to the organization, set up, functional operation, and management of various types of pain clinics.

NRAN 82321 - Functional Health and Functional Health Assessment

Prerequisites: NRAN 82111, NRAN 82121, NRAN 82123, NRAN 82133, NRAN 82211, NRAN 82221, NRAN 82223, NRAN 82233. This course focuses on whole person imbalances, including cultural factors surrounding an individual's reaction to pain, as precursors to signs and symptoms of changes subsequently labeled as disease. Methods of improving function and balance in environmental inputs and promoting and maintain health by intervening at multiple levels for corrections of imbalances and restoration of individual functioning and well-being are covered.

NRAN 82323 - Interventional Pain Strategies for Advanced Pain Practice (3)

Prerequisites: NRAN 82111, NRAN 82121, NRAN 82123, NRAN 82133, NRAN 82211, NRAN 82221, NRAN 82223, NRAN 82233. This course focuses on both didactic training for diagnostic and therapeutic injections for interventional management of acute and chronic pain.

NRAN 82331 - Anatomy and Physiology for Pain Management (1)

Prerequisites: Admission to the Pain Fellowship. This course focuses on anatomy and physiology core concepts relating to the nervous and musculoskeletal systems for the advanced pain management CRNA.

NRAN 88080 - Advanced Project (3)

Prerequisites: NDNP 81113, 81123, 81233, 81243, 81353, 81363. This course emphasizes the synthesis, critique, and application of learning gained in the program to support quality clinical practice and organizational systems. The DNP candidate, in consultation with their academic adviser, proposes a project that begins with a thorough and scientific evaluation of a current healthcare issue requested by an approved healthcare entity. Following approval of the proposal by the academic adviser and project committee, the DNP candidate will complete the doctoral project within two academic years as evidenced by the rendering of recommendation(s) or design of an innovative clinical practice or program solving an actual healthcare issue. (This course is only offered as P/NC.)

NTDT - Nutritional Sciences**NTDT 50343 - Biochemical, Physiological, and Molecular Aspects of Human Nutrition (3)**

Prerequisites: NTDT 40343 and current enrollment in the Department of Nutritional Sciences Combined BS/MS in Dietetics. This course provides an

advanced study of the principles of nutrition in relation to the biochemical, physiological, and molecular aspects of the human body.

NTDT 50353 - Experimental Food Science (3)

Prerequisites: NTDT 10103, NTDT 20403, and CHEM 30123. Advanced theory and methods used in study of chemical and physical factors affecting food preparation and processing. Application of analytical methods to sensory and instrumental evaluation of food quality.

NTDT 50363 - Community Nutrition and Public Health (3)

Prerequisites: NTDT 30123 and NTDT 30303. Course explores nutritional problems and the services available in the community. Management of nutrition services, provision of nutrition information to the public, and the legislative process are studied. Activities to prevent disease and promote health at the local, state, national and global levels will be examined.

NTDT 50973 - Nutritional Sciences Seminar (3)

Prerequisites: Current enrollment in the Department of Nutritional Sciences Combined BS/MS in Dietetics. This seminar will provide the student with an advanced exploration and study of selected topics and emerging issues in food, nutrition, and dietetics. Topics will be determined by faculty to enhance the required curriculum and to satisfy competencies mandated by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics.

NTDT 55343 - Biochemical, Physiological, and Molecular Aspects of Human Nutrition (3)

Prerequisites: NTDT 40343 and current enrollment in the Department of Nutritional Sciences Combined BS/MS in Dietetics. This course provides an advanced study of the principles of nutrition in relation to the biochemical, physiological, and molecular aspects of the human body.

NTDT 55353 - Experimental Food Science (3)

Prerequisites: NTDT 10103, NTDT 20403, and CHEM 30123. Advanced theory and methods used in study of chemical and physical factors affecting food preparation and processing. Application of analytical methods to sensory and instrumental evaluation of food quality.

NTDT 55363 - Community Nutrition and Public Health (3)

Prerequisites: NTDT 30123 and NTDT 30303. Course explores nutritional problems and the services available in the community. Management of nutrition services, provision of nutrition information to the public, and the legislative process are studied. Activities to prevent disease and promote health at the local, state, national and global levels will be examined.

NTDT 55973 - Nutritional Sciences Seminar (3)

Prerequisites: Current enrollment in the Department of Nutritional Sciences Combined BS/MS in Dietetics. This seminar will provide the student with an advanced exploration and study of selected topics and emerging issues in food, nutrition, and dietetics. Topics will be determined by faculty to enhance the required curriculum and to satisfy competencies mandated by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics.

NTDT 60020 - Advanced Research Practice (1)

Prerequisites: NTDT 40000, NTDT 40010 and graduate status in Department of Nutritional Sciences MS in Dietetics. Student will apply scientific principles of investigation and communication of research findings by compiling nutrition research data into visual materials appropriate for presentation at local, state, and/or national professional meetings. Student will present research poster at the annual TCU College of Science and Engineering Annual Michael and Sally McCracken Student Research Symposium (SRS). Student will submit research for presentation at a professional local, state or national meeting. (1-3 hours).

NTDT 60303 - Advanced Supervised Practice I (3)

Prerequisites: NTDT 40403, 40313, and graduate status in Department of Nutritional Sciences MS in Dietetic. Course provides two lecture hours and 30 hours of supervised practice per week. Supervised practice experiences are in selected hospital, long-term care and nutrition care facilities with an emphasis on medical nutrition therapy in a clinical setting and nutrition education.

NTDT 60313 - Advanced Supervised Practice II (3)

Prerequisites: NTDT 40303, 40313, 60303; graduate status in Department of Nutritional Sciences MS in Dietetics. Course provides two lecture hours and 30 hours of supervised practice per week. Supervised practice experiences are in selected clinical and community settings with emphasis on medical nutrition therapy and application of nutritional care principles, counseling and education.

NTDT 60324 - Advanced Supervised Practice III (4)

Prerequisites: NTD 40303, 40313, 60303, 60313, graduate status in Department of Nutritional Sciences MS in Dietetics. Course provides two lecture hours and 40 hours of supervised practice per week. Supervised practice experiences are in selected community and public health agencies with emphasis on medical nutrition therapy and application of nutritional care principles, counseling and education.

NTDT 60443 - Nutritional Genomics (3)

Prerequisites: NTD 55343, Biochemical, Physiological and Molecular Aspects of Human Nutrition. Graduate status in the Department of Nutritional Sciences MS in Dietetics. This course offers an advanced study of nutritional genomics, nutrigenomics, the effect of diet on gene expression, and how genetic differences affect nutrient uptake and metabolism. This course examines the impact of dietary regulation of gene function on human disease. Course provides graduate credit to students enrolled in the MS in Dietetics.

NTDT 60453 - Nutrition Ecology, Food, and Sustainability (3)

Prerequisites: Graduate status in the Department of Nutritional Sciences MS in Dietetics. Course content will examine how food is produced, distributed, consumed, and disposed of, as well as the effects of these processes on human and environmental health, society and the economy. Course will focus on defining contributing problems regarding nutrition ecology and evaluation of proposed sustainable solutions in addressing them.

NTDT 60973 - Nutritional Sciences Graduate Seminar (3)

Prerequisites: Current enrollment in the Department of Nutritional Sciences Combined BS/MS in Dietetics. This graduate seminar will provide the student with an advanced exploration and study of selected topics and emerging issues in food, nutrition, and dietetics. Topics will be determined by faculty to enhance the required curriculum and to satisfy competencies mandated by the Accreditation Council for Education in Nutrition and Dietetics (ACEND) of the Academy of Nutrition and Dietetics.

NTDT 70980 - Thesis (3)

Prerequisites: Enrollment in Combined BS/MS in Dietetics and instructor permission. Enrolled MS in Dietetics students will pursue their thesis research under the direction of their advisors. A minimum of 3 hours of NTD 70980 thesis is required for students pursuing MS in Dietetics Thesis option in Department of Nutritional Sciences.

NTDT 70990 - Thesis (3)

Prerequisites: NTD 70980 and admission to candidacy. A minimum of 3 hours of NTD 70990 is required. Enrolled MS in Dietetics students will complete their thesis research under the direction of their advisors. A minimum of 3 hours of NTD 70990 thesis is required for students pursuing MS in Dietetics Thesis option in Department of Nutritional Sciences.

NUAL - Nursing Administration and Leadership

NUAL 60802 - Role of the Nursing Administrator and Leader (2)

Prerequisites: NURS 50003, 50013, 50053, 60013, 60043, 60443. This course prepares students to investigate the complexities of nursing leadership and administrative roles at all points of care across the healthcare continuum.

NUAL 60811 - Leadership Development: Individual Practicum (1)

Prerequisites: NUAL 60802; taken concurrently with 60812. This practicum course provides students the opportunity to develop personal intraprofessional skills as an effective administrator and leader.

NUAL 60812 - Leadership and Self (2)

Prerequisites: NUAL 60802, taken concurrently with NUAL 60811. This course introduces the student to the importance of self-awareness and reflection in becoming an effective administrator and leader. Students will explore the philosophies, ethics, and models of practice for administration and leadership.

NUAL 60821 - Administration and Leadership of Groups and Teams Practicum (1)

Prerequisites: NUAL 60811 and 60812, taken concurrently with NUAL 60822. This practicum course provides students the opportunity to develop interprofessional skills as an effective administrator and leader.

NUAL 60822 - Administration and Leadership of Groups and Teams (2)

Prerequisites: NUAL 60812 and 60811; taken concurrently with NUAL 60821. This course focuses on working with others as an effective administrator and leader. The student will explore administration and leadership in the context of work environment, communication, personnel management, mentorship, succession planning, organizational and professional culture, and collaboration.

NUAL 60831 - Administration and Leadership of Organizations Practicum (1)

Prerequisites: NUAL 60822 and 60821; taken concurrently with NUAL 60832. This practicum course provides students the opportunity to develop and refine skills in business management.

NUAL 60832 - Administration and Leadership of Organizations (2)

Prerequisites: NUAL 60822 and 60821; taken concurrently with NUAL 60831. This course prepares the student for the role of the nurse administrator and leader in governance across the organization. Healthcare economics, fundamentals of legal and regulatory requirements, human resource management, informatics and technology, quality, safety, and risk management will be examined.

NUAL 60843 - Advanced Administration and Leadership in the Changing Healthcare Environment (3)

Prerequisites: NUAL 60832 and 60831; taken concurrently with NUAL 60844. In this course, the student will synthesize and apply knowledge of leading self, others, and organizations to shape healthcare through innovation and expert nursing leadership.

NUAL 60844 - Advanced Administration and Leadership in the Changing Healthcare Environment Practicum (4)

Prerequisites: NUAL 60832 and 62831; taken concurrently with NUAL 60843. This advanced practicum course allows the student an opportunity to apply synthesized knowledge of expert nursing leadership to improve self, others, and organizations.

NUED - Nursing Education

NUED 60712 - Learning and Instruction (2)

Prerequisites: This course examines the teaching and learning theories used in education. Students will explore the role of the educator in various contexts and settings, and analyze applicable teaching strategies. Students will gain experience in classroom management, teaching styles, assessment, exam composition, and creating a syllabus.

NUED 60713 - Learning and Instruction in Nursing Education (3)

This course examines the teaching/learning theories used in nursing education. Students also examine the ethical and legal issues in nursing education. Students will begin to develop a personal philosophy of teaching. Models used in classroom and clinical nursing education are compared and contrasted. Evaluation methods for classroom and clinical teaching are examined.

NUED 60721 - Interprofessional Education Strategies (1)

Prerequisites: Completion of NUED/HNHS 60712 and permission of instructor. This course engages the student in principles of interprofessional education to foster safety and quality in team-based care and collaborative practice.

NUED 60722 - Curriculum and Program Development in Nursing (2)

This course examines the educator role in relation to curriculum and program development. Students will explore legal, professional, societal, and ethical dimensions influencing education at various levels.

NUED 60723 - Curriculum and Program Development in Nursing (3)

This course examines the faculty role. Curriculum development will be highlighted. Students will continue to develop their personal philosophy of teaching. The impact of societal changes on nursing education will be examined.

NUED 60732 - Evaluation in Nursing Education (2)

This course examines principles of evaluation applicable in education. Analysis of methods for assessing individual, course, and program outcomes will occur.

NUED 60733 - Evaluation in Nursing Education (3)

This course examines the evaluation process in nursing education including student learning and outcomes in classroom and clinical nursing courses, curriculum evaluation, teaching effectiveness, and overall nursing program evaluation. Exam development and grading decisions are of particular focus.

NUED 60742 - Principles of Simulation in Education (2)

Prerequisites: Completion of NUED/HNHS 60712 and admission to graduate program or permission of faculty. This course provides the student with the basic principles of healthcare simulation to enhance clinical judgment related to patient safety and delivery of quality care.

NUED 60783 - Teaching Practicum (3)

Prerequisites: NUED/HCHS 60712 and permission of faculty. This practicum experience enables students to apply knowledge and skills of education in varied learning settings. Students will incorporate multiple strategies for assessing, teaching, styles, assessment, exam composition, and creating a syllabus under the supervision of the professor of record.

NURS - Nursing

NURS 50003 - Advanced Pathophysiology (3)

Prerequisites: Admission to Graduate Program or permission of instructor. Provides an understanding of advanced knowledge base of pathophysiologic processes underlying human illness. Content includes systems approach to pathophysiologic processes associated with altered health states in adults and children.

NURS 50013 - Advanced Health Assessment (3)

Prerequisites: Admission to Graduate Program or permission of instructor. This course focuses on developing comprehensive health assessment knowledge and skill required for advanced practice nursing practice across the life span. Diagnostic and inferential skills are emphasized through systematic approaches. The course includes didactic and practicum experiences.

NURS 50022 - Advanced Practice Roles (2)

Prerequisites: Admission to Graduate Program. The course provides a foundation for transition to the role of the advanced practice registered nurse (APRN). Content includes roles within advanced practice, theories of change, concepts of negotiation, collaboration, interdependence, advocacy and autonomy, and titling, certification and licensure issues.

NURS 50053 - Advanced Pharmacotherapeutics (3)

Prerequisites: Admission to Graduate Program or permission of instructor. Emphasizes pharmacological principles fundamental to the selection of pharmacologic agents in altered health states in individuals across the lifespan. Includes the pharmacodynamic, pharmacokinetic and pharmacotherapeutic properties of drug categories and specific agents, clinical responses to the use of pharmacologic agents, efficacy and cost-effectiveness issues, client education, and adherence. Safe drug administration and prescribing practices will be addressed.

NURS 60000 - Independent Study: Advanced Nursing Practice (1.00-6.00)

This course is designed to afford students the opportunity to focus on a phenomenon of interest in advanced nursing practice.

NURS 60013 - Health Care Policy, Law and Ethics (3)

Prerequisites: Admission to the Graduate Program or permission of the instructor if in a graduate program in another department. This course integrates concepts of health care policy, law and ethics as a foundation for high quality cost-effective care and for participation in the design and implementation of care in health care delivery systems. Content includes knowledge of how health policy is formulated, how to affect this process, and how it impacts clinical practice and health care delivery. Philosophical/ethical/legal dimensions of health care policy, organization and economics are analyzed.

NURS 60030 - Professional Project (1.00-3.00)

Prerequisites: NURS 60043. Emphasis is placed on improving clinical, financial, or system outcomes through an evidence-based quality improvement project within a specified area of advanced practice and strategies for utilization within the practice setting. (This course is only offered as P/NC.)

NURS 60043 - Advanced Nursing Research and Theory (3)

Prerequisites: Admission to the Graduate Program. This course emphasizes the evaluation, utilization and integration of a wide variety of theories and research methodologies as a foundation for advanced nursing practice. Content includes application of theoretical frameworks to research designs to improve practice and patient outcomes. Evidenced-based interventions are analyzed followed by identification of outcome studies needed to improve practice.

NURS 60053 - Critical Inquiry in Advanced Nursing Practice (3)

This course emphasizes the utilization of knowledge gained from the inquiry process to provide high quality health care, initiate change and improve health care delivery at all levels. Content includes the identification of clinical practice problems, evaluation of research in relation to those problems, application of the inquiry process to clinical issues as a basis for clinical and organizational decision-making and the use of information technologies in inquiry and research.

NURS 60303 - Seminar in Women's Health (3)

Explores holistic women's health in the contexts of history, culture, science. Examines the influence of race, gender, age, and class on women's embodied experiences and women's health. Reviews effect of oppression and influence of power and privilege on systems and processes. Analyzes the impact of social construction of gender on women as consumers and providers of health care. Reframes contemporary systems to challenge prevailing social values and actions: suggests alternative practices and research agendas. Promotes women's ownership and self-agency in naming misogyny, understanding health behaviors and selected problems: identifying choices in prevention and care. Introduces global considerations in women's health.

NURS 60413 - CNS Concepts I (3)

Prerequisites: NURS 50003, 50013, 50053, 60043. This course emphasizes the patient/client domain of CNS practice. The health maintenance, health promotion, and illness prevention needs of adults, individually and collectively, are examined through the introduction and implementation of the outcomes management role. Content includes management of commonly encountered symptoms, functional problems, and risk behaviors commonly encountered in adults.

NURS 60443 - Financial Concepts in Health Care (3)

Prerequisites: Admission to Master's or Doctoral Program. This course provides an overview of the financial concepts necessary to functioning in the advanced practice registered nurse (APRN) and clinical nurse leader (CNL) role as a case/outcomes manager. Content includes financial accounting, planning and control, resource management, and management information systems.

NURS 60444 - Clinical Interpretation of Assessment and Diagnostic Data (4)

This course emphasizes the interpretation of multi-dimensional assessment data for the purpose of planning, implementing and evaluating a course of care for the client receiving case management services. The relationship between these data and the health and illness needs of clients is used to provide a basis for the service requirements needed to maintain and restore clients' optimal health.

NURS 60714 - Diagnostic Reasoning in Adult and Geriatric Patients (4)

Prerequisites: NURS 50003, 50013, and 50053, and concurrent enrollment in NURS 60782. This course emphasizes the diagnosis and management of the common acute and chronic disruptions of health experienced by adult and geriatric patients across the lifespan. Students will assimilate knowledge from advanced assessment, advanced pathophysiology, and advanced pharmacotherapeutics to develop diagnoses and treatment plans within their scope of practice. This course completes the state recognized requirements that allow students to obtain prescriptive authority.

NURS 60716 - Diagnostic Reasoning (6)

Prerequisites: NURS 50003, 50004, and 50053. Emphasizes diagnosis and management of common acute and chronic disruptions of health experienced by adults across the lifespan. Concepts from advanced assessment, advanced pathophysiology, and advanced pharmacotherapeutics assimilated to develop diagnoses and treatment plans within the scope of practice. Clinical practice of diagnostic and treatment skills in 6 hours weekly. Completes nationally recognized requirements for prescriptive authority.

NURS 60724 - Diagnostic Reasoning in Pediatric Patients (4)

Prerequisites: NURS 50003, 50013, and 50053; co-requisite: NURS 60714. This course emphasizes the diagnosis and management of the common acute and chronic disruptions of health experienced by pediatric patients. Students will assimilate knowledge from advanced assessment, advanced pathophysiology, and advanced pharmacotherapeutics to develop diagnoses and treatment plans within their scope of practice. This course completes the state recognized requirements that allow students to obtain prescriptive authority.

NURS 60782 - Diagnostic Reasoning Combined Practicum (2)

Prerequisites: NURS 50003, 50013, and 50053, and concurrent enrollment in NURS 60714 or 60724. This precepted practicum allows students to gain skill in the diagnosis and treatment of patients in their specialty (adult/geriatric or pediatric). Students will work closely with a preceptor to gain knowledge and skill in clinical diagnosis and prescription of drugs and other therapies. This practicum is part of the coursework needed to meet state recognized requirements that allow students to obtain prescriptive authority.

NURS 60811 - Advanced Oncology Practicum I (1)

Co-requisites: NURS 60813. This course provides an opportunity to explore evidence-based practice guidelines and research and their application to promote healthy lifestyles, monitor cancer risk, address integrative oncology

practices, facilitate access to care, and reduce health care disparities for populations at risk and diagnosed with cancer, and cancer survivors. This course is taken concurrently with NURS 60813.

NURS 60813 - Advanced Oncology Nursing I (3)

Prerequisites: NURS 50003, 50013, and 50053. This course provides an introduction to cancer epidemiology and pathophysiology, cancer genetics, prevention, risk assessment and reduction for specific cancers, screening techniques, and diagnostic procedures and criteria to support patients, caregivers, and communities. This course is taken concurrently with NURS 60811.

NURS 60821 - Advanced Oncology Nursing II: Practicum (1)

Prerequisites: NURS 60813, 60811. The emphasis of this course is on the development of advanced clinical decision making skills in identifying multiple alterations resulting from cancer and cancer therapy. The course is taken concurrently with NURS 60823.

NURS 60823 - Advanced Oncology Nursing II (3)

Prerequisites: NURS 60813, 60811. Principles of cancer treatment, associated responses and symptom management are presented. Emphasis is on the development of advanced clinical decision making skills in identifying multiple alterations resulting from cancer and cancer therapy. Concurrent with NURS 60821.

NURS 60832 - Advanced Oncology Nursing Residency (2)

Prerequisites: NURS 60813, 60823, 60811, and 60821. Emphasis is on the application of critical thinking and diagnostic reasoning skills in advanced clinical decision making. Students assess, diagnose, and manage the care of oncology patients with a variety of cancers. The delivery of care and evaluation of role effectiveness across the full spectrum of the cancer care continuum are examined.

NURS 60834 - Palliative and End of Life Care (4)

Prerequisites: NURS 60823, 60821, or with permission of the faculty. This course provides students with advanced knowledge in the care of patients/families experiencing life-limiting progressive illness. Students will explore current and emerging models of care deliver: ranging from palliative care, hospice care, and family support services in bereavement. Students will engage in holistic assessment of pain and quality of life for patients with advanced illnesses in a variety of settings under the direction of a skilled clinician in palliative care. New trends, advances, and issues in home management of complex conditions, innovative delivery systems, legal, ethical and policy considerations will be explored.

NURS 70030 - Special Topics in Nursing (1.00-3.00)

Special topics and innovations in the broad field of nursing will be discussed.

PHIL - Philosophy

PHIL 50970 - Directed Studies in Philosophy (1.00-20.00)

Prerequisite: Permission of instructor.

PHYS - Physics

PHYS 50030 - Seminar in Contemporary Physics (1.00-4.00)

Prerequisite: Permission of instructor. Students enrolled will be expected to participate in, prepare, and lead discussions on selected topics in physics as suggested by the current journal literature. (1-4 hours)

PHYS 50703 - Nonlinear Dynamics (3)

Prerequisite: Permission of instructor, PHYS 30553 is recommended. Characterization of chaos, routes to chaos, dissipative dynamical systems, Hamiltonian systems.

PHYS 50713 - Contemporary Topics in Physics (3)

Prerequisite: Permission of department chair. Regularly scheduled course on a subject of interest to students and faculty. Possible topics: Acoustics, Biophysics, Mathematical Physics, Modern Optics, and Nuclear Physics.

PHYS 50723 - Introduction to Solid State Physics (3)

Prerequisites: PHYS 30493 and MATH 30524. Crystal structure, lattice dynamics, free electron theory, band theory, optical, electric and magnetic properties of solids.

PHYS 50733 - Computational Physics (3)

Prerequisites: PHYS 20484 and MATH 30524. Computational methods used in physics, systems of linear equations, eigenvalues problems, numerical solution of differential equations using Python..

PHYS 50743 - Stellar Astrophysics (3)

Prerequisite: Permission of department chair. Spectra and spectral line formation, stellar atmospheres and interiors, star formation and evolution.

PHYS 50753 - Topics in Biophysics (3)

Prerequisites: PHYS 20474 and 20484 or PHYS 10154 and PHYS 10164 and MATH 10524, or permission of instructor. This course will introduce students to a variety of biophysics topics focusing on the application of physics principles to biological systems. Topics covered might include membrane transport, impulses in nerve cells, external electric and magnetic fields, imaging, ultrasound, electromagnetic radiation, radiation therapy, nuclear magnetic resonance, crystallography, spectroscopy and signal analysis.

PHYS 50763 - Experimental Methods in Biochemistry and Biophysics (3)

Prerequisite: Permission of instructor. This course will introduce students to experimental techniques developed and used to investigate biological systems. It will discuss modern techniques used in the biomedical sciences, drug discovery and other biophysical and biochemical fields. The course includes lectures, demonstrations, and hands-on exercises in the TCU Biophysics Laboratory and on instrumentation at the Center for Commercialization of Fluorescence Technologies (CCFT) at the UNT Health Sciences Center campus. (Crosslisted as CHEM/PHYS 50763.)

PHYS 50813 - Meteorites, Asteroids, and Planets (3)

Prerequisite: GEOL 30213 or PHYS 30493, or permission of instructor. Three hours of lectures per week. An interdisciplinary course exploring the history and formation of the Solar System from the Big Bang through the formation and evolution of the planets. (Crosslisted as GEOL/PHYS 50813.)

PHYS 50970 - Special Problems in Physics (1.00-3.00)

Prerequisite: Permission of department chair. Advanced work in physics, the nature of which is to be determined by the previous preparation and interest of the individual. Credit will depend upon the nature of the study and the amount of work taken. (1-12 hours)

PHYS 60002 - Methods of Advanced Physics (2)

Prerequisites: Graduate Standing. This is a first semester course for graduate physics majors that will teach new methods and provide refreshment of key skills and knowledge essential for success in graduate physics curriculum. Topics include mathematical methods across physics topics and research statistical tools.

PHYS 60203 - Classical Mechanics (3)

Prerequisite: PHYS 30553 or equivalent. Variational principles and Lagrange equations, rigid body motion, Hamiltonian mechanics, canonical transformation, Lagrange and Poisson brackets, Hamilton- Jacobi theory, continuous systems and fields.

PHYS 60303 - Quantum Mechanics (3)

Prerequisite: PHYS 40113 or equivalent. Foundations of quantum mechanics, with applications to atomic, molecular, solid state, and nuclear physics.

PHYS 60313 - Quantum Mechanics (3)

Prerequisite: PHYS 60303. Continuation of 60303.

PHYS 60403 - Electrodynamics (3)

Prerequisite: PHYS 40653 or equivalent. Electrostatic and magnetostatic fields. Time-dependent electromagnetic phenomena. Maxwell's equations and general electrodynamic theorems derivable therefrom. Electromagnetic radiation. Covariant formulation of the electromagnetic field equations.

PHYS 60413 - Electrodynamics (3)

Prerequisite: PHYS 60403 or permission of instructor. This is a second part of the two semester course. It includes electromagnetic radiation, coherent optics, diffraction, Fourier optics, wave guides, lasers and discussion of non-linear phenomena.

PHYS 60503 - Solid State Physics (3)

Prerequisites: PHYS 60303 and 60313 and 50723 or equivalent. Symmetry and crystal structure, ionic and covalent bonds, metals, band theory, thermal and optical effects in solids, and selected topics on magnetic properties, superconductivity and surface science.

PHYS 60603 - Statistical Physics (3)

Prerequisites: PHYS 30603 or equivalent and PHYS 60203 and 60313. General principles, kinetic theory, partition functions, Bosons and Fermions, linked cluster expansions, distribution functions, Brownian motion.

PHYS 60743 - Astrophysics (3)

Prerequisite: Permission of department chair. Origin and interpretation of stellar spectra. Energy generation and transport, nucleosynthesis. Stellar structure and stellar evolution. Interstellar medium, nebulae. Galaxies. Cosmology.

PHYS 60753 - Gaseous Astrophysics (3)

Prerequisites: Permission of department chair. This course explores gaseous material in, surrounding, and between galaxies. Topics include radiative transfer, gas heating and cooling processes, and methods for analyzing and interpreting astrophysical data.

PHYS 60803 - Nonlinear Dynamics with Applications (3)

Prerequisite: PHYS 30553 or equivalent. Techniques for analyzing nonlinear and pattern-forming systems with a focus on biological systems. Topics covered may include maps, bifurcations, strange attractors, fractals, linear stability methods, amplitude equations, defects, instabilities and traveling waves, Lyapunov spectra and correlation functions. Students will learn to build models of biological systems and to use analytical tools to develop intuition and make quantitative predictions about the system's behavior.

PHYS 60823 - Optical Spectroscopy and Fluorescence (3)

Prerequisite: PHYS 40113 or equivalent. This course introduces students to the basics of light-matter interactions and advanced aspects of optical spectroscopy. Modern spectroscopic approaches used in chemical and biomedical sciences, drug discovery, and other fields are discussed. The course includes theoretical lectures and discussions of recent scientific works and discoveries published in peer-reviewed journals.

PHYS 60870 - Research Problems in Astronomy (1.00-20.00)

Prerequisite: Permission of department chair. Directed research in the following areas: Observational astronomy, Galaxy structure and evolution, Stellar populations, Large-scale structure

PHYS 60901 - Scientific Citizenship (1)

Prerequisites: Graduate standing. This is a graduate seminar for majors that will teach and provide refreshment of key basic skills and knowledge essential for student academic and career success within and beyond the TCU. Five-week topics will rotate on a two to three year cycle and include topics such as: Career Skills, Scientific Public Communication, Intro to Scientific Programing, Publishing Grants, Basic Research Statistics, Research Policy, and Ethics and Diversity. Course may be repeated for credit.

PHYS 60960 - Physics Seminar (1.00-6.00)

Prerequisite: Graduate standing in Physics or permission of instructor. Participation in graduate colloquium and occasional presentation of appropriate topics to graduate faculty.

PHYS 60970 - Research Problems (9)

Directed research in the following areas: Atom optics, Electron-atom collisions, Molecular and solid state physics, Statistical physics, Positron annihilation spectroscopy, Biophysics.

PHYS 70133 - Atomic Collision Physics (3)

Prerequisites: PHYS 60303 and 60313. Theoretical, computational and experimental techniques used in electron, photon, atomic and molecular collision physics.

PHYS 70203 - Nuclear and Particle Physics (3)

Prerequisite: PHYS 60313. Nuclear and particle classifications and properties; nuclear two-body problem; nuclear models; passage of radiation through matter; detection methods and accelerators; nuclear and particle spectroscopy; gamma decay, beta decay and the weak interactions, Kaons, particle resonances; nuclear reactions; experiments at high energy.

PHYS 70303 - Advanced Quantum Mechanics (3)

Prerequisite: PHYS 60313. An introduction to the relativistic Dirac theory of the electron and to the non-relativistic quantum mechanical many-body problem.

PHYS 70413 - Statistical Physics (3)

Prerequisite: PHYS 60603. Lattice statistics, critical phenomena, propagators and methods for distribution functions, transport phenomena and irreversibility, second quantization and Green's functions.

PHYS 70503 - Molecular Physics (3)

Prerequisite: Graduate standing in physics or permission of instructor. Electronic, vibrational and rotational spectroscopy of polyatomic molecules. Applications of group theory to molecular spectra and structure. Fourier transform laser, electron paramagnetic resonance and other spectroscopic techniques.

PHYS 70703 - Chemical Physics (3)

Prerequisite: PHYS 60303. Quantum Chemistry, structure of molecules and intermolecular forces, molecular relaxation processes, light scattering, nonlinear optical methods, molecular beams, NMR and other experimental techniques.

PHYS 70743 - Advanced Topics in Astrophysics (3)

Prerequisite: PHYS 60870 or permission of department chair. Regularly scheduled course on advanced topics in astronomy and astrophysics, including the following: Stellar Atmospheres: Basic methods and applications of radiative transfer. Theory and interpretation of astronomical spectra: line profiles, LTE and non-LTE line formation, abundances, model atmospheres, curve-of-growth. Stellar Interiors: Solution of the equations of stellar structure, analytic approximations and theory relating to equilibrium stellar models, nucleosynthesis in massive stars, final phases of stellar evolution. Galactic Structure: The interstellar medium, galaxy kinematics, interacting galaxies, evolution and classification of galaxies, extragalactic radio sources, quasars, cosmological models.

PHYS 70753 - Advanced Topics in Biophysics (3)

Prerequisite: Permission of instructor. This course will cover advanced topics in biophysics based on current research and new developments. Selected topics may include fluorescence microscopy; Forster resonance energy transfer, fluorescence-based sensing and diagnostics, atomic force microscopy (AFM); nanophotonics and plasmonics; and computational biophysics; ensemble modeling, time series analysis, method of surrogate data, genetic algorithms.

PHYS 70771 - Non-Thesis (1)

Selected when enrolling only for non-thesis examination or preparation for the examination.

PHYS 70803 - Theoretical Atomic and Molecular Physics (3)

Prerequisites: PHYS 60303 and 60313. Theoretical study of electronic structure and molecular vibrations and rotation, Hartree-Fock and Many Body Perturbation Theory. Computer calculation of electronic structure.

PHYS 70903 - Quantum Optics (3)

Prerequisites: PHYS 60303 and 60313. Study of Laser Physics, interaction of light and matter, nonlinear phenomena and quantum nature of light.

PHYS 70980 - Thesis (1.00-6.00)

Prerequisite: Permission of department chair. A minimum of 3 hours of PHYS 70980 Thesis is required.

PHYS 70990 - Thesis (1.00-20.00)

Prerequisite: PHYS 70980 and admission to candidacy. A minimum of 3 hours of PHYS 70990 Thesis is required.

PHYS 80090 - The Teaching of Physics at the College Level (1.00-6.00)

Prerequisite: Graduate standing in physics and permission of instructor. Supervised preparation and delivery of lectures and demonstrations, and preparation and evaluation of examinations.

PHYS 90960 - Seminar in Theoretical Physics (1.00-6.00)

Prerequisites: Graduate standing and permission of instructor.

PHYS 90970 - Research Problems in Physics (1.00-20.00)

Prerequisites: Graduate standing and permission of department chair.

PHYS 90980 - Dissertation (6)

Prerequisites: Permission of department chair. A minimum of 6 hours of PHYS 90980 Dissertation is required.

PHYS 90990 - Dissertation (6)

Prerequisites: PHYS 90980 and admission to candidacy. A minimum of 6 hours of PHYS 90990 Dissertation is required.

PSYC - Psychology

PSYC 50213 - Interactive Data Analysis (3)

Prerequisite: PSYC 30503. Introduction to SPSS in application to research in the behavioral sciences, including use of SPSS functions for data analysis. Attention is also given to the use of univariate and multivariate methods of exploratory data analysis.

PSYC 50401 - Neurobiology of Aging (1)

Prerequisites: permission of instructor. The current literature associated with the neurobiology of aging, modern research techniques and recent developments in neuroscience and aging research are discussed. This is a participation course in which advanced undergraduate and graduate students will present manuscripts, explain research hypotheses and methodologies and explain results. Open discussion of these papers will include faculty from Biology and Psychology. Topics presented will differ by semester. The course may be repeated three times (taken a maximum of four semesters in all.) (Crosslisted as BIOL/PSYC 50401.)

PSYC 50403 - Advanced Neuroscience (3)

Prerequisite: Senior or Graduate standing and PSYC 30463 or permission of instructor. An in depth analysis of the neural and endocrine components of normal and abnormal behavior with emphasis on classic studies in the field.

PSYC 50411 - Theoretical Foundations of Statistical Inference (1)
Prerequisite: Graduate standing in Psychology; Ph.D. students must take concurrently with PSYC 50423. Supplements PSYC 50423. Provides an in-depth view of the models and theories underlying analysis of variance, correlation and regression analysis, and the nonparametric techniques.

PSYC 50413 - History and Systems of Psychology (3)
Prerequisite: Senior or graduate standing in psychology, or permission of instructor. The scientific and philosophic antecedents of contemporary psychology in relation to their current influence on the field.

PSYC 50423 - Graduate Statistics (3)
Prerequisite: Senior or Graduate standing or permission of instructor. The conceptual basis of statistical inference. Topics include: analysis of variance models, correlation and regression analysis, and nonparametric techniques.

PSYC 50433 - Vulnerable Child I: Theory (3)
Prerequisite: Junior standing. The Vulnerable Child is a two-part series of multidisciplinary courses which investigate the challenges faced by families and professionals who work with children who have emotional, behavioral, and/or physiological challenges. The Vulnerable Child I: Theory will focus on the theory and research which is the basis of these challenges. If our Hope Connection summer camp for adopted children is taking place, both Vulnerable Child courses are required before students can work in it. (Crosslisted as CHDV/PSYC 50433.)

PSYC 50443 - Vulnerable Child II: Practice (3)
Prerequisites: PSYC/CHDV 50433 and junior standing. The Vulnerable Child is a two-part series of multidisciplinary courses which investigate the challenges faced by families and professionals who work with children who have emotional, behavioral, and/or physiological challenges. The Vulnerable Child II: Practice will focus on the training students need to evaluate and apply intervention strategies for these families and children based on the theory and research learned in the first course. Both Vulnerable Child I II are required for students wishing to apply for Independent Studies' hours to work in The Hope connection summer camp for at-risk adopted children. (Crosslisted as CHDV/PSYC 50443.)

PSYC 50463 - Functional Neuroanatomy (3)
Prerequisite: Graduate or senior standing or permission of instructor. The fundamentals of functional neuroanatomy and neurophysiology with an emphasis on experimental and theoretical analysis of the basic brain behavior relationships. (Crosslisted as BIOL/PSYC 50463.)

PSYC 50472 - Laboratory in Physiological Psychology and Neuroscience (2)
Prerequisite: PSYC 30463 or its equivalent or PSYC 50653 or its equivalent, or concurrent registration in either PSYC 50436 or PSYC 30463. One lecture and one laboratory per week. Emphasis will be on the laboratory techniques employed in physiological psychology and neuroscience in analyzing the neural and hormonal correlates of behavior.

PSYC 50473 - Neurodevelopmental Disorders (3)
Prerequisite: PSYC 30503 or permission of instructor. This course will examine the etiology, neurobiology, diagnosis, and treatment of developmental and learning disabilities. We will also examine the impact of a developmental disability on the family and discuss cultural interpretations of disability. Topics will include (but are not limited to) ADHD, Autism Spectrum Disorders, Down syndrome, Communication disorders, Learning disorders, Fetal alcohol syndrome, Fragile X syndrome, PKU, and Williams syndrome.

PSYC 50482 - Laboratory in Physiological Psychology and Neuroscience (2)
Prerequisite: PSYC 30463 or its equivalent or PSYC 50653 or its equivalent, or concurrent registration in either PSYC 50436 or PSYC 30463. One lecture and one laboratory per week. Emphasis will be on the laboratory techniques employed in physiological psychology and neuroscience in analyzing the neural and hormonal correlates of behavior.

PSYC 50493 - Advanced Personality (3)
Prerequisite: Senior or graduate standing in psychology and PSYC 40443, or permission of instructor. Current topics from the empirical and theoretical literature on personality.

PSYC 50503 - Curricular Practical Training Internship (3)
Prerequisites: 2.75 GPA in major, completion of either at least 20 credit hours in the department OR graduate status, and approval of department chair.

Practical experience in the field of Psychology-related research that may involve work both at TCU and/or outside of TCU (but inside the state of Texas), including field work, internships, part-time jobs, and unpaid volunteer positions, all of which are to be centered around providing real-world training that would enhance the possibility of obtaining a career in a psychology-related research area. Must include a minimum of 260 work hours. This course may only be taken pass/no credit.

PSYC 50513 - Psychopharmacology (3)
Prerequisite: PSYC 10213 or 10514 or 10524, and junior standing. Theory and principles of behavioral and biochemical methods of assaying drug action, with primary emphasis on the study of the effects of neuropharmacological agents or endogenous systems.

PSYC 50523 - Experimental Design (3)
Prerequisite: PSYC 50423 or permission of instructor. The planning and design of behavioral research including the specification of research problems, development of appropriate designs, the use of appropriate analytic techniques and the interpretation of results. Primary attention is given to analysis of variance models as analytic techniques, but multivariate techniques such as regression and discriminant function models are also considered.

PSYC 50533 - Case Studies in Child Development (3)
Prerequisite: Junior standing. This course is designed to present an integrated and comprehensive overview of numerous issues in child development as well as treatments/solutions for those issues. This diverse array of developmental problems will be presented in a series of case-studies by professors from several departments as well as by community professionals who specialize in children's issues. This course is a requirement for the Child Development Minor as well as an elective course in Psychology. (Crosslisted as CHDV/PSYC 50533.)

PSYC 50563 - Developmental Psychology (3)
Prerequisite: Senior or graduate standing in psychology, or permission of instructor. Data and research methods related to the development of the human organism from its prenatal origins through old age.

PSYC 50583 - Cognition
Prerequisite: Senior or graduate standing in psychology, or permission of instructor. Current topics in the area of cognition including thinking, language, memory, decision making, and problem solving.

PSYC 50603 - Contemporary Learning Theory (3)
Prerequisite: Senior or graduate standing in psychology, or permission of instructor. Selected theoretical principles important for understanding complex behavior, and their recent extensions and application to human social behavior, autonomic and psychosomatic function, etc.

PSYC 51000 - Seminar on Ethics and Science (1.00-3.00)
Prerequisite: Senior or graduate standing in psychology or permission of instructor. The course will look at the range of ethical decisions that are required of scientists. We will focus on identifying ethical dilemma throughout the history of scientific discovery. Case studies will include both moral exemplars and instances of scientific misconduct. These case studies will cut across scientific disciplines and include examples from biology, medical research, biotechnology, and psychology.

PSYC 60000 - Special Study (1.00-6.00)
Prerequisite: Permission of department chair. May be independent study or research under Code 1, or may be a special course in an area not covered in regular courses (Code 2 or higher).

PSYC 60500 - Seminar in Chemistry of Behavior (1.00-20.00)
Prerequisite: Permission of department chair. Weekly discussions of current topics in the Chemistry of Behavior. (Crosslisted as CHEM/PSYC 60500.)

PSYC 60533 - Perception (3)
Prerequisite: Graduate standing in psychology or permission of instructor. The relations of sensation and perception, stimulus and receptor correlates, phenomenological and configurational theories and the integration of perception with the phenomena of motivation and learning.

PSYC 60543 - Sensory Processes (3)
Prerequisite: Graduate standing in psychology or permission of instructor. Energy transduction in the external and internal senses, afferent control via receptor adjustment and neural interaction, centripetal information processing and the relation of sensors to homeostatic regulation.

PSYC 60553 - Conditioning and Learning (3)
Prerequisite: Graduate standing in psychology or permission of instructor. Basic research in the field of learning, emphasizing empirical study of

classical conditioning, instrumental conditioning, generalization, discrimination and extinction.

PSYC 60561 - Laboratory in Conditioning and Learning (1)

Prerequisite: Concurrent or prior registration in PSYC 60553, or permission of instructor.

PSYC 60563 - Psychology of Human Learning (3)

Prerequisite: Graduate standing in psychology or permission of instructor. A review of research methods and theories of human learning with special emphasis on the acquisition of verbal and social behavior in both children and adults.

PSYC 60573 - Operant Conditioning: Theory and Application (3)

In-depth exploration of selected topics from the literature on operant conditioning, covering theory, methods, and applications.

PSYC 60613 - Multivariate Analysis (3)

Prerequisite: PSYC 50423 or permission of instructor. Multivariate correlation methods, discriminant function analysis, factor analysis and related techniques.

PSYC 60623 - Regression Analysis (3)

Prerequisites: Graduate standing in psychology Ph.D. program and permission of department chair. A basic overview of regression analysis. Typical topics include assumptions and diagnostics, multiple regression, unpacking interactions in multiple regression, simple slopes analyses, and nonlinear regression.

PSYC 60633 - Generalized Linear Models (3)

Prerequisites: Graduate standing in psychology Ph.D. program and permission of department chair. A general introduction to generalized linear models. Typical topics include distributions and inference for categorical data, contingency tables, generalized linear models, logistic regression, logit models for multinomial responses, loglinear models, models for matched pairs, multilevel models for categorical data,

PSYC 60643 - Structural Equation Models (3)

Prerequisites: Graduate standing in psychology Ph.D. program and permission of department chair. A general introduction to structural equation models. Typical topics include model notation, covariances, path analysis, multiple regression, causal models, linear models, structural equation models with observed variables, consequences of measurement error, measurement models, confirmatory factor analysis, and the general model.

PSYC 60653 - Multilevel/Hierarchical Models (3)

Prerequisites: Graduate standing in psychology Ph.D. program and permission of department chair. A general introduction to multilevel/hierarchical models. Typical topics include fitting regression models, simulation and regression inference, causal inference, multilevel structure, multilevel linear models, modeling time and change, debugging and speeding convergence, statistical power, and summarizing fitted models.

PSYC 60663 - Advanced Social Psychology (3)

Prerequisite: Graduate standing in psychology or permission of instructor. A survey of the literature of social psychology with emphasis upon recent research.

PSYC 60673 - Advanced Structural Equation Modeling (3)

Prerequisites: Graduate standing in psychology Ph.D. program and permission of department chair, and PSYC 60643. This course is designed for graduate students who have taken an introductory course in structural equation modeling (SEM) and who are interested in exploring advanced topics within this framework. The class is structured as a seminar. Students select topics of particular interest which they research and present to the class. Some days may be designated as lab days when students analyze data sets provided by the instructor or other students.

PSYC 60683 - Advanced Comparative Psychology (3)

Prerequisite: Graduate standing in psychology or permission of instructor. The development of anatomical structures, environmental factors and behavior of species throughout the animal kingdom. Emphasis is on interspecies comparison and the understanding of human behavior in terms of its evolutionary antecedents.

PSYC 60723 - Motivation (3)

Prerequisite: Graduate standing in psychology or permission of instructor. Concepts, theories and systematic investigations of motivation, covering historic lines of development with particular emphasis on recent contributions.

PSYC 60743 - Longitudinal Data Analysis (3)

Prerequisites: Graduate standing in psychology and permission of department chair. A general introduction to longitudinal data analysis. Typical topics include longitudinal study designs, longitudinal data management, univariate and multivariate ANOVA for repeated measures, multilevel model for change, latent growth curve modeling, nonlinear change, random and fixed effects, and summarizing fitted models.

PSYC 60823 - Group Processes (3)

Prerequisite: PSYC 60663 or permission of instructor. Theories and systematic investigations in the social psychological literature on group processes with a historical as well as contemporary focus.

PSYC 60833 - Attitudes (3)

Prerequisites: PSYC 60663 or permission of instructor. Theories and systematic investigations of attitude change with a historical as well as contemporary focus.

PSYC 60903 - Developmental Trauma Capstone Course (3)

This course is the capstone course for the Master of Science in Developmental Trauma program. Students complete a treatise and several professional development activities under the advisement of a faculty member in the program. (Crosslisted as CHDV/PSYC 60903)

PSYC 60913 - Evolutionary Social Psychology (3)

Prerequisites: Graduate standing in psychology Ph.D. program and permission of department chair. Students will learn how to use concepts in evolutionary biology to derive novel predictions about research topics in social psychology and will review current research employing this approach.

PSYC 60923 - Social Cognition (3)

Prerequisites: Graduate standing in psychology Ph.D. program and permission of department chair. Reviewing and presenting theoretical developments in social cognition; designing, conducting, and reporting original research projects.

PSYC 60933 - Writing Psychology Research (3)

Prerequisites: Graduate standing in psychology Ph.D. program and permission of department chair. Writing and submitting empirical articles for psychology research journals.

PSYC 60943 - Behavior Change (3)

Prerequisites: Graduate standing in psychology Ph.D. program and permission of department chair. Reviewing and presenting theoretical developments in the psychology of behavior change; designing, conducting, and reporting original research projects.

PSYC 70130 - Advanced Teaching of Psychology (1.00-20.00)

Prerequisite: Permission of department chair. Supervised practice in college teaching. Note: No more than 4 semester hours in PSYC 70120 and PSYC 70130 may be applied toward the Master of Arts or Master of Science degree.

PSYC 70530 - Experimental Instrumentation (1.00-6.00)

Prerequisite: Graduate standing in psychology or permission of instructor. Instruction in the design, maintenance and use of complex instruments for measuring psychological and behavioral events.

PSYC 70980 - Thesis (1.00-6.00)

Prerequisites: Graduate standing and permission of director of graduate studies in psychology. A minimum of 3 hours of PSYC 70980 Thesis is required.

PSYC 70990 - Thesis (1.00-20.00)

Prerequisites: PSYC 70980 and admission to candidacy. A minimum of 3 hours of PSYC 70990 Thesis is required.

PSYC 80100 - Special Topics in Quantitative Methods (1.00-20.00)

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 80200 - Special Topics in Learning and Motivation (1.00-20.00)

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 80300 - Special Topics in Perception and Cognition (1.00-20.00)

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 80400 - Special Topics in Physiological Psychology (1.00-20.00)

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 80500 - Special Topics in Social Psychology and Personality (1.00-

6.00)

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 80600 - Special Topics in Contemporary Psychology (1.00-20.00)

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 90100 - Advanced Studies in Quantitative Methods (1.00-10.00)

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90200 - Advanced Studies in Learning and Motivation (1.00-20.00)

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90300 - Advanced Studies in Perception and Cognition (1.00-20.00)

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90400 - Advanced Studies in Physiological Psychology (1.00-20.00)

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90500 - Advanced Studies in Social Psychology and Personality (1.00-20.00)

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90600 - Advanced Studies in Contemporary Psychology (1.00-20.00)

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90980 - Dissertation (1.00-20.00)

Prerequisite: Permission of the department chair. A minimum of 6 hours of PSYC 90980 Dissertation is required.

PSYC 90990 - Dissertation (1.00-20.00)

Prerequisite: PSYC 90980 and admission to candidacy. A minimum of 6 hours of PSYC 90990 Dissertation is required.

RAMA - Ranch Management

RAMA 50213 - Ranch Business Management (3)

Business law as applied to the livestock producer, business organization, estate planning, labor relations, application of management principles to ranching.

RAMA 50503 - Range Management (3)

Principles of plant growth and reproduction; economic characteristics and field identification of range plants; ecology of range plants and animals; management of rangeland for all its uses including setting and adjusting stocking rates, distribution of grazing, grazing methods and supporting practices; preparation of ranch management plan.

RAMA 50603 - Ranch Records and Finance (3)

Basic records needed for management and income tax reports - records of income and expense, inventories, net worth statements, budgets, production records; term problem in which all records for a year's operation are recorded and financial statements are prepared; sources of credit for ranch operations.

RAMA 50803 - Marketing of Livestock and Meats (3)

Relation of production to marketing, trends in marketing and consumption, meat processing and distribution, U.S.D.A. activities, market outlets and procedures, futures, seasonal and cyclical influences on prices, selection of time and place to market, handling and transportation of livestock to improve weighing conditions and minimize losses, merchandising purebred livestock.

RELI - Religion

RELI 50130 - Seminar in Biblical Studies (1.00-6.00)

Prerequisite: approval of instructor. A particular topic in Biblical Studies will be selected for detailed study. (3-6 semester hours)

RELI 50970 - Directed Study in Religion (1.00-20.00)

1 - 6 semester hours

RLEM - Ralph Lowe Energy Management

RLEM 60070 - Directed Studies (1.00-3.00)

Prerequisites: Admission into the Ralph Lowe Energy Management Graduate Certificate Program. The RLEM Directed Studies class will address identified weaknesses for each student in a specific technical or analytical skillset on an individual basis. While all students may take the same class with a common topic, each student will engage in critical investigation and interaction with a mentor to develop a knowledge base of a previously unknown component of the energy industry.

RLEM 61003 - Oil & Gas Development (3)

Prerequisites: Admission into the Ralph Lowe Energy Management Graduate Certificate Program. This course is a broad overview of the geologic, engineering, and business sides of the oil and gas industry, focusing on the small, independent operators. The course will acquaint students with the major steps in the production of oil and gas, from developing a prospect to delivering the raw product. Students will also become acquainted with the legal, regulatory, and environmental issues encountered in drilling for oil and gas. Basic understanding of the geology of oil and gas. Familiarity with the business, financial, and legal aspects of oil and gas exploration and production. Familiarity with how a well is drilled, completed, and produced.

RLEM 61011 - Energy and Global Geostrategy Seminar 1 (1)

Prerequisites: Admission into the Ralph Lowe Energy Management Graduate Certificate Program. This course introduces students to energy issues from a geopolitical perspective and provides them with relevant professional development opportunities. The opportunities include field trips to energy industry sites (i.e. drilling rig, natural gas drilling sites, windfarm, solar, and hydroelectric plants), professional conferences (i.e. Solar Texas Power Conference, Wind Power Finance and Investment Summit), off campus industry classes (OCGI Evaluating Shale Resources, Training for Renewable Energy Experts), and active participation in the Ralph Lowe Energy Management (RLEM) internship/mentorship program. Students will initiate the required collaborative capstone project. Professional development and off campus industry classes will be customized to meet the specific needs of the students. Students enrolled in the RLEM program are required to complete a combined total of 18 professional development hours (activities in RLEM 61011 and 61021).

RLEM 61013 - Energy in the 21st Century (3)

Prerequisites: Admission into the Ralph Lowe Energy Management Graduate Certificate Program. This is an interdisciplinary, team taught course in four sections that provides a broad-based overview of energy: its exploration and production, its controversies, its geopolitics and the process by which it is provided.

RLEM 61021 - Energy and Global Geostrategy Seminar 2 (1)

Prerequisites: Admission into the Ralph Lowe Energy Management Graduate Certificate Program. This course introduces students to energy issues from a geopolitical perspective and provides them with relevant professional development opportunities. The opportunities include field trips to energy industry sites (i.e. drilling rig, natural gas drilling sites, windfarm, solar and hydroelectric plants), professional conferences (i.e. Solar Texas Power Conference, Wind Power Finance and Investment Summit), off campus industry classes (OCGI Evaluating Shale Resources, Training for Renewable Energy Experts), and active participation in the Ralph Lowe Energy Management (RLEM) internship/mentorship program. Students will complete the required collaborative Capstone Project. Professional development and off campus industry classes will be customized to meet the specific needs of the students. Students enrolled in the RLEM program are required to complete a combined total of 18 professional development hours/activities in RLEM 61011 and 61021.

RLEM 61023 - Overview of Petroleum Engineering (3)

Prerequisites: Admission into the Ralph Lowe Energy Management Graduate Certificate Program. Petroleum engineering concepts and technology that are needed to find and produce oil and gas are discussed. This course covers drilling and completions, production operations, reservoir engineering, and reservoir management. When possible, industry professionals will visit to discuss current technologies for producing hydrocarbon fluids. Students will be expected to prepare and present a case study using current literature.

RLEM 61031 - Ethics and Energy (1)

Prerequisites: Admission into the Ralph Lowe Energy Management Graduate Certificate Program. This course will examine ethical decision making in the context of the energy industry and a focus on fossil fuels. This course will explore the psychological and philosophical foundations of moral judgment and reasoning and introduce strategies that support ethical decision-making. Ethical dilemmas and case studies will focus on the benefits and risks of using fossil fuels to meet our energy needs.

RLEM 61033 - Global Energy Sources, Uses, and Issues (3)

Prerequisites: Admission into the Ralph Lowe Energy Management Graduate Certificate Program. This course focuses on the physical and economic infrastructure through which energy resources are obtained, transformed and used, and energy related challenges and responses.

RLEM 61041 - Environmental Issues in Energy (1)

Prerequisites: Admission into the Ralph Lowe Energy Management Graduate Certificate Program. This course is designed to ask students to move beyond just learning the science behind environmental issues in energy but to give them the framework to assist students to become facilitators in the discussion of these issues with multiple stakeholders. This course is also designed to give students practice in analyzing critical constraints in energy development through the use of scenarios.

SOCI - Sociology

SOCI 50610 - Directed Study in Sociology (1.00-9.00)

Prerequisite: permission of instructor, and graduate standing. Supervised reading, research and completion of a substantial paper. May be taken for credit ranging from 1-6 semester hours and may be taken more than once.

SOWO - Social Work

SOWO 61803 - Professional Foundation (3)

This course introduces students to the profession of social work. The history and current functioning of the social welfare system will be viewed through the profession of social work. The course includes an overview of the knowledge, values, and skills that form the foundation of social work practice.

SOWO 61813 - Research Methods in Social Work 1 (3)

Research 1 introduces students to the scientific method as a form of knowledge development and helps students understand how science is used to understand and address social problems and evaluate social work practice.

SOWO 61823 - Diversity and Social Justice (3)

Students examine what it means to be culturally competent in practice and learn about diverse cultures, family structure, roles, immigration and assimilation experiences of marginalized groups, and about the influence of dominant culture on these diverse and marginalized groups.

SOWO 61833 - Macro Practice (3)

The practice aspect of social work concerned with the organization, planning and administration of social work services (as distinguished from provision of services directly to clients), and with the analysis and evaluation of policy and practice within the profession.

SOWO 61843 - Human Behavior and the Social Environment 1 (3)

The purpose of this course is to provide students with a foundation of knowledge regarding theories, mechanisms, and principles of human development and function. Part of the two-course HBSE sequence, HBSE 1 focuses on life-stages beginning with conception and ending with adolescence.

SOWO 61853 - Human Behavior and the Social Environment 2 (3)

The purpose of this course is to provide students with a foundation of knowledge regarding theories, mechanisms, and principles of human development and function. Part of the two-course HBSE sequence, HBSE 2 focuses on life-stages beginning with young adulthood through late adulthood.

SOWO 61863 - Social Welfare Policies and Services (3)

The historical development of social welfare policies and services to meet needs including the process of policy development and implementation. Students discuss and analyze social welfare issues including their political implications and causative factors, and steps necessary to change or impact policy.

SOWO 61873 - Micro Practice (3)

Students examine the helping process, including theories of practice, engagement, assessment, planning intervention, evaluation, and termination. Emphasis is placed on the acquisition of social work skills to be used throughout the helping process.

SOWO 61883 - Field Education 1 (3)

Foundation level supervised field learning within a social work agency provides the student an opportunity to learn the structure, function, and policies of social work agencies. Through experiences in the agency and field seminar, the student gains a sense of professional identity and applies

social work knowledge to the development of skills in human service delivery. There are additional fees associated with this course. A grade of B or better is required in SOWO 61883 in order to continue in SOWO 61893.

SOWO 61893 - Field Education 2 (3)

Prerequisites: SOWO 61883 with a B or better grade. This course is a continuation of SOWO 61883. There are additional fees associated with this course.

SOWO 63500 - Directed Study in Social Work (1.00-6.00)

Prerequisites: SOWO 61893 or equivalent credit. This course is designed for students who undertake readings or projects in social work in consultation with an instructor.

SOWO 63503 - Treatment of Addictions (3)

Prerequisites: SOWO 61883. Through this course, students will examine the various theories and methods of the treatment of compulsive behaviors and addictions. Students will learn to engage, assess, intervene, and evaluate with various client populations that are affected by compulsive behavior and addictions.

SOWO 63513 - Social Work and the Law (3)

Prerequisite: SOWO 61863. This course introduces students to law and legal systems, legal issues for professionals, laws relating to specific social problems and vulnerable populations, and legal issues for practice.

SOWO 63523 - Advanced Family Treatment (3)

Prerequisites: SOWO 61893. This course builds on the content from previous practice classes and students learn advanced practice content that encompasses knowledge and skills to work with families as client groups. This content includes engaging clients in an appropriate working relationship, identifying issues, problems, needs, resources, and assets; collecting and assessing information; and planning for service delivery.

SOWO 63533 - Global Poverty, Inequality, and Social Justice (3)

Prerequisites: SOWO 61823 or equivalent credit. This course explores questions of contemporary global poverty, economic and social inequality, social injustice, and environmental degradation. The course perspective includes Western and non-western interpretations of poverty, inequality, and social injustice to ensure that students evaluate a diverse set of theories and understandings about these social problems.

SOWO 63543 - Contemporary Topics in Social Work (3)

Prerequisites: SOWO 61893. This course is constructed around current interests in social work. Possible course topics would evolve as current events and evolutions in the profession make these important for further investigation.

SOWO 63553 - Social Work Practice in Health Care (3)

Prerequisites: SOWO 61893. This course is designed to expose students to some of the various practice settings under the umbrella of medical social work. This course builds on the generalist practice classes and provides students an opportunity to enrich their knowledge, understanding, and skills working with medical professionals and in medical environments.

SOWO 63563 - Comparative Social Policy (3)

Prerequisite: SOWO 61863. Students will study and compare complex issues that affect social and economic justice through social policy and social service delivery. Students will gain an understanding of global problems such as poverty, homelessness, hunger, and health care, and how each country responds through policy and service delivery.

SOWO 63573 - Interventions with Children and Families (3)

Prerequisites: SOWO 61843, or equivalent credit. This course examines interventions in practice with children, youth, and families. Attention will include the dynamics of abuse and neglect and the current state of child welfare services.

SOWO 63583 - Program Development, Grant Writing, and Fund Raising (3)

Prerequisites: SOWO 61863. This course provides students with the knowledge and skills to plan and design agency programs and write grant proposals to secure funding for agency initiatives. Emphasis is on identifying and using evidence based practice strategies in program development to ensure that clients receive the most effective services.

SOWO 63593 - Crisis Intervention (3)

Prerequisites: SOWO 61873 or equivalent credit. Through this course, students gain the knowledge and skills needed to assess, engage, and intervene in crisis situations. Students learn how to respond to crisis with diverse clients in a variety of situations and settings. Crisis Theory is used as a counterpoint and foundation for crisis intervention.

SOWO 63603 - Intimate Partner Violence (3)

Prerequisites: Admittance to the MSW Program or by instructor permission. The focus of this course will be on models of service delivery to address the impact of intimate partner violence across the lifespan. The course will provide an overview of conceptual models of violence, consider risk factors and trauma effects of victimization and suggest clinical and macro level interventions. Theories for abuse behavior including socio-cultural theories, psychological theories, and ecological frameworks will be reviewed. The intersectionality of culture, ethnicity, place, age, sexual orientation, immigration status as well as global issues will be addressed.

SOWO 65803 - Administration and Management (3)

This is an advanced methods course in social administration/management covering topics in planning, supervision, performance appraisal, budgeting, and organizational theory. This course prepares students to assume leadership roles in human service organizations and social change systems.

SOWO 65813 - Research Methods in Social Work 2 (3)

Prerequisite: SOWO 61813. This is an advanced course in the application of research principles and techniques. It builds on previous research coursework and has students apply qualitative and quantitative research methods and commonly used statistical procedures to the evaluation of social work interventions.

SOWO 65833 - Perspectives of Mental Health Practice (3)

Prerequisites: SOWO 61893. Through this course students learn about major forms of emotional distress and mental disorders in children, youth, and adults. The course provides an introduction to clinical syndromes in terms of diagnostic methodology, research and social concerns and their implications for at risk groups.

SOWO 65843 - Trauma-Informed Social Work Practice (3)

Prerequisites: SOWO 65883. The purpose of this course is to provide an overview of current, multi-system level definitions of trauma (individual, family, organizational, community, historical, etc.) and an introduction to recovery-oriented and ecologically and culturally sensitive trauma-informed social work practice. Building on this foundational knowledge base, students will apply course concepts and principles to their own practice areas of interest as well as identify the importance of ongoing professional development and personal self-care.

SOWO 65853 - Applied Evaluation Research (3)

Prerequisites: SOWO 65813. This course continues the research project designed in SOWO 65813 and has the student finalizing and presenting their research in various outlets.

SOWO 65873 - Advanced Practice (3)

Prerequisite: SOWO 61893. This course builds on the generalist perspective and focuses on relating a range of intervention theories to various client populations relevant to students' work concerns. Theoretical underpinnings for various approaches are explored.

SOWO 65883 - Field Education 3 (3)

Prerequisites: SOWO 61873. Advanced field education helps to extend and deepen the development of social work knowledge and practice skills with clients. Supervised by experienced social workers, students gain autonomy and independence in working in agency settings. Students develop leadership skills, particularly in the areas of social work with children and families and in health and mental health settings.

SOWO 65893 - Field Education 4 (3)

Prerequisite: SOWO 65883 with a grade of B or better. In this final field education course, students continue to extend and deepen their development of social work knowledge and practice skills with clients. Supervised by experienced social workers, students gain autonomy and independence in working in agency settings. Students develop leadership skills, particularly in the areas of social work with children and families and in health and mental health settings.

SPAN - Spanish

SPAN 50203 - Graduate Study in Hispanic Topics (3)

Special topics in Hispanic literature, culture, language, or pedagogy. May be repeated for credit, up to 9 credits. Taught in Spanish.

STCO - Strategic Communication

STCO 50123 - Foundations

Seminar devoted to the analysis and discussion of significant issues in journalism and strategic communication with a focus on related literature, research areas and professional practice. Offered as STCO/JOUR 50123.

STCO 50133 - Management of Public Relations and Advertising Departments/Firms or Agencies (3)

The course will examine management techniques, tactics, concerns and issues in handling public relations and advertising departments within organizations, corporate and nonprofit, and agencies or firms, from small independent operations to subsidiaries of larger entities.

STCO 50183 - Management and Leadership

This course will give students a survey of some of the latest management and leadership communication theories and practices, including a new sense of social responsibility. Students will apply theories to solve problems in existing case studies. Cross listed as JOUR 50183.

STCO 50333 - Advertising and the Consumer (3)

This course presents theories and models from psychology, sociology, marketing and communications to examine consumers -- how they react to advertising and promotion and their subsequent consumer behavior.

STCO 50383 - History of Strategic Communication (3)

Seminar designed to explore the history of strategic communication. Issues discussed in this class will improve historical knowledge about the mass media and give a foundation for understanding the professional development of strategic communication.

STCO 50523 - Information Law and Policy (3)

Prerequisites: Open to graduate students in Journalism and Strategic Communication. Undergraduate students must have passed JOUR 40523 (Law and Ethics of Mass Communication) or STCO 46403 (Law) with a grade of C or higher and must have permission of the instructor. Advanced media law course for students focusing on contemporary challenges faced by journalism and strategic communication professionals. The course emphasizes how the law of mass communication has adapted to new and emerging technologies such as the Internet and social media, with a particular focus on privacy, access to information, and intellectual property. Students will learn and apply normative legal research methods to answer modern questions relevant to professional communicators. Cross listed as JOUR 50523.

STCO 53483 - Crisis Communication (3)

Prerequisite: Grade of C or higher in each of the gateway courses: STCO 11103, STCO 16103, STCO 23113, and STCO 23123 and a combined GPA of 2.5 or higher in these courses. Non-majors require permission of the instructor. This course examines the way issues of public concerns are detected by news media and strategic communication professionals as the issues develop, and it examines how the crisis management and communication of government, corporate and nonprofit organizations' concerns affect public perceptions and opinions. The course emphasizes practical application of theories, strategies and tactics of communicating to multiple stakeholders in crisis situations.

STCO 60113 - Research Methods (3)

Introduction to quantitative and qualitative methods commonly used in journalism and strategic communication. This course is offered for STCO or JOUR credit.

STCO 60123 - Theory (3)

An introduction to the theories of advertising, public relations, journalism, and mass communication, with attention to how theories inform practice and practice informs theory. This course is offered for STCO or JOUR credit.

STCO 60133 - Ethics (3)

Principles of media and strategic communication ethics, codes and practices. Provides students with theoretical foundation to identify and think critically about ethical issues in strategic communication and media, with focus on applying principles to contemporary issues and practices. Crosslisted as JOUR 60133.

STCO 60173 - Project in Strategic Communication (3)

This course will allow students an opportunity to take a workplace problem that has a strong research component and develop it for course credit and for application on the job. Projects could be creating a campaign, developing a program for a special public, such as an ethnic group or a particular age group, exploring new policies to solve workplace difficulties or potential problems, studying the way different publics view the organization with the idea of placing that opinion more in line with management objectives, planning a Web site or any other workplace assignment that lends itself to research and writing a proposal

STCO 60183 - Global Strategic Communication (3)

This course examines the theories and practices of effective communication messaging for a global audience. Students will also learn how technology, culture, and social structures impact strategic communication in an international arena. Crosslisted as JOUR 60183.

STCO 60193 - Global Cases and Campaigns (3)

A study of persuasive cases and campaigns that are international in scope. Documented cases will be reviewed for insight into elements that contributed to the effectiveness of the effort, and campaigns, such as some United Nations health campaigns that will be studied for their tactics and strategy as adjusted for different cultures.

STCO 60203 - Integrated Marketing Communications (3)

This course provides an introduction to the components and considerations involved in integrated marketing communications (IMC) strategy decisions. The course will consist of an overview and discussions of assigned readings and cases, guest speakers, and either a research project or applied project for a client.

STCO 60980 - Special Problems in Strategic Communication (1.00-3.00)

A conference course designed to give an individual student or group of students opportunities for additional specialized work in a particular area of concentration. (Maximum of 3 hours credit per semester; may be repeated for a maximum of 6 credit hours.)

STCO 70980 - Thesis (1.00-6.00)

Student completes a thesis proposal and submits it to her/his committee for approval. Then the student must complete a literature review and a research methodology plan and submit both to the committee for approval. Students who intend to conduct research with human subjects will need to submit a research proposal to the Departmental Review Board.

STCO 70990 - Thesis (1.00-6.00)

Student completes the research for the thesis and writes the results and conclusion. The student submits the final thesis one month before the deadline for final submission for the committee for a defense. After the committee votes, the student must finalize the work.

WGST - Women and Gender Studies

WGST 60003 - Colloquium on Feminist Theory (3)

This course aims to provide graduate students with a thorough grounding in the basics of feminist theory since the early modern period. We will cover the major themes of education, biological determinism vs. social

constructivism, feminist analysis, psychoanalysis, and language theory, as well as other approaches specific to disciplinary background (visual, historical, literary analysis).

WGST 60973 - Directed Study in Women & Gender Studies (3)

Prerequisites: For graduate students enrolled in the Women & Gender Studies Certificate program. Directed Study in Women and Gender Studies.

WRIT - Writing

WRIT 55223 - Technical Writing and Information Design (3)

Prerequisites: ENGL 10803, ENGL 20803, and at least one 10000- or 20000-level ENGL/WRIT course. A course in practical communication with a concentration on report writing, including oral presentations and use of visual materials. Assignments are tailored to fit students' major fields and professional interests. Student cannot receive credit for WRIT 55223 and WRIT 30223.

WRIT 55253 - Rhetorical Traditions (3)

Prerequisites: ENGL 10803, ENGL 20803, and at least one 10000- or 20000-level ENGL/WRIT course. An introduction to the ideas, issues and individuals that shaped rhetoric and its relationship to literature and poetics, including the relationship between orality and literacy, the impact of cultural and religious views on discourse, and the role of technology in communication. Student cannot receive credit for WRIT 55253 and WRIT 30253.

WRIT 55263 - Multimedia Authoring: Animation and Film (3)

Explores the complex relationship between new media, culture, and design, with particular emphasis on cinematic or time-based rhetoric. Course emphasizes concepts in rhetoric, multimedia, and authorship in digital environments. Students design and compose a variety of multimedia products incorporating print, image, and other modes. Student cannot receive credit for WRIT 55263 and WRIT 40263.

WRIT 55283 - Editing and Publishing (3)

Prerequisites: ENGL 10803, ENGL 20803, and at least one 10000- or 20000-level ENGL/WRIT course. Introduces students to the practice of editing manuscripts intended for publication. Topics include the editorial process (both academic and commercial), the ethics of editing, and the role of the editor in publishing. Students will engage in extensive editing practice of journal and book manuscripts. Student cannot receive credit for WRIT 55283 and WRIT 40283.

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