

Texas Christian University



2013-14
Graduate Catalog

Table of Contents

Academic Calendar	3	Bicycle Regulations	26
Fall Semester 2013	3	University Programs	27
Spring Semester 2014	3	MLA Degree	27
Summer Semester 2014	3	MLA Degree Requirements	27
About TCU	5	Graduate Certificate in Ranch Management	35
Accreditation and Affiliations	5	Women's Studies Certificate	36
Oak Ridge Associated Universities	5	M.J. Neeley School of Business	37
Nondiscriminatory Policy	5	Neeley School Professional Graduate Degrees	37
Graduate Programs	6	Neeley School Dual-Degree MBA	37
Graduate Degree Programs	6	Neeley School Graduate Program Academic Policies	37
Degree Requirements	7	MBA Programs	38
Master's Degree Requirements	7	Dual-Degree MBA Programs	39
Doctoral and PhD Degree Requirements	8	MBA/MACS/MTS/MDiv Degree Program in Conjunction with Brite Divinity School	40
Admission	10	Physics PhD with Business Option	40
Admission Requirements	10	Neeley School Master's Degrees	40
Graduate Entrance Examinations	10	Neeley School of Business Courses	41
Undergraduate Prerequisites	10	Bob Schieffer College of Communication	51
Types of Admission	10	Bob Schieffer College of Communication Admission Requirements	51
Application Procedures Contact Information	11	Bob Schieffer College of Communication Grading Procedures	51
Financial Information	12	Bob Schieffer College of Communication Financial Aid	51
Tuition and Fees	12	Communication Studies Degree Program	51
Financial Aid	12	Schieffer School Degree Programs	52
Ex-Service Men and Women Graduate Education	13	College of Education	55
Federal and State Student Financial Aid	13	College of Education Programs	55
Policies and Procedures	15	Master of Education Program Descriptions	55
Registration	15	Education 4/1 Options for TCU Undergraduate Students	59
Graduate Credit	16	Educational Leadership	60
Academic Rating System	16	Educational Studies: PhD	62
Academic Warning	16	Education Courses	65
Dismissal, Suspension or Expulsion	16	College of Fine Arts	74
Foreign Language Examination	16	Art History	74
Conferring of Degrees	16	Studio Art	75
Transcripts of Academic Records	17	School for Classical & Contemporary Dance	76
Disabilities Policy and Procedures	17	Music	78
The Family Educational Rights and Privacy Act	17	Addran College of Liberal Arts	91
Drug Abuse Policy	17	English	91
Professional Behavior Standards	18	History	94
Firearms and Deadly Weapons Policy	18	Sociology	96
Medical History/Immunizations	18	Harris College of Nursing & Health Sciences	97
Academic Conduct	19	Nursing	97
Grade Appeals	20	School of Nurse Anesthesia	100
Student Grievance Procedure	21	Doctor of Nursing Practice - Anesthesia (DNP-A) Track	103
Academic Services	22	Doctor of Nursing Practice	105
Mary Coats Burnett Library	22	Communication Sciences and Disorders	107
Information Technology	22	Kinesiology	108
Information Commons	22	Master of Social Work	110
The William L. Adams Center for Writing	22	College of Science & Engineering	114
Intensive English Program	22	Biology	114
William H. Koehler Center for Teaching Excellence	22	Chemistry	115
Research Support	23	Environmental Science	117
Student Services	24	Geology	120
Brown-Lupton University Union	24	Mathematics	122
Campus Recreation	24	Physics and Astronomy	125
Health Services	24	Psychology	128
The Office of Religious and Spiritual Life	24	Directory Information	132
The Counseling Center	24	Administration	132
Career Services	25	Faculty	137
International Student Services	25	Index	143
Campus ID Card	25		
TCU Police	25		
Automobile Regulations	25		

Academic Calendar

Fall Semester 2013

Registration	Friday, August 16
First classes meet, 8 a.m.	Monday, August 19
Last day for late registration, changing or adding courses	Friday, August 23
Last day for semester-fee students (only) to drop below 12 hours and receive partial-tuition refund	Friday, August 23
Labor Day Recess	Monday, September 2
Last day to withdraw from class and receive:	
100% tuition refund	Friday, August 23
75% tuition refund	Friday, August 30
50% tuition refund	Monday, September 9
25% tuition refund (no refunds after this date)	Monday, September 16
Mid-semester reports of unsatisfactory work due in the Office of the Registrar, 9 a.m.	Wednesday, October 2
Fall Recess	
Classes recess, 10 p.m.	Friday, October 18
Classes resume, 8 a.m.	Wednesday, October 23
Last day students may withdraw from a class	Thursday, October 10
Last day for electing Pass/No-Credit grading option	Friday, October 11
Schedule advising for spring semester	Monday-Friday, October 28- November 15
Advance registration for spring semester	Monday-Friday, November 11-15 Monday-Tuesday, November 18-19 Monday-Friday, November 25 - Nov 29
Thanksgiving Recess	
Classes recess, 5 p.m.	Tuesday, November 26
Classes resume, 8 a.m.	Monday, December 2
Last day of classes	Wednesday, December 4
Study days	Thursday-Friday, December 5-6
Final examinations	Monday-Friday, December 9-13
Baccalaureate and Commencement	Saturday, December 14
Residence halls close	Saturday, December 14

Spring Semester 2014

Registration	Friday, January 10
First classes meet, 8 a.m.	Monday, January 13
Last day for late registration, changing or adding courses	Friday, January 17
Last day for semester-fee students (only) to drop below 12 hours and receive partial-tuition refund	Friday, January 17
Martin Luther King Jr., holiday	Monday, January 20
Last day to withdraw from class and receive:	
100% tuition refund	Friday, January 17
75% tuition refund	Monday, January 27
50% tuition refund	Monday, February 3
25% tuition refund (No refunds after this date)	Monday, February 10
Mid-semester reports of unsatisfactory work due in the Office of the Registrar, 9 a.m.	Wednesday, March 5
Last day students may withdraw from a class	Thursday, March 20
Last day for electing Pass/No-Credit grading option	Friday, March 21
Spring Recess	
Classes recess, 10 p.m.	Friday, March 7
Classes resume, 8 a.m.	Monday, March 17
Good Friday Recess	
Classes recess, 10 p.m.	Thursday, April 17
Classes resume, 8 a.m.	Monday, April 20
Schedule advising for summer session and fall semester	Monday-Friday, March 24 - April 4
Advance registration for fall semester	Monday-Friday, March 31 - April 11
Last day of classes	Wednesday, April 30
Study days	Thursday-Friday, May 1-2
Final examinations	Monday-Friday, May 5-9
Baccalaureate and Commencement	Saturday, May 10
Residence halls close	Saturday, May 10

Summer Semester 2014

May (three week) and eight week sessions begin	Monday, May 12
Memorial Day holiday	Monday, May 26
May (three week) session ends	Friday, May 30

June (five-week) session begins	Monday, June 2
Independence Day holiday	Friday, July 4
June (five-week) session ends	Thursday, July 3
July (four-week) session begins	Monday July 7
July (four-week) session ends	Friday, August 1

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.orau.gov/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:

Monnie E. Champion
ORAU Corporate Secretary

Bonnie E. Melhart
Associate Provost
ORAU Councilor for TCU

865.576.3306 or visit www.orau.org

Nondiscriminatory Policy

Texas Christian University 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.

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
- Graduate Studies (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

Master of Business Administration

Master of Education

Counseling
–*Licensed Professional Counselor*
–*School Counseling*
–*Student Affairs*
Curriculum Studies
Curriculum Studies 4/1
Educational Leadership
Elementary Education
Elementary Education 4/1
Middle School Education
Middle School Education 4/1
Secondary Education 4/1
Mathematics Education
Science Education
Special Education
Special Education 4/1

Master of Environmental Management

Master of Fine Arts

Studio Art
–*Painting*
–*Printmaking*
–*Sculpture*

Dance

–*Ballet*
–*Modern Dance*

Master of Health Science

Master of Liberal Arts

Master of Music

Conducting
–*Band*
–*Choral*
–*Orchestral*
Musicology

Performance

–*Band/Orchestral Instruments*
–*Keyboard Studies*
Piano Pedagogy
Theory/Composition
Vocal Pedagogy
Vocal Performance

Master of Music Education

Master of Science

Biology
Chemistry
Communication Studies
Criminal Justice
Developmental Trauma
Environmental Science
Geology
Kinesiology
Journalism
Mathematics
Nurse Anesthesia
Nursing
–*Clinical Nurse Specialist*
–*Clinical Nurse Leader*
–*Nursing Education*
–*Pediatric Clinical Nurse Specialist*
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
–*Music History*
–*Performance*
Conducting
–*Music History or Theory*
–*Performance*
Performance
–*Composition*
–*Theory or History*
–*Voice Pedagogy*
Piano Performance
Piano Pedagogy

Doctor of Nursing Practice

Doctor of Philosophy

Chemistry
Educational Studies
–*Counseling and Counselor Education*
–*Curriculum Studies*
–*Science Education*
English
History
Mathematics
Physics
–*Astrophysics*
–*Biophysics*
–*MBA*
Psychology
Rhetoric and Composition

Graduate Certificates

Supply & Value Chain Management
Ranch Management
Women's 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.

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.

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.

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 PhD Degree Requirements

The PhD 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 PhD 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 PhD 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, PhD

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, PhD

A student becomes a candidate for the PhD 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, PhD

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.

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, PhD

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, PhD

The work for the PhD 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 (if applicable); and a Report of Health History, including documentation of the required immunizations, are required. These forms may be obtained from the College of Fine Arts Graduate Office. International students must also submit the International and Student Scholar form.

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 and in Graduate Studies, 3101 Sadler Hall; 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:

- A. 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.
- B. 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

Several types of financial aid are available to graduate students.

Fellowships and Assistantships

Graduate candidates for fall admission who are applicants for financial aid should complete all application procedures by March 1 preceding the fall semester they plan to begin study. A financial aid form may be submitted at the same time as the application for admission and may be obtained from the College/School of the student's major.

Applicants must be admitted to a graduate program, have an outstanding academic record and present favorable recommendations. Students admitted conditionally are not normally eligible for graduate financial aid until all conditions have been met. The academic deans make most graduate financial aid appointments.

No student may hold both a fellowship and any other assistantship concurrently. Inquiries regarding graduate financial aid may be directed to the appropriate school/college. The following appointments are available:

Teaching, research or graduate assistantships provide a partial or whole tuition grant and often include a stipend for the academic year for teaching assignments, or equivalent research and/or departmental duties. The maximum assignment is two classes or three labs each semester, or equivalent research duties or a combination of research and teaching duties. Assistantship duties are restricted to a maximum of 20 hours per week.

Fellowships and scholarships provide tuition grants (fellowships also include a stipend) and require no duties. Most appointments are for nine or 12 months.

Information Technology provides tuition and stipends for an academic year. These appointments require half-time duties in Information Technology and are available to graduate students regardless of field or specialization. Summer half-time appointments are available to holders of these traineeships.

Tuition grants are available for some identified majors/groups.

Part-time students in the College of Education and Harris College of Nursing may qualify for the Tuition Assistance Program (TAP) in their college. Other part-time students may apply for a Professional Development Grant (PDG), funds permitting. These awards may not be combined with other University-administered financial aid.

For further information about tuition grants, contact the appropriate dean's office or the graduate financial aid adviser, 3101 Sadler Hall.

Residence hall directorships

The hall director is a full-time staff member employed by the Office of Residential Services. Appointments are made annually for the 20 positions.

which are available for members of either gender, regardless of marital status. While holding the position of a full-time staff member, the hall director may pursue limited graduate or undergraduate studies in any area of the University.

The hall director receives a nine-month salary. University living quarters are provided during the period of employment. Additionally, this position offers an excellent opportunity to gain experience with students in the University setting. A limited number of residence hall directorships are available for the summer as well. A special application form may be requested from the director of residential services, TCU Box 297360, Fort Worth, Texas 76129.

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 students 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 January 1 of every year. The FAFSA should be completed as soon as the required income tax information is available. 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 PhD 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 www.financialaid.tcu.edu/graduate_SAP_policy.asp.

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 www.financialaid.tcu.edu/withdrawal_policy.asp.

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 term. 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 and receive a "W" in accordance with the policy stated below.

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

By following established procedures, students may withdraw from any class until five academic days (fall and spring semesters only) following the published date mid-semester reports of unsatisfactory work are due to the Office of the Registrar. 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.

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 in which he/she is enrolled. 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 and Full-Time Status

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.

Audit Enrollment

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. Laboratory and clinical classes; day ranch management classes; laboratory sections of lecture classes; activity and performance classes, such as the various studio art courses; music performance courses; 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.
6. Students who wish to take courses for audit **in addition** to credit courses should use the add/drop process to add the audit class(es).

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 required to do extra work as assigned by the instructor.

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. PhD 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.

The grading policies and regulations of the school/college of a student's major apply to his/her academic studies.

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 session. 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 and must be in writing. 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.

The Family Educational Rights and Privacy Act

This Federal law states that:

1. A written institutional policy must be established; and
2. 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 these locations:

Provost/Vice Chancellor for Academic Affairs, Sadler Hall Room 4022

Vice Chancellor for Student Affairs, Sadler Hall Room 4017

Dean of Campus Life Room 2006

Office of the Registrar, Sadler Hall Room 1006

Scholarship and Financial Aid, Sadler Hall Room 2008

There are six rights, which are summarized here:

1. *The Right to Be Informed.* The University gives 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 made 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 Office of the Registrar in writing. Requests for non-disclosure will be honored for only one academic year; therefore, authorization to withhold directory information must be filed annually.

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 "Q" 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 "Q" 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 30 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 of all of its participants if it is to fulfill its missions. 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 are in violation of these standards. Further, the policy sets forth a set of procedures, characterized by a sense of fair play, which will be used when these standards are violated. In this spirit, definitions of academic misconduct are listed below. These are not meant to be exhaustive.

I. 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:
 1. Copying from another student's test paper, laboratory report, other report, or computer files and listings.
 2. Using in any academic exercise or academic setting, material and/or devices not authorized by the person in charge of the exercise or setting.
 3. Collaborating with or seeking aid from another student during an academic exercise without the permission of the person in charge of the exercise.
 4. 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.
 5. 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 proper credit.
 - 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 or academic setting. Falsification involves altering information for use in any academic exercise or academic setting. Fabrication involves inventing or counterfeiting information for use in any academic exercise or academic setting.
 - 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.
- ## II. Procedures for Dealing with Academic Misconduct
- A. **Definitions**
 1. Day refers to a school day on which classes are meeting.
 2. Academic dean refers to the dean of the school/college offering the course in which the academic misconduct is alleged to have taken place.
 3. Department chair refers to the academic administrator responsible for the unit providing the instruction in which the alleged academic misconduct occurred.
 4. Faculty refers to the instructor of the course in which the suspected academic misconduct occurred.
 5. 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.
 6. The Academic Appeals Committee is a standing University committee. The charge and membership of the committee may be found in the *Handbook for Faculty and Staff*.
- B. **Investigation and Initiation**
 1. 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.
 2. 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).
 3. a. 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.
 4. 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.
 5. An "I" grade should be given by the instructor if the alleged misconduct occurs near the end of a semester, for exam (e.g., during finals), and a sanction outlined in Section III has not been applied by the instructor or the dean.
 6. 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 excepted from this requirement.
 - C. **Resolution**
 1. **Meeting between Faculty Member and Student.** This is the first step to be taken in resolving an incident of suspected academic misconduct.
 - a. 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.
 - b. The student will be given the opportunity to respond to the allegations. The student has the right not to respond.
 - c. 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.
 - d. The faculty member will notify the student in writing of his/her decision and may send copies to the academic dean, the dean of the school/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.
 2. **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).
 - a. 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.

- b. 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.
 - c. The department chair may either support or reverse the findings of the faculty member, and may lessen the sanction(s) imposed by the faculty member, even while supporting the findings. The chair may not increase the severity of the sanction(s).
 - d. The department chair will notify the student and faculty member of his/her decision in writing and may send copies to the faculty member, the academic dean and the dean of campus life. Any 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.
3. **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.
- a. 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.
 - b. 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.
 - c. The academic dean will notify the student of his/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.
4. **Academic Appeals Committee.** Should the student wish to appeal the decision of the academic dean, he/she has the right to request a hearing before the Academic Appeals Committee.
- a. 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.
 - b. 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.
 - c. The appealing student has the right to appear before the Academic Appeals Committee. The student may bring one person with him/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/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.

III. Sanctions

A. By the Faculty Member

1. Grant no credit for the examination or assignment in question (treat as a missed assignment).
2. Assign a grade of "F" (or a zero) for the examination or assignment in question.
3. Recommend to the academic dean that the student be dropped immediately from the course with a grade of "F."
4. 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.)
1. Apply sanctions in III.A.
 2. 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.
 3. Place the student on disciplinary probation at the University for a specified period of time.
 4. Place the student on suspension from the University for a specified period of time.

5. Expel the student from the University.
6. 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 Couts Burnett Library

The Mary Couts 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 75,000 unique journal titles and more than 1.9 million books, CDs, DVDs, videos and other **items 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 Couts 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 are available in the Information Commons area of the library and may 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.

The library is open 24 hours, five days a week, and provides numerous environments for studying, including group study rooms and "quiet zones." The scholarly materials are supplemented by the popular reading or best-seller authors' collection located next to Bistro Burnett, where TCU students can enjoy a variety of refreshments.

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.**

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.

Information Commons

The TCU Information Commons, located on the first floor of the Mary Couts Burnett Library, provides students, faculty and staff with technical, library reference and writing assistance in an integrated digital environment. Professional staff members and specially trained students staff the TCU Information Commons. A computer lab within the commons provides 110-plus networked Wintel and Macintosh workstations, along with multimedia computers and high-speed laser printers. Wireless laptops are available for checkout and use within the library. Via the Web, a virtual Information Commons provides access to online resources for the university library and information resources.

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. Students may also use the Center for Writing's annex at the library Sunday-Thursday, 6-9 p.m. 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.

Intensive English Program

Intensive English Program (IEP) at TCU is a non-degree, credit-bearing unit of **TCU's University Programs**. The aim of the IEP at TCU is to help students advance rapidly toward their academic, professional or 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. Successful 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, in effect, 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/her own level and studies intensively at least 20 hours each week. Classes are organized into teams of 15 or fewer students. Outside of 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 members who speak with the IEP students in English and sometimes in another language known by the IEP student and being studied by the partner).

The IEP sessions begin January, March, May, July, August and October. More information on the Intensive English Program is available at iep.tcu.edu.

William H. Koehler Center for Teaching Excellence

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 Teaching Excellence (CTE) supports teaching and learning at Texas Christian University. The resources and activities of the CTE 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 faculty or teaching staff with whom we work, mindful that TCU teacher-scholars voluntarily engage our services in order to enhance and enrich their ability to help students achieve learning outcomes.

The Koehler Center for Teaching Excellence 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, 1873 Grill and Café 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

Campus Recreation is the community center of the campus. The programs and facilities are available to all students and faculty/staff (with memberships) for the purpose of encouraging the lifelong pursuit of active, healthy lifestyles and to enhance personal development through participation, interaction with faculty, employment and leadership opportunities.

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.

Do you miss those days when you got to climb all over the jungle-gym? Head over to the TCU climbing wall and release that inner monkey. Climbing is a dynamic sport that offers something for everyone regardless of skill level. Instruction and supervision are offered on the 30-foot wall, with more than 25 top rope climbs and a variety of bouldering routes. The staff works hard to provide ever-changing routes that range from 5.5-5.12, for both beginner and advanced. The wall is open to all students, faculty/staff and members of the TCU Recreation Center. Climbing equipment - shoes, harnesses, ATCs 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.

Health Services

The Brown-Lupton Health Center houses both the Medical Clinic and the Counseling Center 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.

The Counseling Center

The Counseling, Testing and Mental Health Center provides in-house counseling, psychological assessment and psychiatric services on a short-term basis for TCU students. Students requiring specialized or long-term services will be referred to professionals off campus. The center's counselors are licensed and have extensive training and experience working with college students. The staff includes a psychologist, licensed professional counselors and part-time consulting psychiatrists. Services are provided confidentially.

The center's services are designed to help students cope with personal concerns as they engage in their academic, social and personal activities. Typical student needs and concerns include resolving interpersonal conflicts; managing stress; coping with loneliness; and handling feelings of depression, anxiety and other emotional crises.

Individual and group counseling services are available to assist students. Students in counseling may be referred for psychiatric evaluation for medication, with follow-up appointments if medication is initiated. The Counseling Center provides consultation to concerned parents, faculty and friends. No confidential information about clients of the center will be shared without a release. The center also provides education and outreach to residence halls, classes and campus organizations on a wide variety of topics in mental health.

The center is located at the west entrance of the Health Center. Services are available by appointment, Monday-Friday, 8 a.m.-4:30 p.m.

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.

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 110 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 system (RAD) has been offered on the TCU campus for several years. 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. The RAD program was developed for and is offered to females.

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 Ranch Management (administered by the Ranch Management Program) and Women's Studies Certificate (administered by the Women's Studies Program) are offered.

MLA Degree

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 in the Office of Graduate Studies and online at www.mla.tcu.edu.

The application is considered complete when the following are received:

- Completed application form;
- Two certified transcripts mailed directly from the applicant's degree granting university to the Office of Graduate Studies, TCU Box 297024, Fort Worth, TX 76129; and
- 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.

Master of Liberal Arts Courses

MALA 60033 - Outbreak: Infectious Diseases and World History

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

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

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

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, ethnicities, and Southwestern perspectives.

MALA 60073 - The Impact of Computers on Society

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 60093 - The Literature of Survival: What Tales Teach Us about Living and Dying

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 60113 - Myths and Legends: North American Indian Thought

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

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

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

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

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

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 60183 - After Dictatorship: Can Latin American Nations Achieve Democracy?

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

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

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

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 a content-varies course and may be repeated once for credit.

MALA 60233 - Controversial Environmental Issues

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

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

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

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

Do you have a fascination with the Weather Channel? Are you interested in a non-mathematical treatment of the principles of meteorology and climatology? Students in this course will 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. Basic information about the earth/energy system will pave the way for an examination of simple dynamic relationships, synoptic circulation, global climate and climate change.

MALA 60303 - Seminar in Women's Health

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?

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 look forward to contemporary 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, Russia, China, Mexico, Cuba, etc.).

MALA 60323 - The New South, 1877 - Present

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 60373 - The Social Psychology of Crime and Victimization

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 use of the death penalty for juveniles, treatment and control of sex offenders, criminalizing drug offenders, and the validity of repressed memory.

MALA 60403 - Global Geopolitics

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

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

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

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?

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

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

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

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

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 Stock Market, Federal Funding, and Economic Development

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 60653 - The People's Choice: American Presidents

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

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

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

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

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

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

"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, and epigrams the English have manifested since the Viking invasions. Even though sensing the laughable and absurd is a universal trait, 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

An 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? Are we alone in the Universe? Are we in danger from a comet colliding with earth? Where and how did life originate? The latest discoveries by the Hubble Space Telescope, Cassini, and other space missions are also discussed.

MALA 60970 - Special Problems

Special problems in Liberal Arts.

MALA 61013 - Themes in Prehistory: Fossils, Dinosaurs and Humans

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

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, philosophical, legal, historical, and religious.

MALA 61033 - Dilemmas in American Politics: Freedom, Order, Equality

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 61053 - Parapsychology: Weighing the Evidence

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

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

"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 27 cases we study, depending on enrollment, this will amount to four times during the term that a student will lead threaded discussions. Topics will run for one, two or three weeks during the term. The course will utilize a CD-ROM disk developed by Professor Jerry Goldman of Northwestern University. Installation of the disk on the hard drive of your computer will bring you the recorded oral arguments made before the Supreme Court of the United States and oral announcements of decisions for the cases included by Professor Goldman on the disk. The disk also contains the full text of the opinions issued by the Court on the included cases.

MALA 61083 - The Wild West

Well...was it? When? To whom? What tamed it? This course will wrestle these 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 representations in popular culture, especially films.

MALA 61093 - Profiles in Courage: Cinematic Studies of Greatness

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

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

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

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

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

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

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 career of John Tower as founder of the modern Republican Party in Texas, and Barbara Jordan as a groundbreaking public servant. 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 61173 - Troubled Neighbors: US and Latin America

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

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

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

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

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

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

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

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 a content-varies course and may be repeated once for credit.

MALA 61263 - The US Economy: Analysis and Outlook

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

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

Do you have a fascination with the Weather Channel? Are you interested in a non-mathematical treatment of the principles of meteorology and climatology? Students in this course will 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. Basic information about the earth/energy system will pave the way for an examination of simple dynamic relationships, synoptic circulation, global climate and climate change.

MALA 61293 - Leadership: An Historical and Literary Study

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 centers on the use of cases from the Hartwick Humanities in Management Institute. Because the cases all focus on well-known leaders, the case represents only a small fraction of the materials (books, movies, etc.) that are available to the student for his/her analysis. Additionally, the course challenges the student to view leadership from multiple perspectives (theoretical, as well as academic).

MALA 61303 - Vietnam in War and Revolution

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, and French. Course requirements include assigned readings, book and film critiques, a webliographic essay, and participation in threaded discussion.

MALA 61323 - The New South, 1877 - Present

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

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

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 use of the death penalty for juveniles, treatment and control of sex offenders, criminalizing drug offenders, and the validity of repressed memory.

MALA 61383 - The Politics of Emergency Management

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

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

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

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?

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

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

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

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

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

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

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

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

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

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

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

This course provides cross-cultural perspectives on the rise, growth, decline, and societal impacts of religious revitalization movements. Readings, discussions, and audiovisuals focus on anthropologically studied cases of religious revitalization, with their prophetic figures and conversion processes, and the relationship of the movements to human struggles over meaning and social identity. The course generates critical insights into five major areas of religious movement inquiry: 1) ideas about how new religions originate, 2) types of new religious movements around the world, 3) dynamics of recruitment and conversion to movements, 4) life inside religious movements, and 5) research in the sectarian setting.

MALA 70473 - Sinatra and Popular Culture

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

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

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

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

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

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

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

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

Students will be expected to write three autobiographical sketches (8-12 pages each) based on incidents that occurred in their lives. Since the class will be run as a writing workshop, these sketches must be submitted for class discussion, and students will be required to offer each other constructive suggestions for revision. In addition, students will also read selected texts on life writing. This is a content-varies course and may be repeated once for credit.

MALA 70703 - American Music and Culture: From Jazz to Tin Pan Alley

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

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

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

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

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

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

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

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

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

An examination of contrasting models and standards of communication ethics. Students apply these perspectives to specific situations in politics, advertising, interpersonal communication and writing.

MALA 70853 - Creative Writing: The Manuscript

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 workshoping student writing with this concern in mind and includes the study of contemporary writing selections.

MALA 70863 - Creative Writing: Advanced Creative Nonfiction

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

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

The last two decades of the 20th century ushered in tumultuous changes in the economic, social, and political landscape. These transformations 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 some of the most significant issues of global politics in the new Millennium. While the attempt is to dissect these issues primarily on their own terms, we also discuss the challenges they pose to the United States and the global community.

MALA 70923 - Islam and Politics in the Middle East

Since there is no separation between state and church in Islam, no study of 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 problematics of democratization in the Muslim world and the prospects for Islamic governments are discussed.

MALA 70933 - Food and Philosophy

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

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

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

The latest research and historical impact of ancient Mesoamerican female deities and their modern-day counterpart "Our Lady of Guadalupe" on contemporary culture and society in modern Mexico are examined. The course attempts to show archaeological and anthropological similarities with mythic-symbolic images of pre-history from around the world that show the importance of woman's role in all ancient cultures, including Mexico's.

MALA 70973 - Law and Society

This course examines the relationship between law and society. Course readings, assignments 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; law and mass communication; trends toward equality and democracy in law; social and economic justice; the influence of public opinion on law and lawmakers, and the mediating role of law between individual rights and public good.

MALA 70983 - Indigenous People of the Andes

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

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 Statutes, and The Jury System.

MALA 71393 - Religion and Violence

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

Students will be expected to write three autobiographical sketches (8-12 pages each) based on incidents that occurred in their lives. Since the class will be run as a writing workshop, these sketches must be submitted for class discussion, and students will be required to offer each other constructive suggestions for revision. In addition, students will also read selected texts on life writing. This is a content-varies course and may be repeated once for credit.

MALA 71733 - Science, Scientists and Society

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

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

An examination of contrasting models and standards of communication ethics. Students apply these perspectives to specific situations in politics, advertising, interpersonal communication and writing.

MALA 71903 - Preparing for the Challenges of the Twenty-first Century

The last two decades of the 20th century ushered in tumultuous changes in the economic, social, and political landscape. These transformations 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 some of the most significant issues of global politics in the new Millennium. While the attempt is to dissect these issues primarily on their own terms, we also discuss the challenges they pose to the United States and the global community.

MALA 71943 - Ancient Mysteries: Real and Imagined

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

This course examines the relationship between law and society. Course readings, assignments 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; law and mass communication; trends toward equality and democracy in law; social and economic justice; the influence of public opinion on law and lawmakers, and the mediating role of law between individual rights and public good.

MALA 60643 - Contemporary Economic Controversies

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.

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

Undergraduate Credit (22 hours):

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

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.

Ranch Management Courses

RAMA 50213 - Ranch Business Management

Business law as applied to the livestock producer, business organization, estate planning, labor relations, application of management principles to ranching.

RAMA 50503 - Range Management

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

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

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.

Women's Studies Certificate

A Certificate in Women's Studies is available on the MA and PhD degrees in English, history, art history, biblical interpretation, education, and pastoral theology and pastoral care. The certificate recognizes a student's intensive investigation of issues in women's studies in the context of her/his regular disciplinary graduate work.

Admission Requirements

A student must be enrolled in an MA or PhD program in the above disciplines to participate. Application for admission to the certificate program should be made online to the director of women's studies.

Certificate Requirements

Completion of the certificate requires 12 hours (four courses), including 60003 Graduate Colloquium in Feminist Theories and Methodologies. The other nine hours may be taken in one or more of the following ways:

- Through pre-approved WOST-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's 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's studies; and
- Through a course that is not WOST-designated, but that includes a substantial feminist/gender component. The student's individual research in such a course will be directed towards these issues.

No more than three 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's Studies. For more information, contact WOST@tcu.edu.

Women's Studies Courses**WOST 60003 - Colloquium on Feminist Theory**

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).

WOST 90003 - Graduate Colloquium on Feminist Methodology and Theory

This is the required course in the Women's Studies Certificate program. It is open to Ph.D. and Th.M. students and others on a case-by-case basis. It aims to give graduate students from a variety of disciplines a thorough grounding in the basics of feminist theory and methodology since the early modern period.

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/EdD 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 associate dean of graduate programs (MBA and MS-SCM students) or the Director of the Professional 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 PPA 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 PPA 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 PPA 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 will 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:

- In computing a graduate student's grade index, only the most recent grade is counted for courses that are repeated for credit.
- Grades for non-TCU transfer courses are *not* included in computing a graduate student's grade index.
- No 50000-level course may be taken for credit at TCU by a graduate student unless approved by the associate dean of graduate programs.
- All MBA students are required to complete the MBA START Workshop 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.
- 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 PPA 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. Three letters of recommendation
4. Application fee of \$100
5. Official GMAT or GRE scores.
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 and Professional 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 post-graduate 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. These requirements are:

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 (i.e., with a grade of "C" or better) completion of a three-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 test; 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 make-up 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 takes place on campus during the weeks before fall classes begin. During this workshop, students receive instruction in teamwork and communication skills; a campus and degree program orientation; introductions to primary functional disciplines in marketing,

finance and supply chain; and self-assessment exercises for career development. Students also meet their program cohort group.

- Additionally, 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 Options

- Full-Time MBA
Program Length: 21 months
- Full-time Accelerated MBA
Program length: 12 months
- Professional MBA
Program Length: 24-33 months
- Professional Accelerated MBA
Program Length: 18-33 months
- MBA for Energy Professionals
Program Length: 24-33 months
- Accelerated MBA for Energy Professionals
Program Length: 24-28 months
- Executive MBA Program
Program Length: 16 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.

Full-Time MBA Program

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	Communication 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	Supply Chain Concepts	1.5
MANA 60230	Legal Environment of Business	1.5
MANA 60330	Engaging and Empowering People	1.5
MANA 60340	Leading and Guiding 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 Programs Administration of the MBA Program will maintain lists of approved concentrations and the requirements for each.

Full-time Accelerated MBA Program

The Accelerated MBA Program is a 12-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 courses offered in TCU's traditional MBA Program, carefully selected in consultation with the Director of MBA Program Administration and based on the student's professional and academic credentials. It comprises:

- 36 credit hours of graduate-level business courses;
- 24-27 credit hours of graduate business electives; and
- 9-12 credit hours selected from the following MBA core classes: ACCT 60010, 60020; BUSI 60050, 66100, 60070; FINA 60020, 60010; INSC 60010, 60020, 60600; MANA 60230, 60330, 60340, 60460, 60630; and MARK 60010.

Students must include MANA 60460 in their selection of core courses. The 36 semester hours are completed over the course of three consecutive semesters.

Professional MBA (Evening) Program

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	Manufacturing Operations and Processes	1.5
INSC 60040	Managing Information Technology	1.5
INSC 60050	Business Analytics -OR-	1.5
INSC 60060	Decision Models	1.5
INSC 60600	Supply Chain Concepts	1.5
MANA 60020	Legal Environment 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

Professional Accelerated MBA (Evening) Program

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

BUSI 60050	Global Environment of Business	1.5
BUSI 60070	Business Simulation	1.5
FINA 60020	Managerial Economics	1.5
INSC 60060	Decision Models -OR-	1.5
INSC 60050	Business Analytics	1.5
MANA 60230	Legal Environment of Business	1.5
MANA 60460	Business Ethics	1.5
MANA 60670	Strategy Formulation	1.5
MANA 60680	Strategy Implementation	1.5

Electives: 24 credit hours

MBA for 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:

GEOL 50630	From Prospect to Production	3
FINA 70610	Energy Macroeconomics	1.5
FINA 70620	Energy Corporate Finance	1.5
MANA 70620	Energy Legal & Regulatory Issues	1.5
ACCT 70610	Energy Accounting	1.5
MANA 70650	Energy CEO Forum	1.5
MANA 70633	Global Experience – Energy	3
Electives		6

Accelerated MBA for Energy Professionals

36 credit hours are required in this program, including the same 12 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 10.5 additional elective hours.

Executive MBA Program

The Executive MBA Program is a 16-month accredited MBA program focused on developing strategic business leaders. The program is designed for experienced executives and high-potential managers who wish to strengthen their leadership skills and business knowledge to enhance their performance and advance their careers.

Course content is delivered across all business areas and emphasizes how to improve decision-making using both quantitative and qualitative data.

Faculty from across 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 from across multiple industries.

Each student's personalized leadership development process includes a 360° survey to solicit feedback from his/her management, peers, and direct reports and one-on-one executive coaching. The 360° feedback on critical leadership skills is used to identify areas for improvement and as a basis for developing a personal leadership development plan.

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

Classes meet all day Friday and Saturday on alternating weekends from August through December of the year following matriculation.

ACCT 65013	Financial Reporting and Analysis	3
ACCT 65023	Accounting for Managerial Planning and Control	3
BUSI 65100	Personal Leadership Development Process	1
BUSI 75974	Managing in a Global Business Environment (includes two-week study abroad)	4
FINA 65013	Management of Financial Resources	3
FINA 65000	Economic Environment of Business	1.5
FINA 75543	Advanced Financial Management	3
INSC 65013	Statistics for Managerial Decisions	3
INSC 75663	Supply and Value Chain Strategy and IT	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 75613	Negotiations	3
MANA 75163	Transformational Leadership	3
MARK 65013	Advanced Marketing Management	3

In addition, students are required to complete an additional 6 hours of approved graduate business courses.

Dual-Degree MBA Programs

MBA/EdD in Educational Leadership

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, research institutions, private foundations, or private sector companies.

Admission/Degree Requirements

Candidates must be initially admitted to TCU's MBA program. They must then meet all core requirements listed below as well as complete the START Workshop. 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 admitted into 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	Supply Chain Concepts	1.5
MANA 60230	Legal Environment of Business	1.5
MANA 60330	Engaging and Empowering People	1.5
MANA 60340	Leading and Guiding Organizations	1.5
MANA 60630	Strategic Management	1.5
MANA 60460	Business Ethics	1.5

MARK 60010	Marketing Management	1.5
Electives		6
<i>Professional Curriculum: MBA courses taught in the evening</i>		
ACCT 60010	Financial Reporting	1.5
ACCT 60020	Accounting for Managerial Planning and Control	1.5
ACCT 60050	Global Environment of Business	
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 & Processes	1.5
INSC 60040	Managing Information Technology	1.5
INSC 60050	Business Analytics -OR-	1.5
INSC 60060	Decision Model	1.5
INSC 60600	Supply Chain Concepts	1.5
MANA 60230	Legal Environment 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

EdD Degree Requirements

The M.J. Neeley School of Business and the Department of Education offer the MBA EdD in Education with a business option. Details about this program are provided in the College of Education section of this catalog. 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, 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	Supply Chain Concepts	1.5
MANA 60230	Legal Environment of Business	1.5
MANA 60330	Engaging and Empowering People	1.5
MANA 60340	Leading and Guiding 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 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 & Processes	1.5
INSC 60040	Managing Information Technology	1.5
INSC 60050	Business Analytics -OR-	1.5
INSC 60060	Decision Model	1.5
INSC 60600	Supply Chain Concepts	1.5
MANA 60230	Legal Environment 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 PhD with Business Option

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.

Neeley School Master's Degrees

Accounting

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 MAC degree meet the educational requirements for the Uniform CPA Exam in the state of Texas. The MAC further provides a solid foundation for entry into the accounting profession by:

- Further developing students' understanding of the global business environment and ability to apply such skills and knowledge to an accounting setting;
- Enhancing students' ability to communicate clearly and effectively both orally and in writing;
- Strengthening students' ability to work effectively in groups;
- Furthering students' skills in using information technology effectively and adapting to technological developments; and
- Developing students' commitment to lifelong learning and continuing professional development.

MAC Admissions

To be considered for admissions, applicants must hold a bachelor's degree from an accredited university. While a degree in accounting is not a prerequisite for admission, applicants generally must have completed the equivalent of 27 semester hours of accounting, including those courses (or their equivalents) required for the TCU BBA accounting degree. See the *TCU Undergraduate Catalog* for details.

There is no single formula for admission to the MAC degree. Admission is competitive and based upon demonstrated excellence and likelihood to be successful as a graduate student and accounting professional. Ideal applicants have high academic potential and achievement, as well as strong motivation and leadership potential. We assess these qualities using the materials required in the application. Please see www.neeley.tcu.edu/Academics/Master_of_Accounting/MAC.aspx for more information.

Students admitted to the Neeley Professional Program in Accounting (PPA) who meet the requirements of that program will be permitted to begin graduate studies and earn a Master of Accounting automatically upon filing and approval of an Intent to Matriculate to graduate studies. 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. Students with deficiencies in their educational backgrounds may be admitted, but will be required to remedy these deficiencies and complete all requirements for the MAC before the degree will be awarded.

Students may begin the degree in either the fall or spring semester. Admissions decisions are made on a "rolling" basis, whereby an application is generally reviewed within six weeks of receiving all required admissions materials. Applications for students not having earned a BBA in the Neeley School will not be considered earlier than the semester prior to the desired semester of enrollment.

- February 15: General application deadline for fall enrollment.

- September 15: General application deadline for spring enrollment.

After these dates, applications are accepted on a space-available basis.

For additional information:

Contact:

Director of the PPA/MAC
Department of Accounting
TCU Box 298530
Fort Worth, Texas 76129
Phone: 817.257.7223
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 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.

MAC Curriculum

Required (core) courses:

ACCT 70420	Economic Foundations of Accounting	1.5
ACCT 70153	Financial Statement Analysis	3
ACCT 70303	Taxation of Business Entities	3
MANA 60460	Business Ethics	1.5
ACCT 70253	Business Combinations and Advanced Topics	3
ACCT 70400	Business Law for Accounting Professionals	1.5
MANA 70610	Essentials of Negotiation	1.5
ACCT 70460	Ethics for Accounting Professionals	1.5
ACCT 70410	Professional Communication for Accounting	1.5
		18

Assurance Services Concentration:

ACCT 70270	Financial Reporting Research	1.5
ACCT 70050	Seminar in Current Financial Reporting Topics	1.5
ACCT 70273	Advanced Audit and Assurance	3
ACCT 70310	Accounting for Income Taxes	1.5
		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 70310	Accounting for Income Taxes	1.5
ACCT 70340	Special Topics in Taxation	1.5
		7.5

Financial Reporting and Valuation Concentration

ACCT 70270	Financial Reporting Research	1.5
ACCT 70150	Accounting for Derivatives and Hedging	1.5

Plus 4.5 hours from the following list:

FINA 70523	Financial Modeling	1.5
FINA 70543	Advanced Financial Management	3
FINA 70420	Options for Futures Markets	1.5
FINA 70520	Risk Mgt and Financial Engineering	1.5
FINA 70513	Security Analysis	3
FINA 70533	Portfolio Management	3
FINA 70183	Educational Investment Fund	3

Other courses as appropriate with approval by PPA Program Director.

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

ACCT 70433	International Fin. Reporting and Global Markets	3
ACCT 70020	Strategic Cost Analysis	1.5

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.

Supply Chain Management

This program provides learning opportunities for working professionals in the area of supply chain management (SCM). Primary topics include supply management, operations management, and logistics management, and

integration across these functions and global organizational relationships. In addition, the program provides experience in the application of SCM analytical and decision making tools. Capstone courses included in the program include an international experience and an integrative field project.

MS-SCM Curriculum:

Business Core

ACCT 60010	Financial Reporting	1.5
FINA 60010	Financial Management I	1.5
ACCT 60020	Accounting for Managerial Planning and Control	1.5
MARK 60010	Marketing Management	1.5

Supply and Value Chain Management Core:

INSC 60020	Managing Operations and Processes	1.5
INSC 60050	Business Analytics	1.5
INSC 60600	Supply Chain Concepts	1.5
INSC 70610	Logistics and Transportation	1.5
INSC 70430	Supply Chain Operations Management	1.5
INSC 70650	Strategic Sourcing and procurement	1.5
INSC 70640	Global Supply Chain Management	1.5
INSC 70630	Demand Forecasting Management	1.5

Capstone Courses:

INSC 70690	Global Supply Chain Experience	1.5
INSC 70660	Supply and Value Chain Strategy	1.5
INSC 70693	Integrative Field Study	3
Electives		6

Total 30

Neeley School of Business Courses

Accounting Courses

ACCT 60010 - Financial Reporting

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 credit hours. Prerequisite: ACCT 60010 and INSC 60013. 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

3.0 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

3.0 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

3.0 credit hours. Prerequisites: ACCT 60010. In-depth study of topics and skills in financial accounting and reporting. The emphasis in 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 credit hours. Prerequisite: ACCT 60020 or 30163. 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 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 70150 - Accounting for Derivatives and Hedging Transactions

Prerequisites: Enrollment in MAc Program or instructor permission. An overview of the use of derivative securities for hedging a variety of business risks and the accounting treatment required for such transactions under Generally Accepted Accounting Principles.

ACCT 70153 - Financial Statement Analysis

Prerequisite: Enrollment in the MBA or MAc program 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 70253 - Business Combinations and Advanced Topics

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 70270 - Financial Reporting Research

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

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 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 70330 - Corporate Taxation

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 credits. Prerequisites: Enrollment in the MAc degree or department permission. Provides an overview of the tax consequences associated with financial planning and wealth transfers, and with advanced topics in

partnerships and S corporations, such as the tax consequences of their formation, distributions to owners, and liquidation.

ACCT 70350 - Seminar in Current Tax Topics

1.5 credits. Prerequisites: Enrollment in the MAc degree or department permission. Examines major features of the U.S. tax system, and analyzes the tax proposals and policies that are likely to dominate debate in the next decade.

ACCT 70370 - Tax Research

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 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 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 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 economy, and the behavior of markets, organizations, and individuals within the system.

ACCT 70433 - International Financial Reporting and Global Markets

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 70460 - Ethics for Accounting Professionals

1.5 credit hours. 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 70610 - Energy Accounting

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

Special Problems in Accounting.

ACCT 71273 - Advanced Audit and Assurance

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 internal auditing, forensic and fraud auditing, and other issues affecting audit practice.

Business Courses

BUSI 50833 - Team Leadership Skills

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 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 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 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 65100 - Personal Leadership Development Process

1 credit hour. Prerequisite: Must be an EMBA candidate. This course gives each student (1) an understanding of nine critical skills for effective leadership, (2) an assessment of his/her strengths and weaknesses based on feedback from peers, managers, and direct reports; (3) an opportunity to identify and strengthen critical areas for improvement; and (4) an assessment of progress toward personal leadership development goals. A 360-degree feedback survey is used to solicit feedback on each individual's performance in the nine critical skill areas. One-on-one executive coaching will help students understand opportunities for improvement, set goals, and assess accomplishments toward becoming a more effective leader. (This course is only offered as P/NC.)

BUSI 66100 - Career Management and Professional Development

1.5 credit hours. Prerequisite: Enrollment in the MBA program. 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 75970 - Special Problems in Business

Special Problems in Business. Prerequisite: Must be an EMBA candidate.

BUSI 75974 - Managing in a Global Business Environment

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

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.

Finance Courses

FINA 60003 - Economic Environment of Business

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 credit hours. Prerequisites: ACCT 60010, and must be an MBA or MAC student. 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 60013 - Management of Financial Resources

Prerequisite: ACCT 60010, or concurrent enrollment in ACCT 60010. 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 credit hours. Prerequisites: must be an MBA or MAC student. 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 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

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 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 hours credit. 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 credit hours. Prerequisite: FINA 60010. 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 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

Prerequisite: FINA 70010 or 60013. Admission by approval of the Dean of the Neeley School. 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

Prerequisite: FINA 70183. Admission by approval of the Dean of the Neeley School. 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 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

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

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 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

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

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

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

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 Investment Analysis

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

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

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

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 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 credit hours. Prerequisites: ACCT 60010 and either FINA 60013 or FINA 60010. 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

Special Problems in Finance.

FINA 75543 - Advanced Financial Management

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

Special Problems in Finance. Prerequisite: Must be an EMBA candidate.

Info Systems & Supply Chain Courses

INSC 60010 - Statistical Models

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 60013 - Data Analysis for Managerial Decisions

Prerequisites: students must have PMBA-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 credit hours. Prerequisites: INSC 60010. 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

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 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

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 credits. Prerequisites: graduate standing. 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 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 - Data Analysis for Managerial Decisions

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 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 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 credit hours. 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 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 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 credit hours. Prerequisites: INSC 60600. 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 credit hours. Prerequisites: INSC 60600. 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 credit hours. Prerequisite: INSC 60600. 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 credit hours. Prerequisites: INSC 60600. 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 credit hours. Prerequisite: INSC 60600. 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 credit hours. Prerequisites: INSC 60600. 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 credit hours. Prerequisites: ACCT 60010, ACCT 60020, INSC 60600. 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

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 70690 - Global Supply Chain Experience

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 70693 - Integrative Field Study

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

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 70970 - Special Problems in Information Systems and Supply Chain Management

Special Problems in Information Systems and Supply Chain Management.

INSC 71000 - Project Management

1.5 credit hours. Prerequisite: INSC 60020 or 60023. Presents 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, execution, control, scope, time, cost, and quality. Integrated processes and risk management perspectives are stressed.

INSC 71010 - Program Management

1.5 credit hours. Prerequisite: INSC 71000. A follow-on course to INSC 71000, dealing with larger projects and multi-project enterprises. This course provides an overview of several areas and knowledge of foundational tools. As a generic course in program management, it avoids over-emphasis on the way program management is performed in a single industry. Topics include managing strategic portfolios of independent projects and coordinating large programs of interdependent projects. Integrated processes and risk management perspectives are stressed along with managerial insights and the underlying assumptions.

INSC 71020 - Six Sigma Green Belt for Managers

Prerequisites: INSC 60010 and 60020, or INSC 60023. 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 75663 - Supply Chain Strategy and Information Technology

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 supply chain strategies, processes, and information technologies. Through 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 supply chain best practices and information technologies.

Management Courses**MANA 60023 - Legal and Social Environment of Business**

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 60063 - Strategic Management in a Global Environment

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 60230 - Legal Env of Business

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 and Empowering People

1.5 credit hours. Development of knowledge, skills, and perspectives needed for engaging and empowering employees, with special attention to team environments. Topics include decision making in the context of empowerment, employee engagement, empowerment and high performance management practices, motivating and rewarding employees, coaching and performance management, teams, empowering teams, leading teams, and innovating with teams. Written and oral communication skills are emphasized.

MANA 60340 - Leading and Guiding Organizations

1.5 credit hours. Development of knowledge, skills and perspectives needed for leading and guiding organizations. Topics include leadership foundations, the role of trust in organizations, leadership and organizational culture, leadership in an international context, leading organizational recovery, leadership ethics, leading change, and leading diversity. Written and oral communication skills are emphasized.

MANA 60350 - Competitive Advantage through People

1.5 credit hours. 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 credit hours. Prerequisite: Admission to the MBA, MAc, or MIM program. 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 credit hours. 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 60680 - Strategy Implementation

1.5 credit hours. 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 devices 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 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

3.0 credit hours. Prerequisite: Must be an EMBA candidate. Corporations operate within an environment that is comprised of relationships with customers, investors, employees, competitors, and suppliers. 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

3.0 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

3.0 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 65460 - Ethical Business Decision Making

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

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

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

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

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 credit hours. Prerequisite: MANA 60033, or MANA 60330 and 60340, or MANA 60350. 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 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 70623 - Law and Business in the European Union

Beginning in 1957 with the signing of the Treaty of Rome, six European countries established a European Economic Community (now Union) whose goal was the elimination of all barriers to the free movement of goods, services, workers, and capital. The European Union, now comprised of 15 countries, is the largest and most integrated regional trading block in the world. This course examines the legal order of the European Union and examines the multitude of ways it affects companies who wish to do business with its citizens.

MANA 70640 - CEO Forum

1.5 credit hours. Prerequisites: MANA 60033 or MANA 60330 and 60340. 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 credit hours. Prerequisites: FINA 70610, FINA 70620, ACCT 70610, MANA 70620, and GEOL 50563. 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

Prerequisites: BUSI 60050 and FINA 70610. 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 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 credit hours. Prerequisite: MBA student or permission of instructor. 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

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 credit hours. Prerequisite: MANA 60033, or MANA 60330 and 60340. 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 70970 - Special Problems in Management

Special Problems in Management.

MANA 75163 - Transformational Leadership

3.0 credit hours. Prerequisite: Must be an EMBA candidate. This course is designed to give the student an understanding of leadership processes that underlie the survival, effective functioning and self-determination of organizations in the 21st century. To this end, the class examines a number of relevant issues that reflect both the "being and doing" of leadership. The focus is on leading from senior positions, and in particular, on leading change in a corporate context. The class covers topics that reflect the nature of the challenge being faced, how leaders approach those challenges, and key people and organizational issues that help meet them. The participants explore how organizations can nurture and develop future leaders.

MANA 75613 - Negotiations

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

Special Problems in Management. Prerequisite: Must be an EMBA candidate.

MANA 75980 - Innovation and Entrepreneurship

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.

Marketing Courses**MARK 60010 - Marketing Management**

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 60013 - Marketing Management

3 credits hours. Examines the roles of marketing processes in identifying potential customers and their needs, selecting and analyzing market targets, and establishing and maintaining customer relationships. Topics addressed include product planning, distribution, pricing, and promotion strategies designed to produce customer satisfaction. Communication skills are enhanced by written and/or oral presentation assignments.

MARK 65013 - Advanced Marketing Management

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 credit hours. Prerequisites: MARK 60010 or MARK 60013. 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 credit hours. Prerequisite: MARK 60010 or 60013. 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 credit hours. Prerequisites: MARK 60010 or 60013. 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 credit hours. Prerequisite: MARK 60010 or 60013. 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 credit hours. Prerequisite: MARK 60010 or 60013. 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 credit hours. Prerequisite: MARK 60010 or 60013. 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 credit hours. Prerequisite: MARK 60010 or 60013. 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 credit hours. Prerequisites: MARK 60010 or 60013, 70110, 70120, 70200, and 70210. 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 credit hours. Prerequisites: MARK 60013, 70110, 70120, 70720, and 70730. 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 70400 - Pricing Strategy and Tactics

1.5 credit hours. Prerequisites: MARK 60010 or 60013. 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

1.5 credit hours. Prerequisite: MARK 60010 or 60013. 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 credit hours. Prerequisite: MARK 60010 or 60013. 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 credit hours. Prerequisite: MARK 60010 or 60013. 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 off real-world, applied setting and reveal concepts and frameworks that can inform management thoughts and actions.

MARK 70750 - International Marketing

1.5 credit hours. Prerequisite: MARK 60010 or 60013. 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 credit hours. Prerequisite: MARK 60010 or 60013. 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 credit hours. Prerequisites: MARK 60010 or 60013, MARK 70120 (or concurrent enrollment) and INSC 60010 (FTMBA students) or MARK 60013, MARK 70120 (or concurrent enrollment) and INSC 60013 (PMBA students). 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 credit hours. Prerequisites: MARK 60010 or 60013. An examination of current marketing problems and related problem-solving techniques.

MARK 70970 - Special Problems in Marketing

Special Problems in Marketing.

MARK 75970 - Special Problems in Marketing

Special Problems in Marketing. Prerequisites: Enrollment in the EMBA program.

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 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 vocational goals, which allows the departmental graduate coordinator to adequately determine the suitability of the applicant with the graduate program; and
- Three letters of recommendation.

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.

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 Waiver. Merit-based financial aid is available. Students must request financial assistance in their application.

Responsibilities tied to stipend awards are departmentally driven. The most common expectation is to assist in undergraduate labs. In all departments, the graduate students on a stipend are assigned to work with a faculty member. Typically, these students are assigned a lab to work in as they mentor students and oversee lab setup and breakdown. The number of hours assigned are directly related to the stipend. Departmental 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 departmental 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 Master of Science

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 60113	Interpersonal Communication
COMM 60123	Communication Education
COMM 60163	Organizational Communication
COMM 60173	Communication Research Methods
COMM 60183	Communication Theory
COMM 60193	Advanced Research Methods in Communication Studies

Communication Studies Courses

COMM 50243 - The "Dark Side" of Interpersonal Communication

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

Prerequisite: Senior or graduate standing. Specialized work in student's area of concentration. 1-6 semester hours, 3 hours maximum per semester.

COMM 60103 - Introduction to Graduate Studies

Overviews the history and scope of the field of Communication Studies; examines the process of research and publication, including an emphasis on APA writing style.

COMM 60113 - Interpersonal Communication

Review of advanced theoretical constructs and recent research related to interpersonal communication. Comprehension, critical evaluation and applications will be stressed.

COMM 60123 - Communication Education

Review and analysis of communication theory and research in instructional settings.

COMM 60133 - Communication Measurement

Study of principles of measurement theory, tactics for measuring communication variables, techniques of analysis and presentation of data, instruments and apparatus, and classic research studies in measuring communication behavior.

COMM 60143 - Communication and Social Influence

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

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

Addresses advanced concepts, issues and research methodologies applicable to communication processes in contemporary organizations.

COMM 60173 - Communication Research Methods

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

Examination and evaluation of social, psychological and linguistic theory applied to human communication behavior.

COMM 60193 - Advanced Research Methods in Communication Studies

Application of communication principles to organizational practice and/or research projects.

COMM 60203 - Family Communication

Examines current theoretical perspectives, concepts, and research methodologies applicable to communication processes in families.

COMM 60213 - Social Networking Sites and Personal Relationships

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 60970 - Directed Study in Communication Studies

Opportunity for individual work in a specialized area of concentration within the Communication Studies discipline.

COMM 70970 - Research Problems

Advanced research on special problems in Communication Studies. Content will vary according to the needs and interests of students and faculty.

COMM 70980 - Thesis

Prerequisite: Permission of chair.

COMM 70990 - Thesis

Thesis

Schieffer School Degree Programs

Schieffer School Graduate Program Mission Statement

To help students broaden their professional and intellectual growth as responsible journalism and strategic communication professionals and ethical citizens in a diverse, global community; to foster critical and cultural understandings of communication and media processes, effects, theories, and ethics; to broaden competencies in strategy, research, storytelling, digital media, and leadership.

The Schieffer School offers two degrees: the Master of Science in Journalism and the Master of Science in Strategic Communication.

Master of Science in Journalism

This degree is designed for journalists working in digital, television or print news media. Coursework and research broaden the degree candidates' perspective by introducing them to the history, theories and concepts that underlie mass communication systems, as well as the issues facing working journalists. Students take courses that study and analyze different fields of mass communication to enable critical and creative thinking about today's media.

Master of Science in Strategic Communication

This degree is designed for working strategic communication professionals seeking to broaden their understanding of strategic communication theories and processes and skills in strategy, research, storytelling, digital 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 to the Schieffer School 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 Schieffer School 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 Schieffer School graduate faculty will determine the number of semester hours needed.

Degree Requirements for Journalism and Strategic Communication Master of Science Degrees

Both the Master of Science in Journalism and the Master of Science in Strategic Communication require 36 hours. All Schieffer School graduate students take the following core courses, 12 credits total: JOUR 50123 Proseminar in Journalism and Mass Communication, JOUR 60113 Research Methods in Journalism and Mass Communication, JOUR 60133 Media Ethics, and JOUR 60123 Mass Communication Theory.

Students may select up to 21 hours of journalism or strategic communication courses that best fit their career needs. Up to 9 approved graduate hours may be taken from TCU academic units outside the Schieffer School.

Two tracks are available, one requiring a project and the other a thesis. The thesis track is for students who plan to pursue a doctorate; the thesis requires completion of JOUR 60980 and 60990. The non-thesis option requires projects JOUR 60153 Project in Broadcast Journalism or JOUR 60163 Project in Print/Internet Publications or JOUR 60173 Project in Advertising/Public Relations. Students must secure permission from the graduate associate director prior to enrolling for the project or thesis.

Journalism Theses and Projects

JOUR 70980

In the first semester of the thesis, the graduate student should register for JOUR 70980, choose the faculty member who will direct the thesis, select the committee comprising three members from the Schieffer School and possibly one additional member from outside the school, complete a proposal for the thesis and submit it to the committee for approval. Then the student must complete a literature review and a research methodology and submit both to the committee for approval.

JOUR 70990

In the second semester of the thesis, the student should register for JOUR 70990, complete the research and meet with the committee to share the results, complete the thesis and submit it to the committee at least one month before the deadline for final submission to the committee for a defense. After the committee votes, the student must finalize the work, obtain the committee's signatures and include the signature page with the initial hard copy of the thesis. Once approved, the thesis is to be submitted in electronic form to the college. University instructions for the electronic submission are located at lib.tcu.edu/NDLTD. Students must be registered for this thesis course the semester the degree is granted.

Projects (JOUR 60153, JOUR 60163, JOUR 60173)

All projects involve original research and written presentation of the project so that these efforts will add to the body of knowledge in the discipline. Students must choose a professor to work with on the project. Once that decision is made, the Project Approval Form must be signed by the major professor and two other faculty members (Project Committee). The student will then carry out the project under the direction of the major professor. Upon completion, the project is defended orally in front of the Project Committee.

Journalism Courses

JOUR 50123 - Proseminar in Journalism and Mass Communication

Seminar devoted to the analysis and discussion of significant issues in journalism and mass communication with a focus on related literature, research areas and policy developments.

JOUR 50133 - Management of Public Relations and Advertising Departments/Firms or Agencies

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.

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 50163 - Issues and Crises in Public Communication

The course covers the way issues of public concern are detected by news media and by public relations and advertising strategists as the issues develop, and it examines how communication of government policies as well as corporate and non-profit organization's concerns affect perceptions and subsequently public opinion.

JOUR 50173 - International Reporting

Prerequisite: JOUR 30203, 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 - Media Management and Leadership

Dramatic changes in technology and in the media's role in converging technologies require new management and leadership techniques and paradigms. Students will discuss existing case studies examining these changes. This course will give students a survey of some of the latest management and leadership theories, including a new sense of social responsibility. They will apply these theories to a number of different competitive, structural, motivational, strategic, and organizational problems of the media, primarily by solving problems in existing case studies and by writing original case studies.

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 50333 - Advertising and the Consumer

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.

JOUR 50523 - Information Law and Policy

Prerequisites: Open to graduate students in the Schieffer School of Journalism. Undergraduate students must have passed JOUR 40523 with a grade of C or higher and must have permission of 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.

JOUR 60113 - Research Methods in Journalism and Mass Communication

Introduction to quantitative and qualitative methodologies used in the study of mass communication, including surveys, content analyses, experimental designs, historical research and case studies.

JOUR 60123 - Mass Communication Theory

An introduction to the theoretical aspects of how people communicate, investigating the purpose of communication, the variables involved in communicating and the effects---successes and failures of the communicative act.

JOUR 60133 - Media Ethics

Principles of ethical journalism from the articulated ideals, codes and practice in the field. Examines the moral dilemmas facing media professionals from the approach of thinking through ethical problems, considering differences of judgment, and evaluating the performance of the media.

JOUR 60143 - Literature of Mass Communication

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

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

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 60173 - Project in Advertising/Public Relations

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

JOUR 60183 - Public Relations and Advertising in International Practice

An in-depth look at determinants that affect the way both nonprofit and profit-making organizations must function based on elements such as government, media ownership, culture and social structures. The course also examines commercial free speech as it functions in the USA and how communication efforts and persuasive strategies must be changed or adapted for other countries and regions.

JOUR 60193 - Global Cases and Campaigns

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.

JOUR 60203 - Integrated Marketing Communications

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.

JOUR 60970 - Special Problems: Journalism and Mass Communication

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 60980 - Special Problems in Advertising/Public Relations

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.)

JOUR 70903 - Graduate Seminar

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

Thesis.

JOUR 70990 - Thesis

Thesis.

College of Education

The mission of the College of Education at TCU 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 Education degrees are offered with majors in:

- Curriculum Studies
- Counseling
- Elementary Education
- Mathematics Education
- Special Education
- Educational Administration
- Science Education

Four/One Programs result in a Master of Education degree and are options for students earning undergraduate degrees at TCU in:

- Elementary Education
- Middle School Education
- Secondary School Education

Doctoral degrees are offered in:

- PhD in Educational Studies
 - Counseling and Counselor Education
 - Curriculum Studies
 - Science Education
- EdD in Educational Leadership
 - Schools and Districts
- EdD in Higher Education Leadership
- MBA/EdD Joint Program in Educational Leadership

College of Education Admission for Graduate Studies

Texas Christian University'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 from at www.coe.tcu.edu or the Office of Graduate Studies.
- 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 the Counseling Program.
- Recent acceptable GRE scores for students applying to the PhD in Counseling and Counselor Education, Science Education and the EdD in Educational Leadership.
- A writing sample (10-15 pages, exclusive of notes and works cited) demonstrating appropriate academic writing skills needed for success in

a graduate program for the PhD in Counseling and Counselor Education and Science Education.

- An essay, including a short professional background summary, a statement addressing professional goals and a brief philosophy of leadership statement for EdD program.
- \$60 application fee made payable to TCU.

Admission Deadlines

MEd Applications

- November 16 for spring admission
- March 1 for summer/fall admission
- May 31 for Counseling summer admission

Joint MBA/EdD in Educational Leadership

- March 1 for fall admission

PhD in Educational Studies: Curriculum Studies, Counseling and Counselor Education, Science Education and Ed.D. in Educational Leadership (without MBA)

- February 1 for 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 of Education Program Descriptions

Curriculum Studies

The MEd with a major in curriculum studies is a 36 credit-hour program that arises from a re-conceptualized approach to studying questions such as—What is knowledge?; Who gets to decide?—in light of critical scholarship leading to democratic community building and an ethic of social action that honors diversity and demands respect for all people. Curriculum studies critically examine educational issues and policies in light of scholarship in psychology, philosophy and social foundations as well as scholarship in education. Students come from many professional backgrounds, such as schools, businesses, nonprofit organizations and government agencies. They share a desire to assume leadership roles in solving educational problems in these settings.

Core (15 hours)

EDCS 60813	Curriculum Studies Seminar*
EDUC 50003	Diversity in American Education
EDUC 70953	Research in Education
EDUC 70963	Qualitative Inquiry I

*Two different topics for a total of six hours

Emphasis (21 hours)

Students enrolled in the 4/1 option must follow the 4/1 emphasis, otherwise students may select either research or teaching emphasis.

4/1 Option

EDSP 50663	Motivating and Managing Students in the Classroom
EDUC 70903	Treatise**
EDUC 70973	Qualitative Inquiry II**

EDEC 60173	Practicum in Early Childhood Education or
EDUC 60980	Internship

**Concurrent enrollment

Nine hours by advisement from the Elementary or Middle/Secondary Program

Research Option

EDCS 60813	Curriculum Studies Seminar***
EDUC 60213	Psychology of Thinking and Learning
EDUC 70960	Apprenticeship in Research (1-3 hours variable credit/may be repeated)
EDUC 70973	Qualitative Inquiry II
EDUC 70980	Thesis
EDUC 70990	Thesis

**Select from topic offered and not previously taken as part of the core

Electives: Three hours selected in consultation with adviser

Teaching Option

EDCS 60813	Curriculum Studies Seminar ***
EDCS 70963	Apprenticeship in Teaching
EDUC 60213	Psychology of Thinking and Learning
EDUC 70903	Treatise
EDUC 70973	Qualitative Inquiry II

**Select from topic offered and not previously taken as part of the core

Electives: Six hours selected in consultation with adviser

Counseling

Those seeking the MEd in Counseling have three options:

- Specialization I: School Counseling
- Specialization II: Student Affairs
- Professional Counseling (48 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.

Specialization I offers a MEd in Counseling and the option 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)

EDUC 50003	Diversity in American Education
EDUC 60313	Educational Assessment
EDUC 70953	Research in Education
EDUC 50143	Theories of Human Development
EDGU 50223	Helping Relationships
EDGU 60233	Career Development and Information
EDGU 50323	Small Group Dynamics
EDGU 60143	Counseling Interventions (Pre-requisite: EDGU 50223)
EDGU 60383	Counseling Theories and Techniques
EDGU 60613	Guidance and Counseling Programs
EDGU 70103	Practicum I (160 hours)

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)

EDUC 50003	Diversity in American Education
EDUC 60313	Educational Assessment
EDGU 50223	Helping Relationships
EDGU 60233	Career Development and Information
EDGU 50323	Small Group Dynamics
EDGU 60143	Counseling Interventions
EDUC 50143	Theories of Human Development
EDGU 60383	Counseling Theories and Techniques
EDGU 60613	Guidance and Counseling Programs
EDGU 70103	Practicum I (160 hours)

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 successfully completed:

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

The student must also 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

This option is designed to prepare students to work in colleges and universities in the area of student affairs. It offers individuals 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 50003	Diversity in American Education
EDUC 60823	Educational Program Evaluation
EDUC 70953	Research in Education
EDGU 50223	Helping Relationships
EDGU 60233	Career Development and Information
EDGU 50323	Small Group Dynamics
EDGU 60143	Counseling Interventions (prerequisite EDGU 50223 Helping Relationships)
EDGU 60383	Counseling Theories and Techniques
EDGU 60403	Theories of Student Development
EDGU 60423	Organization and Administration of Support Programs
EDGU 70103	Practicum I
EDGU 70203	Practicum II or
EDGU 71103	Field Experience in Student Affairs

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	Guidance and Counseling Programs
EDUC 60313	Educational Assessment
EDUC 50143	Theories of Human Development

Professional Counseling

The Master of Education in Professional Counseling focuses on providing students with a 48-hour, rigorous and strength-based program to prepare students for licensure in the State of Texas.

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 semester hours)

EDUC 50003	Diversity in American Education
EDUC 60313	Educational Assessment
EDUC 70953	Research in Education
EDUC 50143	Theories of Human Development

Specialization (24 hours)

EDGU 50223	Helping Relationships
EDGU 50323	Small Group Dynamics
EDGU 60143	Counseling Interventions
EDGU 60383	Counseling Theories and Techniques
EDGU 60113	DSM: Diagnosis and Treatment
EDGU 60213	Introduction to Marriage and Family Therapy
EDGU 60233	Career Development and Information

Program Class (minimum 3 hours)

EDGU 60423	Organization and Administration of Support Programs
EDGU 60613	Guidance and Counseling Programs

Field Experience (6 hours)

EDGU 70103	Practicum I
EDGU 70203	Practicum II

Other Course Options

EDEL 60813	Infant/Toddler Development and Intervention
EDGU 60613	Guidance and Counseling Programs
EDGU 60313	Motivating and Managing Students
EDGU 60403	Theories of Student Development

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 48-hour **master's program with a "B" average or better** and successfully pass orals involving a written and taped case presentation.

Other Course Offerings

EDGU 70033	Legal, Ethical, and Professional Issues in Counseling
EDGU 70223	Supervision in Counseling (Prerequisite: Master's degree in Counseling and permission of the instructor)

Elementary Education

Students receiving the MEd in Elementary Education complete a 36-credit hour program that provides a solid knowledge base and background in the theoretical and practical aspects of the educational contexts in which teaching and learning occur. TCU graduate students gain expertise both in current pedagogy and in pedagogical content knowledge that contribute to more effective teaching. The program is designed to allow educators to deepen their understanding of young learners and to increase their skills for working successfully in today's schools or in other non-traditional or community educational environments. The program includes an emphasis on meeting the needs of diverse children in urban environments and a research experience that culminates in either a treatise or thesis.

Prerequisites include completion of a bachelor's degree and initial teacher certification.

Core (12-15 semester hours)

EDUC 50003	Diversity in American Education
EDUC 60313	Educational Assessment
EDUC 70953	Research in Education

*Thesis or treatise (3-6 hours)**Major (21-24 hours)*

In consultation with an academic adviser, students may choose a major that provides for specialization in English as a second language (ESL) or bilingual education, early childhood education, pedagogy in math/science/technology, literacy, urban education or other areas.

The major must include EDUC 50503 Developing Communication Competencies of Linguistically and Culturally Diverse Students unless the student already holds a state-recognized supplemental certification for teaching ESL students.

Mathematics Education

Prerequisite: Certification to teach mathematics at respective grade level. If not certified, ability to demonstrate subject preparation for highly qualified teachers outlined by the Texas Education Association under the No Child Left Behind Act as evidenced by:

- 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).

The MEd in Mathematics Education is a 36 credit-hour program that includes courses in mathematics education, general education and educational research. Students will conclude the program of study by conducting original research. By completing the program, 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 by 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.

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

Major (15 hours)

EDMT 60103	Teaching Number and Operations (Fall Odd)
EDMT 60113	Teaching Algebraic Thinking (Spring Even)
EDMT 50123	Teaching Geometry and Measurement (Fall Even)
EDMT 50133	Teaching Data Analysis and Probability (Spring Odd)
EDSP 58003	Methods for Students with Mathematics Learning Differences

General (9 hours)

EDUC 70953	Research in Education
EDUC 70963	Qualitative Inquiry I
EDUC 60313	Educational Assessment

General (6 hours)

EDUC 60253	Historical and Philosophical Foundations of Education <i>or</i>
EDUC 50143	Theories of Human Development <i>or</i>
EDUC 50003	Diversity in American Education <i>or</i>
EDUC 60213	Psychology of Thinking and Learning

Substitution Courses, with approval of program coordinator

EDSC 60333	Theory and Pedagogy of Science Instruction
EDSC 60810	Seminar: Special Topics in Science Education
EDSC 70033	Scientific Inquiry and the Nature of Science
EDUC 50970	Special Problems in Education
EDUC 50513	Curriculum and Instruction in the Second Language Learning Classroom
EDUC 50503	Developing Communication Competencies of Linguistically and Culturally Diverse Students
EDUC 50253	Applied Teaching and Learning with Technology
EDSP 60233	Understanding Exceptional Children and Youth At-Risk

Thesis (6 hours)

EDMT 70980	Thesis in Mathematics Education
EDMT 70990	Thesis in Mathematics Education

With approval of the program coordinator and dean, students may make a substitution with one mathematics course from the list below:

MATH 50073	History of Mathematics
MATH 60003	The Teaching of Mathematics (Middle/Secondary Only)
MATH 60023	Survey of Mathematical Problems I
MATH 60103	Graph Theory
MATH 50703	Number Theory
MATH 60403	Higher Geometry

Special Education

The mission of the special education master's degree program is to prepare special 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 credit-hour program designed for students who are certified in elementary, middle school, secondary school special education or have extensive experience in a related field. The program addresses Kindergarten through Grade 12 special education, focusing on evidenced-based practices and research methodology related to students with high-incidence disabilities such as learning or behavioral disabilities.

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 of their requirements.

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

Major (36 hours)

EDSP 50013	Literacy Methods in Special Education
EDSP 50663	Motivating and Managing Students in the Classroom
EDSP 58003	Methods for Students with Mathematics with Learning Differences
EDSP 60313	Critical Issues in Special Education
EDUC 60213	Psychology of Teaching and Learning
EDUC 60313	Educational Assessment

Research Component

EDSP 70003	Single Subject Research Design
EDUC 70903	Treatise <i>or</i>
EDUC 70980	Thesis
EDUC 70953	Research in Education
EDUC 70983	Introduction to Quantitative Research <i>or</i>
EDUC 70963	Qualitative Inquiry I

Field Component

EDUC 60513	Practicum in Education
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*Electives (3 hours)***Educational Leadership**

The MEd in Educational Leadership is a 36 credit-hour non-thesis program that prepares individuals to serve in roles of educational leadership. The program includes a pathway to certification for those persons wanting to serve as elementary and secondary principals, supervisors and central office staff in public and private schools (where certification may be required). The program also includes a pathway that is not inclusive of Texas administrator (i.e., principal or superintendent) certification. 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. In addition to required coursework, students in the Educational Leadership M.Ed. program complete a Tier I assessment upon completion of 12-15 hours coursework, and complete a Digital Leadership Portfolio. The Tier I Assessment provides an opportunity for mid-program feedback and coaching from faculty members. The Leadership Portfolio includes products from the required coursework and, for persons in the non-certification track, elements from elective courses. Candidates for graduation will conduct a presentation based in this portfolio work to a faculty committee and invited guests.

Program Requirements*Certification**Tier I (15 hours)*

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

Tier II (15 hours)

EDLE 60023	Seminar: Trends in Teaching, Learning, and Leadership (Topic/Emphasis I)
EDLE 60063	Law and Ethics in Educational Leadership
EDLE 60073	Educational Policy Studies <i>or</i>
EDLE 60023	Seminar: Trends in Teaching, Learning, and Leadership (Topic/Emphasis II)
EDLE 60083	Data Use for Educational Leaders
EDUC 60043	Action Research

Tier II (6 hours)

EDLE 60093	Principal Practicum in Educational Leadership A
EDLE 60093	Principal Practicum in Educational Leadership B

*Non-Certification**Tier I (15 hours)*

EDLE 60013	Leadership: Theory and Practice
EDLE 60023	Seminar: Trends in Teaching, Learning, and Leadership (Topic I)
EDUC 70953	Research in Education
EDXX 6XXXX	Elective
EDXX 6XXXX	Elective

Tier II (15 hours)

EDLE 60063	Law and Ethics in Educational Leadership
EDLE 60083	Data Use for Educational Leaders
EDXX 6XXXX	Elective <i>or</i>
EDLE 60023	Seminar: Trends in Teaching, Learning, and

EDUC 60043	Leadership (Topic II)
EDUC 60823	Action Research <i>or</i> Educational Program Evaluation

Tier III (6 hours)

EDAD 70200	Internship in Educational Administration*
*Students who are not seeking principal certification may take 0, 3, or 6 hours of internship, in combination with additional coursework.	

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

Non-degree seeking students (i.e., principal certification only), who already hold a Master's degree and who otherwise meet admissions requirements for Educational Leadership must successfully complete the following in order to be recommended for principal certification by the Educational Leadership program at TCU.

Coursework

EDLE 60033	Community Engagement and Culturally Responsive Practice
EDLE 60043	Instructional Leadership A: Curriculum, Instruction, and Assessment
EDLE 60053	Instructional Leadership B: Supervision
EDLE 60063	Law and Ethics in Educational Leadership
EDLE 60093	Principal Practicum in Educational Leadership A
EDLE 60093	Principal Practicum in Educational Leadership B

Choose One:

EDLE 60083	Data Use for Educational Leaders
EDUC 60043	Action Research (Prerequisite EDUC 70953 Research in Education)
EDUC 60823	Educational Program Evaluation

Summer Principals' Workshop for Instructional Leadership Development (ILD) and Professional Development and Appraisal System (PDAS)
Score an 80% or better on the practice TExES Principal Exam (068)

Science Education

The MEd in Science Education is designed to prepare students to teach science in the K-12 arena and to assume leadership roles in science education. Applicants should hold a teaching certificate in a science field from the state of Texas or the equivalent. Applicants who do not hold a teaching certificate in a science field may have to complete a total of 24 hours of science content as required by the state of Texas for a teaching certificate.

Major (21 hours of education courses)

In consultation with the student's adviser, a minimum of 21 hours of education courses, nine hours of science content courses and six hours of thesis will be taken.

Major (21 hours)

EDSC 60333	Theory and Pedagogy of Science Instruction
Select six courses from the following or other approved by adviser:	
EDUC 50003	Diversity in American Education
EDUC 50143	Theories of Human Development
EDUC 60013	Curriculum Theory
EDUC 60213	Psychology of Thinking and Learning
EDUC 60253	Historical and Philosophical Foundations of Education
EDUC 60313	Educational Assessment
EDSC 60810	Seminar: Special Topics in Science Education
EDUC 60823	Educational Program Evaluation
EDUC 70953	Research in Education

Minor (9 hours of science content courses)

All courses must be approved by the adviser and have permission from the appropriate person in the department in the College of Science & Engineering.

Thesis (6 hours)

An oral examination is required with thesis. See Master's Student Handbook. It may take a full year beyond class work to complete thesis.

EDUC 70980	Thesis
EDUC 70990	Thesis

Education 4/1 Options for TCU Undergraduate Students

Education 4/1 for TCU Undergraduate Students

This option is available only to TCU undergraduates obtaining a baccalaureate degree and teacher certification in elementary, middle school education or secondary education. The 4/1 option allows outstanding students to combine 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 4/1 option, students must submit a graduate program application packet. Only candidates demonstrating superior undergraduate academic performance and strong recommendations are considered for admission. If admitted to the 4/1 option, 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 will apply to the undergraduate degree.

At the end of the fourth year, assuming that all other graduation requirements are met, the student earns his/her baccalaureate degree. During their fifth year, the student completes the remaining semester hours toward the MEd degree. Students intending to pursue a 4/1 option should make their plans known as early as possible to faculty members in the College of Education to ensure proper advising.

Education 4/1 for TCU Elementary Education Undergraduate Majors

Elementary Education 4/1 Option

The 4/1 option in elementary education allows outstanding students who are earning a baccalaureate degree in elementary education at TCU to earn a MEd by completing a fifth year of study at the graduate level. These students are prepared to work in pre-K through elementary grade settings.

Required Courses

EDUC 60313	Educational Assessment
EDUC 60253	Historical and Philosophical Foundations of Education
EDSP 50663	Motivating and Managing Students in the Classroom
EDUC 60293	Curriculum Workshop
EDUC 70953	Research in Education
EDUC 60213	Psychology of Thinking and Learning
EDUC 60810	Seminar in Educational Research: Play
EDEC 60223	The Young Child

12 hours of graduate elective courses

Special Education 4/1 Option

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

This 4/1 special education option is a 36 credit-hour program that accepts outstanding TCU undergraduate students. Eligible students must be earning a baccalaureate degree in elementary, middle, or secondary education at TCU and wish to add a master's degree in special education by completing a fifth year of study at the graduate level. The program addresses Kindergarten through Grade 12 special education, focusing on evidence-based practices and research methodology.

Interested students should meet with a 4/1 adviser the first semester of their junior year to learn how their background and goals align with the requirements of the 4/1 master's degree in special education. It is essential that students work closely with an adviser from the time they decide to apply through completion of their requirements.

M.Ed in Special Education (36 hours)

Nine to 12 credit hours of the following 5000 and 6000-level classes are taken during the senior year, and 24 to 27 hours are taken during the 5th year. All courses in the major and research component must be taken to fulfill requirements for the M.Ed in Special Education. Additional courses, as required by baccalaureate degree program, must also be completed (see table below).

Required Courses

EDSP 50013	Literacy Methods in Special Education
EDSP 50663	Motivating and Managing Students in the Classroom

EDSP 58003	Methods for Students with Mathematics Learning Differences
EDSP 60313	Critical Issues in Special Education
EDUC 60213	Psychology of Teaching and Learning
EDUC 60313	Educational Assessment

Research Component

EDSP 70003	Single Subject Research Design
EDUC 70903	Treatise or
EDUC 70980	Thesis
EDUC 70953	Research in Education

Elective (if applicable)

Bridge Courses (to be completed in senior year)

EC-6

EDUC 60013	Curriculum Theory
EDUC 60253	Historical and Philosophical Foundations of Education

One or both are taken as bridge courses by EC-6 majors in senior year

Middle-Secondary

EDMS/SE 50023	Effective Teaching and Classroom Implementation
EDUC 60513	Practicum in Education

Both courses are taken as part of the graduate year of studies by middle-secondary students

Education 4/1 in Middle School Education for TCU Undergraduate Students

The 4/1 option in middle school education prepares students who have a baccalaureate degree to become certified to teach in grades 4-8. It is assumed that persons seeking this degree have already completed at least one teaching field as required for Texas teacher certification. For additional information, see teaching fields for middle school education in the College of Education section of the TCU Undergraduate Studies Catalog.

Required Courses

EDUC 60213	Psychology of Thinking and Learning
EDSP 60233	Understanding Exceptional Children and Youth At-Risk
EDUC 50003	Diversity in American Education
EDUC 60313	Educational Assessment
EDUC 70953	Research in Education
EDUC 60810	Seminar in Educational Research: Middle School Education
EDSP 50663	Motivating and Managing Students in the Classroom
EDUC 60980	Internship or 9 hours from fifth-year program (see adviser)

6 Elective Hours

Due to the time commitment, it is recommended that students enrolled in EDUC 60980 Internship do not enroll in more than three additional hours of coursework during the semester.

Education 4/1 in Secondary Education for TCU Undergraduate Students

The 4/1 option in secondary school education prepares students who have a baccalaureate degree to become certified to teach in grades 8-12. It is assumed that persons seeking this degree already have completed at least one teaching field as required for Texas teacher certification. For additional information see teaching fields for secondary school education in the College of Education section of the TCU Undergraduate Studies Catalog.

Required Courses

EDSP 50663	Motivating and Managing Students in the Classroom
EDUC 60980	Internship or 9 hours from 5th year program (see adviser)
EDUC 60213	Psychology of Thinking and Learning
EDSP 60233	Understanding Exceptional Children and Youth At-Risk
EDUC 50003	Diversity in American Education
EDUC 60313	Educational Assessment
EDUC 70953	Research in Education
EDUC 60810	Seminar in Educational Research: Middle/Secondary Education

6 Elective Hours

Due to the time commitment, it is recommended that students enrolled in EDUC 60980 Internship do not enroll in more than three additional hours of coursework during the semester.

Education 4/1 in Curriculum Studies for TCU Undergraduate Students

The MEd with a major in curriculum studies is a 36 credit-hour program that arises from a re-conceptualized approach to studying questions such as—What is knowledge? Who gets to decide?—in light of critical scholarship leading to democratic community building and an ethic of social action that honors diversity and demands respect for all people. Curriculum studies critically examines educational issues and policies in light of scholarship in psychology, philosophy and social foundations, as well as scholarship in education. Students come from many professional backgrounds, such as schools, businesses, nonprofit organizations and government agencies. They share a desire to assume leadership roles in solving educational problems in these settings.

Elementary

Required Courses

EDUC 60313	Educational Assessment
EDUC 60253	Historical and Philosophical Foundations of Education
EDSP 50663	Motivating and Managing Students in the Classroom
EDUC 60293	Curriculum Workshop
EDUC 70953	Research in Education
EDUC 50003	Diversity in American Education <i>or</i>
EDUC 60213	Psychology of Thinking and Learning
EDUC 70963	Qualitative Inquiry I
EDCS 60813	Curriculum Studies Seminar
EDUC 60013	Curriculum Theory
EDUC 70903	Treatise (includes attendance in EDUC 70973 Qualitative Inquiry II
EDCS 60813	Curriculum Studies Seminar

3 Elective Hours

Middle/Secondary

Required Courses

EDSP 50663	Motivating and Managing Students in the Classroom
EDUC 60980	Internship <i>or</i> 9 hours from 5th year program (see adviser)
EDUC 70953	Research in Education
EDUC 50003	Diversity in American Education <i>or</i>
EDUC 60213	Psychology of Thinking and Learning
EDUC 70963	Qualitative Inquiry I
EDCS 60813	Curriculum Studies Seminar
EDUC 60313	Educational Assessment
EDCS 60813	Curriculum Studies Seminar
EDUC 70903	Treatise (requires attendance in EDUC 70973 Qualitative Inquiry II

Educational Leadership

TCU's College of Education offers an EdD in Educational Leadership. This EdD 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:

- Provides students the background necessary to complete superintendent certification in Texas. Superintendent certification requires understanding of leadership in the educational, instructional and administrative communities.
- 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 children.
- Develops educational leaders able to envision and create new settings now possible through the availability of information technologies.

There are two options to the Educational Leadership Program.

Option I: 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 (EdD), effectively combining the best of business and educational disciplines.

Option II: The EdD in Educational Leadership: Schools and Districts offers the same high-quality preparation in education as the joint program but without the MBA.

MBA/EdD Joint Program in Educational Leadership

Admission and Degree Requirements

Candidates must be initially admitted to TCU's MBA Program. They also must meet all 36 hours of core requirements as well as the START Workshop and the Professional Development Program. At the completion of the first year of the MBA program, and a summer of coursework in educational administration, students will apply for candidacy in the educational leadership doctoral program. Admission will depend on their performance in both MBA and education courses at that point. 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., 18 elective units in the Neeley School of Business). If a student's work is unsatisfactory in MBA courses, and he/she is not permitted to continue, he/she may not be admitted into 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 capstone project.

EdD in Educational Leadership

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 leads.

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 an appropriate field. Additionally, applicants who want certification as a public school principal or superintendent in Texas must have completed at least one year of full-time teaching at an accredited school prior to beginning coursework. Applicants must present a strong academic record, acceptable GRE or Miller Analogy scores within the past five years, and a writing sample that documents evidence of leadership skills and experiences and explains motivations and goals for pursuing the EdD degree.

Application Deadlines

Students who wish to enroll in the summer or fall semester must complete all application requirements by **Feb. 1**. Students who wish to enroll beginning with a spring semester must complete all application requirements by **Oct. 15** of the preceding year. 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.

EdD Degree Requirements

The EdD 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 EdD 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.

Note for students seeking Texas Administrator (Principal or Superintendent) Certification: EdD students seeking initial certification as a Principal or Superintendent in Texas must ensure that they take, within the planned program of coursework or in addition to the planned program of coursework, the following courses in order for TCU to recommend certification:

EDAD 70013	Legal and Social Environment of Education Community Engagement and Culturally Responsive Practice(elective) Instructional Leadership B: Supervision (elective)
EDLE 60033	
EDLE 60053	
EDUC 60013	Curriculum Theory

Plus one of the following:

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

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

EDLE 60093	Principal Practicum in Educational Leadership A (internship hours)
EDLE 60093	Principal Practicum in Educational Leadership B (internship hours)

* 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 EDUC 60043 Action Research; these credit hours do not count toward the credit hours required for completion of the EdD at TCU but will be considered an additional requirement for students who have neither taken EDUC 70953 at TCU nor have completed a similar course with a grade of "B-" or better at another institution.

Program of Study

Students should use the approved program of study to guide 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.

Module I: Leadership Core (15 hours)

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

Module II: Inquiry Core (12 hours)

EDUC 60043	Action Research**
EDUC 60823	Educational Program Evaluation
EDUC 70983	Introduction to Quantitative Research
EDUC 70923	Introduction to Qualitative Methods

**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 EDUC 60043 Action Research; these credit hours do not count toward the credit hours required for completion of the EdD at TCU but will be considered an additional requirement for students who has neither taken EDUC 70953 at TCU nor have completed a similar course with a grade of "B-" or better at another institution.

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

	Theory and Management of Education Systems
EDAD 70023	

EDAD 70063	Data-informed Decision Making
EDSP 60233	Understanding Exceptional Children and Youth At-Risk
EDUC 60013	Curriculum Theory Special Problems in Education: The Superintendency

EDUC 70970	elective elective
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Module IV: Practicum or Internship Experience* (6 hours)

EDLE 60093	Principal Practicum in Educational Leadership A
EDLE 60093	Principal Practicum in Educational Leadership B or
EDAD 70200	Internship in Educational Administration

*Certification-seeking students must enroll in EDLE 60093 Practicum A and B. EDAD 70200 Internship is reserved for non-certification seeking students. With permission of the advisor, 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/Dissertation Seminar
EDAD 90770	Capstone Project (Initial Capstone Project (Continuing through Capstone completion)
EDAD 90770	Dissertation
EDUC 90980	Dissertation
EDUC 90990	Dissertation

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

Annual Review

Each doctoral student will participate in an annual review process. The annual review is a process of student self-assessment and faculty assessment designed to help students achieve their educational goals.

Advancement to Candidacy

The first step of the process for all students is a written and oral demonstration of competence in the core foundations of educational leadership. This process must be completed in collaboration with the student's capstone or dissertation chair. This process requires the composition of a written analysis of a policy or problem of practice in a way that demonstrates competence in the following core foundations of educational leadership:

- Ethical leadership
- Defining and responding to complex problems
- Anticipating and responding to dynamic environments

Students must successfully complete the comprehensive paper prior to scheduling the defense of a Capstone or Dissertation proposal.

As the second step in the qualifying process for candidacy, all students complete EDAD 70073 Capstone/Dissertation Seminar. The Capstone/Dissertation Seminar is a culminating course aimed at ensuring they are prepared to begin the capstone project or dissertation work and can demonstrate a range of knowledge and abilities, including framing a capstone project or research project, undertaking an appropriate literature review, making a decision regarding design, implementing the project and being prepared to complete the qualifying process. While most students will complete the written proposal and presentation for capstone or dissertation defense, some may require additional preparation prior to defending the proposal. Students may enroll in additional hours as necessary.

For all students, the third step is the presentation and oral defense of the capstone or dissertation proposal to the student's committee. Upon successful defense of the capstone or dissertation proposal, the student is advanced to candidacy.

Completion

Upon advancement to candidacy, capstone students enroll in EDAD 90770 and dissertation students enroll in EDUC 90980 and EDUC 90990. During enrollment in these courses, all students engage in the work outlined in the approved capstone or dissertation proposal. Upon completion of dissertation research, the student composes the final chapters of the dissertation, consults with the committee chair regarding initial edits, and schedules a final defense. At the time of the defense, the student conducts a public presentation of the study and findings and answers questions from the committee. The committee will consult to determine whether the dissertation: 1) meets passing requirements with no further edits; 2) meets passing requirements with minor edits; 3) does not meet passing requirements (necessitating further edits and a subsequent representation of the work to the committee).

Upon completion of the capstone project as approved by the student's committee, the student composes the remainder of the project and schedules a final defense and presentation. The committee will consult to determine whether the capstone: 1) meets passing requirements with no further edits; 2) meets passing requirement with minor edits; 3) does not meet passing requirements (necessitating further edits and a subsequent representation of the work to the committee).

EdD in Higher Education Leadership

The EdD 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 EdD in Higher Education Leadership would be similar in construct to the existing EdD programs, but would vary in some significant ways.

The proposed doctorate of Educational Leadership in Higher Education:

- Creates 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 EdD 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 student 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 EdD in Higher Education Leadership requires a minimum of 60 hours of post-matriculation course work.

Foundations (15 hours)

EDAD 70033	Ethical and Moral Dimensions of Educational Leadership
EDLE 60063	Law and Ethics in Educational Leadership
EDHE 70133	History and Philosophy of Higher Education
EDHE 70143	Impact of College on Students
	Organizational Behavior in Education Contexts

EDHE 70153

Inquiry (9-12 hours)

Students may take any 12 hours from the courses listed below (or equivalent courses from outside the program or College of Education with permission). However, EDUC 70953 (Research in Education) may not count toward the initial 12 hours. It must be taken if the student has not already passed EDUC 70953 with at least a "B-" grade.

EDUC 60043	Action Research
EDUC 60823	Educational Program Evaluation
EDUC 70953	Research in Education
EDUC 70960	Apprenticeship in Research
EDUC 70963	Qualitative Inquiry I
EDUC 70973	Qualitative Inquiry II

Administrative Leadership in Higher Education (18-21 hours)

EDAD 60133	Trends and Issues in Education Administration-Student Affairs
EDAD 70043	Educational Policy and Practice
EDGU 60403	Theories of Student Development
EDGU 60423	Organization and Administration of Support Programs
EDGU 70793	Strength-Based Theories: Assessment, Research and Practice
EDGU 71103	Field Experience in Student Affairs
EDHE 70113	Organization and Administration of Academic Affairs
EDHE 70123	College President
EDHE 70163	The Small College

**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)

EDAD 70200	Internship in Educational Administration
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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 student in an assistantship.

Capstone Project (12 hours)

EDAD 70073	Capstone/Dissertation Seminar
EDAD 90770	Capstone Project

Educational Studies: PhD

Educational Studies: Curriculum Studies PhD

The PhD 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 PhD is awarded for demonstrating competence in research by successfully defending a doctoral dissertation. The emphasis is on developing knowledge and skills in curriculum studies that result in 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 for the writing of the dissertation. The program requires 51-60 hours after acceptance into the program. The PhD in Educational Studies: Curriculum Studies comprises the following components.

I. Courses

Field of Education

EDCS 70013	Colloquium in Curriculum Studies
EDUC 60980	Internship

15-18 Elective Hours, Approved by Adviser

EDCS 70013	Colloquium in Curriculum Studies
EDSC 70033	Scientific Inquiry and the Nature of Science
EDSC 70043	Science in the Global Community
EDUC 60013	Curriculum Theory
EDUC 60313	Educational Assessment
PSYC 50583	Cognition
EDUC 60213	Psychology of Thinking and Learning

Research

Students are required to join at least one research community during their first year in the program, as approved by the adviser in the College of Education. Students continue to have a research apprenticeship each term thereafter. Students take the equivalent of 9-12 hours of research coursework as approved by the adviser in the College of Education, such as:

PSYC 50423	Graduate Statistics
EDUC 60823	Educational Program Evaluation
EDUC 70953	Research in Education
EDUC 70960	Apprenticeship in Research
EDUC 70963	Qualitative Inquiry I
EDUC 70973	Qualitative Inquiry II

Curriculum Studies Content

Students take the equivalent of 15-18 hours of coursework that qualify for curriculum studies content as approved by the adviser in the College of Education.

EDCS 60813	Curriculum Studies Seminar: The Social Construction of Knowledge
EDCS 60813	Curriculum Studies Seminar: Feminist Thought in Education
EDCS 60813	Curriculum Studies Seminar: Issues of Power
EDCS 60813	Curriculum Studies Seminar: Critical Pedagogy
EDCS 60813	Curriculum Studies Seminar: Theoretical Foundations
EDCS 60813	Curriculum Studies Seminar: Teaching & Learning in Higher Education

II. University Teaching

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

EDCS 70963	Apprenticeship in Teaching
EDCS 70973	Teaching Diversity

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 (6 hours)
EDUC 90990	Dissertation (6 hours)

Educational Studies: Counseling and Counselor Education PhD

The PhD 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 PhD 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 PhD 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 (Prerequisite EDGU 60213 Introduction to Marriage and Family Therapy or equivalent)
EDGU 70013	Language Systems (Prerequisite EDGU 60213 Introduction to Marriage and Family Therapy or equivalent)
EDGU 70793	Strength-Based Theories: Assessment, Research and Practice
EDGU 70043	Philosophical Underpinnings of Psychotherapy
EDGU 70383	Advanced Study in Counseling Theories and Techniques

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
EDGU 70143	Teaching Counseling Interventions
EDGU 70033	Legal, Ethical and Professional Issues in Counseling

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 I
EDUC 70973	Qualitative Inquiry II
EDUC 60823	Educational Program Evaluation
	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
EDGU 70323	Advanced Group Leadership

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
EDUC 90990	Dissertation

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: Science Education PhD

The PhD 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 PhD degree.

Degree Requirements

A PhD is a research degree. It is awarded for demonstrating competence in research by successfully defending a PhD 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 but the College of Education's dean of graduate studies could waive courses if students show evidence of the necessary knowledge and skills. 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 51-60 hours of coursework after acceptance into the program. The PhD in Educational Studies: Science Education comprises 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 first 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.

Education Courses

Education Administration Courses

EDAD 60103 - Administrators, Schools and Districts

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

Prerequisites: Admitted to Graduate Education. It will include concepts and issues derived from leadership, supervision, and law.

EDAD 60123 - Administrators, Parents and Children

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

Prerequisite: Must be admitted to Graduate Education. The course will normally be taught collaboratively with practicing administrators.

EDAD 60143 - Administrative Life

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

This course may be taken twice for a total of 2 semester hours.

EDAD 70003 - Foundational Readings in Educational Administration

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

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

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

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

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

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

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

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

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

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

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.

Education - Curriculum Studies Courses

EDCS 50001 - Colloquium Curriculum Studies

Prerequisites: Admission into Curriculum Studies graduate program or permission of instructor. Each semester, the colloquium will address 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-EDCS students may join the colloquium with permission of instructor.

EDCS 60813 - Curriculum Studies Seminar

Prerequisite: Must be admitted to Graduate Education. A series of seminar classes that explore issues in curriculum studies, their context and connections with learning and education and the scholars who have contributed to our current understanding. Each class in the series will explore particular issues, such as: feminist theory, issues of power, and the like. Specific offerings will be listed as, for example, EDCS 60813: feminist theory in education. May be repeated for credit.

EDCS 70011 - Colloquium in Curriculum Studies

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

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.

Education - Early Childhood Courses

EDEC 50143 - Early Childhood Curriculum

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

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

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

Prerequisite: Admitted to Graduate Education. Study of research on behavior of young children and application to planned learning experiences.

Education - Elementary Courses

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.

Education - Guidance Counselor Courses

EDGU 50223 - Helping Relationships

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

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 60113 - DSM: Diagnosis and Treatment

Overview of DSM disorders, their prevention and treatment.

EDGU 60143 - Counseling Interventions

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 60213 - Introduction to Marriage and Family Therapy

Prerequisite: Admitted to Graduate Education. Examination of systems theory and the varying theoretical constructs, including strategic, structural, experiential, brief, and communication approaches.

EDGU 60233 - Career Development and Information

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

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 60383 - Counseling Theories and Techniques

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

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

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 - Guidance and Counseling Programs

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

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

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

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

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

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

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

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

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

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 70323 - Advanced Group Leadership

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

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

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

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

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.

Higher Education Leadership Courses**EDHE 70113 - Organization and Administration of Academic Affairs**

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

Prerequisites: EDAD 70033 and EDHE 70153. 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

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 - Impact of College on Students

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

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 effects the leadership, management and student experience.

EDHE 70163 - The Small College

Prerequisites: EDHE 70153 and EDHE 70133. 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

Educational Leadership Courses**EDLE 60013 - Leadership: Theory and Practice**

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

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

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

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

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

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

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

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

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.)

Education - Middle School Courses**EDMS 50023 - Effective Teaching and Classroom Implementation**

Prerequisite: Admission to the Teacher Education Program, EDUC 20003, EDSE 30103, and EDSE 30013; co-requisite: EDSE 41151. 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

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

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

Prerequisite: Admission to the Teacher Education Program or written permission of the Dean, College of Education. Concurrent enrollment in EDUC 50503, Developing Communication Competencies of Linguistically and Culturally Diverse Students. The reading practicum provides an opportunity to prepare lessons and teach in a sheltered ESL classroom under the supervision of a cooperating teacher and TCU faculty.

EDMS 50613 - Analysis of Literacy Problems

Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. 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.

EDMS 50663 - Motivating and Managing Students in the Classroom

Prerequisite: Admission to the Teacher Education Program; for Middle School Education majors: 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; for Secondary Education majors: admission to the Teacher Education Program, EDSE 30123, EDSE 30113, EDSE 30603, EDSE 40213, content area methods course(s), and co-requisite EDSE 41151. . 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

Prerequisites: for Middle School Education majors: 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; for Secondary Education majors: admission to the Teacher Education Program,

EDSE 30123, EDSE 30113, EDSE 30603, EDSE 40213, and Content Area Methods course(s), and co-requisite EDSE 41151.

Education - Mathematics Courses

EDMT 50123 - Teaching Geometry and Measurement

Prerequisites: 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 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

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 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

Prerequisites: 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 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

Prerequisites: 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 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 70980 - Thesis in Mathematics Education

Prerequisites: Advancement to candidacy. Three hours of EDMT 70980 is required.

EDMT 70990 - Thesis in Mathematics Education

Prerequisites: Advancement to candidacy and EDMT 70980. Three hours of EDMT 70990 is required.

Education - Science Courses

EDSC 60023 - Education for Sustainability

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

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

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

Prerequisite: Admission to M.Ed. or Ph.D. 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

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

May be repeated for up to 13 hours

EDSC 70011 - Colloquium in the Profession of Science Education

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

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

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 70980 - Thesis

Prerequisite: Admission to Candidacy.

EDSC 70990 - Thesis

Prerequisite: EDSC 70980. Thesis

Education - Secondary Courses

EDSE 50023 - Effective Teaching and Classroom Implementation

Prerequisite: Admission to the Teacher Education Program, EDUC 20003, EDSE 30103, and EDSE 30013; co-requisite: EDSE 41151. 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

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

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

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

Prerequisite: Admission to the Teacher Education Program or written permission of the Dean, College of Education. Concurrent enrollment in EDUC 50503, Developing Communication Competencies of Linguistically and Culturally Diverse Students. The reading practicum provides an opportunity to prepare lessons and teach in a sheltered ESL classroom under the supervision of a cooperating teacher and TCU faculty.

EDSE 50443 - Methods for Teaching Secondary School Mathematics I

Prerequisites: Admission into College of Education; EDUC 20003, EDSE 30103, and EDSE 30013; corequisite: EDSE 41151. 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

Prerequisites: Admission to the Teacher Education Program, EDUC 20003, EDSE 30103, and EDSE 30013; corequisite: EDSE 41151. 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 50613 - Analysis of Literacy Problems

Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. 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.

EDSE 50663 - Motivating and Managing Students in the Classroom

Prerequisite: Admission to the Teacher Education Program; for Middle School Education majors: 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; for Secondary Education majors: admission to the Teacher Education Program, EDSE 30123, EDSE 30113, EDSE 30603, EDSE 40213, content area methods course(s), and co-requisite EDSE 41151. 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

Prerequisites: for Middle School Education majors: 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; for Secondary Education majors: admission to the Teacher Education Program, EDSE 30123, EDSE 30113, EDSE 30603, EDSE 40213, and Content Area Methods course(s), and co-requisite EDSE 41151.

EDSE 60073 - Seminar in Mathematics Education

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.

Education - Special Education Courses

EDSP 50013 - Literacy Methods in Special Education

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 receiving special education services.

EDSP 50663 - Motivating and Managing Students in the Classroom

Prerequisite: Admission to the Teacher Education Program; for Middle School Education majors: 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; for Secondary Education majors: admission to the Teacher Education Program, EDSE 30123, EDSE 30113, EDSE 30603, EDSE 40213, content area methods course(s), and co-requisite EDSE 41151. 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

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
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
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
Field experience under direct supervision of a certified special education teacher in public or private school setting. Minimum of 200 clock hours required.

EDSP 60433 - Issues and Practices in Collaboration
A review of current research and practices concerning the concept of shared responsibility between regular educators and special educators to provide coordinated and inclusive educational arrangements for all children and youth and to facilitate their success within the least restrictive environment.

EDSP 60453 - Practicum in Educational Testing
Prerequisite: Permission of course instructor. Administration and interpretation of evaluative instruments in education and/or guidance settings.

EDSP 70003 - Single Subject Research Design
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.

Education - General Courses

EDUC 50003 - Diversity in American Education
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
Prerequisite: Admission to the Teacher Education Program, EDUC 20003, EDSE 30103, and EDSE 30013; co-requisite: EDSE 41151. 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
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
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 50143 - Theories of Human Development
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 50203 - Programs in Bilingual Education
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
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 50253 - Applied Teaching, Learning and Technology
Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. An investigation into 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 unit plan and develop a technology-enhanced instructional application for an educational setting. Includes a field component TBA.

EDUC 50263 - Digital Communication and Collaboration in Education
Prerequisites: 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 50313 - Foundations of Literacy
Prerequisites: Admission to the Teacher Education Program or written permission of the Dean, College of Education. 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 50503 - Foundations of Language Acquisition
Prerequisites: Admission to Teacher Education Program or written permission of the Dean, College of Education, and concurrent enrollment in EDMS/EDSE 50223, 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
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
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
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
Study of specialized topics in Education.

EDUC 50990 - International Experiences in Education
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

Addresses general principles and practices of curriculum development and curriculum change; organizational patterns for developing curriculum and implementing change.

EDUC 60043 - Action Research

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

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

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

Advanced study of curricula, strategies, and techniques utilized in teaching and upgrading social studies instruction in the elementary school.

EDUC 60083 - Seminar in Elementary School Language Arts

Advanced study of curricula, strategies, and techniques utilized in teaching and upgrading language arts instruction in the elementary school. The interrelationships of all areas of language arts are given primary emphasis.

EDUC 60120 - The Role of the In-service Teacher in Preservice Teacher Education

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 60153 - Seminar in Promoting Literacy in the Subject Areas

Instructional strategies include ways to integrate reading, writing, and study strategies.

EDUC 60213 - Psychology of Thinking and Learning

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

Philosophic positions and the implications of these viewpoints on one's approach to and resolution of educational issues and questions will be examined.

EDUC 60293 - Curriculum Workshop

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

Characteristics of tests, constructs, scoring, interpreting, evaluation, and test-taking skills as a form of problem-solving are included.

EDUC 60513 - Practicum in Education

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 60810 - Seminar in Educational Research

May be repeated up to 13 hours.

EDUC 60823 - Educational Program Evaluation

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 60980 - Internship

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 70870 - Advanced Directed Study in Education

Prerequisite: Admitted to Graduate Education. Advanced research on specialized topics in Education.

EDUC 70903 - Treatise

Students complete a paper under the advisement of a faculty member in the department.

EDUC 70953 - Research in Education

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

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 I

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

Prerequisite: Approval of advisor and instructor in course.

EDUC 70973 - Qualitative Inquiry II

Prerequisite: EDUC 70963, Qualitative Inquiry I.. Students further develop theoretically and practically as qualitative researchers. They work with data collected in EDUC 70963 throughout the semester focusing on data analysis and writing and the development of skills and talents necessary for qualitative researchers. 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

Prerequisite: Admission to Candidacy.

EDUC 70983 - Introduction to Quantitative Research

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

Thesis

EDUC 90980 - Dissertation

Dissertation. A maximum of six hours may be taken.

EDUC 90990 - Dissertation

Dissertation. May be taken for a total of six semester hours.

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; 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 metroplex.

Art History

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 the 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 exam 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 (such as an undergraduate paper) of 1250 to 2500 words;
- Three letters of recommendation; and
- 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:

70003	Methods and Issues in Art History	3
70013	The Art Museum	3
70100	Museum Seminar	3
70983	Internship	3
70996	Thesis	6

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 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 Roche, 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 1914-Present
ARHI 60153	The Aztec, Maya and Olmec: Ancient Mesoamerican Art
ARHI 60163	Maya Art and Architecture
ARHI 60173	Early Italian Renaissance Art
ARHI 60183	High and Late Italian Renaissance Art
ARHI 60193	Symbol and Reality: Renaissance Art in Northern Europe
ARHI 60203	17th-Century Italian and Spanish Art
ARHI 60213	Drawing as Artistic Invention
ARHI 60333	Modern Art I: Romantic Classicism to Impressionism
ARHI 60343	Modern Art II: Post-Impressionism to Surrealism
ARHI 60353	Picasso: Artist of the Century
ARHI 60363	17th Century Flemish-Dutch Painting
ARHI 60413	Women and the Visual Arts
ARHI 60500	Special Topics in Art History

ARHI 60603	Art since 1945
ARHI 60613	Modern Architecture
ARHI 60623	History of the Print
ARHI 60823	History of Photography
ARHI 70023	Approaches to the Art Object

Studio Art

Master of Fine Arts degree available in painting and sculpture.

TCU offers a two-year (60-semester-hour) program in art leading to the Master of Fine Arts degree. Areas of specialization include painting and sculpture. 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

A total of at least four semesters of graduate work is required. 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 Art History are required. Three hours of Art History must be 60603 Art Since 1945 or another contemporary art history course. The other 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

<i>1st Semester</i>	
Studio	9
Grad. Critique	3
Seminar	3
<i>Total</i>	<i>15</i>

2nd Semester

Studio	9
Grad. Critique	3
Art History	3
<i>Total</i>	<i>15</i>

Second Year

<i>1st Semester</i>	
Studio	9
Grad. Critique	3
Seminar	3
<i>Total</i>	<i>15</i>

2nd Semester

Studio	8
Grad. Critique	3
Thesis Exhibition	1
Art History	3
<i>Total</i>	<i>15</i>

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; seek candidacy approval of committee. Third semester-request committee approval for preparation of Thesis Exhibition; complete sequence of courses approved by committee. Fourth 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 first academic year of graduate study. Those who have not been admitted to candidacy by the beginning of the second academic year 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 eight hours a week in service to the School. They are given a full tuition waiver plus a stipend. Graduate assistants are assigned a private studio space.

Art Education Courses

ARED 60970 - Special Problems

Special Problems (1-21 hours.)

Art History Courses

ARHI 60123 - American Art 1913 to the Present

American Art from 1913 to the present.

ARHI 60153 - The Aztec, Maya, and Olmec: Ancient Mesoamerican Art

This course examines the art and architecture of the major cultures of Pre-Columbian Mesoamerica.

ARHI 60163 - Maya Art and Architecture

This course is an in-depth study of the art and architecture of the ancient Maya.

ARHI 60173 - Early Italian Renaissance Art

Early Italian Renaissance Art

ARHI 60183 - High and Late Italian Renaissance Art

High and Late Italian Renaissance Art

ARHI 60193 - Northern Renaissance Painting: Van Eyck - Bruegel

Symbol and Reality: Renaissance art in northern Europe.

ARHI 60203 - 17th Century Italian and Spanish Art

17th century Italian and Spanish art.

ARHI 60213 - Drawing as Artistic Invention

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

Modern Art I: Romantic Classicism to Impressionism.

ARHI 60343 - Modern Art II: Post-Impressionism to Surrealism

Modern Art II: Post-Impressionism to Surrealism

ARHI 60353 - Picasso: Artist of the Century

Picasso: Artist of the Century

ARHI 60363 - 17th Century Flemish-Dutch Painting

17th Century Flemish-Dutch Painting

ARHI 60500 - Special Topics in Art History

Special Topics in Art History

ARHI 60603 - Art Since 1945

Art since 1945.

ARHI 60613 - Modern Architecture

Modern Architecture: 1750 to the present.

ARHI 60623 - History of the Print

History of the Print

ARHI 60823 - History of Photography

History of Photography

ARHI 70003 - Art Historical Methods, Theories and Issues

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

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

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

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

A seminar that offers the opportunity to study various significant topics in depth. (3-12 semester hours)

ARHI 70983 - Internship

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 70996 - Thesis

Prerequisite: Completion of 27 semester hours of the graduate program in art history.

Studio Art Courses

ARST 60100 - Life Studies

Life Studies (may be taken for 1-21 hours.)

ARST 60120 - Graduate Critique

Graduate Critique. 3-12 hours.

ARST 60140 - Painting

Painting. 1-21 hours.

ARST 60160 - Printmaking (Intaglio)

Printmaking (Intaglio) 1-15 hours.

ARST 60170 - Printmaking (Lithography)

Printmaking (Lithography) 1-15 hours.

ARST 60180 - Printmaking (Screenprinting)

Printmaking (Screenprinting) 1-15 hours.

ARST 60420 - Sculpture

Sculpture

ARST 60903 - Seminar in Art Criticism

Seminar in Art Criticism

ARST 60913 - Seminar in Art Professions

Seminar in Art professions.

ARST 60970 - Special Problems

Special Problems (1-21 hours.)

ARST 70991 - Thesis Exhibition

Prerequisite: Admission to candidacy.

School for Classical & Contemporary Dance

The School for Classical & Contemporary Dance (SCCD) at TCU offers the MFA in Classical & Contemporary Dance. TCU is accredited by the National Association of Schools of Dance.

Mission

The School for Classical & Contemporary Dance at TCU develops educated dance artists prepared to become professionals and leaders in the global dance community.

Curriculum

The MFA in Classical & Contemporary Dance is a degree in creative investigation. The objective is to develop practicing artists with the ability to translate artistry into the skills of teaching dance in academe.

Candidates for the MFA degree will pursue emphasis in either Ballet or Modern Dance and focus their studies leading toward the thesis concert in either choreography or performance. These tracks will be determined in collaboration with the graduate faculty.

The MFA curriculum offers advanced studies in dance and dance-related subjects, including classical and contemporary techniques, choreography, pedagogical practice and analysis, dance production and design, dance history as a cultural investigation, performance practicum, issues and analysis in dance, and research problems and methodologies. The 60-hour degree includes some elective options, including the potential for studies abroad, and directed studies coursework. MFA studies require both written and concert theses and culminate in an oral examination that addresses their content.

Admission

Prerequisites

Applicants to the MFA program in Classical & Contemporary Dance will have the Bachelor of Fine Arts or its equivalent with a major in the area of proposed graduate study and a minimum of five years of work in the field. Before entering graduate work, undergraduate coursework and/or experience is expected in dance technique, choreography and dance history.

Those with professional dance experience and an undergraduate degree in a major other than dance, or those who lack coursework/experience in the areas identified above, will be required to take undergraduate coursework in dance and/or pass placement exams. All exams must be satisfactorily completed prior to admission to candidacy. The SCCD will consider applications from qualified students in other fields.

Application Process

Phase I: Candidates for admission to the MFA in Classical & Contemporary Dance must submit a completed TCU College of Fine Arts Graduate Studies application form. The application process includes several requirements specific to the School for Classical & Contemporary Dance:

1. TCU College of Fine Arts/Application for Admission/Master's Degree Program/Dance
2. Sample of choreography/creative work (guidelines available)
3. Scholarly writing sample (guidelines available)
4. Résumé or curriculum vita
5. Statement of academic and professional objectives (500 words maximum)
6. Two complete official transcripts mailed directly from the Registrar's Office of each institution attended
7. Three letters of recommendation from individuals able to assess the applicant's potential as a graduate student
8. A non-refundable \$60 application fee in the form of a personal check (drawn on a U.S. bank), money order or cashier's check made payable to TCU

Phase II: Once all information is submitted and reviewed, selected applicants will be invited for an interview, which will include a studio audition.

International Students

Applicants from countries other than the United States must meet the same admission standards required of all other applicants. International students may submit a videotape/DVD in place of an on-campus studio audition. The required format and guidelines must be followed. The interview for invited applicants will be conducted electronically. In addition, before being admitted, each international student must demonstrate proficiency in the English language. All international students must complete the Test of English as a Foreign Language and achieve a minimum score of 550 (paper-based TOEFL) or 80 (Internet-based TOEFL). Since no other entrance exams are required, the TOEFL requirement applies to prospective international students coming from abroad, as well as those coming to TCU from another college or university in the United States. Official scores must be sent to TCU from the testing agency.

School Facilities

Built in 1921, the **Dance Building** was TCU's first gymnasium. Renovated in 2011 and named Erma Lowe Hall, the facility has high ceilings, ample natural light and houses three large dance studios ideal for creative investigation. Each studio is equipped with a piano and audio-visual equipment to facilitate teaching and coaching. One studio converts into a theatre. This

intimate performance space is equipped with an audio-visual booth, lighting instruments, projector and theatrical curtains for production work. It features tiered seating and easy viewing from the balcony for guests and prospective students. A 26-station Mac Dance computer lab, a dance costume shop, a theatrical production shop and a conditioning classroom used for Pilates and other bodywork training are also housed in the facility. Student and faculty locker rooms and a student lounge with kitchen make Erma Lowe Hall "home away from home" for the TCU dance community.

Formal concerts are produced each year in Ed Landreth Auditorium, a 1,200-seat proscenium theatre on the northern boundary of the campus.

Degree Requirements

The program requires 60 hours of course work, including the following minimum requirements.

18 hours of technique from the following courses:

60100	Ballet Technique and Artistry	9
60200	Modern Dance Technique and Artistry	9
70100	Ballet Technique and Artistry	9
70200	Modern Dance Technique and Artistry	9
70400	Advanced Studio Practice (permission only)	9

21 hours of studio studies:

60533	Dance Pedagogy I: Practice and Analysis	3
60553	Graduate Choreographic Studies	6
70533	Pedagogy II: Practice and Analysis	3
70553	Advanced Choreographic Studies	3
70980	Concert Thesis	3
	3 studio elective hours	3

21 hours of academic studies:

60603	Issues and Analysis in Dance	3
60613	Dance Research Methods	3
60663	Dance History: A Cultural Investigation	3
70603	Research Problems	3
70990	Written Thesis	3
	6 free electives hours	6

Classical & Contemporary Dance Courses

DANC 50303 - Dance Theory

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 60100 - Ballet Technique and Artistry

Theory and practice of ballet. 3 hours maximum per semester. Total 9 hours maximum.

DANC 60200 - Modern Dance Technique and Artistry

Theory and practice of modern dance. 3 hours maximum per semester.

DANC 60300 - Graduate Dance Production Practicum

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

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

Practice and analysis of selected issues in dance instruction.

DANC 60553 - Graduate Choreographic Studies

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. 2 semesters required.

DANC 60603 - Issues and Analysis in Dance

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

Current methodologies and definitions in dance research.

DANC 60663 - Dance History: A Cultural Investigation

Study of historical developments in dance seen from social, anthropological, political, philosophical and/or artistic perspectives.

DANC 70100 - Ballet Technique and Artistry

Theory and practice of ballet. 3 hours maximum per semester.

DANC 70200 - Modern Dance Technique and Artistry

Theory and practice of modern dance. 3 hours maximum per semester.

DANC 70300 - DanceTCU

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

Prerequisite: by permission only. An individualized course of daily studio practice designed in consultation with and at the discretion of the SSC Dance 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

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

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

Individual study in dance practice, chosen in consultation with graduate advisor. 1-3 semester hours. May be repeated.

DANC 70603 - Research Problems

Individual research and study in preparation for written thesis (DANC 70990.)

DANC 70980 - Concert Thesis

Concert Thesis

DANC 70990 - Written Thesis

Prerequisite: DANC 70603. Written Thesis

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.

Doctor of Musical Arts

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 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 available at www.graduate.tcu.edu.

Applicants are required to submit the following:

1. A completed application for admission to DMA graduate study.
2. Two official transcripts of all college work. Translations must be provided for all international transcripts.
3. Non-refundable \$60 application fee.
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 best 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 resume or curriculum vitae. This should include a list of concert performances, compositions, publications, and other musical accomplishments.

In addition, applicants must complete the requirements for the major field of study as described below:

A. Performance

1. Based on the results of pre-screening, an invitation may be extended to perform an on-campus audition/recital in the principal applied music area before a faculty committee. The performance should feature works of contrasting styles, chosen to demonstrate musicianship and technical proficiency. Memorization is encouraged for all performers; it is required in piano, strings and voice. Sight-reading may be included as part of the audition. Audition requirements vary depending upon the area of study; for specific audition requirements, applicants must contact the faculty in their intended major area.
2. Applicants must first submit a video recording of a live performance and include a typed program (PDF preferred). These required materials are uploaded through the School of Music Web site. Complete directions are available at: www.music.tcu.edu/GRAD_admissions.asp.

B. Composition

1. Based on the results of pre-screening, an invitation may be extended for an on-campus interview with the composition faculty.
2. Applicants must first submit five scores of recent works with recordings, as available. These materials should be mailed directly to the Office of Graduate Studies. Complete directions are available at: www.music.tcu.edu/GRAD_admissions.asp.

C. Conducting

1. Based on the results of pre-screening, an invitation may be extended to perform an on-campus audition/recital with a TCU choral or instrumental ensemble before a faculty committee. The audition will consist of a work chosen by the applicant in addition to one work assigned by the conducting faculty.
2. Applicants must first submit a video recording of a recent ensemble performance and rehearsal conducted by the applicant.

- Applicants must also submit a repertoire list of all works conducted, as well as those studied in depth and prepared for conducting. These required materials are uploaded through the School of Music Web site. Complete directions are available at: www.music.tcu.edu/GRAD_admissions.asp.

Audition

Based on the results of pre-screening, an invitation may be extended to perform an on-campus audition/recital/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. The CFA Graduate Office will send faculty contact information after application materials are received. Audition dates are posted on www.cfagraduate.tcu.edu/.

The candidate must present a dossier at the audition; it should include the audition program, a vita and a repertoire list. During the audition, which will be heard by at least three members of the graduate faculty, the candidate normally performs 30-45 minutes from a prepared one-hour program. After the performance, the applicant will interview with the faculty present. The faculty will report their evaluation of the audition and interview to the College of Fine Arts Graduate Office, using the Report of DMA Audition Form. This report will be added to the student's file, which will be reviewed by area faculty, the Graduate Standards Committee, the School of Music director and the associate dean for graduate Studies.

Language Requirement

The student must acquire a reading knowledge of one approved modern foreign language, usually French, German or Italian. With the consultation and approval of the program adviser, the student will choose the language most appropriate to his/her research, area of concentration and prior language study.

The student may meet the language requirement by earning 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.

Further language and diction skills are required for voice and choral conducting students. Please consult with the faculty in these areas for details.

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, what deficiencies exist and as an aid in advising. The results of the exam are reported to the College of Fine Arts Graduate Office and added to the student's file; it is a factor in admissions.

On the basis of the entrance exam, incoming doctoral students may be advised to take certain courses to eliminate deficiencies in music history and theory. Credit earned in the completion of these courses is not applicable toward DMA requirements.

During the registration period, the student will meet with his/her program adviser to discuss the results of the exams, plan a tentative course of study, identify ways to strengthen areas in which deficiencies may exist and review general program requirements.

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 will not count toward DMA curriculum requirements.

Further information about the entrance exam and suggestions for preparation are available at 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 one of the following scores:

- 100 on the iBT TOEFL

This requirement applies to prospective international students coming from abroad, as well as those coming to TCU from another college or university in the United States. Official scores must be sent to TCU from the testing agency.

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 Graduate Standards 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 all DMA applicants. Official scores must be sent to TCU from the testing agency. The GRE score is one of many elements in the applicant's file that will be considered during the admission process; there is no minimum required score.

Application Deadlines

For full consideration, applicants seeking admission to the DMA Program should complete their application by January 15 to be considered for fall matriculation.

Graduate Assistantships

Graduate assistantships are available in various areas; these assistantships provide 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 January 15 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 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."

Doctoral students may hold an assistantship for a maximum of three years; renewal is dependent upon the recommendation of the faculty. In order to have an assistantship renewed, the student must make excellent academic and musical progress, display professional and collegial conduct, and fulfill all assistantship duties.

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 director and associate dean 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 level will be ascertained by means of an audition; the required skills must be acquired before candidacy.

DMA Program Specifics

Major and Co-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. If the major professor does not have an earned doctorate, a co-major professor with an earned doctorate will be appointed. The major and co-major professor advise the student on all matters pertaining to the program of study and selection of courses.

The major or co-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 major or co-major professor chair the oral portion of the general exam as well as the final oral examination.

Doctoral Committee

Each student is counseled by a Doctoral Committee comprising five members of the graduate faculty. As soon as it is practical, the Doctoral Committee 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 committee must include the major or co-major professor (who serves as chair of the committee), another professor representing the major field of study, an approved professor representing music history/literature, an approved professor representing music theory, and a professor from outside of the School of Music.

The committee approves recital programs, evaluates the recitals, conducts the general examination, supervises the preparation of the document or dissertation, and administers the final oral examination. At the document or 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 retiring, continuing and new members of the committee, the School of Music director 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. Following approval by the major area of study, it is normally prepared jointly by the major professor and student when the student has earned at least 12, but not more than 30 doctoral credits. It is then circulated to all Doctoral Committee members for approval and/or recommendations.

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. Subsequent changes in the content of the report can be made only with the approval of the major professor, Doctoral Committee, School of Music director and the associate dean for graduate studies.

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.

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 program adviser, the Doctoral Committee, School of Music director and associate dean for graduate studies.

3. The credit hours transferred may not be in an area where a deficiency exists (as identified by the entrance examinations or any other evaluation process).
4. Credit hours in the candidate's major area of concentration may not be transferred.
5. Credit hours transferred must carry a grade of "A," "B" or "S."
6. Credit hours transferred normally cannot be more than five years old at the time of admission or readmission to the degree program.
7. 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 one month in advance by the major professor and the student's Doctoral Committee. In the case of a lecture recital, an outline of the lecture must accompany the program. The first recital must be presented before the general examination is taken, and at least one recital must be performed after the general examination has been passed.

Recital dates may be reserved during the first week of class during each semester. The recital program must be approved by the major professor and the Doctoral Committee; the major professor will notify the College of Fine Arts Graduate Office and the Music Office that the student has been approved to play a DMA recital. The major professor will accompany the student to the Music Office to secure a date for the recital. 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. Students are encouraged to consult with committee members prior to setting the recital date.

Normally, all doctoral recitals are given on campus. However, with permission of the student's Doctoral Committee and the School of Music director, a student may present one of the recitals off campus. When a recital is given off campus, the major professor must be in attendance.

Ideally, all doctoral recitals will be heard in person by at least three members of the student's Doctoral Committee. Members of the Doctoral Committee present at the recital will meet privately following the recital to discuss and evaluate the performance. Doctoral Committee members not in attendance must be provided a recording by the student within one week following the recital, to be evaluated within the period of two weeks. The major professor will circulate the Report of DMA Recital Grade Form for all Doctoral Committee members to sign and return it to the College of Fine Arts Graduate Office. The associate dean will then report the recital grade to the registrar.

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 professional-quality recording to be made of any recitals given outside the School of Music or off campus. An appropriately labeled and indexed recording of each recital, with program, must be submitted to the Graduate Office.

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. Although it is composed of many parts, the examination is regarded as one entity and evaluated as such. It normally covers coursework completed for the doctoral degree as well as general musical knowledge normally acquired through prior study and professional experience. It focuses on the major field of concentration, the cognate area(s) of study, music history, and music theory.

Before taking the examination, the student must have remedied any deficiencies identified by the entrance exam. In addition, he/she must have completed all of the coursework in music history and theory, and a majority of the major field coursework. Further, the student must have presented at least two DMA recitals. The student must receive the approval of the Doctoral Committee to take the examination. The major professor will report to the College of Fine Arts Graduate Office in writing or by email that the student has been approved by the committee to take the exam. The student must be enrolled in at least one graduate credit hour during the semester in which the general examination is taken. The examination is both written and oral in nature. The written portion of the examination is given once each semester. Exam dates and information about the structure of the exam may be obtained from www.cfgraduate.tcu.edu/.

The oral portion of the exam is usually scheduled one to two weeks following the written tests. All members of the Doctoral Committee, including the outside member, must be present when the oral portion of the examination is administered. The examination must be completed at least seven months prior to receiving the degree.

Within one week after the oral portion of the general examination, the major professor must report to the associate dean for graduate studies whether the student passed or failed the examination. If the student passes the examination, he/she is admitted to candidacy for the degree. If the student fails, he/she may, with the permission of the Doctoral Committee, attempt the examination one more time during the following semester or later. A third attempt is not permitted.

For more detailed information on how to schedule the general examination, see www.cfgraduate.tcu.edu/.

DMA Written Documentation/Dissertation

A six-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 the general examination has been passed. Presentation of a topic prior to passing the general examination requires special permission from the Doctoral Committee and the School of Music director.

Choosing a Topic

Performance Major: 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 Major: The final project comprises one or more major works.

Conducting Major: The document is concerned with such areas as performance practices, teaching methods and materials, the editing of early music, aesthetics or psychology, and analysis of major works.

Proposal

Once a potential topic is identified, a written proposal is prepared under the guidance of the major professor and other members of the Doctoral Committee. The proposal normally includes an introduction, a discourse on the nature and importance of the topic, a chapter-by-chapter outline of the projected document and a bibliography. 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. Upon approval of the proposal, bound copies are then signed by the Doctoral Committee members. Each committee member receives a copy of the proposal and an additional copy is submitted to the College of Fine Arts Graduate Office for reference. The latter must be velobound.

Document or Dissertation Hours Enrollment

Permission to enroll in MUSI 90960/90970 (DMA Document) or MUSI 90980/90990 (DMA Composition Dissertation) may be granted 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 must maintain continuous enrollment during each regular semester in at least one hour of document or dissertation until the degree is completed.

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 document 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, Major and 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, acceptable writing style and appropriate format. Before other members of the Doctoral Committee receive the document 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.

The student, in consultation with the major professor, will use the current edition of either the *MLA Style Manual and Guide to Scholarly Publishing* or *Turabian's Manual of Style*. Each student must follow the School of Music DMA Document and Dissertation Guidelines available at www.cfgraduate.tcu.edu/.

DMA Final Oral Examination

One month prior to the proposed final oral examination date, the candidate must present a copy of the document or dissertation to all members of the doctoral committee for critical examination and comment. All five members of the committee must read the document/dissertation and accept or reject it. If it receives tentative acceptance from the committee and the indicated corrections and/or revisions are minimal, then the candidate may begin preparation of the final draft.

The candidate must present to the Graduate Office an unbound copy of the complete document/dissertation and abstract (the latter not exceeding 350 words) in order to secure permission to take the final oral examination. The document and abstract must be accompanied by the Doctoral Oral Exam Scheduling Form, signed by all members of the Doctoral Committee. The student must contact each member of the Doctoral Committee prior to setting and confirming the date and time of the final oral examination. After the reading copy has been examined and approved and a degree check has been satisfactorily completed by the College of Fine Arts Graduate Office, the associate dean will sign the Doctoral Oral Exam Scheduling Form and the exam may take place as scheduled. A Report on the Final Oral Examination Form will be given to the major professor.

The final oral examination is primarily a defense of the document or dissertation, although any relevant topic may be explored if the committee so chooses. In order to allow adequate time for preparation of examination questions, a copy of the document should be provided to each member of the committee at least seven days prior to the examination. The student is responsible for contacting all committee members prior to setting the time, date and location of the examination. The final oral examination is open to the public.

At least four members of the committee, including the major professor and the outside member, must be present to conduct the examination. Following a decision on the student's examination performance, those committee members present must sign the Report on the Final Oral Examination Form. The major professor will deliver the report to the College of Fine Arts Graduate Office.

The candidate must be enrolled in at least one graduate hour during the semester in which the final oral examination is taken. The final oral exam must be taken during the same semester that the document or dissertation is completed.

If the candidate fails the oral exam, only one reexamination will be permitted; the date of the reexamination is set at the discretion of the doctoral committee. If the candidate fails the reexamination, he/she is dropped from the program, and candidacy for the degree is terminated.

If the candidate passes the final oral examination, he/she will take a copy of the document/dissertation, signed by all committee members, to the College of Fine Arts Graduate Office for final approval. The process requires electronic submission of a PDF file, according to the instructions posted at lib.tcu.edu/NDLTD. Copyright may be obtained; the fee for this optional service is paid by the student. The School of Music also requires a bound copy of the document/dissertation for its archives.

Time Limit

A doctoral student who enters the TCU DMA program with a master's degree must pass the general examination within four calendar years of the student's first registration for doctoral study at TCU. A doctoral candidate must complete all the degree requirements within six years after passing the general examination. Extension of time must be applied for in writing to the School of Music director, who will then make a recommendation to the associate dean. The letter should explain why the degree was not completed 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
		(six semesters)
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	6
Electives		7
Total		60

* Six additional credits in music history or theory

Performance with Cognate in Composition*

MUSP 70110-70610	Lessons on major instrument	18
		(six semesters)
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	6
MUSI 60801	Composition Seminar	1
	Composition electives	2
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	6
Electives		4
Total		60

*Admission to the composition cognate is determined by the composition faculty; ability to do graduate-level work in composition is a prerequisite.

Performance with Cognate in Voice Pedagogy

MUSI 70110	Doctoral Voice	12
		(six semesters)
MUSI 70110	Doctoral Voice (Vocal Coaching)	6
		(six semesters)
MUSI 80971	DMA Recital I	1
MUSI 80981	DMA Recital II	1
MUSI 80961	DMA Lecture/Recital	1
	Ensembles (Opera)	2
MUSI 60064	Advanced Vocal Pedagogy Seminar	3
MUSI 60072	Technology in Voice Teaching	2
MUSI 60052	Repertoire Management	2
MUSI 60041	Practicum (2 semesters)	2
	Pedagogy Elective **	2-3
	Music History courses*	6-9
	Music Theory courses*	6-9
MUSI 90970	DMA Document	6
Electives		4-5
Total		60

* Advanced courses in music theory and music history with a minimum of two courses in an area.

** Chosen from MUSI 50063, 60041, 60062, 6016 or speech communications disorders courses.

Piano Performance with Cognate in Piano Pedagogy

MUSP 70210	Doctoral Piano	18
		(six semesters)
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	6
Electives		1-2
Total		60

* Chosen from MUSI 60203, 60213, 60223, 60233, 60243, 60913, 60923, 61230, 60400

Piano Pedagogy DMA Requirements

MUSP 70210	Doctoral Piano	12
		(six semesters)
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	6
Electives		4-6
Total		60

* Chosen from MUSI 60203, 60213, 60223, 60233, 60243, 60913, 60923, 61230, 60400

Composition with Cognate in Music History

MUSI 70630	Doctoral Composition (four semesters)	12
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, 90990	DMA Composition Dissertation	12
Electives		2
Total		60

*All DMA degrees in composition include the equivalent of a cognate in music theory.

Composition with Cognate in Performance*

MUSI 70630	Doctoral Composition	12 (four semesters)
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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, 90990	DMA Composition Dissertation	12
Total		60

*Admission to the performance cognate is by audition and must be approved by the appropriate applied music faculty.

**All DMA degrees in composition include the equivalent of a cognate in music theory.

Conducting with Cognate in Music History or Theory

MUSI 70220	Doctoral Conducting*	18 (six semesters)
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
	Cognate****	6
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	6
Electives		5
Total		60

*Must include lessons in orchestral, band and choral conducting.

**Must include MUSI 70203 Analysis for Performance and MUSI 50970 Special Studies: Advanced Orchestration.

*** MUSI 50403 Symphonic Literature, MUSI 50423 Choral Literature, MUSI 50970 Special Studies: Band Literature are required.

****Six additional credits in music history or theory

Conducting with Cognate in Performance*

MUSI 70220	Doctoral Conducting**	18 (six semesters)
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 (Cognate area)	1
MUSI 60010-60360	Ensembles	2
MUSI 90970	DMA Document	6
Electives		4
Total		60

*Admission to the performance cognate is by audition and must be approved by the appropriate applied music faculty.

**Must include lessons in orchestral, band and choral conducting.

***Must include MUSI 70203 Analysis for Performance and MUSI 50970 Special Studies: Advanced Orchestration.

****MUSI 50403 Symphonic Literature, MUSI 50423 Choral Literature, MUSI 50970 Special Studies: Band Literature are required.

Master of Music

Degree programs may be pursued in Master of Music with emphasis in performance, pedagogy, musicology, 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 and theory/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 Program Requirements

String Performance

MUSP 60310-60360	Lessons	12
MUSI 60120	Orchestra	2
MUSI 60080	Chamber Music	1
MUSP 70971	Recital I	1
MUSP 70981	Recital II*	1

Musicology

MUSI 60103	Bibliography and Research Techniques	3
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	Electives in Music History	3
<i>Music Theory</i>		
MUSI 50203	Structure and Style	3
	Electives in Music Theory	3
Electives		3
Total		32

*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.

Theory/Composition

It is possible to emphasize either theoretical, compositional or computer music studies. In each semester of the first year of study, prescribed courses are taken, as well as courses in the emphasis area of choice.

MUSI 60800	Theory Seminar	6
MUSI 60700	Special Topics, Theory or Computer Music	
	<i>or</i>	
MUSI 60630	Composition	6
MUSI 50523	Linear Analysis	3
MUSI 60553	Analysis of Contemporary Music	3
MUSI 70980	Thesis	6
MUSI 60103	Bibliography	3
MUSI 60500	Musicology Seminar	3
MUSI 60010-60210	Ensemble	1
Electives		5
Total		36

Piano Performance

MUSP 60210	Piano	12
MUSI 60080-60210	Ensemble*	1
MUSI 70971	Recital I**	1
MUSI 70981	Recital II***	1

<i>Musicology</i>		
MUSI 60103	Bibliography and Research Techniques	3
MUSI 50433	Keyboard Literature I or	3
MUSI 50533	Keyboard Literature II	

<i>Music Theory</i>		
MUSI 50523	Linear Analysis	3
MUSI 60553	Analysis of Contemporary Music	3
Electives		3
Total		30

*Piano majors fulfill this two-semester requirement through Piano Accompanying and/or Chamber Music.

**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.

***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

MUSP 60220	Organ	12
MUSP 60080-60210	Ensemble	1
MUSP 70971	Recital I*	1
MUSP 70981	Recital II**	1

<i>Musicology</i>		
MUSI 60103	Bibliography and Research Techniques	3
MUSI 50423	Choral Literature <i>or</i>	3
MUSI 50970	Special Studies: Hymnology	

<i>Music Theory</i>		
MUSI 50523	Linear Analysis	3
MUSI 50203	Musical Structure and Style	3
Electives***		5
Total		32

*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.

** 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.

***Recommended electives are MUSI 50212 Choral Conducting MUSI 60700 Special Studies: Keyboard Harmony and/or MUSI 50433 Keyboard Literature.

Piano Pedagogy Performance

<i>Performance</i>		
MUSI 60210	Piano	8
MUSI 60080-60210	Ensemble*	1
MUSI 70971	Recital I	1

<i>Pedagogy</i>		
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

<i>Musicology</i>		
MUSI 60103	Bibliography and Research Techniques	3
MUSI 50433	Keyboard Literature I or	3
MUSI 50533	Keyboard Literature II	

<i>Music Theory</i>		
MUSI 50523	Linear Analysis <i>or</i>	
MUSI 60553	Analysis of Contemporary Music	3
Total		34

*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)

<i>Performance</i>		
MUSP 60110	Voice	8
MUSI 60100; 60040	Opera/Chorale	2
MUSI 70971	Recital*	1

<i>Pedagogy</i>		
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

<i>Musicology/Music Literature</i>		
MUSI 60103	Bibliography and Research Techniques	3
	Musicology/Music Literature Elective	3
	Music Theory	3

Electives***
Total 34

* 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.

** Voice Pedagogy Practicum may be repeated for elective credit.

***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)

<i>Performance</i>		
MUSP 60110	Voice	8
MUSI 60100; 60040	Opera/Chorale	2
MUSI 70971	Recital I*	1
MUSI 70981	Recital II**	1

<i>Pedagogy</i>		
MUSI 50053	Introduction to Voice Pedagogy	3
MUSI 60052	Voice Repertoire Management	2
MUSI 60162	Techniques for the Singer-Actor	2

<i>Musicology/Music Literature</i>		
MUSI 60103	Bibliography and Research Techniques	3
	Musicology/Music Literature Elective	3
	Music Theory	6

Electives***
Total 34

* 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.

**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.

***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

Performance

MUSP 60310-60710	Lessons	12
MUSI 60010-60210	Ensemble*	1
MUSI 70971	Recital I	1
MUSI 70981	Recital II**	1

Musicology

MUSI 60103	Bibliography and Research Techniques	3
MUSI 60500	Seminar in Musicology	3

Music Theory

MUSI 50523	Linear Analysis	3
MUSI 60553	Analysis of Contemporary Music	3
Electives		3

Total 30

*This is a two-semester requirement.

** 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

Music History Courses

MUSI 60103	Bibliography and Research Techniques	3
MUSI 60500	Seminar in Musicology	3
MUSI 70950	Special Studies: Comprehensive Exam Preparation	1
MUSI 70980	Thesis I	3
MUSI 70990	Thesis II	3
	Three additional music history courses	9

Other Requirements

MUSI 60800	Seminar in Music Theory	3
MUSI 50203	Musical Structure and Style or	3
MUSI 50523	Linear Analysis or	
MUSI 60553	Analysis of Contemporary Music	
(60010-60210)	Ensemble	1
Electives*		3

Total 32

*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 Contemporary Music	3

Musicology

MUSI 60103	Bibliography and Research Techniques	3
MUSI 60500	Seminar in Musicology	3

Conducting

MUSI 50222	Instrumental Conducting	2
MUSI 60232	Score Reading	2
MUSI 50970	Special Topics: Band Literature	3
MUSI 60220	Special Studies in Conducting	4

Performance

MUSP 60410-60610	Lessons	4
MUSP 70971	Recital I*	1
MUSP 70981	Recital II*	1
Electives**		3

Total 32

* 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.

**Chosen from graduate courses in music or related academic fields.

Choral Conducting Emphasis

Music Theory

MUSI 50523	Linear Analysis	3
MUSI 60553	Analysis of Contemporary Music	3

Musicology

MUSI 60103	Bibliography and Research Techniques	3
MUSI 60500	Seminar in Musicology	3

Conducting

MUSI 50212	Choral Conducting	2
MUSI 60232	Score Reading	2
MUSI 50423	Choral Literature	3
MUSI 60220	Special Studies in Conducting	4

Performance

MUSP 60110	Voice	4
MUSP 70971	Recital I*	1
MUSP 70981	Recital II*	1
Electives**	3 chosen from graduate courses in music or related academic fields.	

Total 32

* 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.

**Chosen from graduate courses in music or related academic fields.

Orchestral Conducting Emphasis

Music Theory

MUSI 50523	Linear Analysis	3
MUSI 60553	Analysis of Contemporary Music	3

Musicology

MUSI 60103	Bibliography and Research Techniques	3
MUSI 60500	Seminar in Musicology	3

Conducting

MUSI 50222	Instrumental Conducting	2
MUSI 60232	Score Reading	2
MUSI 50403	Symphonic Literature	3
MUSI 60220	Special Studies in Conducting	4

Performance

MUSP 60310-60810	Lessons	4
MUSP 70971	Recital I*	1
MUSP 70981	Recital II*	1
Electives**		3

Total 32

* 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.

**Chosen from graduate courses in music or related academic fields.

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.

MUSI 60913	Psychology of Music	3
MUSI 60923	Philosophy of Music Education	3
MUSI 60300	Special Problems in Music Education* Education Courses	6 6

Musicology

MUSI 60103	Bibliography and Research Techniques Theory	3 3
MUSI 50523	Linear Analysis or MUSI 60553 Analysis of Contemporary Music	

Performance

MUSP 60110-60710	Lessons**	3-6
MUSI 60010-60210	Ensemble	1
Electives***		1-4

Total 32

* A comprehensive oral examination follows submission of the final Special Problems Report.

** With permission, students may take Performance for six semester hours, including a public recital.

*** 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 Practice I	3
MUSI 60213	Graduate Piano Pedagogy and Practice II	3
MUSI 60223	Current Trends in Piano Pedagogy	3
MUSI 60231	Internship in Teaching	1
EDEC 60133	Play and Creativity or	3
EDUC 60810	Advanced Educational Research Seminar	
MUSI 60300	Special Problems in Music Education*	2

Musicology

MUSI 60103	Bibliography and Research Techniques	3
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Theory

MUSI 50523	Linear Analysis or	3
MUSI 60553	Analysis of Contemporary Music	

Performance

MUSP 60210	Lessons**	6
MUSI 60010-60210	Ensemble***	1

Total 34

* A comprehensive oral examination follows submission of the final Special Problems Report.

**With permission, students may take Performance for six semester hours, including a public recital.

***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 Upper-division courses

Recitals: 4 hours

MUSP 50961	Artist Diploma Recital I
MUSP 50971	Artist Diploma Recital II
MUSP 50981	Artist Diploma Recital III
MUSP 50991	Artist Diploma Recital IV

Chamber Music/Ensemble/Collaborative Piano: 3 hours*

MUSI 60080/600X0/51081

*Appropriate course determined by student's applied music area; specific ensemble assignment determined upon admission

Music Courses

MUSI 50053 - Introduction to Voice Pedagogy

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

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

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

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

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

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

Prerequisite: Junior or Senior standing or permission of instructor. A historical survey of sacred music from ancient times to the twentieth century.

MUSI 50403 - Symphonic Literature

Prerequisite: Senior or graduate standing. Selected works for orchestra and band, illustrating development of the symphony.

MUSI 50413 - Survey of Opera Literature

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

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

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

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

Prerequisite: Senior or graduate standing. Study of selected writings on music criticism and aesthetics from antiquity to the present.

MUSI 50463 - Music in the Twentieth Century

Prerequisite: Senior or graduate standing. Study of the main trends from the time of Ravel to the present.

MUSI 50473 - Survey of Song Literature

Prerequisite: Senior or graduate standing. An examination of the repertoire for solo voice from 1750 to the present, with emphasis on the works of German,

MUSI 50483 - Chamber Music Literature

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

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 50503 - History of Sacred Music

Prerequisites: Senior or graduate standing or permission of instructor. An historical survey of sacred music from ancient times to the twentieth century.

MUSI 50523 - Linear Analysis

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

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

Prerequisite: Permission of instructor. Specialized work in student's area of concentration. 1-6 hours.

MUSI 51081 - Artist Diploma Post-Baccalaureate Collaborative Piano

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

Methods and materials for teaching at various levels, to include supervised teaching.

MUSI 60010 - Wind Symphony

1/2 semester hour.

MUSI 60020 - Percussion Ensemble

1/2 semester hour.

MUSI 60030 - Choral Union

1/2 semester hour.

MUSI 60040 - Concert Chorale

1/2 semester hour.

MUSI 60041 - Voice Pedagogy Practicum

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

1/2 semester hour.

MUSI 60052 - Voice Repertoire Management

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

1/2 semester hour.

MUSI 60062 - Research in Singing

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

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

1/2 semester hour.

MUSI 60073 - Technology in Voice Teaching

Prerequisites: Graduate standing in voice.

MUSI 60080 - Chamber Music

1/2 semester hour.

MUSI 60090 - Woodwind Ensemble

1/2 semester hour.

MUSI 60100 - Opera Studio

1/2 semester hour.

MUSI 60103 - Bibliography and Research Techniques

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

1/2 semester hour.

MUSI 60120 - Symphony Orchestra

1/2 semester hour.

MUSI 60133 - Music Theory/Literacy Pedagogy

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 60150 - New Music Ensemble

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

1/2 semester hour.

MUSI 60162 - Techniques for the Singer-Actor

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

1/2 semester hour.

MUSI 60180 - Collegium Musicum

1/2 semester hour.

MUSI 60182 - Piano Chamber Music Performance

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

1/2 semester hour.

MUSI 60203 - Graduate Piano Pedagogy and Practicum I

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

1/2 semester hour.

MUSI 60213 - Graduate Piano Pedagogy and Practicum II

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

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

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

Observation and teaching in a specialized area chosen in consultation with the instructor.

MUSI 60232 - Score Reading

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

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

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

Special Problems in Music Education.

MUSI 60303 - History of Music Notation

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

Study and performance of music for cello ensemble.

MUSI 60360 - TCU Harp Ensemble

The study and performance of music for harp ensemble

MUSI 60400 - Special Topics in Piano Pedagogy

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

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

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

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

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 60500 - Seminar in Musicology

Prerequisite: Graduate standing in music, consent of instructor.

MUSI 60553 - Analysis of Music: 1880-1950

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

Prerequisites: Acceptance into the School of Music DMA program or consent of instructor.

MUSI 60630 - Composition

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

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

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

Seminar in music theory.

MUSI 60801 - Composition Seminar

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

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

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

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

Prerequisites: must be a DMA conducting student. Advanced conducting lessons for doctoral (DMA) students.

MUSI 70630 - Doctoral Composition

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

Selected when enrolling only for non-thesis examination or preparation for the examination.

MUSI 70903 - Music Theory Treatise

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

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

Recital I.

MUSI 70972 - Lecture Recital

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

Thesis I

MUSI 70981 - Recital II

Recital II.

MUSI 70990 - Thesis II

Thesis II

MUSI 80971 - Doctoral Pedagogy Workshop I

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

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

Requisites: Doctoral students in music. DMA Document. May be repeated for credit; 6 hours required.

MUSI 90980 - DMA Composition Dissertation

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

Prerequisites: Doctoral student in Music. Capstone Document in Music Composition. This will be a musical composition or set of compositions of major scope.

Music Performance Courses**MUSP 50210 - Artist Diploma Lessons**

Prerequisites: Acceptance to Artist Diploma program, Post-Baccalaureate.

MUSP 50961 - Artist Diploma Recital I

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

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

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

Prerequisites: MUSP 50971. Fourth recital in a sequence of four required for the Artist Diploma program in the School of Music.

MUSP 60110 - Voice

Voice

MUSP 60120 - Vocal Coaching Graduate

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

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

Piano

MUSP 60220 - Organ

Organ

MUSP 60230 - Jazz Piano

Jazz Piano

MUSP 60240 - Harpsichord

Harpsichord

MUSP 60310 - Violin

Violin

MUSP 60320 - Viola

Viola

MUSP 60330 - Violoncello

Violoncello

MUSP 60340 - Double Bass

Double Bass

MUSP 60350 - Viola da Gamba

Viola da Gamba

MUSP 60360 - Jazz Bass

Jazz Bass

MUSP 60410 - Flute

Flute

MUSP 60420 - Oboe

Oboe

MUSP 60430 - Clarinet

Clarinet

MUSP 60440 - Saxophone

Saxophone

MUSP 60450 - Bassoon

Bassoon

MUSP 60460 - Jazz Saxophone

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

French Horn

MUSP 60520 - Trumpet

Trumpet

MUSP 60530 - Trombone

Trombone

MUSP 60540 - Baritone

Baritone

MUSP 60550 - Tuba

Tuba

MUSP 60560 - Euphonium

Euphonium

MUSP 60610 - Percussion

Percussion

MUSP 60620 - Jazz Drumset

Jazz Drumset

MUSP 60710 - Harp

Harp

MUSP 60810 - Guitar

Guitar

MUSP 60910 - Jazz Guitar

Jazz Guitar

MUSP 70110 - Doctoral Voice

Prerequisite: DMA students only. Advanced study in voice for DMA students.

MUSP 70210 - Doctoral Piano

Prerequisite: DMA students only. Advanced study in piano for DMA students.

MUSP 70220 - Doctoral Organ

Prerequisite: DMA students only. Advanced study in organ for DMA students.

MUSP 70310 - Doctoral Violin

Prerequisite: DMA students only. Advanced study in violin for DMA students.

MUSP 70320 - Doctoral Viola

Prerequisite: DMA students only. Advanced study in viola for DMA students

MUSP 70330 - Doctoral Violoncello

Prerequisite: DMA students only. Advanced study in violoncello for DMA students.

MUSP 70340 - Doctoral Double Bass

Prerequisite: DMA students only. Advanced study in double bass for DMA students.

MUSP 70410 - Doctoral Flute

Prerequisite: DMA students only. Advanced study in flute for DMA students.

MUSP 70420 - Doctoral Oboe

Prerequisite: DMA students only. Advanced study in oboe for DMA students.

MUSP 70430 - Doctoral Clarinet

Prerequisite: DMA students only. Advanced study in clarinet for DMA students.

MUSP 70440 - Doctoral Saxophone

Prerequisite: DMA students only. Advanced study in saxophone for DMA students

MUSP 70450 - Doctoral Bassoon

Prerequisite: DMA students only. Prerequisite: DMA students only. Advanced study in bassoon for DMA students

MUSP 70510 - Doctoral French Horn

Prerequisite: DMA students only. Advanced study in French Horn for DMA students.

MUSP 70520 - Doctoral Trumpet

Prerequisite: DMA students only. Advanced study in trumpet for DMA students.

MUSP 70530 - Doctoral Trombone

Prerequisite: DMA students only. Advanced study in trombone for DMA students.

MUSP 70550 - Doctoral Tuba

Prerequisite: DMA students only. Advanced study in tuba for DMA students

MUSP 70610 - Doctoral Percussion

Prerequisite: DMA students only. Advanced study in percussion for DMA students.

MUSP 70971 - Recital I

Recital I

MUSP 70981 - Recital II

Recital II

MUSP 80961 - DMA Lecture Recital

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

Prerequisites: Doctoral student in Music only. A public recital presented by the doctoral student in music.

MUSP 80981 - DMA Recital II

Prerequisites: Must be a Doctoral student in music. A public recital presented by the doctoral student in music.

MUSP 80991 - DMA Recital III

Prerequisites: Must be a doctoral student in music. A public recital presented by the doctoral student in music.

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 PhD. in English and History. Four departments (economics; philosophy; religion; and sociology, criminal justice 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 various 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 the front of this catalog where specific departmental requirements and supplementary information are provided.

English MA/PhD and Rhetoric and Composition PhD 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 and with sophomore-level credit in a foreign language. Applicants with less preparation may be admitted conditionally, but must take such additional courses as are 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 directly relevant to postgraduate work in English studies.

English MA Program

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), six hours for a thesis and may include up to nine hours for an approved minor or approved courses in a related field or fields.

English PhD Program

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 hours 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 of coursework listed below. The course in critical theory may be satisfied through transfer/waiver.

1. 3 hours ENGL 60513 - Teaching College Composition
2. 3 hours ENGL 60113 - Introduction to Graduate Studies and the Profession of English
3. 3 hours ENGL 60803 - Literature Pedagogy
4. 3 hours ENGL 60123 - Introduction to Modern Critical Theory

II. Electives (24 hours)

Students must complete a minimum of 12 hours in coursework that addresses at least 4 of the 6 areas listed below. Although each 3-hour seminar typically addresses two of the following 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 PhD 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 PhD 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 hours must be from TCU; has completed requisite coursework; and has met the language requirement. These examinations are based upon 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 PhD Program

Course Requirements

Completion for credit of a minimum of 54 semester hours of graduate courses, exclusive of 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 advisor will determine applicable credit on a case by case basis. Of the 54 hours, at least 36 must be taken at TCU and 27 must be in courses that satisfy the graduate core, which is described in subdivisions A, B and C below.

- A. *Theory (6 hours)*
 3 hours ENGL 60703: Introduction to Composition
 3 hours ENGL 60123: Introduction to Modern Critical Theory
 or ENGL 80123: Seminar in Literary Theory
- B. *Required Rhetoric and Composition (9 hours)*
 3 hours ENGL 70703: History of Rhetoric
 or ENGL 60713: Modern Rhetoric
 or ENGL 50253: Classical Rhetoric
 3 hours ENGL 60723: Research Practices in Composition and Rhetoric
 or ENGL 70723: Rhetoric and Criticism
 3 hours ENGL 60513: Teaching College Composition
- C. *Elective—Rhetoric and Composition (12 hours)*
 3 hours ENGL 50233: Studies in Creative Writing
 3 hours ENGL 50243: Teaching Writing
 3 hours ENGL 60203: Writing for the Professions
 3 hours ENGL 70713: Rhetoric and Literature
 3 hours ENGL 80603: Seminar in Kenneth Burke
 3 hours ENGL 80613: Women's Rhetorics
 3 hours ENGL 80703: Seminar in Rhetoric
 3 hours ENGL 80713: Seminar in Literacy
 3 hours ENGL 80723: Seminar in Composition
- D. *General Electives (9 hours)*
 In consultation with an advisor, students will take 12 semester hours of elective credit in graduate level literature, additional Rhetoric and Composition, or other areas.

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 PhD 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 PhD 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 hours must be from TCU; has completed requisite coursework; and has met the language requirement. **These examinations are based upon 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.

English Courses

ENGL 50233 - Studies in Creative Writing

Prerequisites: ENGL 10203, and 20803. Prior to enrollment, students are also strongly encouraged to take the 30000-level course appropriate to the semester's genre. ENGL 50233 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.

ENGL 50243 - Teaching Writing

Prerequisites: ENGL 10803 or 10833, and one 20000-level ENGL 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

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.

ENGL 50973 - Directed Study in English

Prerequisites: ENGL 10803 or 10833, and one 20000-level ENGL course. Directed Study in English.

ENGL 60103 - Bibliography and Methods of Research

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

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.

ENGL 60123 - Introduction to Modern Critical Theory

A seminar on major authors and issues in contemporary critical theory.

ENGL 60133 - Archival Scholarship

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

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

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

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

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-fictional strategies; adaptations of the bible, history, and mythology; and early book production and circulation.

ENGL 60433 - Renaissance Drama Exclusive of Shakespeare

The study of the works of major Elizabethan and Jacobean playwrights.

ENGL 60443 - Seventeenth Century Poetry

Study of the works of major seventeenth century poets including Donne and Marvell.

ENGL 60453 - The Long Eighteenth Century

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

Major fiction to the early nineteenth (1832) century.

ENGL 60503 - Early American Literature

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

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

A survey of the major contemporary theoretical statements about composing and the teaching of composition.

ENGL 60713 - Modern Rhetoric

Major theories of rhetoric and important rhetoricians of the twentieth century.

ENGL 60723 - Research Practices in Composition and Rhetoric

History, practices, and methodological concerns; use of archives and information systems; publishing and disciplinary conventions; assessment; fieldwork; ethics, thesis and dissertation problems and procedures.

ENGL 60733 - Language and Theory

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

This course introduces graduate students to the history and theory of teaching literature and prepares them to teach in the undergraduate classroom.

ENGL 70403 - British Novel II

Major fiction from the early nineteenth to the early twentieth century.

ENGL 70413 - Romantic Poetry and Prose

The study of works by Wordsworth, Coleridge, Byron, Shelley, Keats and others.

ENGL 70423 - Victorian Poetry and Prose

The study of major works and authors, including Arnold, Browning and Tennyson.

ENGL 70433 - Modern British Novel

The study of major fiction of the twentieth century.

ENGL 70443 - Modern British Poetry

Study of twentieth century British poets.

ENGL 70453 - Modern British Drama

The study of important plays and playwrights of the twentieth century.

ENGL 70463 - Modern British Literature

Survey of major trends and writers in British literature since 1900.

ENGL 70473 - Twentieth Century Irish Writers

Study of important Irish works, with emphasis on Yeats, Joyce and Synge.

ENGL 70483 - Victorian Women Writers

An intensive examination of Victorian women poets, novelists, and prose writers in the context of historical conditions and feminist theory.

ENGL 70493 - Nineteenth Century Studies in British Literature

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

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

The development of the American novel from 1890 to the start of World War II.

ENGL 70523 - American Novel III

The development of the American novel from 1940 to the present.

ENGL 70533 - The American Short Story

A study of short fiction in American literature.

ENGL 70543 - American Poetry I

The development of American poetry from the beginnings to 1900.

ENGL 70553 - American Poetry II

Major poets and works of the twentieth century.

ENGL 70563 - American Stagings: Culture, Theatre, Performance

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

Major documents of non-fiction prose in American literature.

ENGL 70583 - American Literature in a Global Context

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

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).

ENGL 70703 - History of Rhetoric

A study of the major authors and issues in the history of rhetoric from antiquity to the present day.

ENGL 70713 - Rhetoric and Literature

The applications and implications of rhetorical criticism for the study of literature.

ENGL 70723 - Rhetoric and Criticism

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

A study of various non-discursive modes used to make meaning with emphasis on the rhetorical use of multisensory images.

ENGL 70771 - Non-Thesis

Selected when enrolling only for non-thesis examination or preparation for the examination.

ENGL 70970 - Directed Studies

Directed Studies in English.

ENGL 70980 - Thesis

Thesis

ENGL 70990 - Thesis

Thesis

ENGL 80123 - Seminar in Literary Theory

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

Seminar in Spenser.

ENGL 80413 - Seminar in Shakespeare

Seminar in Shakespeare

ENGL 80433 - Seminar in British Literature of the Eighteenth Century

Seminar in British literature of the eighteenth century.

ENGL 80443 - Seminar in British Literature of the Romantic Period

Seminar in British literature of the romantic period. Variable emphasis each semester.

ENGL 80453 - Seminar in British Literature of the Victorian Period

Variable emphasis each semester. (Past offerings have included The Brownings' Circle.)

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 80463 - Seminar in Modern British Literature

Seminar in modern British literature.

ENGL 80473 - Renaissance Bodies

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

Topics vary; recent offerings have included "Emerson and His Circle" and "The American Renaissance."

ENGL 80513 - Seminar in American Literature since 1900

Seminar in American literature since 1900.

ENGL 80523 - Race and Gender in American Literature

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

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.

ENGL 80583 - Seminar in Contemporary African-American Literature

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.

ENGL 80603 - Seminar in Kenneth Burke

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

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.

ENGL 80703 - Seminar in Rhetoric

A study of selected major figures and issues in the history of rhetoric.

ENGL 80713 - Seminar in Literacy

Exploration of major issues in literacy history, theory, and research. Topics may vary.

ENGL 80723 - Seminar in Composition

A study of issues in composition research, practice, or theory. Topics may vary.

ENGL 80733 - Poststructural Rhetoric

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

A study of genre theory, with emphasis on the history, methods, and major theories of genre studies in rhetorical theory and literary studies.

ENGL 90980 - Dissertation

Dissertation. (This course is only offered as P/NC.)

ENGL 90990 - Dissertation

Dissertation. (This course is only offered as P/NC.)

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-semester-hour major in history, and sophomore-level credit in a foreign language. Applicants lacking these qualifications may be admitted conditionally, but must take such preparatory work as may be prescribed by the chair of the Department of History. Applicants should take the GRE and submit these scores with their admission materials.

The Department of History Graduate Committee considers applications during the fall and spring semesters. Yet for maximum consideration applicants should submit their materials before February 1. Late applications will be accepted but will not have priority of consideration.

History MA Program

To be admitted to study in the MA program, an applicant must complete 24 hours of undergraduate history courses and achieved a score of at least 500 on the verbal portion of the GRE and 4.5 (or the equivalent on the new scale) on the analytical writing portion of the exam.

A minimum of 30 approved semester hours, including at least 15 in history courses and six in thesis is required. A maximum of nine hours of supporting work in related disciplines is optional. History 50960 Historiography and Bibliography is required of all graduate students.

For specific requirements, consult the *Department of History Guide to Graduate Study*.

History PhD Program

To be admitted to study in the PhD program, an applicant must complete 24 hours of undergraduate history courses and have achieved a score of at least

500 on the verbal portion of the GRE and 5.0 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 PhD 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 PhD

Degree requirements are:

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 nine hours in each. With the 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 either 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 grade of "B" in six hours of sophomore-level college language courses. The language requirements must be met no later than the end of the first semester of the second year.
3. A comprehensive qualifying examination consisting of written and oral exams covering two minor fields and the major area of specialization. The student must pass the written minor field and major field exams before taking the oral exam. On both the written and the oral, he/she will be allowed only two opportunities. Upon the completion of the comprehensive qualifying examination, 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.

History Courses

HIST 50063 - Historical Methods

Techniques of historical research and documentation. Evaluation of documents, applying internal and external criticism to determine validity of use. Oral history research evaluation and interviewing techniques.

HIST 50070 - History, Administration, and Management of Archives, I and II

The historical development of archival institutions, procedures and techniques with special emphasis on American federal, state and local records, both public and private. Students will be introduced to professional field work in the archives of the participating institutions.

HIST 50080 - Archival Internship

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 50933 - Philosophy of History

Prerequisites: six hours of history, three hours of philosophy. A philosophical analysis of historiography: the logical, conceptual and epistemological characterization of what historians do; also includes a study of traditional attempts to discover some meaning which transcends the intelligibility sought and achieved by ordinary historical work.

HIST 50963 - Historiography and Bibliography

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

Special Studies in History. (NWH or WH)

HIST 50980 - Historical Writing and Editing

The methods and problems of research and historical writing. Also covers the principles and methods of editing historical journals and documents including archival manuscripts. 3 hours NWH or WH.

HIST 70103 - Seminar in Ancient History

A readings seminar in which students read widely in the important works on various issues and interpretations of Ancient history

HIST 70203 - Seminar in Women's History

A readings seminar in which students read widely in the important works on various issues and interpretations of Women's history.

HIST 70303 - Seminar in Early Modern European History

A readings seminar in which students read widely in the important works on various issues and interpretations of Early Modern European history.

HIST 70403 - Seminar in Modern European History

A readings seminar in which students read widely in the important works on various issues and interpretations of Modern European history

HIST 70443 - Seminar in Russian History

A readings seminar in which students read widely in the important works on various issues and interpretations of Russian history

HIST 70453 - Seminar in Asian History

A readings seminar in which students read widely in the important works on various issues and interpretations of Asian history.

HIST 70503 - Seminar in British History

A readings seminar in which students read widely in the important works on various issues and interpretations of British history.

HIST 70603 - Seminar in United States History

A readings seminar in which students read widely in the important works on various issues and interpretations of United States history.

HIST 70703 - Seminar in Military History

A readings seminar in which students read widely in the important works on various issues and interpretations of Military history.

HIST 70771 - Non-Thesis

Selected when enrolling only for non-thesis examination or preparation for the examination.

HIST 70803 - Seminar in Vietnam War History

A readings seminar in which students read widely in the important works on various issues and interpretations of Vietnam War history.

HIST 70813 - Seminar in Hispanic American History

A readings seminar in which students read widely in the important works on various issues and interpretations of Hispanic American history.

HIST 70903 - Seminar in Latin American History

A readings seminar in which students read widely in the important works on various issues and interpretations of Latin American history.

HIST 70980 - Thesis

Thesis

HIST 70990 - Thesis

Thesis

HIST 80083 - History as a Profession: Teaching, Research, and Service

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

All teaching assistants who are assigned to teach undergraduate courses must enroll for this course.

HIST 80103 - Research Seminar in Ancient History

As a seminar, this course emphasizes reading, research, writing, and discussion. An occasional lecture may be scheduled. Topics of study will vary from semester to semester. Prerequisites: admission to the graduate program and permission of the instructor.

HIST 80203 - Research Seminar in Women's History

This seminar will investigate women's experiences in and contributions to the history of the western world, Europe and the United States. Topics may include, but are not limited to: family and reproduction, work, politics, gender issues, slavery, and the frontier.

HIST 80443 - Research Seminar in Russian History

Research Seminar in Russian history.

HIST 80453 - Research Seminar in Asian History

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 80503 - Research Seminar in British History

Research Seminar in British history.

HIST 80603 - Research Seminar in U.S. History

Research Seminar in U.S. history.

HIST 80703 - Research Seminar in Military History

Research Seminar in Military history.

HIST 80803 - Research Seminar in Vietnam War History

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

Research Seminar in Hispanic American history.

HIST 90980 - Dissertation

Prerequisite: Written permission of chairman of the department.

HIST 90990 - Dissertation

Prerequisite: Admission to candidacy. Continuation of 90980. A minimum of 12 hours of dissertation credit is required.

Philosophy Courses**PHIL 50970 - Directed Studies in Philosophy**

Prerequisite: Permission of instructor.

Religion Courses**RELI 50130 - Seminar in Biblical Studies**

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 - 6 semester hours

Sociology

Anthropology Program

Administered by the Department of Sociology.

Anthropology Courses

ANTH 50623 - Advanced General Anthropology

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

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

Sociology Courses

SOCI 50610 - Directed Study in Sociology

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.

Harris College of Nursing & 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.

Nursing

Harris College

Harris College, Nursing offers an innovative online Master of Science in Nursing (MSN).

There are three majors within the degree programs: Clinical Nurse Leader (CNL), Clinical Nurse Specialist (CNS) and Nursing Education. There are two role foci for the CNS major: adult/gerontology nursing or pediatric nursing. There are two role foci for the nursing education major: adult/gerontology or pediatric nursing.

Additionally, a post-master's certificate option is available in all majors for nurses with a previous master's degree in another nursing specialty. The amount of coursework required for the post-master's CNS Certificate is based on transcript review and the Texas Board of Nursing (BON) requirements for CNS-Advanced Practice Nurse recognition. The 12-hour Post-Master's Nursing Education Certificate comprises three online didactic courses and one precepted teaching practicum course. The 15-hour post-master's CNL certificate comprises three online didactic courses, one precepted practicum and one precepted residency course. This major is offered in collaboration with clinical practice partners. Contact the director of the graduate programs in nursing for an updated list of clinical practice partners.

All didactic coursework is offered online. Clinical practicum and teaching practicum courses are supervised by TCU 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 to the graduate program is open to qualified registered nurses.

Admission is competitive and 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 and healthcare delivery or nursing education. The applicant's GPA, performance on standardized exams, writing and speaking skills, and prior professional experience are used to assess applicants for admission. A profile of each applicant is developed based on an admission portfolio consisting of

- Baccalaureate degree in nursing.
- Evidence of a current unencumbered licensure in the state of Texas or the state where clinical coursework will occur.
- Evidence of current CPR certification that meets clinical practicum facilities' requirements.
- Official transcripts from all colleges or universities attended with a preferred cumulative GPA of 3.0 (on a four-point scale) from the applicant's basic nursing program. (Two official transcripts must be sent from each institution).
- Submission of the GRE score.
- A preferred work history that includes two years of full-time experience or its equivalent as a registered nurse in an area of adult, gerontology or pediatric care, if entering the CNS major.
- A preferred work history that includes two years of full-time experience or its equivalent as a registered nurse, if entering the nursing education major or the CNL major.
- 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).

- An essay, 250-350 words, demonstrating written communication skills. It should describe experience and career goals and discuss how the program at TCU can help you achieve those goals.
- Three letters of reference, two from healthcare professionals and the third preferably from an instructor in the basic nursing program.

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.
 1. Current health insurance coverage.
 2. CPR healthcare provider certification: Annual certification of American Heart Association BLS for Healthcare Provider or American Red Cross CPR for the Professional Rescuer. (Even though card may show a two-year expiration, nursing students are required to renew annually.)
 3. Negative TB skin test (two-step method) or negative chest x-ray.
 4. 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.

Adult/Gerontology CNS Program Requirements

The 40-hour curriculum comprises 31.5 semester hours of didactic coursework and eight-and-a-half semester hours of clinical practicum. An additional six-hour elective in diagnostic reasoning is offered following program completion for students who desire prescriptive authority.

Required Coursework

NURS 50003	Advanced Pathophysiology
NURS 50013	Advanced Health Assessment
NURS 50022	Advanced Practice Roles
NURS 50053	Advanced Pharmacotherapeutics
NURS 60013	Health Care Policy, Law, and Ethics
NURS 60030	Professional Project
NURS 60043	Advanced Nursing Research and Theory
NURS 60414	Adult and Gerontologic Patient Concepts
NURS 60443	Financial Concepts in Health Care
NURS 60482	Advanced Practice Nursing Practicum
NURS 60513	CNS Concepts II
NURS 60583	CNS Practicum II
NURS 60613	CNS Concepts III
NURS 60683	CNS Practicum III
Elective	
NURS 60716	Diagnostic Reasoning

Pediatric CNS Program Requirements

The 40-hour curriculum comprises 31.5 semester hours of didactic coursework and 8.5 semester hours of clinical practicum.

Required Coursework

NURS 50003	Advanced Pathophysiology
NURS 50013	Advanced Health Assessment
NURS 50022	Advanced Practice Roles

NURS 50053	Advanced Pharmacotherapeutics
NURS 60030	Professional Project
NURS 60043	Advanced Nursing Research and Theory
NURS 60443	Financial Concepts in Health Care
NURS 60744	Advanced Concepts in Parent-Child Nursing
NURS 60482	Advanced Practice Nursing Practicum
NURS 60513	CNS Concepts II
NURS 60583	CNS Practicum II
NURS 60613	CNS Concepts III
NURS 60683	CNS Practicum III

Nursing Education Program Requirements

The 38-hour curriculum comprises 33 semester hours of didactic coursework, two semester hours of clinical practicum and three semester hours of teaching practicum.

NURS 50003	Advanced Pathophysiology
NURS 50013	Advanced Health Assessment
NURS 50053	Advanced Pharmacotherapeutics
NURS 60013	Health Care Policy, Law, and Ethics
NURS 60030	Professional Project
NURS 60043	Advanced Nursing Research and Theory
NURS 60414	Adult and Gerontologic Patient Concepts OR
NURS 60744	Advanced Concepts in Parent-Child Nursing
NURS 60443	Financial Concepts in Health Care
NURS 60482	Advanced Practice Nursing Practicum
NURS 60713	Learning and Instruction
NURS 60723	Curriculum and Program Development
NURS 60733	Evaluation in Nursing Education
NURS 60783	Teaching Practicum

Clinical Nurse Leader (CNL) Program Requirements

The 33-hour curriculum comprises 26.5 semester hours of didactic coursework and 6.5 hours of clinical practicum/residency.

NURS 50003	Advanced Pathophysiology
NURS 50013	Advanced Health Assessment
NURS 50053	Advanced Pharmacotherapeutics
NURS 60013	Health Care Policy, Law, and Ethics
NURS 60043	Advanced Nursing Research and Theory
NURS 60443	Financial Concepts in Health Care
NCNL 61113	Leadership and Clinical Microsystems
NCNL 61123	Care Environment Management
NCNL 61133	Clinical Outcomes Management
NCNL 61182	Clinical Nurse Leader Practicum
NCNL 61284	Clinical Nurse Leader Residency

Adult/Gerontology CNS Post-Master's Certificate Program Requirements *

NURS 60414	Adult and Gerontologic Patient Concepts
NURS 60482	Advanced Practice Nursing Practicum
NURS 60513	CNS Concepts II
NURS 60583	CNS Practicum II
NURS 60613	CNS Concepts III
NURS 60683	CNS Practicum III

* Additional coursework may be required to meet the BON requirements for advanced practice nurses.

Nursing Education Post-Master's Certificate Program Requirements

NURS 60713	Learning and Instruction
NURS 60723	Curriculum and Program Development
NURS 60733	Evaluation in Nursing Education
NURS 60783	Teaching Practicum

CNL Post-Master's Certificate Program Requirements

NCNL 61113	Leadership and Clinical Microsystems
NCNL 61123	Care Environment Management
NCNL 61133	Clinical Outcomes Management
NCNL 61182	Clinical Nurse Leader Practicum
NCNL 61284	Clinical Nurse Leader Residency

If not completed in a previous master's degree, the following courses are also required:

NURS 50003	Advanced Pathophysiology
NURS 50013	Advanced Health Assessment
NURS 50053	Advanced Pharmacotherapeutics

Clinical Nurse Leader Courses

NCNL 61113 - Leadership in Clinical Microsystems

The course focuses on nursing leadership strategies in the context of the clinical nurse leader role. Lateral integration of care through effective use of change and communication strategies is examined in relation to the complex healthcare environment, particularly in clinical microsystems. The impact of macrosystem variables on health delivery and outcomes is discussed. Effective use of self as leader is stressed.

NCNL 61123 - Care Environment Management

Prerequisites: NCNL 61113. This course examines evidence-based decision making strategies that can be used in the healthcare environment, particularly the clinical microsystem. Cost-benefit analysis, risk analysis, outcomes assessment, and healthcare economics will be analyzed. Ethical and legal issues surrounding healthcare decisions will be discussed. Relevant theories related to clinical decision making will be explored.

NCNL 61133 - Clinical Outcomes Management

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 will be analyzed. Relevant theories will be explored to improve care outcomes.

NCNL 61182 - Clinical Nurse Leader Practicum

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

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.)

Nursing Courses

NURS 50003 - Advanced Pathophysiology

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

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

Prerequisites: Admission to Graduate Program. Provides a foundation for transition to the role of the nurse in advanced practice. Includes roles within advanced practice, theories of change, concepts of negotiation, collaboration, interdependence, advocacy and autonomy, and titling, certification and licensure issues. Clinical nurse specialist role is extensively examined.

NURS 50053 - Advanced Pharmacotherapeutics

Prerequisites: Admission to Graduate Program or permission of instructor. Emphasizes pharmacological principles fundamental to the selection of pharmacologic agents in altered health states in adults 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.

NURS 60000 - Independent Study: Advanced Nursing Practice

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

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

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

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

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

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

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 60414 - Adult and Gerontologic Patient Concepts

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.

NURS 60443 - Financial Concepts in Health Care

Prerequisites: NURS 60013. This course provides an overview of the financial concepts necessary to functioning as a case manager. Content includes financial accounting, planning and control, resource management, and management information systems.

NURS 60444 - Clinical Interpretation of Assessment and Diagnostic Data

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 60482 - Advanced Practice Nursing Practicum

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.)

NURS 60513 - CNS Concepts II

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.

NURS 60583 - CNS Practicum II

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.)

NURS 60613 - CNS Concepts III

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.

NURS 60683 - CNS Practicum III

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.)

NURS 60713 - Learning and Instruction in Nursing Education

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.

NURS 60714 - Diagnostic Reasoning in Adult and Geriatric Patients

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

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 60723 - Curriculum and Program Development in Nursing

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.

NURS 60724 - Diagnostic Reasoning in Pediatric Patients

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 60733 - Evaluation in Nursing Education

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.

NURS 60744 - Advanced Concepts in Parent-Child Nursing

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.

NURS 60782 - Diagnostic Reasoning Combined Practicum

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 60783 - Teaching Practicum

Prerequisites: NURS 60713. This practicum experience enables students to implement the knowledge and skills learned in NURS 60713. Students will teach in both a classroom and clinical setting in a nursing program during this experience.

NURS 70030 - Special Topics in Nursing

Special topics and innovations in the broad field of nursing will be discussed.

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 member 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.

Nurse Anesthesia Admission Criteria

An application packet can be obtained at www.crna.tcu.edu. 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.
- Valid licensure as a registered nurse.
- Official Graduate Record Examination (GRE) scores (verbal and quantitative > 302 on the new scale or > 1100, writing 4.0 or better). This requirement is waived for candidates with an earned master's degree.
- Weighted GPA of 3.0 or greater.
- A minimum of one year of experience in adult critical care or the equivalent. Two years is highly recommended.
- Certification in BLS, ACLS, PALS, CCRN.
- 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.
- 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 Deadlines 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 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 January 1, 1957, must have two doses since 12 months of age. The two doses must be at least 30 days apart.
- Mumps: Those born since January 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.

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*.

1. 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.
2. 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.
3. 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.
4. 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

5. Following successful completion of a drug rehabilitation program, students may apply for reinstatement in the program. Readmission is not automatic; cases are individually considered.
6. 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.

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 books, supplies and equipment as required by courses.

The RRNA is provided with operating room attire during clinical instruction except at a few rotation sites. The RRNA must provide a white lab coat.

Technology

Students should have sufficient computer literacy to manipulate multiple types of files. Students need a Pentium Class PC with Windows XP or later version, or a Macintosh with OS X 10.2 or better. Students are required to have Microsoft Office (with PowerPoint, Word and 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. 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 video broadcast. At least two students per site must elect this option in order 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 (MSNA Track)

Clinical Residency (Minimum 16 months)

Upon completion of the first year, students must immediately enter 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 via 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 Master of Science in Nurse Anesthesia or a Doctor of Nursing Practice-Anesthesia (depending on enrolled track) and becomes eligible to write the National Certifying Examination for Nurse Anesthetists administered by the National Board of Certification and Recertification of Nurse Anesthetists (NBCRNA). Graduates who successfully complete this written exam are eligible to be a certified registered nurse anesthetist (CRNA).

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.

Residency Curriculum (19 hours)

Fall Semester (5 credits)

NRAN 60572	Advanced Pathophysiology and Clinical Management I
NRAN 60583	Clinical Residency I

Spring Semester (5 credits)

NRAN 60672	Advanced Pathophysiology and Clinical Management II
NRAN 60683	Clinical Residency II

First and Second Summer Sessions (4 credits)

NRAN 60782 Clinical Residency III
NRAN 81353 Healthcare Policy and Politics

Fall Semester (5 credits)

NRAN 60972 Clinical Concepts
NRAN 60983 Clinical Residency IV

These academic courses are accepted as continuing education by the Texas Board of Nursing (BON) for Type I credit. (If audited, contact the School of Nurse Anesthesia director for instructions.)

Course Numbering System

Courses numbered 60000 or above are graduate level. The first two numbers, 60, are standard in all courses. The third number indicates which semester in the sequenced program the course is placed (e.g., a 3 indicates the course is in the third semester). The summer sessions are numbered separately; there are nine semesters in the program. In didactic courses the fourth number has no significance. In clinical residency courses the fourth number indicates whether the course is a residency (an 8) or a concepts course (a 7). The last number indicates the number of credit hours.

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.

Grading

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 graduate program requires a minimum overall GPA of 3.0 for graduation. Online courses do not count toward calculation of the minimum overall GPA of 3.0 for progression in the program. A course grade of at least "B" is required in:

NRAN 60224 Pharmacology of Anesthetic Agents
NRAN 60235 Advanced Anatomy, Physiology and Pathophysiology II
NRAN 60213 Advanced Anatomy, Physiology and Pathophysiology III
NRAN 60316 Advanced Physical Assessment and Monitoring in Anesthesia Practice
NRAN 60416 Principles of Anesthesia Practice
NRAN 60572 Advanced Pathophysiology and Clinical Management I
NRAN 60672 Advanced Pathophysiology and Clinical Management II
NRAN 60972 Clinical Concepts
NRAN 81353 Healthcare Policy and Politics

A course grade of less than "C" will not be accepted in any other course.

No more than six credit hours of "C" are accepted.

Graduation Criteria

All didactic work is to be completed within 12 months from the date of matriculation for the MSNA and 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 60 semester hours of work for the MSNA and a minimum of 80 semester hours for the DNP-A.

Pre-Clinical Residency Curriculum (First 12 months)

Classes begin each August and are completed the following August. During this period, students earn 40 graduate credit hours. In order to begin the clinical residency, students must complete these classes within 12 months of the beginning of their coursework and maintain a 3.0 GPA or greater. In the event of emergencies, students may be granted a leave of absence (see handbook for details).

Curriculum (40 hours)

Fall Semester (16 credits)

NRAN 60113 Research and Theory in Nurse Anesthesia
NRAN 60123 Physical Science in Nurse Anesthesia
NRAN 60134 Advanced Pharmacology
NRAN 60146 Advanced Anatomy, Physiology and Pathophysiology I

Spring Semester (12 credits)

NRAN 60224 Pharmacology of Anesthetic Agents
NRAN 60235 Advanced Anatomy, Physiology and Pathophysiology II
NRAN 60213 Advanced Anatomy, Physiology and Pathophysiology III

First Summer Session (6 credits)

NRAN 60316 Advanced Physical Assessment and Monitoring in Anesthesia Practice

Second Summer Session (6 credits)

NRAN 60416 Principles of Anesthesia Practice

Nurse Anesthesia Courses

NRAN 60113 - Research in Nurse Anesthesia

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

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.

NRAN 60134 - Advanced Pharmacology

Prerequisites: Permission of Director if not an admitted program student. Prepares the registered nurse (RN) for the anesthesia patient care team and in the administration of anesthesia by teaching the principles of pharmacokinetics, pharmacodynamics, uptake and distribution, and selected systemic pharmacology as applicable to anesthesiology. (Includes experiences with the human patient simulator.)

NRAN 60146 - Advanced Anatomy, Physiology, and Pathophysiology I

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

Study of structure and function of health and disease in the human cardiovascular system.

NRAN 60224 - Pharmacology of Anesthesia Agents

Prepares the RN for a role on the anesthesia patient care team and in the administration of anesthesia by teaching analysis, synthesis, and evaluation skills in selecting and administering appropriate anesthesia drugs for use in patient care situations. (Includes experiences with the human patient simulator.)

NRAN 60235 - Advanced Anatomy, Physiology and Pathophysiology II

Study of structure and function of health and disease in the human respiratory, gastrointestinal tract, and endocrine systems.

NRAN 60316 - Advanced Physical Assessment and Monitoring in Anesthesia Practice

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

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

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

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

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

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

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

Overview of selected topics from Phase I and Phase II, integrating research, basic sciences and anesthetic problems.

NRAN 60983 - Clinical Residency IV

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 81113 - Complexity and Innovation in Healthcare

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.

NRAN 81123 - Biostatistics for the Advanced Health Practitioner

Provides a comprehensive overview of frequently used descriptive and inferential biostatistical methods. The course includes application of the theories of measurement and statistical inference which contribute to better clinical decisions and improved outcomes. Conceptual understanding, rather than computational ability, is the focus of the course. Development of an adequate vocabulary, an examination of fundamental principles, and a survey of widely used procedures or tools to extract information from data will form a basis for fruitful collaboration with a professional biostatistician, when appropriate.

NRAN 81233 - Decision Science and Informatics

This course focuses on the methods and applications of decision analysis in healthcare practice, information technology, and resource allocation.

NRAN 81243 - Translational Research

Prerequisites: NRAN or NDNP 81123. This course is designed to prepare the clinician to demonstrate advanced levels of clinical judgment, systems thinking, and accountability in designing, delivering, and evaluating evidence based care to advance nursing practice with the goal of improving patient outcomes.

NRAN 81353 - Healthcare Policy and Politics

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 81363 - Emerging Sciences for Advanced Practice

This course provides a comprehensive overview of current and developing scientific and technological advances in the area of healthcare. The course will explore the role of the advanced practice nurse in these new and upcoming advances and how they could be incorporated into current and future care of the complex client.

NRAN 88080 - Advanced Project

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.)

Doctor of Nursing Practice - Anesthesia (DNP-A) Track

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:

- Utilize scientific knowledge to evaluate existing and emerging approaches to nurse anesthesia practice and healthcare delivery to promote optimal outcomes.
- Provide leadership in organizations and systems to assure quality care delivery models.
- Design, deliver, direct and disseminate evidence-based practices.
- Use information systems to design, select, use and evaluate programs of care, outcomes of care, and care systems. Advocate for anesthesia care and healthcare practice change through active involvement in policy development and political processes.
- Assume leadership roles for effective trans-disciplinary collaboration to achieve optimal outcomes.
- Apply ethical principles to decision-making in healthcare practices and systems.
- Demonstrate advanced clinical reasoning and judgment in the management of complex clinical situations and systems.
- Demonstrate the ability to administer individualized safe anesthesia based on pathophysiologic principles and recognize changing conditions of the patient and creatively alter the anesthesia management.
- Obtain and document pre-anesthesia interviews (including history and physical assessment) and informed consent (including risks, complications and anesthesia alternatives).
- Develop an appropriate anesthetic care plan based on patient history and proposed surgical procedure.
- Select, assemble and maintain proper equipment, anesthetic agents, and accessories while preparing for an anesthetic – general, regional, MAC.
- Conduct a physiologically sound anesthetic during induction, including positioning of the patient to assure optimal physiologic function and safety, and appropriate management of the patient's airway.

- Administer physiologically sound anesthesia maintenance within the confines of the operative, diagnostic and therapeutic situation and the pathological condition of the patient.
- Manage a physiologically sound anesthetic emergence within the confines of the operative, diagnostic and therapeutic situation and the pathological condition of the patient.
- Evaluate post-anesthetic recovery of the patient in terms of recognizing complications arising from the anesthetic management and recommending a course of action for correcting such complications within medically established guidelines.
- Provide safe transport for the patient and effectively communicate the condition of the patient to the recovery personnel.
- Demonstrate responsibility for own actions and for continued personal and professional growth.
- Participate in activities that improve patient care utilizing evidence-based research.
- Exhibit expected role responsibilities, maintaining integrity and legal/ethical standards.
- Function within appropriate legal requirements as a licensed professional, accepting responsibility and accountability for own practice.
- Perform clinically in ways that reflect specialized knowledge, attitudes, skills, motivations and self-perceptions.

DNP-A Curriculum

Minimum coursework requirements are as follows:

Degree Requirements

Spring I

- NRAN 81113 Complexity and Innovation in Health Care ^
- NRAN 81123 Biostatistics for the Advanced Health Practitioner ^

Summer I

- NRAN 60113 Research and Theory in Nurse Anesthesia** ^
- NRAN 81233 Decision Science and Informatics ^

Fall I

- NRAN 81243 Translational Research ^
- NRAN 60123 Physical Science in Nurse Anesthesia
- NRAN 60134 Advanced Pharmacology**
- NRAN 60146 Advanced Anatomy, Physiology and Pathophysiology I**

Spring II

- NRAN 60235 Advanced Anatomy, Physiology and Pathophysiology II**
- NRAN 60213 Advanced Anatomy, Physiology and Pathophysiology III**
- NRAN 60224 Pharmacology of Anesthetic Agents**
- NRAN 81363 Emerging Sciences for Advanced Practice ^

Summer II (First Session)

- NRAN 60316 Advanced Physical Assessment and Monitoring in Anesthesia Practice**

Summer II (Second Session)

- NRAN 60416 Principles of Anesthesia Practice**

Fall II

- NRAN 60572 Advanced Pathophysiology and Clinical Management I**
- NRAN 88080 Advanced Clinical Project*
- NRAN 60583 Clinical Residency**

Spring III

- NRAN 60672 Advanced Pathophysiology and Clinical Management II**
- NRAN 88080 Advanced Clinical Project*
- NRAN 60683 Clinical Residency II**

Summer III

- NRAN 81353 Healthcare Policy and Politics
- NRAN 60782 Clinical Residency III**
- NRAN 88080 Advanced Clinical Project*

Fall III

- NRAN 60972 Clinical Concepts**
- NRAN 60983 Clinical Residency IV**
- NRAN 88080 Advanced Clinical Project

*Each Advanced Clinical Project course is for three (3) credit hours. Students must register for a minimum of six hours over two semesters. Students may enroll in additional hours, beyond the initial six required hours as needed to complete the project.

^ Indicates course is online.

Nurse Anesthesia Courses

NRAN 60113 - Research in Nurse Anesthesia

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

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.

NRAN 60134 - Advanced Pharmacology

Prerequisites: Permission of Director if not an admitted program student. Prepares the registered nurse (RN) for the anesthesia patient care team and in the administration of anesthesia by teaching the principles of pharmacokinetics, pharmacodynamics, uptake and distribution, and selected systemic pharmacology as applicable to anesthesiology. (Includes experiences with the human patient simulator.)

NRAN 60146 - Advanced Anatomy, Physiology, and Pathophysiology I

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

Study of structure and function of health and disease in the human cardiovascular system.

NRAN 60224 - Pharmacology of Anesthesia Agents

Prepares the RN for a role on the anesthesia patient care team and in the administration of anesthesia by teaching analysis, synthesis, and evaluation skills in selecting and administering appropriate anesthesia drugs for use in patient care situations. (Includes experiences with the human patient simulator.)

NRAN 60235 - Advanced Anatomy, Physiology and Pathophysiology II

Study of structure and function of health and disease in the human respiratory, gastrointestinal tract, and endocrine systems.

NRAN 60316 - Advanced Physical Assessment and Monitoring in Anesthesia Practice

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

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

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

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

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

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

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

Overview of selected topics from Phase I and Phase II, integrating research, basic sciences and anesthetic problems.

NRAN 60983 - Clinical Residency IV

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 81113 - Complexity and Innovation in Healthcare

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.

NRAN 81123 - Biostatistics for the Advanced Health Practitioner

Provides a comprehensive overview of frequently used descriptive and inferential biostatistical methods. The course includes application of the theories of measurement and statistical inference which contribute to better clinical decisions and improved outcomes. Conceptual understanding, rather than computational ability, is the focus of the course. Development of an adequate vocabulary, an examination of fundamental principles, and a survey of widely used procedures or tools to extract information from data will form a basis for fruitful collaboration with a professional biostatistician, when appropriate.

NRAN 81233 - Decision Science and Informatics

This course focuses on the methods and applications of decision analysis in healthcare practice, information technology, and resource allocation.

NRAN 81243 - Translational Research

Prerequisites: NRAN or NDNP 81123. This course is designed to prepare the clinician to demonstrate advanced levels of clinical judgment, systems thinking, and accountability in designing, delivering, and evaluating evidence based care to advance nursing practice with the goal of improving patient outcomes.

NRAN 81353 - Healthcare Policy and Politics

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 81363 - Emerging Sciences for Advanced Practice

This course provides a comprehensive overview of current and developing scientific and technological advances in the area of healthcare. The course will explore the role of the advanced practice nurse in these new and upcoming advances and how they could be incorporated into current and future care of the complex client.

NRAN 88080 - Advanced Project

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.)

Doctor of Nursing Practice

DNP

The Doctor of Nursing Practice (DNP) is an innovative, solution-focused program designed to prepare advanced practice nurses to lead efforts in solving complex healthcare issues and developing new healthcare opportunities. Building on TCU's mission - "Learning to Change the World," - DNP students are charged with "Making a Difference in Healthcare."

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.

DNP Program

The TCU DNP is a completely online practice doctorate designed to prepare experts in specialized advanced nursing practice. The focus is heavily on practice that is innovative and evidence-based, reflecting the application of credible research findings and theories to improving healthcare outcomes.

A master's degree and current recognition as an advanced practice nurse by appropriate certification and licensing boards is required for admission to the advanced practice track. All students are required to maintain their advance practice recognition through practice requirements defined by appropriate certification and licensing boards throughout the program.

A master's degree, current registered nurse license and employment in an administrative role are required for the nursing administration track. Administrative certification is preferred.

The DNP degree may be completed in two years (24 months) at the minimum. The first year is typically composed of didactic courses. The second year focuses on the fulfillment of practice and final project requirements. Additional courses are available to help prepare students for teaching in academia.

Admission Requirements

Students will be selected based on the evaluation of a portfolio of evidence to include the following:

- Completed application.
- Master's degree with focus in specialty nursing and minimum GPA of at least 3.0/4.0.
- Receipt of two official transcripts 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:
 - Current licensure as a registered nurse.
 - 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 (suggestions are from a supervisor, previous faculty or other professional reference).
- Satisfactory completion of an interview, either by phone or in person (if applicable).
- Remittance of \$100 non-refundable application fee.
- An essay addressing 1) specific personal, academic and/or professional strengths or accomplishments and how these qualify you as a strong candidate for the TCU 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.
- Remittance of a \$500 non-refundable deposit. This deposit will be **credited to the student's account upon enrollment.**

* All submitted materials become the property of TCU.

Satisfactory completion of drug screen and background check is required prior to beginning practicum hours.

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.

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:

Year One

NDNP 81113	Complexity and Innovation in HealthCare
NDNP 81123	Biostatistics for the Advanced Health Practitioner
NDNP 81233	Decision Science and Informatics
NDNP 81243	Translational Research
NDNP 81353	Healthcare Policy and Politics
NDNP 81363	Emerging Sciences for Advanced Practice
NDNP 82181	Advanced Practicum I (x4 semesters)

Year Two

Fall

NDNP 82282	Advanced Practicum II
NDNP 88082	Advanced Project

Spring

NDNP 82282	Advanced Practicum II
NDNP 88082	Advanced Project

* A minimum of 4 hours of NDNP 80082 is required to complete the degree program. Students may enroll in additional hours, as needed to complete the requirements for the project.

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 DNP director, who will then make a recommendation to the dean of Harris College of Nursing and Health Sciences. 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 Rating System

The definition of grades and grade points is as follows:

Grades	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	Failing
F	0.00	Incomplete
I		Pass
P		No Credit
NC		Withdrew
W		Dropped by permission of the dean
Q		Audit
AU		

DNP 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.

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 dean. This policy does not apply to graduate thesis, thesis-recital, advanced project and dissertation hours.

Until the "I" grade is removed, progression in the program will be at the discretion of the DNP director.

The practicum and project must be completed within two academic years.

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).

Full-Time Students

DNP 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 DNP director and with permission of the dean of the Harris College of Nursing and Health Sciences.

Part-Time Students

DNP students enrolled for less than a full load will be placed on academic warning when their accumulated part-time course load totals at least six hours and falls below a 3.0 cumulative GPA. 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 is granted only by the special recommendation of the DNP director and with permission of the dean of the Harris College of Nursing and Health Sciences.

Nursing Practice Courses

NDNP 81113 - Complexity and Innovation in Healthcare

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

Provides a comprehensive overview of frequently used descriptive and inferential biostatistical methods. The course includes application of the theories of measurement and statistical inference which contribute to better clinical decisions and improved outcomes. Conceptual understanding, rather than computational ability, is the focus of the course. Development of an adequate vocabulary, an examination of fundamental principles, and a survey of widely used procedures or tools to extract information from data will form a basis for fruitful collaboration with a professional biostatistician, when appropriate.

NDNP 81233 - Decision Science and Informatics

This course focuses on the methods and applications of decision analysis in healthcare practice, information technology, and resource allocation.

NDNP 81243 - Translational Research

Prerequisites: NRAN or NDNP 81123. This course is designed to prepare the clinician to demonstrate advanced levels of clinical judgment, systems thinking, and accountability in designing, delivering, and evaluating evidence based care to advance nursing practice with the goal of improving patient outcomes.

NDNP 81353 - Healthcare Policy and Politics

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

This course provides a comprehensive overview of current and developing scientific and technological advances in the area of healthcare. The course will explore the role of the advanced practice nurse in these new and upcoming advances and how they could be incorporated into current and future care of the complex client.

NDNP 82181 - Advanced Practicum I

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

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 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

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 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. (This course is only offered as P/NC.)

NDNP 88083 - Advanced Project

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.)

Communication Sciences and Disorders

The Department 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

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 Department 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 45 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 45 hours for students electing the monolingual track of study, and 48 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 45 hours for students electing the monolingual track of study, and 48 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.

Communication Sciences and Disorders Courses

COSD 50300 - Clinical Practicum in Speech-Language Pathology II

Prerequisite: COSD 40300, and a cumulative TCU GPA of 2.5 or higher. Student must be recommended for enrollment by COSD faculty. A minimum of two semesters required for undergraduate students. A maximum of three semesters is allowed. Graduate students with less than 30 clinical hours will be considered for enrollment in COSD 50300. Supervised clinical experience in management of the most common speech and language disorders.

COSD 50323 - Counseling Special Populations and Their Families

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

Prerequisite: Senior standing and COSD 30343 and 30363, 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

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

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

Prerequisite: Senior (with permission of instructor) or graduate standing. A study of 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 - Speech Sound Disorders

Prerequisite: Senior (with permission of instructor) or 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 50970 - Directed Studies in Communication Disorders

Prerequisites: Senior or graduate standing; permission of instructor. Directed study focusing on specialized topic in communication sciences and disorders. (1-6 semester hours.)

COSD 60300 - Practicum in Speech-Language Pathology

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

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

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

Intensive study and analysis of language in normal children at various developmental levels.

COSD 60390 - Seminar on Communication Disorders

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 - Communication Neuroscience 1

This course will assist students to understand the structure and function of central and peripheral nervous systems in relation to normal and disordered communication and swallowing.

COSD 60424 - Communication Neuroscience 2

Prerequisites: COSD 60413, or consent of instructor. 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 - Communication Neuroscience 3

Prerequisites: COSD 60424 or consent of instructor. This course will assist students in learning the theoretical and clinical bases for the treatment of neurologically based communication and swallowing 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.

COSD 60443 - Multicultural Issues in Communication Disorders

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

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

Prerequisites: Permission of instructor. Advanced study of specialized topic in communication sciences and disorders.

COSD 70313 - Assessment and Treatment of Stuttering

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

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

Thesis

COSD 70990 - Thesis

Thesis

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 subdisciplines 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 Academic Areas of Emphasis

Student may choose an emphasis in exercise physiology, motor control, nutrition, physical activity and chronic disease, and sport psychology.

Kinesiology Thesis Option

Professional Development (6 hours)

KINE 60103 Research Methods in Kinesiology
PSYC 50423 Graduate Statistics

Academic Core (9 hours)

KINE 60213 Advanced Biomechanics
KINE 60423 Advanced Motor Behavior
KINE 60613 Physiology of Exercise

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

Academic Core (9 hours)

KINE 60213 Advanced Biomechanics
KINE 60423 Advanced Motor Behavior
KINE 60613 Physiology of Exercise

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)

Kinesiology Courses

KINE 50970 - Special Topics in Kinesiology

Prerequisite: Approval of adviser and course instructor.

KINE 60103 - Research Methods in Kinesiology

Emphasis is on the design and analysis of research projects and the writing of research papers.

KINE 60203 - Advanced Motor Development

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Prerequisite: Approval of advisor and course instructor.

KINE 70903 - Treatise

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

Prerequisite: Approval of adviser and course instructor.

KINE 70980 - Thesis

Prerequisite: Admission to candidacy.

KINE 70990 - Thesis

Thesis

Master of Social Work

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 year) and advanced practice content (second year).

The MSW requires 60 credit hours (48 hours coursework, 12 hours internships). Full-time 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 full-time study (30 hours). Students with baccalaureate degrees in other disciplines will require two years of full-time study (60 hours). The MSW at TCU is also open to part-time students, who can complete the degree in four years in the traditional program and two years in the Advanced Standing program.

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.

Admission Requirements

In addition to meeting TCU's graduate admission requirements, applicants must meet the admission requirements of either the Traditional (full-time [2-year] or part-time [4-year]) or Advanced Standing (full-time [1-year] or part-time [2-year]) 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 Full-Time MSW Program (60 credits, 2-year) or Traditional Part-Time MSW Program (60 credits, 4-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: human biology, statistics or research methods, 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?
1. **Resume.** Applicants will submit a current resume or vitae with their application.

- Interview. Applicants may be asked to interview with the Admissions Committee before a final decision is reached.

Advanced Standing Full-Time MSW Program (30 credits, 1-year) or Advanced Standing Part-Time MSW Program (30 credits, 2-year)
 Required qualifications for admission:

- 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 or BA)** with a major in social work from an accredited CSWE program at the time of enrollment.
- 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.
- Course Prerequisites. Applicants must have one college-level course in each of the following: human biology, statistics or research methods, sociology and psychology before registering for the first semester in the MSW Program.
- 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.
- 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?
- Resume. Applicants will submit a current resume or vitae with their application.
- 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:

- 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.
- Upon admission, the student may request a review of graduate course(s) taken to determine whether the course(s) may be transferred for credit.
- A minimum grade of "B" must have been earned in each course proposed for transfer credit.
- 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.

MSW Degree Requirements

Traditional Full-time MSW Program Curriculum (2-year)

MSW Foundation – Year 1

<i>Fall</i>	
SOWO 50803	Professional Foundation
SOWO 50813	Research 1
SOWO 50843	HBSE 1
SOWO 50873	Micro Practice
SOWO 50883	Field 1

<i>Spring</i>	
SOWO 50823	Diversity and Social Justice
SOWO 50833	Macro Practice
SOWO 50853	HBSE II
SOWO 50863	Social Welfare Policies and Services
SOWO 50893	Field 2

MSW Concentration – Year 2

<i>Fall</i>	
SOWO	Elective
SOWO 60813	Research 2
SOWO 60863	Policy Analysis
SOWO 60873	Advanced Micro Practice
SOWO 60883	Field 3
<i>Spring</i>	
SOWO	Elective
SOWO	Elective
SOWO 60803	Administration and Management
SOWO 60833	Advanced Macro Practice
SOWO 60893	Field 4

Traditional Part-time MSW Program Curriculum (4-year)

MSW Foundation - Year 1

<i>Fall</i>	
SOWO 50803	Professional Foundation
SOWO 50843	Micro Practice
<i>Spring</i>	
SOWO 50833	Macro Practice
SOWO 50863	Social Welfare Policies and Services

<i>Summer</i>	
SOWO 50883	Field 1

MSW Foundation - Year 2

<i>Fall</i>	
SOWO 50813	Research 1
SOWO 50843	HBSE 1

<i>Spring</i>	
SOWO 50823	Diversity and Social Justice
SOWO 50853	HBSE 2

<i>Summer</i>	
SOWO 50893	Field 2

MSW Concentration - Year 3

<i>Fall</i>	
SOWO 60863	Policy Analysis
SOWO 60873	Advanced Micro Practice

<i>Spring</i>	
SOWO 60803	Administration and Management
SOWO 60833	Advanced Micro Practice

<i>Summer</i>	
SOWO 60883	Field 3

MSW Concentration - Year 4

<i>Fall</i>	
SOWO	Elective
SOWO 60813	Research 2

<i>Spring</i>	
SOWO	Elective
SOWO	Elective

<i>Summer</i>	
SOWO 60893	Field 4

Advanced Standing Full-time MSW Program Curriculum (1-year):

<i>Fall</i>	
SOWO	Elective
SOWO 60813	Research 2
SOWO 60863	Policy Analysis
SOWO 60873	Advanced Micro Practice
SOWO 60883	Field 3

<i>Spring</i>	
SOWO	Elective
SOWO	Elective
SOWO 60803	Administration and Management
SOWO 60833	Advanced Macro Practice
SOWO 60893	Field 4

Advanced Standing Part-time MSW Program Curriculum (2-year):

MSW Foundation - Year 1*Fall*

SOWO 60863 Policy Analysis
SOWO 60833 Advanced Micro Practice

Spring

SOWO 60803 Administration and Management
SOWO 60833 Advanced Macro Practice

Summer

SOWO 60883 Field 3

MSW Foundation - Year 2*Fall*

SOWO Elective
SOWO 60813 Research 2

Spring

SOWO Elective
SOWO Elective

Summer

SOWO 60893 Field 4

The MSW curriculum includes foundation content and concentration content. 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 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 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, a course in administration and management, policy analysis, and research. In addition to these required courses, the concentration curriculum provides for students to take three 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.

Social Work Courses**SOWO 61803 - Professional Foundation**

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

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

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

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

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

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

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

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

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

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 63503 - Treatment of Addictions

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

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

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

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 - Psychopathology

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 63553 - Medical Social Work

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

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 - Child Welfare

Prerequisites: 61843, or equivalent credit. This course examines the dynamics of child abuse and neglect, the current state of child welfare services, and issues in practice and intervention with children and their families.

SOWO 63583 - Program Development, Grant Writing and Fund Raising

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

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 65803 - Administration and Management

Prerequisite: SOW 65863. 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

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 - Advanced Macro Practice

Prerequisites: SOWO 65873. 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 65863 - Policy Analysis

Prerequisite: SOWO 61893. Student learns techniques for analyzing social welfare policy in order to impact services that affect clients and society at large including strengths and weaknesses of current government interventions. Concepts and theories of social welfare policy are examined. Emphasis is on analyzing values and beliefs underlying policy, and their impact on the lives of clients. Policies and programs are examined within the context of the social problems they address.

SOWO 65873 - Advanced Micro Practice

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

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

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.

College of Science & Engineering

The College of Science & Engineering includes eight departments and one school:

Departments

- Biology
- Chemistry
- Computer Science
- Engineering
- Mathematics
- Nutritional Sciences
- Physics and Astronomy
- Psychology

School of Geology, Energy & The Environment

- Environmental Science
- Geology
- Resource Management

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, 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 PhD is available in chemistry, mathematics, physics, physics with astrophysics, and psychology.

Program descriptions and information concerning admission and degree requirements for each program are presented in their departmental and program listings. Written requests for information, application forms and completed applications for admission to graduate programs of the college may be submitted to:

College of Science & Engineering
 Attention: Graduate Studies
 TCU Box 298960
 Fort Worth, TX 76129
 USA

Administrative offices for the College of Science & Engineering are located on the first floor of the Tucker Technology Building (Suite 102). Tucker also houses departmental offices of computer science, engineering and mathematics. Chemistry, environmental science, geology, and physics and 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 Ann Richardson Bass Building.

Biology

Students may earn a Master of Arts or Master of Science in Biology. Students who have majored in other disciplines may be admitted if undergraduate deficiencies can be removed within a reasonable length of time.

Prerequisites for the MA/MS degrees: A bachelor's degree in biology or equivalent; general chemistry; mathematics through calculus or statistics.

Biology MA Requirements

The Master of Arts in Biology comprises 36 hours of graduate coursework, including BIOL 60011 Research in the Biological Sciences, BIOL 60001 Scientific Presentation, one-hour seminar (BIOL 60910); 21 additional hours in biology (minimum); 12 hours approved electives. 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 60011 Research in the Biological Sciences, BIOL 60001 Scientific Presentation, one-hour seminar (BIOL 60910); 12 additional hours in biology (minimum), six hours of thesis; nine hours of approved electives. Limit of three hours of assigned problems unless approved by graduate committee or department chair.

Biology Courses

BIOL 50103 - Terrestrial Ecosystems

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

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

Prerequisites: 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

Prerequisite: CHEM/BIOL 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

Three hours lecture per week. Prerequisites: CHEM/BIOL 50143, or permission of instructor. Molecular mechanism of drug actions, and methods of drug design, discovery and development. (Crosslisted as BIOL/CHEM 50153.)

BIOL 50246 - Biodiversity

Prerequisites: Two semesters of college-level biology courses. This course introduces skills to describe and study the diversity of life. It is immersion, field-intensive instruction. General concepts include patterns of global biodiversity, biogeography of the Southern Plains, conservation biology, pressures on biodiversity, and national/international biodiversity protection efforts and policies. Field skill instruction starts with context description, emphasizing vegetation structure, followed by plant community description. Subsequent modules focus on inventorying animal communities, starting with insects and continuing with freshwater invertebrates, fish, amphibians, reptiles, birds and mammals. The field skill component of the course concludes with a week-long exercise in habitats outside of north-central Texas. Biodiversity information management is learned by developing a relational database coupled with a local Geographic Information System.

BIOL 50303 - Evolution

Three hours lecture per week. Prerequisite: BIOL 10504 and 10514. Concepts and principles of organic evolution. Topics include natural selection, adaptation, quantitative genetics, sexual selection, kin selection, life history characters, speciation, and phylogeny.

BIOL 50463 - Functional Neuroanatomy

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 50472 - Laboratory in Physiological Psychology and Neuroscience

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. (Crosslisted as BIOL/PSYC 50472.)

BIOL 50482 - Laboratory in Physiological Psychology and Neuroscience

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. (Crosslisted as BIOL/PSYC 50482.)

BIOL 50502 - Biochemistry Laboratory

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

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

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. 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

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

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 60011 - Research in the Biological Sciences

One hour lecture per week introducing students to various aspects of biological research including scientific publication, grantsmanship and research approaches. All Biology graduate students are required to take this course.

BIOL 60123 - Electron Microscopy

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 60153 - Conservation Genetics

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

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 60224 - Developmental Biology

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

Three hours lecture per week. Prerequisites: 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 60403 - Medical Microbiology

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 60443 - Environmental Biology

Prerequisite: Permission of instructor. Introduction to contemporary issues in environmental biology such as the biological consequences of global climate change, extinction, contaminants in the environment, and overfishing.

BIOL 60603 - Virology

Prerequisite: Six hours of biochemistry or permission of instructor. Fundamental properties of viruses and contribution of viral studies to molecular biology.

BIOL 60723 - Advanced Genetics

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

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

Selected when enrolling only for non-thesis examination or preparation for the examination.

BIOL 70950 - Assigned Problems in Biology

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

A minimum of 3 hours of BIOL 70980 Thesis is required.

BIOL 70990 - Thesis

Prerequisite: BIOL 70980 and admission to candidacy. A minimum of 3 hours of BIOL 70990 Thesis is required.

Chemistry

Students may earn the Master of Arts, Master of Science and Doctor of Philosophy in Chemistry.

Prerequisites for the MA/MS 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.

To pursue the PhD in Chemistry, a student must have earned 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.

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 Organic Chemistry, CHEM 50282 and 50290 Physical Chemistry, and CHEM 50163 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.

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 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.

Chemistry MA Requirements (Non-Thesis)

The MA in Chemistry (non-thesis option) requires a total of 36 approved hours, including at least 24 in chemistry with no more than six hours of credit in CHEM 50120, 50230, 60110, 60240, 60260, 60270 and 60280 combined. Each student is also required to pass an oral examination based upon the chosen program of study.

Chemistry MS Requirements (Thesis)

The MS in Chemistry (thesis option) requires a total of at least 30 approved hours, including at least 15 in chemistry and six 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 two, but usually no more than four, semesters of teaching.

Chemistry PhD Requirements

The PhD in Chemistry comprises the following components:

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 PhD 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 the 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 PhD 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.

Chemistry Courses

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

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

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

Prerequisite: CHEM/BIOL 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

Three hours lecture per week. Prerequisites: CHEM/BIOL 50143, or permission of instructor. Molecular mechanism of drug actions, and methods of drug design, discovery and development. (Crosslisted BIOL/CHEM 50153.)

CHEM 50162 - Advanced Inorganic Chemistry Laboratory

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

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

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

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

Three hours lecture per week. Prerequisite: Chemistry 30132, 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

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

Three hours lecture per week. Prerequisites: 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

Three hours lecture per week. Prerequisite: CHEM 50163 or permission of 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

Two hours lecture per week. Prerequisite: CHEM 40133. An introduction to Quantum Chemistry and Statistical Thermodynamics is presented. Continuation of Chemistry 40123-40133.

CHEM 50290 - Chemical Thermodynamics

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

Two four-hour laboratory periods per week. Prerequisite: CHEM 50143 or concurrent registration. (Crosslisted BIOL/CHEM 50502.)

CHEM 50763 - Experimental Methods in Biochemistry and Biophysics

Prerequisites: 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

Prerequisite: CHEM 10123 or 10124 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 subservise the characteristic activity of the nervous system or are associated with neurological diseases.

CHEM 60110 - Seminar

Chemistry seminar. (This course is only offered P/NC.)

CHEM 60120 - Special Topics in Inorganic Chemistry

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

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

Prerequisite: CHEM 50143. Specialized aspects and new developments in the field.

CHEM 60140 - Special Topics in Organic Chemistry

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

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

Graduate research in inorganic chemistry.

CHEM 60260 - Graduate Research in Organic Chemistry

Graduate research in organic chemistry.

CHEM 60270 - Graduate Research in Physical Chemistry

Graduate research in physical chemistry.

CHEM 60280 - Graduate Research in Biochemistry

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

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

A minimum of 3 hours of CHEM 70980 Thesis is required.

CHEM 70990 - Thesis

Prerequisites: CHEM 70980 and admission to candidacy. A minimum of 3 hours of CHEM 70990 Thesis is required.

CHEM 90000 - Postdoctoral Research

Postdoctoral Research.

CHEM 90980 - Dissertation

Prerequisite: Permission of department chair. A minimum of 6 hours of CHEM 90980 Dissertation is recommended.

CHEM 90990 - Dissertation

Prerequisite: CHEM 90980 and admission to candidacy. A minimum of 6 hours of CHEM 90990 Dissertation is recommended.

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 1000) 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 1000) 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 MS Requirements (Thesis)

Students pursuing a Master of Science must complete at least 30 semester hours with a thesis. These semester hours are made up as follows:

Required Courses (6 semester hours)

ENSC 60203	Environmental Issues Seminar	3
BIOL 60001	Scientific Presentations (if major adviser is BIOL) <i>or</i>	1
ENSC 60001	Scientific Presentations (if major adviser is ENSC <i>or</i> GEOL)	1
ENSC 60011	Literacy of Science Review	1
ENSC 60021	Oral Examination	1

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 (18 semester hours)

The electives are selected in consultation with the student's major professor and the director of the program. At least 15 hours of electives must be ENSC, BIOL or GEOL courses. Students may count up to three hours of Independent Study toward their electives, though further Independent Study hours may be taken with the approval of the director of the program. Students may count up to six 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 Science MA Requirements (Non-Thesis)

Students pursuing a Master of Arts by coursework must complete at least 36 semester hours made up as follows:

Required Courses (6 semester hours)

ENSC 60203	Environmental Issues Seminar	3
ENSC 60001	Scientific Presentations	1
ENSC 60011	Literacy of Science Review Examination	1
ENSC 60021	Oral Examination	1

Electives (27-30 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 three hours of independent study toward their electives, through further independent study hours may be taken with the approval of the director of the program. Students may count up to six 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 Management Master's Degree 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 among 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 <i>or</i>	
BIOL 50703	Ecology of Lakes and Streams <i>or</i>	
ENSC 50783	Environmental Chemistry <i>or</i>	
ENSC 50203	Riparian Envirodiversity <i>or</i>	
ENSC 50213	Terrestrial Envirodiversity ¹	3
GEOL 50493	Physical Hydrology ²	3
ENSC 50773	Environmental Law	3
ENSC 50703	Environmental Compliance ²	3
ENSC 60011	Literacy of Science Review Examination	1
ENSC 60021	Oral Examination	1
ENSC 60001	Scientific Presentations	1
ENSC 60203	Environmental Issues Seminar	3
ACCT 60010	Financial Reporting ³	1.5
ACCT 60020	Acctg for Managerial Planning & Control ³	1.5
MANA 60330	Engaging and Empowering People	1.5
MANA 60340	Leading and Guiding Organizations	1.5
MANA 60460	Business Ethics	1.5
MANA 70610	Essentials of Negotiation	1.5
<i>Night option:</i>		
FINA 60013	Management of Financial Resources ⁴	3
<i>Day option:</i>		
FINA 70970	Management of Financial Resources ⁴	1.5
AND		
INSC 60060	Concepts in Supply Chain Mgmt ⁴	1.5

¹Students may choose an alternative BIOL course with the approval of the director of the program.

²Substitutions for these courses will not be allowed unless the student has had an upper-level equivalent course and the approval of the director of the program.

³Students taking ACCT 60010 and 60020 must participate in a pre-semester workshop. Contact Neeley School Graduate Programs Office for information: 817-257-7991.

⁴Night option is the 3-hour Management of Financial Resources. Day option is the 1.5-hour Management of Financial Resources AND the 1.5-hour Concept in Supply Chain Management.

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.

Environmental Science Courses

ENSC 50003 - Applied Projects Partnership Program

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 50203 - Riparian and Wetland Diversity

Prerequisites: Six hours of biology, geology, or environmental science courses. Note: students who enroll in this course may not enroll in ENSC 50246 for credit. This field-intensive course introduces skills to study the diversity of riparian and wetland habitats of North Central Texas. The curriculum introduces methods of sampling a site in terms of its macroinvertebrates, flora, vegetation, soils, and hydrologically relevant landforms. The field modules are macroinvertebrates, plant zonation, and description of substrates, topography, and landscape context. Some exercises may be done in conjunction with the Wetland Delineation class. The field trips run Thursday evening through Sunday, and are required for all students.

ENSC 50213 - Terrestrial Envirodiversity

Prerequisites: Six hours in biology, geology, or environmental science. Note: students who enroll in this course may not enroll in ENSC 50246 for credit. This field-intensive course introduces skills to describe the diversity of terrestrial life and landscapes. The curriculum introduces methods of sampling a site in terms of its macroinvertebrates, flora, vegetation, rocks, soils, and landforms. Collections of invertebrates and plants are required. Field skill instruction includes context description, emphasizing vegetation structure correlated with soils, geology, and landforms. The three field modules are terrestrial invertebrates, plant communities, and geology-landforms-soils description. These field trips run Thursday evening through Sunday, and are required for all students.

ENSC 50246 - Biodiversity

Prerequisites: Two semesters of college-level biology courses. This course introduces skills to describe and study the diversity of life. It is immersion, field-intensive instruction. General concepts include patterns of global biodiversity, biogeography of the Southern Plains, conservation biology, pressures on biodiversity, and national/international biodiversity protection efforts and policies. Field skill instruction starts with context description, emphasizing vegetation structure, followed by plant community description. Subsequent modules focus on inventorying animal communities, starting with insects and continuing with freshwater invertebrates, fish, amphibians, reptiles, birds and mammals. The field skill component of the course concludes with a week-long exercise in habitats outside of north-central Texas. Biodiversity information management is learned by developing a relational database coupled with a local Geographic Information System.

ENSC 50503 - Wetlands Delineation and Management

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

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

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 50703 - Environmental Compliance

Prerequisites: Major field of study within the College of Science & Engineering with 60 hours of coursework completed; or graduate enrollment in SCEE; 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

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 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

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 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

Prerequisites: Must be a Science and Engineering major, graduate student, or 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

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 50753 - Environmental Management Systems

Prerequisites: ENSC 50703, and major field of study within the College of Science & Engineering with 60 earned hours; or graduate enrollment in SCEE;

or permission of instructor. This course is designed to provide an overview of environmental management systems (EMS) and how EMS can support environmental improvements at facilities that are subject to environmental regulations. At the completion of the course, students will have an understanding of how an EMS allows an organization to systematically manage its environmental and health safety matters. Students will also understand the state and federal requirements for an EMS and how an EMS compares with ISO14001 certification.

ENSC 50763 - Groundwater Hydrology

Prerequisites: GEOL 30443 and major field of study within the College of Science & Engineering with 60 earned hours, 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

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

Prerequisites: CHEM 10123, 10124, 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 relationships, natural carbonate reactions, and cation exchange phenomena. (Crosslisted as CHEM/ENSC/GEOL 50783.)

ENSC 50793 - Environmental Sustainability

Prerequisite: Major field of study within the College of Science & Engineering with 60 hours of coursework completed; or graduate enrollment in SGEE, 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

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 GEOL/ENSC 50863.)

ENSC 50883 - Applied GIS

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. (Cross-listed as ENSC/GEOL 50883.)

ENSC 50963 - GIS Internship

Prerequisites: 2.75 GPA in major, completion of at least 6 hours of permission 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

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

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

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 60193 - Environmental Stewardship

This course examines the case for environmental stewardship, defined as the need to make informed and responsible decisions with regard to the planet. Students meet in a seminar-type format and cover broad, integrating themes that then serve as a foundation for topics that address more specific environmental problems, such as global warming, deforestation, sustainable development, and energy depletion. The course exposes students to the foundations necessary to enable them to develop their own environmental ethic.

ENSC 60203 - Environmental Issues

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 60503 - Environmental Methods and Statistics

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 70003 - Environmental Internship

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 70970 - Special Problems

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

A minimum of 3 hours of ENSC 70980 Thesis is required.

ENSC 70990 - Thesis

Prerequisite: ENSC 70980 and admission to candidacy. A minimum of 3 hours of ENSC 70990 Thesis is required.

Geology

Students may earn the Master of Science in Geology.

Prerequisites: A BA or BS from an acceptable college or university with an academic record meeting the standards of the TCU.

Students who have majored in an area other than geology may be admitted if undergraduate deficiencies can be removed within a reasonable 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 M.S. Requirements (Thesis)

Students must complete a total of at least 30 approved hours, including at least 12 in geology (of which three must be in GEOL 60710); six in thesis; approved electives or nine-hour minor in a related graduate field may be substituted for geology courses. Students must maintain a minimum GPA of 3.0.

Geology Courses

GEOL 50233 - Optical Mineralogy and Petrography

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

Prerequisite: Permission of instructor. Use of the S.E.M. in geological applications.

GEOL 50341 - Interpreting Seismic Data

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

Prerequisite: Permission of the instructor. Three hours lecture per week. Explores the relationship between plate motion and the evolution of sedimentary basins.

GEOL 50423 - Petroleum Geology

Prerequisite: Permission of instructor. Origin, migration and entrapment of hydrocarbons, exploration and production techniques used in the petroleum industry.

GEOL 50493 - Physical Hydrology

Prerequisites: 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

Prerequisite: 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

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

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

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

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

Prerequisites: CHEM 10114 and 10124 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

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

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

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

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

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

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

Prerequisites: GEOL 30443 and major field of study within the College of Science & Engineering with 60 earned hours, 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

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 50773 - Introduction to Environmental Law

Prerequisites: CHEM 10123 or 10124 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.)

GEOL 50813 - Meteorites, Asteroids, and Planets

Prerequisites: 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

Prerequisites: MATH 10043 or equivalent, ENSC/GEOL 30363, 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

Prerequisites: ENSC/GEOL 50523, 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

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

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

Prerequisite: GEOL 50901. Three hours lecture per week for ten weeks. Selecting and using mapping and drafting software.

GEOL 50963 - GIS Internship

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 60213 - Environmental Analysis

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

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

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

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

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

Prerequisite: Permission of instructor. Three hours lecture per week. Techniques used in the analysis of geological structures.

GEOL 60423 - Overview of Petroleum Engineering

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

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 60493 - Hydrology

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

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

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

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

Selected when enrolling only for non-thesis examination or preparation for the examination.

GEOL 70970 - Special Problems

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

A minimum of 3 hours of GEOL 70980 Thesis is required.

GEOL 70990 - Thesis

Prerequisites: GEOL 70980 and admission to candidacy. A minimum of 3 hours of GEOL 70990 Thesis is required.

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: 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 PhD: 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 Degree 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, 50503 and 60023.

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:

Any EDMT 50000+ level 3-hours course
 EDSP 50663: Motivating and Managing Students in the Classroom
 EDSP 58003: Methods for Students with Mathematics Learning Difficulties
 EDSP 60233: Understanding Exceptional Children and Youth At-Risk
 EDUC 50003: Diversity in American Education
 EDUC 50143: Theories of Human Development
 EDUC 50253: Technology Applications in Education
 EDUC 60213: Psychology of Thinking and Learning
 EDUC 60253: Historical and Philosophical Foundations of Education
 EDUC 60313: Educational Assessment
 EDUC 60980: Internship (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 Degree Requirements

The Master of Science 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 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
 MATH 50403 Complex Analysis
 MATH 50503 Real Analysis I
 MATH 60513 Real Analysis II
 MATH 60223 Applied Linear Algebra

An advanced student may be waived from any or all of these required courses by passing the corresponding PhD 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
 MATH 50703 Number Theory
 MATH 60263 Abstract Algebra II
 MATH 60313 Topology
 MATH 60323 Algebraic Topology I
 MATH 60413 Advanced Complex Analysis
 MATH 60523 Measure Theory
 Any MATH 70000+ level 3-hour course

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
 MATH 50623 Applied Mathematics I
 MATH 60103 Graph Theory
 MATH 60543 Numerical Analysis
 MATH 60553 Modern Fourier Analysis
 MATH 60603 Game Theory
 MATH 60613 Differential Equations of Mathematical Physics
 MATH 60633 Applied Mathematics II
 MATH 60643 Dynamical Systems and Applications

Up to six hours of the applied mathematics courses may be substituted with graduate coursework taken in the departments of Biology, Chemistry, Computer Science, Engineering, Environmental Science, Geology, or Physics and Astronomy, with approval from the student's graduate adviser 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. The thesis should be written over two semesters and approved by the department. The thesis need not contain original research, but must demonstrate a deep and thorough understanding of some area of mathematics.

Mathematics PhD Degree Requirements

The PhD Program 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 grades of "C+" or lower being utilized in satisfying the degree requirement.

Core Coursework (27 hours):

Coursework for the PhD must include the following nine core courses:

MATH 50253 Abstract Algebra I
 MATH 60263 Abstract Algebra II
 MATH 50503 Real Analysis I
 MATH 60513 Real Analysis II
 MATH 60223 Applied Linear Algebra
 MATH 60313 Topology
 MATH 60323 Algebraic Topology I
 MATH 60413 Advanced Complex Analysis
 MATH 60523 Measure Theory

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 60513)
- Algebra Exam (based on MATH 30224, 50253 and 60263)
- Topology Exam (based on MATH 60313 and 60323)
- Complex Analysis Exam (based on MATH 50403 and 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 thesis adviser. Based on the recommendation of the department, the dean appoints an advisory committee of at least three members, including the thesis adviser 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. Six hours of MATH 90980 Dissertation and six 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. At the completion of the dissertation, a final oral examination is required, which is open to the public.

Mathematics Courses

MATH 50073 - History of Mathematics

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

Prerequisites: MATH 20123 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

Prerequisites: MATH 30224 and 30524, both with a C- or better. Calculus on Euclidean space. Geometry of curves and surfaces.

MATH 50403 - Complex Analysis

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

Prerequisites: MATH 20123, 30224 and 30524, all with a C- or better. A rigorous development of elementary limit processes. Continuity, sequences, series, differentiation, integration.

MATH 50613 - Partial Differential Equations

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

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

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

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

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

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

Naive set theory, including cardinality, the Axiom of Choice, Zorn's Lemma, and other topics.

MATH 60103 - Graph Theory

Prerequisites: 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

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

Prerequisite: MATH 50253. A continuation of MATH 50253. Introduction to field extensions and Galois Theory. Advanced topics in groups and rings.

MATH 60313 - Topology

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

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

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

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 60513 - Real Analysis II

Prerequisite: MATH 50503. A continuation of MATH 50503. Multivariable calculus, including the Implicit Function Theorem and change of variables. Other selected topics.

MATH 60523 - Measure Theory

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

Prerequisites: MATH 30224 and 30613, or equivalents. Introduction to numerical methods for solving mathematical problems that arise in the sciences. Topics include linear systems, floating point arithmetic, error analysis, least squares, quadrature, and random numbers.

MATH 60553 - Modern Fourier Analysis

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

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

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

Prerequisite: MATH 50623. Continuation of MATH 50623.

MATH 60643 - Dynamical Systems and Applications

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 60803 - Mathematics Internship

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 270 hours in approved practical work experience with an organization or company approved by the graduate program director.

MATH 60970 - Special Topics

Prerequisite: Graduate standing in mathematics. (1-12 semester hours)

MATH 70273 - Commutative Algebra

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

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

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

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

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

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

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

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

Prerequisites: 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, adèles and ideles, as time permits.

MATH 70723 - Analytic Number Theory

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

Selected when enrolling only for non-thesis examination or preparation for the examination.

MATH 70980 - Thesis

A minimum of 3 hours of MATH 70980 Thesis is required.

MATH 70990 - Thesis

Prerequisites: MATH 70980 and admission to candidacy. A minimum of 3 hours of MATH 70990 Thesis is required.

MATH 80880 - Graduate Student Seminar

Prerequisite: Permission of instructor. Student-presented lectures on various current mathematical topics, selected by the students and the instructor.

MATH 80970 - Advanced Topics

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

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

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.

Physics and Astronomy

Students may pursue the Master of Arts, Master of Science and Doctor of Philosophy in Physics.

Prerequisites for the MA, MS or PhD Degrees: B.A. or B.S. 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. Prerequisites to a graduate minor in physics are 20 hours of physics, including advanced courses in mechanics, electricity and magnetism, and modern physics or their equivalents.

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 (Non-Thesis)

The MA 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 (Thesis)

The MS 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, 60313; three from PHYS 60203, 60403, 60413, 60503 and 60603; plus a minimum of six additional semester hours in physics. There is no foreign language requirement. An oral exam over coursework and thesis, if any, is required.

Physics PhD Requirements

Coursework

Completion of the following courses with a GPA of 2.75 or better:

PHYS 60303, 60313 Quantum Mechanics

Plus four from the following:

PHYS 60203 Classical Mechanics
 PHYS 60403, 60413 Electrodynamics
 PHYS 60503 Solid State Physics
 PHYS 60603 Statistical Physics

A minimum of nine 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 graduate seminars.

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.

There is no language requirement for the PhD in Physics.

Pre-Dissertation Qualifying Exam

This exam, which is normally taken during the fourth semester of graduate study, consists of three parts:

1. An acceptable written report concerning either research completed at TCU or a proposal for the dissertation research, including a description of any research already completed. The written report must be submitted to the graduate faculty of the department at least two weeks prior to the oral exam. Details on the required format for the report are available from the department.
2. An oral presentation at a physics department colloquium, usually on the subject of the written report.
3. A comprehensive oral exam administered by the graduate faculty of the department to assess a student's preparation in basic physics and readiness to carry out the dissertation research. If the graduate faculty of the department attach a condition to passing the predissertation exam, (e.g. revision of the predissertation report or submission of additional material), the additional work must be completed by a specified deadline. The removal of the condition is subject to the approval of the graduate faculty.

The predissertation qualifying exam, in whole or in part, may be repeated once. Students who do not pass the exam are encouraged to complete the requirements for a master's degree if they have not already done so.

Completion of the above course requirements and the predissertation qualifying exam constitute admission to candidacy for the PhD degree.

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 a paper based on the dissertation research must be submitted for publication in an appropriate scientific journal.

Physics/Astrophysics PhD Requirements

The PhD in Physics is also available with an astrophysics option.

Coursework

Completion of the following courses with a GPA of 2.75 or better:

PHYS 60743 Astrophysics
 PHYS 60303 Quantum Mechanics
 PHYS 60403 Electrodynamics

Plus three from the following:

PHYS 60203 Classical Mechanics
 PHYS 60313 Quantum Mechanics
 PHYS 60413 Electrodynamics
 PHYS 60603 Statistical Physics

A minimum of nine hours of PHYS 60870 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 PhD in Physics.

Physics/Biophysics PhD Requirements

The PhD in Physics is also available with a biophysics option.

Coursework

Completion of the following courses with a GPA of 2.75 or better:

PHYS 60303 Quantum Mechanics
 PHYS 60313 Quantum Mechanics

Plus four from the following:

PHYS 60803 Nonlinear Dynamics with Applications
 PHYS 60823 Optical Spectroscopy and Fluorescence
 PHYS 60403 Electrodynamics
 PHYS 60413 Electrodynamics
 PHYS 60603 Statistical Physics

A minimum of nine hours of PHYS 60870 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 PhD in Physics.

Physics/Business PhD Requirements

The PhD in Physics is also available with a business option. Students entering the PhD program with a B.S. are normally expected to complete the PhD requirements within five years. At the end of the fourth year of graduate studies, a candidate for the PhD in Physics who has demonstrated sufficient progress in research (dissertation), may submit a written request to the Department of Physics and 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 PhD 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 PhD program with advanced standing (M.S. degree or more) can request an accelerated program.

In addition to the course-work, qualifying examinations and dissertation requirements specified for the PhD 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 PhD 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	Supply Chain Concepts	1.5
MANA 60330	Engaging and Empowering People	1.5
BUSI 60050	Global Business	1.5
INSC 60020	Managing Ops and Processes	1.5
MANA 60340	Leading and Guiding Organizations	1.5
BUSI 60070	Business Simulation	1.5

Plus one 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

6. The foregoing may be adjusted in the event of a realignment in the sequence of courses in the MBA program.
7. 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 PhD in Physics or the PhD 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.

Physics Courses

PHYS 50030 - Seminar in Contemporary Physics

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

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

Prerequisite: Permission of the 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

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

Prerequisites: PHYS 20484 and MATH 30524. Computational methods used in physics, systems of linear equations, eigenvalues problems, numerical solution of differential equations using FORTRAN, C++, and Mathematica.

PHYS 50743 - Astrophysics

Prerequisite: Permission of department chair. Spectra and spectral line formation, stellar atmospheres and interiors, star formation and evolution, structure of the Universe, selected topics in cosmology.

PHYS 50753 - Topics in Biophysics

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

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 PHYS/CHEM 50763.)

PHYS 50813 - Meteorites, Asteroids, and Planets

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 both GEOL/PHYS 50813.)

PHYS 50970 - Special Problems in Physics

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 60203 - Classical Mechanics

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

Prerequisite: PHYS 40113 or equivalent. Foundations of quantum mechanics, with applications to atomic, molecular, solid state, and nuclear physics.

PHYS 60313 - Quantum Mechanics

Prerequisite: PHYS 60303. Continuation of 60303.

PHYS 60403 - Electrodynamics

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

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

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

Prerequisite: 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

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 60803 - Nonlinear Dynamics with Applications

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

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

Prerequisite: Permission of department chair. Directed research in the following areas: Observational astronomy, Galaxy structure and evolution, Stellar populations, Large-scale structure

PHYS 60960 - Physics Seminar

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

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

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

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

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

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

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

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

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

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

Selected when enrolling only for non-thesis examination or preparation for the examination.

PHYS 70803 - Theoretical Atomic and Molecular Physics

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

Prerequisites: PHYS 60303 and 60313. Study of Laser Physics, interaction of light and matter, nonlinear phenomena and quantum nature of light.

PHYS 70980 - Thesis

Prerequisite: Permission of department chair. A minimum of 3 hours of PHYS 70980 Thesis is required.

PHYS 70990 - Thesis

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

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

Prerequisites: Graduate standing and permission of instructor.

PHYS 90970 - Research Problems in Physics

Prerequisites: Graduate standing and permission of department chair.

PHYS 90980 - Dissertation

Prerequisite: Permission of department chair. A minimum of 6 hours of PHYS 90980 Dissertation is required.

PHYS 90990 - Dissertation

Prerequisites: PHYS 90980 and admission to candidacy. A minimum of 6 hours of PHYS 90990 Dissertation is required.

Psychology

Students may earn the Master of Arts, Master of Science and Doctor of Philosophy in Psychology, or a Master of Science in Developmental Trauma. Studies leading to a master's or doctoral degree in general-experimental psychology are offered. 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 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.

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. 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.

Prerequisites for the PhD Degree: 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. Students who do not plan to complete the doctoral program at TCU are not typically accepted.

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* MA or MS in Psychology requires a minimum of 30 approved semester hours, including at least six semester hours of thesis. This program is recommended for students who plan to pursue doctoral-level graduate study in the Psychology Program at TCU. Students who do not plan to complete the doctoral program at TCU are not typically accepted.

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)

CHDV/PSYC 50433	Vulnerable Child I
CHDV/PSYC 50443	Vulnerable Child II
PSYC 50403	Advanced Social Neuroscience
PSYC 50563	Developmental Psychology
CHDV/PSYC 60903	Developmental Trauma Capstone Course

Electives (15 hours)

Fifteen hours selected in consultation with adviser including a minimum of three hours on experimental design or statistics.

Psychology PhD Requirements

The program leading to the PhD in 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 PhD in General-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.psy.tcu.edu. Students who enter the PhD 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 take and "pass" (grade of "B-" or better in each) five core courses that include:

PSYC 50403	Advanced Neuroscience
PSYC 60553	Conditioning and Learning
PSYC 60663	Advanced Social Psychology

Plus

PSYC 60623	Regression Analysis
PSYC 50523	Experimental Design

One of:

PSYC 50583	Cognition
PSYC 50563	Developmental Psychology

Beyond those required courses, each student takes any and all courses required by his/her area committee. Successful completion of the PhD 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 PhD dissertation.

The usual timeline involves completing the five core courses listed 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 and all 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 fall semester of the fourth year; and successfully defending the PhD dissertation within six years after advancing to doctoral candidacy.

Psychology Courses

PSYC 50213 - Interactive Data Analysis

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 50403 - Advanced Neuroscience

Prerequisites: 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

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

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

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

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.

PSYC 50443 - Vulnerable Child II: Practice

Prerequisites: PSYC/CHDV 50433. 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.

PSYC 50463 - Functional Neuroanatomy

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

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. (Crosslisted as BIOL/PSYC 50472.)

PSYC 50473 - Neurodevelopmental Disorders

Prerequisites: PSYC 30503 or approval 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

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. (Crosslisted as BIOL/PSYC 50482.)

PSYC 50493 - Advanced Personality

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 50513 - Psychopharmacology

Prerequisite: PSYC 10213 or 10514 or 10524 or permission of instructor. 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

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

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.

PSYC 50563 - Developmental Psychology

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

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

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

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

Prerequisite: Permission of department chair. Weekly discussions of current topics in the Chemistry of Behavior. (Crosslisted as CHEM/PSYC 60500.)

PSYC 60533 - Perception

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

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

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

Prerequisite: Concurrent or prior registration in PSYC 60553, or permission of instructor.

PSYC 60563 - Psychology of Human Learning

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 60613 - Multivariate Analysis

Prerequisite: PSYC 50423 or permission of instructor. Multivariate correlation methods, discriminant function analysis, factor analysis and related techniques.

PSYC 60623 - Regression Analysis

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

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

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

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

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

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

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

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

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

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

Prerequisite: PSYC 60663 or permission of instructor. Theories and systematic investigations of attitude change with a historical as well as contemporary focus.

PSYC 60913 - Evolutionary Social Psychology

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

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

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

Prerequisites: Graduate standing in psychology 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

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

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

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

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

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 80200 - Special Topics in Learning and Motivation

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 80300 - Special Topics in Perception and Cognition

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 80400 - Special Topics in Physiological Psychology

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 80500 - Special Topics in Social Psychology and Personality

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 80600 - Special Topics in Contemporary Psychology

Prerequisite: Permission of department chair. Seminars or other special courses.

PSYC 90100 - Advanced Studies in Quantitative Methods

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90200 - Advanced Studies in Learning and Motivation

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90300 - Advanced Studies in Perception and Cognition

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90400 - Advanced Studies in Physiological Psychology

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90500 - Advanced Studies in Social Psychology and Personality

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90600 - Advanced Studies in Contemporary Psychology

Prerequisite: Permission of department chair. Individual study or research.

PSYC 90980 - Dissertation

Prerequisite: Permission of department chair. A minimum of 6 hours of PSYC 90980 Dissertation is required.

PSYC 90990 - Dissertation

Prerequisite: PSYC 90980 and admission to candidacy. A minimum of 6 hours of PSYC 90990 Dissertation is required.

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Term Expires Annual Spring Meeting 2015

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 Jill Laster B.A., M.Ed., A.R.M.—Deputy AA Officer

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 Davis Babb, B.S.—Associate Director of Athletics

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 T. Ross Bailey, M.Ed.—Associate Director of Athletics
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 Kelle Branting, B.S., M.S.— Assistant Director of Athletic Academic Services
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 Junko Yazawa, B.S., M.S.—Assistant Athletics Trainer
 Danny Wheat, B.S.—Assistant Athletics Trainer
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 Chip Heiss, Jr., B.S.—Ticket Office Customer Service Manager
 Deron Irons, B.S.—Assistant Manager of Athletics Tickets
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 Matt Parker, B.S.—Associate Director of Strength and Conditioning Coach
 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
 IMG College/TCU Sports Network
 Rudy Klancnik, B.S.—General Manager
 Traci Larrison, B.S.—Account Executive
 Todd Knisley, B.S., M.S.—Account Executive

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 Jim Schlossnagle, B.A.—Head Baseball Coach
 Tony Vitello, B.S., M.B.A.—Assistant Head Baseball Coach
 Randy Mazey, B.S., M.B.A.—Associate Head Baseball Coach

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 Bill Wuczynski, B.PhEd.—Assistant Men's Basketball Coach
 Open—Assistant Men's Basketball Coach
 Cody Hopkins, B.A.—Director of Men's Basketball Operations
 Jeff Mittie, B.A., M.S.—Head Women's Basketball Coach
 Tricia Porter, B.B.A., M.L.A.—Assistant Women's Basketball Coach
 Brian Ostermann, B.S., M.S. —Associate Head Women's Basketball Coach
 Tonya Benton Haut, B.S.—Assistant Women's Basketball Coach

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 Eddie Williamson, B.A., M.A.—Assistant Head Football Coach

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 Trey Haverty, B.S., M.Ed.—Assistant Football Coach
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 Tony Tademy, B.S.—Assistant Football Coach
 Justin Fuente, B.S.—Assistant Football Coach
 Clay Jennings, B.S.—Assistant Football Coach
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 Danielle Bartelstein, B.A.—Assistant Director of Football Operations

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 Open—Associate Head Soccer Coach
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 Bill Koppelman, B.S., M.S.—Assistant Swimming Coach (Women's)
 Keegan Walkley, B.S.—Assistant Swimming Coach (Men's and Women's)

Tennis (Men's and Women's)

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 Jason Marshall, B.B.S.—Assistant Women's Tennis Coach
 David Roditi, B.A.A.—**Head Men's Tennis Coach**
 Mark Tjia, B.B.A.—**Assistant Men's Tennis Coach**

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 John Kenneson, B.S., M.Ed.—Assistant Track Coach
 Shawn Winget, B.S., M.S.—Assistant Track Coach
 Nic Petersen, B.S.—Assistant Track Coach
 Dennis Darling, B.A.—Assistant Track Coach

Volleyball (Women's)

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 Jason Tanaka, B.A.—Assistant Women's Volleyball Coach
 Open—Assistant Women's Volleyball Coach

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 Bob Goode—Manager Printing Services

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 Ashley Edwards, B.S., M.S.—Academic Adviser
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Karin Lewis—Chancellor's Executive Assistant for Operations

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 Ann Louden, B.A., M.L.A.—Chancellor's Associate for Strategic Partnerships
 Anne Barrett—Administrative Assistant

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Terry Haney—Executive Assistant and Office Manager

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 Laura Steinbach, B.F.A., M.F.A., M.L.S.—Art and Design Librarian

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 Harold J. Leeman, Jr., P.E., LEED AP, B.S., M.S.C.E. (2)—Director, Facility Planning and Construction
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 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
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Stephanie McPeak, RID, IIDA, LEED Green Associate B.S. Interior Design—
Interior Designer

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Affairs

Terri Gartner—Assistant to the Provost and Vice Chancellor

Cindy Odiorne—Assistant to the Vice Chancellor for Academic Affairs

Janet Bryant—Administrative Support Assistant

Registrar

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Vanessa Lanzarotti, B.G.S., M.B.A.—Associate Registrar

Kristi Harrison, B.M., M.L.A.—Manager, Academic Progress Services

Tiffany T. Wendt, B.S., M.B.A.—Academic Audit Developer/Analyst

Sponsored Programs

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Teresa Miles Hendrix, M.P.A.—Assistant Director

Laurie Heidemann—Administrative Program Specialist

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Melet Leafgreen, B.M., M.L.A.—Assistant Director

Jolene Alonso, B.S.B.—Assistant Director

Kathryn Blackham, B.B.A., M.L.A.—Financial Aid Adviser

Trudy Conner, B.B.A.—Financial Aid Adviser

Bianca Allen, B.A.—Financial Aid Adviser

Debbie Mar—Graduate Adviser

Student Affairs Directory

Brown-Lupton University Union

Mike Russel, B.S., M.Ed., M.B.A., Ed.D. —Executive Director for Student Affairs
Administration

Natalie Boone, B.S., M.S.Ed.—Assistant Director of University
Union/Programming Council Adviser

Kim Appel Turner, B.B.A.—Activities Coordinator

Brad Thompson, B.S.—Student Activities and Marketing Coordinator

Brett Phillips, B.S., M.A.—Student Activities Coordinator

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Index

A

About TCU • 5
 Academic Administrators • 138
 Academic Calendar • 3
 Academic Conduct • 20
 Academic Load and Full-Time Status • 15
 Academic Rating System • 16
 Academic Services • 23
 Academic Warning • 16
 Accelerated MBA for Energy Professionals • 41
 Accounting • 42
 Accounting Courses • 43
 Accreditation and Affiliations • 5
 Adding Courses/Schedule Changes • 15
 Additional Master's Degree • 7
 AddRan College of Humanities & Social Sciences Directory • 146
 Addran College of Liberal Arts • 94
 Administration • 137
 Admission • 10
 Admission for TCU Seniors • 10
 Admission Requirements • 10, 114
 Admission to Candidacy*, Master's • 7
 Admission to Candidacy, PhD • 8
 Admissions • 138
 Adult/Gerontology CNS Post-Master's Certificate Program Requirements* • 101
 Adult/Gerontology CNS Program Requirements • 100
 Advisory Committee*, Master's • 7
 Advisory Committee, PhD • 8
 Affirmative Action Directory • 138
 Anthropology Courses • 99
 Anthropology Program • 99
 Application Procedures • 13
 Application Procedures Contact Information • 11
 Appointment Terms • 13
 Art Education Courses • 78
 Art History • 76
 Art History Course Subcategories • 76
 Art History Courses • 78
 Artist Diploma (Post-Baccalaureate) • 88
 Assessment Office • 138
 Athletics • 138
 Audit Enrollment • 15
 Automobile Regulations • 26

B

Band Conducting Emphasis • 87
 Bicycle Regulations • 27
 Biology • 118
 Biology Courses • 118
 Biology MA Requirements • 118
 Biology MS Requirements • 118
 Board of Trustees • 137
 Brown-Lupton University Union • 25
 Business Courses • 45

C

Campus ID Card • 26
 Campus Recreation • 25
 Career Exploration and Job Search Advising • 26
 Career Services • 26
 Center for Academic Services • 139
 Chancellor's Cabinet • 137
 Chancellor's Office • 139
 Chemistry • 119
 Chemistry Courses • 120
 Chemistry MA Requirements (Non-Thesis) • 120

Chemistry MS Requirements (Thesis) • 120
 Chemistry PhD Requirements • 120
 Choral Conducting Emphasis • 87
 Classical & Contemporary Dance Courses • 79
 Clinical Nurse Leader (CNL) Program Requirements • 101
 Clinical Nurse Leader Courses • 101
 CNL Post-Master's Certificate Program Requirements • 101
 College of Communication • 53
 College of Communication Academic Standards • 53
 College of Communication Admission Requirements • 53
 College of Communication Directory • 143
 College of Communication Financial Aid • 53
 College of Communication Grading Procedures • 53
 College of Education Admission for Graduate Studies • 57
 College of Education Directory • 144
 College of Education Mission • 57
 College of Education Programs • 57
 College of Fine Arts • 76
 College of Fine Arts Directory • 144
 College of Science & Engineering • 118
 College of Science & Engineering Directory • 147
 Communication Sciences and Disorders • 111
 Communication Sciences and Disorders Courses • 111
 Communication Studies Courses • 54
 Communication Studies Degree Program • 53
 Communication Studies Master of Science • 53
 Composition with Cognate in Music History • 85
 Composition with Cognate in Performance* • 85
 Conditional Admission • 10
 Conducting • 87
 Conducting with Cognate in Music History or Theory • 85
 Conducting with Cognate in Performance* • 85
 Conferring of Degrees • 16
 Counseling • 58
 Curriculum Studies • 57

D

Degree Requirements • 7
 Degree Requirements for Journalism and Strategic Communication Master of Science Degrees • 55
 Developmental Trauma MS Requirements • 133
 Directory Information • 137
 Disabilities Policy and Procedures • 17
 Dismissal, Suspension or Expulsion • 16
 Disruptive Classroom Behavior and Lack of Academic Progress • 18
 Dissertation Preparation • 8
 DMA Admission Requirements • 80
 DMA Final Oral Examination • 84
 DMA General Examination • 83
 DMA Keyboard Proficiency • 82
 DMA Music Degree Program Requirements • 84
 DMA Program Specifics • 82
 DMA Public Performance Requirements • 82
 DMA Written Documentation/Dissertation • 83
 DNP • 109
 DNP Degree Requirements • 109
 DNP Program • 109

DNP-A Curriculum • 107
 Doctor of Musical Arts • 80
 Doctor of Nursing Practice • 109
 Doctor of Nursing Practice - Anesthesia (DNP-A) Track • 107
 Doctoral and PhD Degree Requirements • 8
 Drug Abuse Policy • 17
 Dual-Degree MBA Programs • 41

E

EdD in Educational Leadership • 62
 EdD in Higher Education Leadership • 64
 Education - Curriculum Studies Courses • 68
 Education - Early Childhood Courses • 68
 Education - Elementary Courses • 68
 Education - General Courses • 73
 Education - Guidance Counselor Courses • 68
 Education - Mathematics Courses • 71
 Education - Middle School Courses • 71
 Education - Science Courses • 72
 Education - Secondary Courses • 72
 Education - Special Courses • 73
 Education 4/1 for TCU Elementary Education Undergraduate Majors • 61
 Education 4/1 for TCU Undergraduate Students • 61
 Education 4/1 in Curriculum Studies for TCU Undergraduate Students • 62
 Education 4/1 in Middle School Education for TCU Undergraduate Students • 61
 Education 4/1 in Secondary Education for TCU Undergraduate Students • 62
 Education 4/1 Options for TCU Undergraduate Students • 61
 Education Administration Courses • 67
 Education Courses • 67
 Educational Leadership • 60, 62
 Educational Leadership Courses • 70
 Educational Studies
 Counseling and Counselor Education PhD • 65
 Curriculum Studies PhD • 65
 PhD • 65
 Science Education PhD • 67
 Elementary Education • 59
 Elementary Education 4/1 Option • 61
 English • 94
 English Courses • 95
 English MA Program • 94
 English MA/PhD and Rhetoric and Composition PhD Admission Requirements • 94
 English PhD Program • 94
 Environmental Management Master's Degree Requirements • 122
 Environmental Science • 122
 Environmental Science Courses • 123
 Environmental Science MA Requirements (Non-Thesis) • 122
 Environmental Science MS Requirements (Thesis) • 122
 Evening Classes • 15
 Executive MBA Program • 41
 Ex-Service Men and Women Graduate Education • 13
 Extended Education • 139

F

Faculty • 142
 Fall Semester 2013 • 3
 Federal and State Student Financial Aid • 13
 Finance and Administration • 139
 Finance Courses • 45

Financial Aid • 12
 Financial Information • 12
 Financial Services • 139
 Firearms and Deadly Weapons Policy • 18
 Foreign Language Examination • 16
 Foreign Language Requirement • 8
 Formal Grade Appeal • 21
 Full-time Accelerated MBA Program • 40
 Full-Time MBA Program • 40

G

Geology • 125
 Geology Courses • 125
 Geology M.S. Requirements (Thesis) • 125
 Grade Appeals • 21
 Grade Point Average • 16
 Graduate Certificate in Ranch Management • 37
 Graduate Credit • 16
 Graduate Degree Programs • 6
 Graduate Entrance Examinations • 10
 Graduate Programs • 6

H

Harris College • 100
 Harris College of Nursing & Health Sciences • 100
 Harris College of Nursing & Health Sciences Directory • 146
 Health Services • 25
 Higher Education Leadership Courses • 69
 History • 97
 History Courses • 98
 History MA Program • 98
 History PhD Program • 98
 Human Resources • 140

I

Info Systems & Supply Chain Courses • 47
 Information Commons • 23
 Information Technology • 23
 Institute of Behavioral Research • 140
 Institutional Research • 140
 Instructional Services • 140
 Intensive English Program • 23
 Intensive English Program - Directory • 140
 Intent to Graduate, Master's • 7
 Intent to Graduate, PhD • 8
 International Student Admission • 11
 International Student Services • 26
 International Studies
 TCU Abroad - Directory • 140

J

John V. Roach Honors College Directory • 140
 Journalism Courses • 55
 Journalism Theses and Projects • 55

K

Kinesiology • 112
 Kinesiology Academic Areas of Emphasis • 112
 Kinesiology Courses • 113
 Kinesiology Thesis Option • 112
 Kinesiology Treatise Option • 112

M

M.J. Neeley School of Business • 39
 Management Courses • 49
 Marketing and Communication • 140
 Marketing Courses • 51
 Mary Coats Burnett Library • 23
 Mary Coats Burnett Library - Directory • 140
 Master of Education Program Descriptions • 57
 Master of Liberal Arts Courses • 28
 Master of Music • 85
 Master of Music Degree Program Requirements • 86

Master of Music Education Degree Program Requirements • 88
 Master of Social Work • 114
 Master's Degree Requirements • 7
 Mathematics • 127
 Mathematics Courses • 128
 Mathematics Education • 59
 Mathematics MAT Degree Requirements • 127
 Mathematics MS Degree Requirements • 127
 Mathematics PhD Degree Requirements • 128
 MBA for Energy Professionals • 41
 MBA Programs • 40
 MBA/EdD in Educational Leadership • 41
 MBA/EdD Joint Program in Educational Leadership • 62
 MBA/MACS/MTS/MDiv Degree Program in Conjunction with Brite Divinity School • 42
 Medical History/Immunizations • 18
 Miscellaneous Charges • 12
 MLA Degree • 28
 MLA Degree Requirements • 28
 MSW Degree Requirements • 115
 Music • 80
 Music Courses • 88
 Music Performance Courses • 91
 Musicology • 87

N

Neeley School Dual-Degree MBA • 39
 Neeley School Graduate Program Academic Policies • 39
 Neeley School Master's Degrees • 42
 Neeley School of Business at TCU Directory • 142
 Neeley School of Business Courses • 43
 Neeley School Professional Graduate Degrees • 39
 Non-Degree Graduate Admission • 10
 Nondiscriminatory Policy • 5
 Nurse Anesthesia Admission Criteria • 103
 Nurse Anesthesia Admission Deadlines • 103
 Nurse Anesthesia Courses • 105, 107
 Nurse Anesthesia Curriculum (MSNA Track) • 105
 Nurse Anesthesia General Information • 104
 Nurse Anesthesia Medical Requirements • 104
 Nursing • 100
 Nursing Courses • 101
 Nursing Education Post-Master's Certificate Program Requirements • 101
 Nursing Education Program Requirements • 101
 Nursing Practice Courses • 110

O

Oak Ridge Associated Universities • 5
 Oral Examination, PhD • 9
 Oral Examinations, Master's • 7
 Orchestral Conducting Emphasis • 88
 Organ Performance • 86
 Other Course Offerings • 59

P

Part-Time Attendance • 15
 Pass/No-Credit • 16
 Payment • 12
 Pediatric CNS Program Requirements • 101
 Performance with Cognate in Composition* • 84
 Performance with Cognate in Music Theory or History • 84
 Performance with Cognate in Voice Pedagogy • 84
 Philosophy Courses • 99
 Physical Plant • 141
 Physics and Astronomy • 130
 Physics Courses • 131
 Physics MA Requirements (Non-Thesis) • 130

Physics MS Requirements (Thesis) • 130
 Physics PhD Requirements • 130
 Physics PhD with Business Option • 42
 Physics/Astrophysics PhD Requirements • 130
 Physics/Biophysics PhD Requirements • 131
 Physics/Business PhD Requirements • 131
 Piano Pedagogy • 88
 Piano Pedagogy DMA Requirements • 85
 Piano Pedagogy Performance • 86
 Piano Performance • 86
 Piano Performance with Cognate in Piano Pedagogy • 85
 Police Programs • 26
 Policies and Procedures • 15
 Professional Accelerated MBA (Evening) Program • 41
 Professional Behavior Standards • 18
 Professional Counseling • 59
 Professional MBA (Evening) Program • 41
 Provost's Office • 141
 Psychology • 133
 Psychology Courses • 134
 Psychology MA/MS Requirements • 133
 Psychology PhD Requirements • 133

Q

Qualifying or Preliminary Examinations • 8

R

Ranch Management Courses • 37
 Refunds • 12
 Registrar • 141
 Registration • 15
 Religion Courses • 99
 Research Support • 24
 Residence Requirement, Doctoral • 8
 Residence Requirement, Master's • 7
 Return of Federal Financial Aid • 13
 Rhetoric and Composition PhD Program • 95

S

Schieffer School Degree Programs • 54
 Scholarships and Student Financial Aid • 141
 School Counseling • 58
 School for Classical & Contemporary Dance • 79
 School of Music Facilities • 80
 School of Nurse Anesthesia • 103
 Science Education • 60
 Social Work • 114
 Social Work Courses • 116
 Sociology • 99
 Sociology Courses • 99
 Special Education • 60
 Special Education 4/1 Option • 61
 Special Grants • 14
 Speech-Language Pathology • 111
 Sponsored Programs • 141
 Spring Semester 2014 • 3
 String Performance • 86
 Student Affairs • 58
 Student Affairs Directory • 141
 Student Grievance Procedure • 22
 Student Services • 25
 Studio Art • 77
 Studio Art Courses • 78
 Summer Completion of Degree Programs • 7
 Summer Enrollment • 15
 Summer Semester 2014 • 3
 Supply Chain Management • 43

T

TCU Faculty Admission • 11
 TCU Police • 26
 TCU Press • 142
 Technical Services • 139
 Texas Christian University • 1
 The Counseling Center • 25

The Family Educational Rights and Privacy Act
• 17
The Office of Religious and Spiritual Life • 25
The William L. Adams Center for Writing • 23
Theory/Composition • 86
Thesis Preparation • 7
Time Limit, Master's • 7
Time Limit, PhD • 9
Transcripts of Academic Records • 17
Transfer Credit • 7
Transfer Credit Hours • 16
Transfer Credit, Doctoral • 8
Tuition and Fees • 12
Types of Admission • 10

U

Unconditional Admission • 10
Undergraduate Prerequisites • 10
University Advancement • 142
University Programs • 28

V

Visiting Graduate Student Admission • 10
Voice (Pedagogy Emphasis) • 87
Voice (Performance Emphasis) • 87

W

William H. Koehler Center for Teaching
Excellence • 23
William H. Koehler Center for Teaching
Excellence Directory • 142
William L. Adams Center for Writing • 142
Wind and Percussion Performance • 87
Withdrawal from Class • 15
Women's Studies Certificate • 37
Women's Studies Courses • 37
Workshop Admission • 10